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# APPENDIX C: MEETINGS & PUBLIC INVOLVEMENT

## Introduction

The Mobridge Municipal Airport (MBG) understands the importance of public involvement in the Master Plan Update process. During the scoping meeting, the Airport and KLJ designed a transparent process that allows opportunities for stakeholders to be actively engaged. The Airport also believes that members of the public should have an opportunity to comment on decisions about actions that could affect their lives. This involvement took place in the form of public open houses, website information sessions, and stakeholder outreach efforts. The Airport appreciates that public participation improves the decision-making process by recognizing and communicating the needs and interests of all participants. As a result of the public participation process, we feel that the airport master plan offers a valuable path for developing the Mobridge Municipal Airport.

## Stakeholders

As part of the planning process the following groups/people were contacted for their insight into the Mobridge Municipal Airport.

1. Airport/Sponsor Staff
  - a. Brady Fuhrer – Airport Manager
2. Local Government
  - a. Heather Beck- City Administrator
  - b. Kyle Jensen- City Council Member
  - c. Michele Harrison- Economic Development
3. Local Users
  - a. John Ayoub – Mobridge Regional Hospital Chief Executive Officer
  - b. Jeff Jackson – Premier Management Co. Inc.
  - c. Bryce Lindskov – Lindskov Ranch
4. FAA /State Planning
  - a. Travis Schmit
  - b. Brian Schuck

## Key Issues/Public Involvement Goals

This planning effort completed typical aspects of airport master plans from reviewing existing conditions to forecasts to alternative development but also focused on key issues which we learned from our scoping meeting. These issues were as follows:

1. Evaluate the total property necessary for the airfield and safety surfaces
2. Justify acquisition of the property needed for airfield and safety surfaces
3. Justify an additional runway to meet wind orientation
4. Gather Aeronautical Survey to develop and update Airport Layout Plan (ALP), airfield, and safety surface to current FAA and AGIS standards

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From the scope meeting it was determined that documentation of existing conditions, forecasting future aviation activity levels, identifying future facility requirements, formulating and evaluating alternatives, preparing implementation plans and engaging the public and other government agencies were main goals for the future of EFC.

The following table specifies the type of public outreach achieved along with a location of specific meeting materials located in this appendix.

**Table C-1 – Public Outreach Activities**

| Date of Outreach | Type of Public Process                       | Attendance | Information Conveyed                                                      | Page in Appendix |
|------------------|----------------------------------------------|------------|---------------------------------------------------------------------------|------------------|
| 9/12/2024        | Master Plan Kickoff                          | 9          | Roles, master plan, planning, existing conditions, public involvement     | C-3              |
| 2/26/2025        | Master Plan Forecast & Facility Requirements | 8          | Existing conditions, forecast, facility requirements, runway alternatives | C-15             |
| 4/29/2025        | Terminal Area Alternatives Meeting           | 9          | Terminal & apron alternatives and input                                   | C-31             |
| 10/08/25         | City Council Meeting                         | 5          | Present master plan items to the city council                             | C-41             |

Source: KLJ



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## Agenda

- Introductions
- Airport Planning
- Roles & Responsibilities
- Existing Conditions
- Key Issues
- Open Discussion



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## Introductions

- Project Team
  - Aviation Planner – Kent Penney & Amber Channel
  - Airport Engineer – Charlie Baker
- City of Mobridge
- Agencies Involved
  - FAA – Travis Schmit, Brian Schuck
  - SD DOT Aeronautics – Jon Becker
- Planning Advisory Committee
  - Heather Beck – City of Mobridge
  - Brady Fuhrer – Airport Manager
  - Kyle Jensen – City Council
  - Michele Harrison – Economic Development
  - John Jayoub – Mobridge Regional Hospital
  - Jeff Jackson – Premier Management Co



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## Airport Planning



"Road Map" for meeting aviation needs



Preserves flexibility to respond to future demands



Allows airport to cost-effectively keep pace with aviation growth



Considers environmental and socioeconomic impact of development



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## Why is Airport Planning needed now?

### Airport Master Planning Study Objectives

- Evaluate runway wind coverage
- Update airport layout to current design standards
- Restore night time instrument approaches to Runway 12
- Accommodate larger aircraft
- Alternatives for hangar development area
- ARFF capabilities

Last Airport Layout Plan approved in 2015

ALP brought to current FAA design standards



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## Components of a Master Plan



AIRPORT MASTER PLAN NARRATIVE REPORT



AIRPORT LAYOUT PLAN



RUNWAY SAFETY AREA INVENTORY



EXHIBIT A/ AIRPORT PROPERTY MAP



AERONAUTICAL SURVEY



6

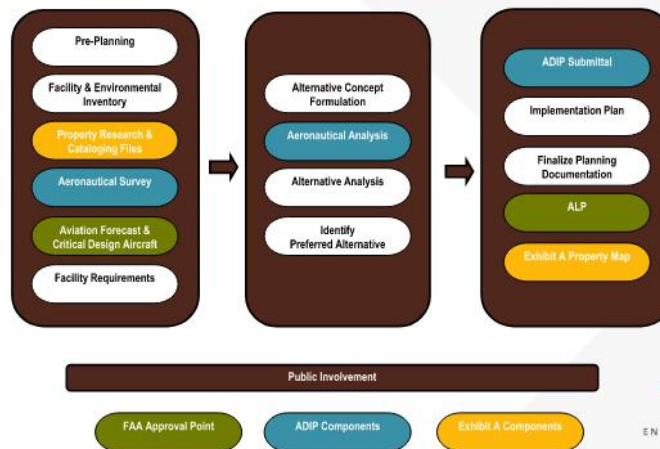
3

## Roles & Responsibilities



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## Project Workflow



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## Existing Airfield

- Currently Design Group A/B-II
- Paved Runway 12-30
  - GPS Approach both ends
    - 1 mile visibility
    - 600' ceiling
    - 2-light PAPI
- Turf Runway 17-35
- Automated Surface Observation System (ASOS)



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## Wind Analysis

| ALL-WEATHER WIND COVERAGE |                     |          |          |          |
|---------------------------|---------------------|----------|----------|----------|
| CONFIGURATION             | CROSSWIND COMPONENT |          |          |          |
|                           | 10.5 KNOTS          | 13 KNOTS | 16 KNOTS | 20 KNOTS |
| RUNWAY 12-30              | 92.67%              | 96.90%   | 99.03%   | -        |
| RUNWAY 17-35              | 88.29%              | 93.95%   | -        | -        |
| COMBINED                  | 96.32%              | 99.36%   | 99.03%   | -        |

SOURCE: KMBG ASOS (2013-2022, HOURLY) FROM NATIONAL CLIMATIC DATA CENTER  
86,117 TOTAL OBSERVATIONS

| INSTRUMENT FLIGHT RULES (IFR) WIND COVERAGE |                     |          |          |          |
|---------------------------------------------|---------------------|----------|----------|----------|
| CONFIGURATION                               | CROSSWIND COMPONENT |          |          |          |
|                                             | 10.5 KNOTS          | 13 KNOTS | 16 KNOTS | 20 KNOTS |
| RUNWAY 12-30                                | 85.23%              | 92.64%   | 96.82%   | -        |
| RUNWAY 17-35                                | -                   | -        | -        | -        |
| COMBINED                                    | 85.23%              | 92.64%   | 96.82%   | -        |

SOURCE: KMBG ASOS (2013-2022, HOURLY) FROM NATIONAL CLIMATIC DATA CENTER  
5,573 TOTAL OBSERVATIONS

IFR = VISIBILITY LOWER THAN 3 MILES OR CEILING LOWER THAN 1,000 FEET

95% Desirable Wind Coverage

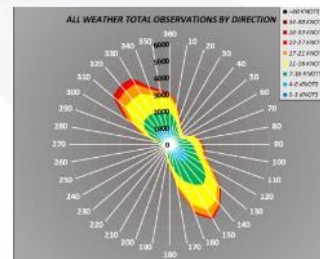


Table B-1. Allowable Crosswind Component per Runway Design Code (RDC)

| RDC                                                       | Allowable Crosswind Component |
|-----------------------------------------------------------|-------------------------------|
| A-I and B-I *                                             | 10.5 knots                    |
| A-II and B-II                                             | 13 knots                      |
| A-III, B-III,<br>C-I through D-III<br>D-I through D-III   | 16 knots                      |
| A-IV and B-IV,<br>C-IV through C-VI,<br>D-IV through D-VI | 20 knots                      |
| E-I through E-VI                                          | 20 knots                      |

\*Note: \* includes A-I and B-I small aircraft.

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## Instrument Conditions

- Airport is accessible 97.8% of the time (93.5% VMC, 4.3% Usable IMC)
- 83% of IFR conditions occur between 1am and 10am
  - 42% between 1am and 6am
  - 41% between 7am and 10am

| Weather Condition      | Percentage     | Days Per Year | Hours Per Year |
|------------------------|----------------|---------------|----------------|
| VMC                    | 93.53%         | 341.4         | 8,193          |
| Usable IMC             | 4.29%          | 15.7          | 376            |
| <b>Usability</b>       | <b>97.82%</b>  | <b>357.1</b>  | <b>8,569</b>   |
| Below Weather Minimums | 2.18%          | 7.9           | 191            |
| <b>Total</b>           | <b>100.00%</b> | <b>365.0</b>  | <b>8,760</b>   |



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## Terminal Area

- Apron
  - 12,600 SY
  - 3 asphalt tiedowns (ADG-I)
  - 4 concrete tiedowns (ADG-I)
- 12 hangars / units
- Terminal & SRE buildings
- Fuel, underground tanks
  - Jet A and 100LL



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## Based Aircraft & Operations

- Based Aircraft
  - 16 single engine aircraft
- Operations
  - 1,542 total itinerant
  - 4,000 total local
  - 5,542 Total operations
- FAA Change in Use of Forecasts



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Data gathered from FAA 2021 TAF & Based Aircraft Inventory

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## Critical Design Aircraft

### Aircraft Approach Category B

- Represents speed that aircraft approaches runway
- 91 to 121 Kts

### Airplane Design Group II

- Represents wingspan and height of aircraft
- 49' to 79' wingspan

### Taxiway Design Group 2A

- Represents pavement width and turning clearance needed by aircraft
- Main Gear Width – 15' to 20'
- Cockpit to Main Gear – 20' to 40'



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Based on Cargo Aircraft

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## Annual Activity

| Aircraft              | AAC         | ADG          | Annual Operations |
|-----------------------|-------------|--------------|-------------------|
| Beechcraft 1900       | B           | II           | 500               |
| Pilatus PC-12         | A           | II           | 158               |
| Beechcraft B200       | B           | II           | 82                |
| Cessna 414A           | B           | I            | 30                |
| Cirrus SR-22T         | A           | I            | 28                |
| Beechcraft 90         | B           | I            | 40                |
| Cessna Conquest       | B           | I            | 26                |
| Cessna Citation Ultra | D           | II           | 14                |
| Cessna Citation Excel | D           | II           | 10                |
|                       | B (678 ops) | II (764 ops) |                   |

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## Itinerant Parking

- > 7 ADG I positions
- > Need for ADG II
- > Fuel Access
- > Need
- > Options



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## Open Discussion

- Issues
- Users
- Airfield Capabilities
- Terminal/Hangar Needs



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## Next Steps

- Complete Airport Inventory
- Outreach to Stakeholders (Mary Lynch)
- Draft Aviation Forecasting
- Draft Facility Requirements
- Next Meeting: Facility Requirements & Airfield Alternatives
- Website: <https://inputcentral.com/mobridge-airport-plan>



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Questions/Comments

|                                                                    |                                                                        |
|--------------------------------------------------------------------|------------------------------------------------------------------------|
| Kent Penney, Principal Aviation Planner                            | Amber Channel, Aviation Planner                                        |
| <a href="mailto:kent.penney@kljeng.com">kent.penney@kljeng.com</a> | <a href="mailto:amber.channel@kljeng.com">amber.channel@kljeng.com</a> |
| 605.939.9535 m                                                     | 303.875.0357 m                                                         |
| 605.872.5005 o                                                     | 605.600.3843 o                                                         |



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## Meeting Minutes

**Date:** 9/12/2024

**Facilitator:** Kent Penney

**Time:** 2:00PM

**Attendees:** Jeff Jackson, John Ayoub, Heather Beck, Kyle Jensen, Brian Schuck, Mary Lynch, Keith Kaspari, Kent Penney, Amber Channel

### Agenda Topics

#### Airport Planning Elements

1. Runway
  - a. The airport would like a longer runway
  - b. Aircraft will go to Bismarck if they can't land or leave full
    - i. Typically the size of Falcon 50s
2. Terminal Area
  - a. Hunters usually stay overnight and aircraft are on the ground for about five days
  - b. While all hangars are full, there is not a lot of based hangar demand
  - c. There was discussion of wanting to take out the northeast corner of the apron, but it was decided not to
  - d. The airport would like money for a new terminal/hangar building as the roof is in need of replacement
    - i. Airport Improvement Program (AIP) and Bipartisan Infrastructure Law (BIL) funding is available, but it was recommended that the master plan be completed to figure out the best location
3. Medical Items
  - a. The hospital reaches 25,000 people indirectly because you have to travel 100 miles to access any other medical facilities
  - b. Medical professionals fly and drive in from Bismarck and Aberdeen
  - c. In 15 years the airport would like to have its own helicopter base
  - a. MPAC members expressed that adding a new connecting taxiway in the middle 1/3 of Runway 13-31 for small aircraft and ag spraying operations should be evaluated. Potentially relocating current Taxiway E to accomplish this.

#### Improvements

1. Fuel system with unleaded
2. Show an alternative of abandoning the north side and expanding hangars to the south
3. Location of terminal and wildlife management

NATIONAL PERSPECTIVE  
REGIONAL EXPERTISE  
TRUSTED ADVISOR





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### Agenda

- Review Kickoff Items
- Primary Runway Issues
- Turf Runway Issues
- Open Discussion
- Next Meeting

Two photographs of airport runways are shown. The top photo shows a paved runway with a yellow edge line curving to the right, with hangars in the background. The bottom photo shows a similar view of a runway with a yellow edge line, extending into the distance under a blue sky.The KLJ logo, featuring three orange chevrons and the letters "KLJ", with the tagline "ENGINEERING, REIMAGINED" below it.

2

1

## Aircraft

## Critical Design Aircraft

## Aircraft Approach Category B

- Represents speed that aircraft approaches runway
- 91 to 121 Kts

- Represents wingspan and height of aircraft
- 49' to 79' wingspan

## Taxiway Design Group 2A

- Represents pavement width and turning clearance needed by aircraft
- Main Gear Width – 15' to 20'
- Cockpit to Main Gear – 20' to 40'

Based on Cargo Aircraft

- 13 single engine aircraft

## Operations

- 1,542 total itinerant
- 4,000 total local
- 5,542 Total Operations



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3

## Existing Airfield

- Design Group A/B-II
- Paved Runway 12-30
  - 4,410' x 75'
  - GPS Approach both ends
  - 2-light PAPIs
- Turf Runway 17-35
  - 2,399' x 250'
- Automated Surface Observation System (ASOS)
- Self-Fueling 100LL & Jet A



4

2

## Improvements to Primary Runway

- Visibility Minimums
- Parallel Taxiway
- Runway Length
- Obstructions Analysis
  - Part 77 (34:1)
  - 13B Surfaces (20:1)



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## Instrument Meteorological Conditions

- Airport is accessible 97.8% of the time (93.5% VMC, 4.3% Usable IMC)
- 83% of IFR conditions occur between 1am and 10am
  - 42% between 1am and 6am
  - 41% between 7am and 10am
- Air medical companies stated can't use Runway 12 at night and if the winds are out of the south

| Weather Condition                        | Percentage |           |        | Days Per Year | Hours Per Year |
|------------------------------------------|------------|-----------|--------|---------------|----------------|
| VMC                                      | 93.53%     |           |        | 341.4         | 8,193          |
| Usable IMC - 1 Mile Visibility           | 4.29%      |           |        | 15.7          | 376            |
| 557-foot Ceiling Runway 12               |            |           |        |               |                |
| 292-foot Ceiling Runway 30               |            |           |        |               |                |
| Existing Usability                       | 97.82%     |           |        | 357.1         | 8,569          |
| Additional Capture with IMC Improvements | Rwy 12     | Wind Calm | Rwy 30 |               |                |
| 1 Mile Visibility                        |            |           |        |               |                |
| 300-foot Ceiling Runway 12               | 0.66%      | 0.00%     | 0.00%  | 2.4           | 58             |
| 292-foot Ceiling Runway 30               |            |           |        |               |                |
| 1/2 Mile Visibility                      |            |           |        |               |                |
| 300-foot Ceiling Runway 12               | 0.11%      | 0.01%     | 0.17%  | 1.0           | 24             |
| 292-foot Ceiling Runway 30               |            |           |        |               |                |
| Parallel Taxiway Required                |            |           |        |               |                |
| Below Weather Minimums                   | 2.18%      |           |        | 7.9           | 191            |
| Total                                    | 100.00%    |           |        | 365.0         | 8,760          |

Table 2-7 – Meteorological Analysis, p.2-5

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### RPZ for $\frac{3}{4}$ Mile Approach



- > Existing (Red)
  - > 1 Mile Visibility
  - > 1 Residence
- > Ultimate (Light Blue)
  - >  $\frac{3}{4}$  Mile Visibility
  - > 3 Residences
  - > 12 RPZ roughly 22 acres of easement needed
  - > 30 RPZ roughly 26 acres of easement needed



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### Parallel Taxiway Option 1



- > 240' centerline separation
- > A/B-II  $\frac{3}{4}$  Mile Visibility
- > 200' Hold Line



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## Parallel Taxiway Option 2



- 300' centerline separation
- C/D/E-II ¼ Mile Visibility
- 200' Hold Line for A/B-II (250' for C/D/E-II)



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| Airport and Runway Data                              |                           |            |
|------------------------------------------------------|---------------------------|------------|
| Longest Runway Length (Runway 12-30)                 | 4,410 feet                |            |
| Airport Elevation                                    | 1,716.2 ft                |            |
| Mean Daily Maximum Temperature of Hottest Month      | 87.4°F                    |            |
| Aircraft Classification                              | Recommended Runway Length |            |
| Small Airplanes 12,500 Pounds or less                |                           |            |
| 10 or more passenger seats                           | 4,410 feet                |            |
| Less than 10 passenger seats at 100 percent of fleet | 4,280 feet                |            |
| Less than 10 passenger seats at 95 percent of fleet  | 3,700 feet                |            |
| Small Aircraft Runway Length Analysis Tool           | Dry                       | Wet        |
| Cessna 150                                           | 2,017 feet                | 2,320 feet |
| Cessna 172 Skyhawk                                   | 2,074 feet                | 2,385 feet |
| Cessna 177 Cardinal                                  | 2,018 feet                | 2,321 feet |
| Cessna 182 Skylane                                   | 1,947 feet                | 2,239 feet |
| Cessna 340                                           | 4,544 feet                | 5,226 feet |
| Cessna 402B                                          | 4,098 feet                | 4,713 feet |
| Cessna T206 Turbo Stationair                         | 2,360 feet                | 2,714 feet |
| Cirrus SR 22                                         | 2,798 feet                | 3,218 feet |
| Cirrus SR 22 Turbo                                   | 2,951 feet                | 3,394 feet |
| Mooney M20J                                          | 3,678 feet                | 4,230 feet |
| Piper 28B Dakota                                     | 1,997 feet                | 2,297 feet |
| Beechcraft King Air B200GT                           | 3,916 feet                | 4,503 feet |
| Beechcraft King Air C90                              | 3,233 feet                | 3,718 feet |
| Cessna 208 Caravan                                   | 2,659 feet                | 3,058 feet |
| Pilatus PC-12                                        | 3,648 feet                | 4,195 feet |
| Piper PA-46 Malibu Meridian                          | 3,076 feet                | 3,537 feet |
| Beechcraft 1900D                                     | 3,850 feet                | -          |
| Cessna 560 XL                                        | 4,927 feet                | 5,666 feet |
| Phenom 300                                           | 4,547 feet                | 5,229 feet |

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## Obstruction Analysis – Runway 12 End

13B (20:1)



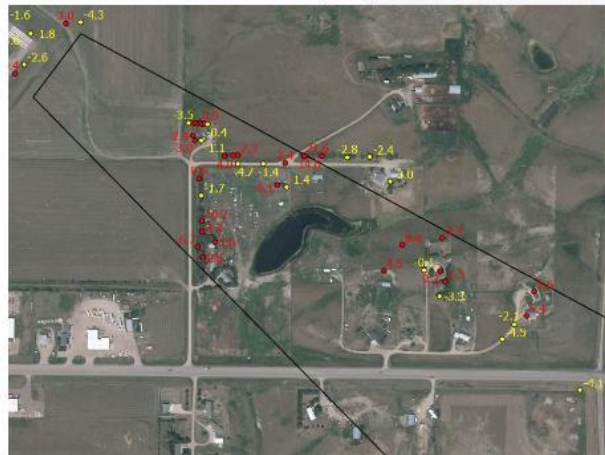
Part 77 (34:1)



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## Obstruction Analysis – Runway 30 End

Part 77 (34:1)



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### Preferred Alternatives for Primary Runway

- Visibility Minimums
  - Lower Ceilings to 300' (Runway 12)
  - Lower Visibility to  $\frac{3}{4}$  mile
- Parallel Taxiway
  - 240' Centerline Separation
  - 300' Centerline Separation
- Runway Length
  - Maintain Existing 4,410'
  - Extend Runway



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### Turf Runway

- Wind Coverage
- Turf Option
- Terminal/Hangar Area Impact



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## Wind Analysis

| ALL-WEATHER WIND COVERAGE |                     |          |          |          |
|---------------------------|---------------------|----------|----------|----------|
| CONFIGURATION             | CROSSWIND COMPONENT |          |          |          |
|                           | 10.5 KNOTS          | 13 KNOTS | 16 KNOTS | 20 KNOTS |
| RUNWAY 12-30              | 92.67%              | 96.90%   | 99.03%   | -        |
| RUNWAY 17-35              | 88.29%              | 93.95%   | -        | -        |
| COMBINED                  | 96.32%              | 99.36%   | 99.03%   | -        |

SOURCE: KMBG ASOS (2013-2022, HOURLY) FROM NATIONAL CLIMATIC DATA CENTER  
86,117 TOTAL OBSERVATIONS

| INSTRUMENT FLIGHT RULES (IFR) WIND COVERAGE |                     |          |          |          |
|---------------------------------------------|---------------------|----------|----------|----------|
| CONFIGURATION                               | CROSSWIND COMPONENT |          |          |          |
|                                             | 10.5 KNOTS          | 13 KNOTS | 16 KNOTS | 20 KNOTS |
| RUNWAY 12-30                                | 85.23%              | 92.64%   | 96.82%   | -        |
| RUNWAY 17-35                                | -                   | -        | -        | -        |
| COMBINED                                    | 85.23%              | 92.64%   | 96.82%   | -        |

SOURCE: KMBG ASOS (2013-2022, HOURLY) FROM NATIONAL CLIMATIC DATA CENTER  
5,573 TOTAL OBSERVATIONS  
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95% Desirable Wind Coverage

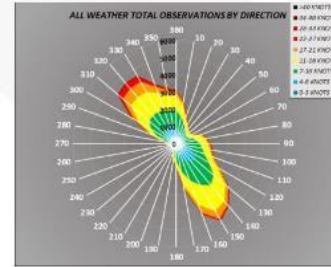


Table B-1. Allowable Crosswind Component per Runway Design Code (RDC)

| RDC                                                      | Allowable Crosswind Component |
|----------------------------------------------------------|-------------------------------|
| A-I and B-I *                                            | 10.5 knots                    |
| A-II and B-II                                            | 13 knots                      |
| A-III, B-III,<br>C-I through D-III<br>D-I through D-III  | 16 knots                      |
| A-IV and B-IV,<br>C-IV through C-VI<br>D-IV through D-VI | 20 knots                      |
| E-I through E-VI                                         | 20 knots                      |

Note: \* Includes A-I and B-I small aircraft.

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## Runway Visibility Zone (RVZ)



- > Need clear Line of Sight (LOS) from blocking the pilot's view to intersecting runways
- > No Planes on East Tiedowns
- > Crops west of 17-35 (no higher than 5' AGL)



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### Usable Apron Area



- Fuel area – 50' diameter
- Taxiing issues with parked aircraft by terminal and tiedowns



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### Current Turf Runway



- Runway Designation 17-35
- 2,399' long x 250' wide
- Current Design Group A/B-I(S)
- RSA: 2,879' long x 120' wide
- ROFA: 2,879' long x 250' wide
- RPZ: 250' x 1,000' x 450'



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### Option 1 - No Turf Runway



- > Remove 17-35 turf runway
- > No longer need aviation easements to the south
- > No longer have RVZ issues
- > Can expand terminal area towards the 30 End



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### Option 2 - Parallel Turf Runway

- > 2,400' x 100'
- > 300' centerline separation
- > Runway 12L-30R
- > Simultaneous VFR Runway Use
- > RPZs within current property
- > Par 3.9.3.3 of AC 150/5300-13B



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### Option 3 - Parallel Turf Runway

- 2,400' x 100'
- 120' centerline separation
- Runway 12-30
- Within the RSA and Used as Runway 12-30
- RPZs within current property
- Par 2.10.6 of AC 150/5300-13B



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### Preferred Turf Runway

- Existing
- No Turf Runway
- Parallel 300' Centerline Separation
  - VFR Simultaneous Use with Paved Runway
- Parallel 120' Centerline Separation
  - Use is either Paved or Turf (recognized as same Runway)



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## Outreach Findings

- Medical/Business users do not use the turf runway but would like a parallel taxiway (difficult to use turnarounds in winter)
- Local users would like a parallel taxiway but not at the expense of the turf runway.
- Apron space is adequate except during hunting season and do not like the layout, particularly location of the fueling island.
- Users would like higher level of service like hangaring aircraft and full service fueling.



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## Open Discussion



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## Forecast & Facility Requirements Meeting Continued – February 26

| Typical Aircraft Hangar Attributes |                                                                                   |                                                                                   |                                                                                    |                                                                                     |
|------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                    | T-Hangars                                                                         | Small Storage<br>Less than 6,000 sf                                               | Large Storage<br>More than 6,000 sf                                                | FBO/SASO                                                                            |
| Photo Examples                     |  |  |  |  |
| Dedicated Apron                    | None                                                                              | None                                                                              | Equal to depth of hangar                                                           | Equal to depth of hangar (plus apron for services)                                  |
| Airport Apron Access               | No                                                                                | No                                                                                | No                                                                                 | Yes                                                                                 |
| Setbacks from Taxilanes            | Yes - for Design Group (I or II)                                                  | Yes - for Design Group (I or II)                                                  | Yes plus Apron - for Design Group (II+)                                            | Yes plus Apron - for Design Group (II+)                                             |
| Airside Taxi Route                 | Yes - for Design Group (I or II)                                                  | Yes - for Design Group (I or II)                                                  | Yes - for Design Group (II+)                                                       | Yes - for Design Group (II+)                                                        |
| Public Road Access/Parking         | No                                                                                | Yes or No *                                                                       | Yes*                                                                               | Yes*                                                                                |

\* Any business/corporate hangar located on an airport should have public road access and parking for customers/passengers. Particularly those customers/passengers who are not trained in driving on an airport.

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## Next Steps

- Next Meeting:
  - Airfield Alternatives Determination
  - Terminal Area Alternatives
- Website: <https://inputcentral.com/mobridge-airport-plan>



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*Forecast & Facility Requirements Meeting Continued – February 26*

Questions/Comments

|                                                                    |                                                                        |
|--------------------------------------------------------------------|------------------------------------------------------------------------|
| Kent Penney, Principal Aviation Planner                            | Amber Channel, Aviation Planner                                        |
| <a href="mailto:kent.penney@kljeng.com">kent.penney@kljeng.com</a> | <a href="mailto:amber.channel@kljeng.com">amber.channel@kljeng.com</a> |
| 605.939.9535 m                                                     | 303.875.0357 m                                                         |
| 605.872.5005 o                                                     | 605.600.3843 o                                                         |



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## Meeting Minutes

**Date:** 2/26/2025

**Facilitator:** Kent Penney

**Time:** 1:00PM

**Attendees:** Heather Beck, Brady Fuhrer, John Ayoub, Travis Schmit, Mary Lynch, Charlie Baker, Kent Penney, Amber Channel

### Agenda Topics

#### Airport Planning Elements

1. Preferred Alternatives
  - a. Would like to lower the Runway 12 ceiling height to 300 feet.
  - b. Like the 300-foot parallel taxiway separation.
  - c. Keep the existing runway length at 4,410 feet.
2. Turf Runway Alternatives
  - a. The airport has only seen four aircraft use the turf runway and that was during Oshkosh and just because it was an option.
  - b. The two parallel turf runway options were dismissed.
  - c. Thinking of keeping the turf runway as is.

#### Improvements

N/A

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# Engineering. Reimagined

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| Name:          | Organization/Business:   | Phone: | Email: |
|----------------|--------------------------|--------|--------|
| John Ayoub     | Malden Regional Hospital |        |        |
| Travis Schmitt | FAA                      |        |        |
| Bruce Furer    | City of Malden           |        |        |
| Heather Beck   | City of Malden           |        |        |
| Mary Lynch     | Outreach                 |        |        |
| Charlie Baker  | KLJ                      |        |        |
| Kent Penney    | KLJ                      |        |        |
| Amber Channell | KLJ                      |        |        |



1

### Agenda

- Introductions
- Preferred Airfield Alternative
- Terminal Area Alternative Options
- Open Discussion
- Next Steps



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2

1

## Preferred Airfield Alternative – Primary Runway

- Keep a 1-mile visibility but lower the Runway 12 End ceiling to 300-feet
- Parallel Taxiway at 300' Centerline Separation

| Weather Condition                        | Percentage |           |        | Days Per Year | Hours Per Year |
|------------------------------------------|------------|-----------|--------|---------------|----------------|
| VMC                                      | 93.53%     |           |        | 341.4         | 8,193          |
| Usable IMC - 1 Mile Visibility           | 4.29%      |           |        | 15.7          | 376            |
| 557-foot Ceiling Runway 12               |            |           |        |               |                |
| 292-foot Ceiling Runway 30               |            |           |        |               |                |
| Existing Usability                       | 97.82%     |           |        | 357.1         | 8,569          |
| Additional Capture with IMC Improvements | Rwy 12     | Wind Calm | Rwy 30 |               |                |
| 1 Mile Visibility                        |            |           |        |               |                |
| 300-foot Ceiling Runway 12               | 0.66%      | 0.00%     | 0.00%  | 2.4           | 58             |
| 292-foot Ceiling Runway 30               |            |           |        |               |                |



3

## Preferred Airfield Alternative – Turf Runway

- Maintain Turf Runway
- Need clear Line of Sight (LOS) from blocking the pilot's view to intersecting runways



4

2

## Items Considered for Terminal/Hangar Alternatives

- Current Apron layout
- Group I & II T-Hangars and individual box hangars
- Large hangars on Apron for Group II aircraft
- Accommodate relocation of all North Tenants to South Area
- Fuel farm location
- Area for FBO/Maintenance Operator
- Landside access



5

## Types of Hangars and Layout

|                            | Typical Aircraft Hangar Attributes                                                  |                                                                                     |                                                                                      |                                                                                       |
|----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                            | T-Hangars                                                                           | Small Storage<br>Less than 6,000 sf                                                 | Large Storage<br>More than 6,000 sf                                                  | FBO/SASO                                                                              |
| Photo Examples             |  |  |  |  |
| Dedicated Apron            | None                                                                                | None                                                                                | Equal to depth of hangar                                                             | Equal to depth of hangar (plus apron for services)                                    |
| Airport Apron Access       | No                                                                                  | No                                                                                  | No                                                                                   | Yes                                                                                   |
| Setbacks from Taxilanes    | Yes - for Design Group (I or II)                                                    | Yes - for Design Group (I or II)                                                    | Yes plus Apron - for Design Group (II+)                                              | Yes plus Apron - for Design Group (II+)                                               |
| Airside Taxi Route         | Yes - for Design Group (I or II)                                                    | Yes - for Design Group (I or II)                                                    | Yes - for Design Group (II+)                                                         | Yes - for Design Group (II+)                                                          |
| Public Road Access/Parking | No                                                                                  | Yes or No *                                                                         | Yes*                                                                                 | Yes*                                                                                  |

\* Any business/corporate hangar located on an airport should have public road access and parking for customers/passengers. Particularly those customers/passengers who are not trained in driving on an airport.

6

3

## Terminal Area Alternatives Meeting Continued – April 29

4/28/2025



7



8

4

## Terminal Area Alternatives Meeting Continued – April 29

4/28/2025



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10

5

## Terminal Area Alternatives Meeting Continued – April 29

4/28/2025



11

| Metric                     | Alternatives                    |                                                               |                                                          |                                                               |                                            |
|----------------------------|---------------------------------|---------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------|
|                            | Alternative 1                   | Alternative 2                                                 | Alternative 3                                            | Alternative 4                                                 | Alternative 5                              |
| Self-Fueling Location      | Current Location                | Southwest Edge of Additional Apron (1,320 SY)                 | South Edge of Additional Apron (1,320 SY)                | Southwest Edge of Current Apron                               | Current Location                           |
| Terminal Building          | Current Location                | Southwest Edge of Current Apron                               | Southwest Edge of New Apron Attached to an 80x100 Hangar | Current Location                                              | Southwest Edge of Current Apron            |
| Apron Hangars              | 2 80x80 Hangars                 | 2 100x100 Hangars & 1 100x100 Hangar Office                   | 3 80x80 Hangars                                          | 1 80x100 Hangar Office                                        | 1 80x80 Hangar & 1 80x100 Hangar Office    |
| South Storage Hangars      | 6 40x40 Box Hangars             | 2 40x40 Box Hangars, 10 Unit Nested T-Hangar, 7 Unit T-Hangar | 14 40x40 Box Hangars & 2 80x80 Box Hangars               | 7 Unit T-Hangar, 10 Unit Nested T-Hangar, 2 80x80 Box Hangars | 10 50x50 Box Hangars & 2 80x80 Box Hangars |
| South Taxilane Additions   | None                            | 1,550 SY Addition                                             | 1,120 SY Addition                                        | 1,610 SY Addition                                             | 1,120 SY Addition                          |
| Group I Tiedowns           | 14                              | 24                                                            | 16                                                       | 12                                                            | 10                                         |
| Equipment Storage Building | Southwest Edge of Current Apron | South G-II Taxilane                                           | Airport Access Road                                      | Northwest Edge of New Apron                                   | Current Terminal                           |
| Other Items                | Relocate JetA Fuel Tank         | Access Road Change                                            | Access Road Change                                       | Access Road and Parking Change                                | Relocate JetA Fuel Tank                    |

12

## Open Discussion



13

## Next Steps

- Revise & Select Terminal Area Alternative
- Prepare Airport Layout Plan
- Prepare Implementation Plan

Next Meeting: Revised Terminal Area Alternatives

Website: <https://inputcentral.com/mobridge-airport-plan>



14

Questions/Comments

|                                                                    |                                                                        |
|--------------------------------------------------------------------|------------------------------------------------------------------------|
| Kent Penney, Principal Aviation Planner                            | Amber Channel, Aviation Planner                                        |
| <a href="mailto:kent.penney@kljeng.com">kent.penney@kljeng.com</a> | <a href="mailto:amber.channel@kljeng.com">amber.channel@kljeng.com</a> |
| 605.939.9535 m                                                     | 303.875.0357 m                                                         |
| 605.872.5005 o                                                     | 605.600.3843 o                                                         |



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## Meeting Minutes

**Date:** 4/29/2025

**Facilitator:** Kent Penney

**Time:** 11:00AM

**Attendees:** Heather Beck, Brady Fuhrer, John Ayoub, Jeff Jackson, Jon Becker, Brian Schuck, Charlie Baker, Kent Penney, Amber Channel

### Agenda Topics

#### Airport Planning Elements

1. Fuel Facility Location
  - a. Would prefer to keep the fuel facility where it is since it was just updated.
  - b. Would be interested to see the fuel along the edge of the current apron.
2. Terminal Building Location
  - a. The current building is at least 50 years old though the interior was recently updated.
  - b. Look at moving the terminal on the south edge of the current apron and removing the most northern west-east taxiway on the south hangar area.
3. Apron Area
  - a. Do not think an apron the size of that in Alternative 2 or 3 are necessary.
  - b. For next meeting show apron phasing options.
4. Tiedowns
  - a. Keep them close to the terminal building.
5. Access Road
  - a. Do not see a reason to move it.
  - b. There are utility lines along the road and some that cross it.
6. South Hangar Area Development
  - a. Preserve the space for the 80' x 80' box hangars next to the large city hangar.

#### Improvements

1. Will work off Alternative 4 and Alternative 5 with updates

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TRUSTED ADVISOR

Mobridge Airport Master Plan  
Terminal Area Alternatives Meeting – April 29, 2025

## ATTENDANCE LIST



## Engineering, Reimagined

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| Name:         | Organization/Business:    | Phone:       | Email:                   |
|---------------|---------------------------|--------------|--------------------------|
| Brady Fuhrer  | City of Moberge           | 605-850-4435 | brady.fuhrer@hotmail.com |
| Heather Beck  |                           | 605-845-3509 | cityhall@westriv.com     |
| Kent Penney   | KLJ                       | 605-872-5005 | kent.penney@kijens.com   |
| Amber Channel | KLJ                       |              |                          |
| Jeff Jackson  | Premier Management Co.    |              |                          |
| John Ayoub    | Moberge Regional Hospital |              |                          |
| Jon Baker     | SD DOT                    |              |                          |
| Brian Schuck  | FAA                       |              |                          |
| Charlie Baker | KLJ                       |              |                          |

# Mobridge Municipal Airport Presentation for Airport Master Plan

The City of Mobridge is providing information at the October City Council meeting to see an overview of the Airport Master Plan and to receive comments and feedback for the proposed development of the airport. There will be an opportunity to provide written comments.

**Wednesday October 8, 2025**

**5:30 p.m.**

**City Council Chambers**

**114 1st Ave East  
Mobridge, SD 57601**

For more information about the project, please visit

<https://inputcentral.com/mobridge-airport-plan/>

Any individuals with disabilities who will require a reasonable accommodation in order to participate in the meeting should submit a request to Kent Penney, KLI at 605-872-5005. Please request accommodations no later than two business days prior to the meeting in order to ensure accommodations are available.



1

### Agenda

- Project Review
- Preferred Airfield Alternative
- Terminal Area Alternative
- Implementation
- Airport Layout Plan

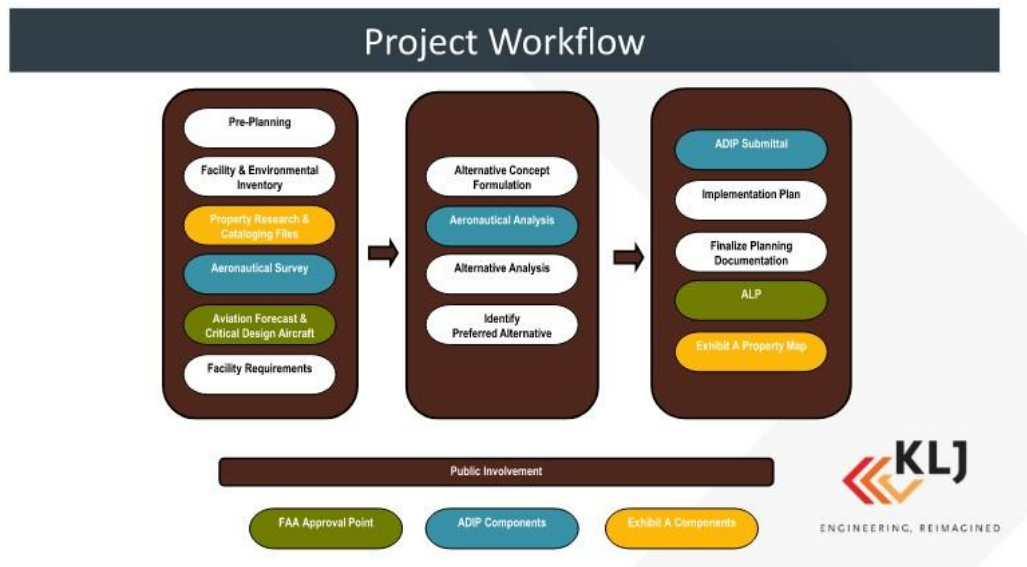
*Thank You Planning Advisory Committee*

|              |                   |
|--------------|-------------------|
| John Ayoub   | Jeff Jackson      |
| Kyle Jensen  | Michelle Harrison |
| Heather Beck | Brady Fuhrer      |

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2

1



3

### Existing Airfield

- Currently Design Group A/B-II
- Paved Runway 12-30
  - GPS Approach both ends
    - 1 mile visibility
    - 600' ceiling
    - 2-light PAPI
    - Rwy 12 (No Night Approach)
- Turf Runway 17-35
- Previous ALP from 2005
  - No Aeronautical Survey
  - No Property Research
  - Previous FAA Design Standards

The aerial map shows the layout of the existing airfield. Runway 12-30 is a long, straight paved runway. Runway 17-35 is a shorter turf runway. The map also shows taxiways, parking areas, and other airport infrastructure. Labels on the map include 'Runway 12-30', 'Runway 17-35', 'Taxiway', 'Parking', 'Fuel Storage', 'Hangar', and 'Tower'.

4

2

## Wind Analysis

| ALL-WEATHER WIND COVERAGE |                     |          |          |          |
|---------------------------|---------------------|----------|----------|----------|
| CONFIGURATION             | CROSSWIND COMPONENT |          |          |          |
|                           | 10.5 KNOTS          | 13 KNOTS | 16 KNOTS | 20 KNOTS |
| RUNWAY 12-30              | 92.67%              | 96.90%   | 99.03%   | -        |
| RUNWAY 17-35              | 88.29%              | 93.95%   | -        | -        |
| COMBINED                  | 90.32%              | 95.36%   | 99.03%   | -        |

SOURCE: KMBG ASOS (2013-2022, HOURLY) FROM NATIONAL CLIMATIC DATA CENTER  
86,117 TOTAL OBSERVATIONS

| INSTRUMENT FLIGHT RULES (IFR) WIND COVERAGE |                     |          |          |          |
|---------------------------------------------|---------------------|----------|----------|----------|
| CONFIGURATION                               | CROSSWIND COMPONENT |          |          |          |
|                                             | 10.5 KNOTS          | 13 KNOTS | 16 KNOTS | 20 KNOTS |
| RUNWAY 12-30                                | 85.23%              | 92.64%   | 96.82%   | -        |
| RUNWAY 17-35                                | -                   | -        | -        | -        |
| COMBINED                                    | 85.23%              | 92.64%   | 96.82%   | -        |

SOURCE: KMBG ASOS (2013-2022, HOURLY) FROM NATIONAL CLIMATIC DATA CENTER  
5,573 TOTAL OBSERVATIONS  
IFR = VISIBILITY LOWER THAN 3 MILES OR CEILING LOWER THAN 1,000 FEET

95% Desirable Wind Coverage

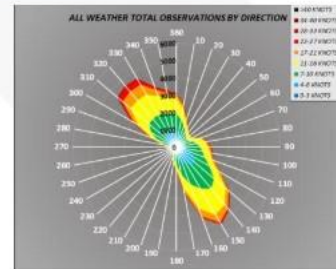


Table B-1. Allowable Crosswind Component per Runway Design Code (RDC)

| RDC                                                       | Allowable Crosswind Component |
|-----------------------------------------------------------|-------------------------------|
| A-I and B-I *                                             | 10.5 knots                    |
| A-II and B-II                                             | 13 knots                      |
| A-III, B-III,<br>C-I through D-III<br>D-I through D-III   | 16 knots                      |
| A-IV and B-IV,<br>C-IV through C-VI,<br>D-IV through D-VI | 20 knots                      |
| E-I through E-VI                                          | 20 knots                      |

Notes: \* Includes A-I and B-I small aircraft.

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## Instrument Meteorological Conditions

- Airport is accessible 97.8% of the time (93.5% VMC, 4.3% Usable IMC)
- 83% of IFR conditions occur between 1am and 10am
  - 42% between 1am and 6am
  - 41% between 7am and 10am
- Air medical companies stated can't use Runway 12 at night and if the winds are out of the south

| Weather Condition                        | Percentage |           |        | Days Per Year | Hours Per Year |
|------------------------------------------|------------|-----------|--------|---------------|----------------|
| VMC                                      | 93.53%     |           |        | 341.4         | 8,193          |
| Usable IMC - 1 Mile Visibility           | 4.29%      |           |        | 15.7          | 376            |
| 557-foot Ceiling Runway 12               |            |           |        |               |                |
| 292-foot Ceiling Runway 30               |            |           |        |               |                |
| Existing Usability                       | 97.82%     |           |        | 357.1         | 8,569          |
| Additional Capture with IMC Improvements | Rwy 12     | Wind Calm | Rwy 30 |               |                |
| 1 Mile Visibility                        |            |           |        |               |                |
| 300-foot Ceiling Runway 12               | 0.66%      | 0.00%     | 0.00%  | 2.4           | 58             |
| 292-foot Ceiling Runway 30               |            |           |        |               |                |
| 3/4 Mile Visibility                      |            |           |        |               |                |
| 300 foot Ceiling Runway 12               | 0.11%      | 0.01%     | 0.17%  | 0.0           | 24             |
| 292-foot Ceiling Runway 30               |            |           |        |               |                |
| Parallel Taxiway Required                |            |           |        |               |                |
| Below Weather Minimums                   | 2.18%      |           |        | 7.9           | 191            |
| Total                                    | 100.00%    |           |        | 365.0         | 8,760          |

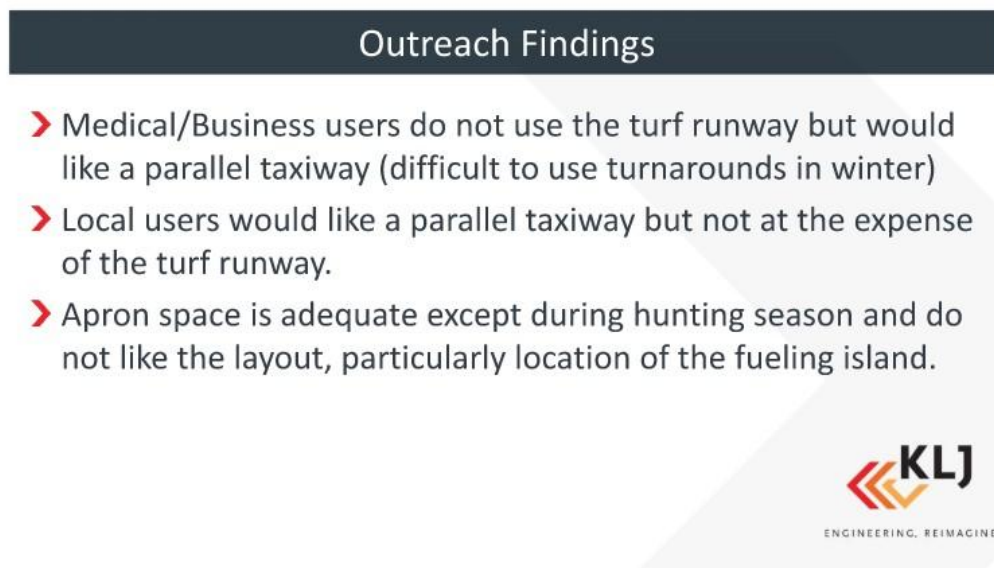
Table 2-7 – Meteorological Analysis, p.2-5

6

3



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4

10/30/2025

| Airport and Runway Data                              |                           |            |
|------------------------------------------------------|---------------------------|------------|
| Longest Runway Length (Runway 12-30)                 | 4,410 feet                |            |
| Airport Elevation                                    | 1,716.2 ft                |            |
| Mean Daily Maximum Temperature of Hottest Month      | 87.4°F                    |            |
| Aircraft Classification                              | Recommended Runway Length |            |
| Small Airplanes 12,500 Pounds or less                |                           |            |
| 10 or more passenger seats                           | 4,410 feet                |            |
| Less than 10 passenger seats at 100 percent of fleet | 4,280 feet                |            |
| Less than 10 passenger seats at 95 percent of fleet  | 3,700 feet                |            |
| Small Aircraft Runway Length Analysis Tool           | Dry                       | Wet        |
| Cessna 172 Skyhawk                                   | 2,074 feet                | 2,385 feet |
| Cessna 182 Skylane                                   | 1,947 feet                | 2,239 feet |
| Cessna 340                                           | 4,544 feet                | 5,226 feet |
| Cessna 402B                                          | 4,098 feet                | 4,713 feet |
| Cirrus SR 22 Turbo                                   | 2,951 feet                | 3,394 feet |
| Mooney M20J                                          | 3,678 feet                | 4,230 feet |
| Piper 28B Dakota                                     | 1,997 feet                | 2,297 feet |
| Beechcraft King Air B200GT                           | 3,916 feet                | 4,503 feet |
| Beechcraft King Air C90                              | 3,233 feet                | 3,718 feet |
| Cessna 208 Caravan                                   | 2,659 feet                | 3,058 feet |
| Pilatus PC-12                                        | 3,648 feet                | 4,195 feet |
| Piper PA-46 Malibu Meridian                          | 3,076 feet                | 3,537 feet |
| Beechcraft 1900D                                     | 3,850 feet                | -          |
| Cessna 560 XL                                        | 4,927 feet                | 5,666 feet |
| Phenom 300                                           | 4,547 feet                | 5,229 feet |

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## Preferred Airfield

- Runway 12-30
  - 4,410' x 75'
  - Instrument Approaches (12 & 30)
  - Parallel Taxiway (300' separation)
  - Mitigate Obstructions (Trees)
- Runway 17-35
  - 2,207' x 250' Turf
  - Mitigate Obstructions (relocate threshold)



10

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10/30/2025

## Items Considered for Terminal/Hangar Alternatives

- Current Apron layout
- Group I & II T-Hangars and individual box hangars
- Large hangars on Apron for Group II aircraft
- Accommodate relocation of all North Tenants to South Area
- Fuel farm location
- Area for FBO/Maintenance Operator
- Landside access



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## Terminal/Hangar Area

- 7 ADG I positions
- Need for ADG II
- Fuel Access
- Runway Visibility Zone



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## Preferred Terminal Area

- Expand Apron North
  - Maintain existing Fuel Farm and Fuel Island
  - Remove tie-downs from RVZ
  - Central location for Terminal
  - ADG-II Hangars on Apron
  - ADG-I Hangars on Taxilanes
- Allows Different Types of Development without impediment*



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## Implementation

- CIP
  - Apron Expansion
  - Parallel Taxiway
- Restore Runway 12 Approach
- Compatible Land Use
  - Residence in RPZ
- Clear Zone Easements
  - Enacted 1958-59 (Federally Funded)
  - 40:1 Surfaces for Runway 12 & 30
- Obstruction Mitigation
  - Grading
  - Trees
  - Runway 17 Threshold



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10/30/2025

| Capital Improvement Plan     |                                      |                                                                                                                                   |                                   |              |             |             |             |     |
|------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------|-------------|-------------|-------------|-----|
| Year                         | Project                              | Scope                                                                                                                             | Estimated Cost                    | FAA Funds    | State Funds | Local Funds | Other       |     |
| <b>Near-Term (2025-2030)</b> |                                      |                                                                                                                                   |                                   |              |             |             |             |     |
| 2027                         | Phase 1 Apron Extension Design       | Design to relocate three tiedowns to extended apron, remove hangar taxiway & apron expansion                                      | \$140,000                         | \$126,000    | \$7,000     | \$7,000     | -           | -   |
| 2027                         | Remove Hangars                       | Remove hangars 1, 3, & 4                                                                                                          | \$24,000                          | -            | -           | \$24,000    | -           | -   |
| 2028                         | Phase 1 Apron Extension Construction | Relocate three tiedowns, remove hangar taxiway & extend apron north (4,000 SY) and five tiedowns                                  | \$1,580,000                       | \$1,422,000  | \$79,000    | \$79,000    | -           | -   |
| 2028                         | Airfield Pavement Maintenance        | State pavement maintenance project, crack seal                                                                                    | \$100,000                         | \$90,000     | \$5,000     | \$5,000     | -           | -   |
| Sub-Total                    |                                      |                                                                                                                                   | \$1,844,000                       | \$1,638,000  | \$91,000    | \$115,000   | \$0         | \$0 |
| <b>Mid-Term (2031-2035)</b>  |                                      |                                                                                                                                   |                                   |              |             |             |             |     |
|                              | Parallel Taxiway (South)             | New taxiway from Runway 30 turnaround to the south edge of the current apron with connector, 605'x35' & 80'x35'                   | \$1,330,000                       | \$1,197,000  | \$66,500    | \$66,500    | -           | -   |
|                              | Row Hangar (3 unit)                  | New 3-unit row hangar on current southwest taxiway                                                                                | \$800,000                         | \$0          | \$0         | \$800,000   | -           | -   |
|                              | Apron Hangar                         | New large box hangar on Phase 1 apron extension                                                                                   | \$825,000                         | \$742,500    | \$0         | \$82,500    | -           | -   |
|                              | T-Hangar (3 unit)                    | New 3-unit T-Hangar between current southwest and south center taxiways                                                           | \$660,000                         | \$0          | \$0         | \$660,000   | -           | -   |
|                              | Parallel Taxiway (Center)            | New taxiway from north corner of apron to the new connector, 495'x35' & 245'x35'; Remove 2,480 SY of apron and connecting taxiway | \$2,344,000                       | \$2,109,600  | \$117,200   | \$117,200   | -           | -   |
| Sub-Total                    |                                      |                                                                                                                                   | \$5,959,000                       | \$4,049,100  | \$183,700   | \$1,726,200 | \$0         | \$0 |
| <b>Long-Term (2036-2045)</b> |                                      |                                                                                                                                   |                                   |              |             |             |             |     |
|                              | Parallel Taxiway (North)             | New taxiway from connector to Runway 12 turnaround, 2,740'x35'                                                                    | \$5,760,300                       | \$5,184,270  | \$288,015   | \$288,015   | -           | -   |
|                              | Phase 2 Apron Extension              | Add apron (3,200 SY) north of Phase 1 extension (four tiedowns)                                                                   | \$1,000,000                       | \$900,000    | \$50,000    | \$50,000    | -           | -   |
|                              | Access Road & Parking                | New 200'x25' access road and parking behind new apron hangars                                                                     | \$300,000                         | \$270,000    | \$15,000    | \$15,000    | -           | -   |
|                              | Terminal                             | New 60'x30' terminal building, reconfigure parking lot, remove existing terminal, and replace with pavement (365 SY)              | \$2,100,000                       | \$1,890,000  | \$105,000   | \$105,000   | -           | -   |
|                              | Phase 3 Apron Extension              | Add apron (3,200 SY) north of Phase 2 extension (three tiedowns)                                                                  | \$1,000,000                       | \$900,000    | \$50,000    | \$50,000    | -           | -   |
| Sub-Total                    |                                      |                                                                                                                                   | \$10,160,300                      | \$9,144,270  | \$508,015   | \$508,015   | \$0         | \$0 |
| TOTAL                        |                                      |                                                                                                                                   | \$17,963,300                      | \$14,831,370 | \$782,715   | \$2,349,215 | \$0         | \$0 |
|                              |                                      |                                                                                                                                   | Hangar Development (Demand Based) | \$2,285,000  | \$742,500   | \$0         | \$1,542,500 |     |
|                              |                                      |                                                                                                                                   | Other Development (Demand Based)  | \$8,060,300  | \$7,254,270 | \$403,015   | \$403,015   |     |

Blue highlight – Demand based Hangars. Orange highlight – Demand based Other development.

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## Obstruction Analysis – Runway 12 End

13B (20:1)



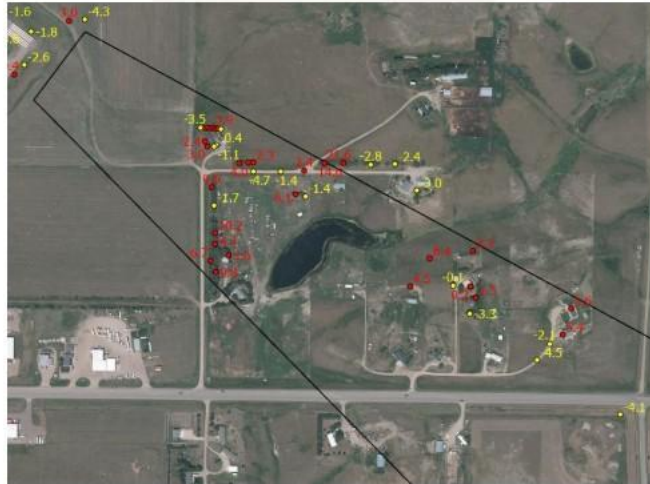
Part 77 (34:1)



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## Obstruction Analysis – Runway 30 End (Part 77 34:1)

- Obstacle Action Plan
  - Tree Mitigation
  - Obstruction Evaluation
  - Relocate Runway 17 Threshold



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## Next Steps

- Finalize Airport Layout Plan
- Submit ALP to FAA for Review (6-18 months)
- Implementation Steps

<https://inputcentral.com/mobridge-airport-plan>



18

Questions/Comments

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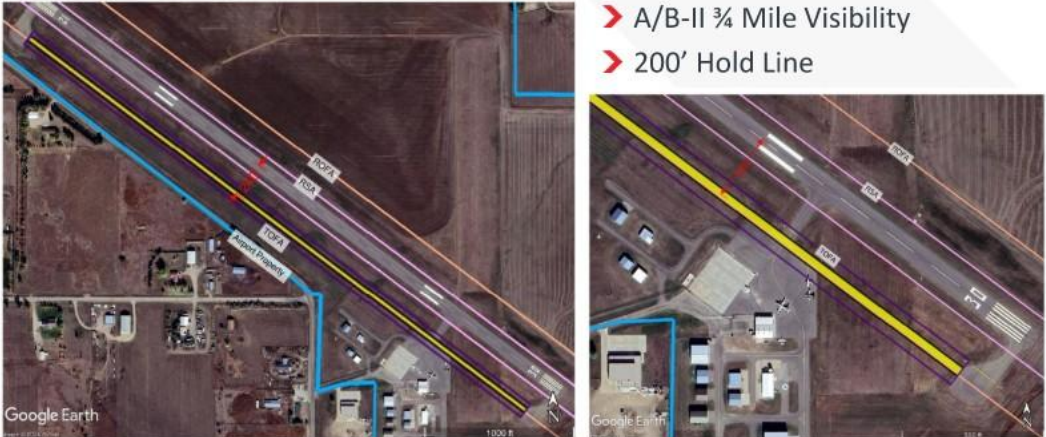
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605.600.3843 o

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Parallel Taxiway Option 1

- > 240' centerline separation
- > A/B-II ¾ Mile Visibility
- > 200' Hold Line



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### Option 3 - Parallel Turf Runway

- 2,400' x 100'
- 120' centerline separation
- Runway 12-30
- Within the RSA and Used as Runway 12-30
- RPZs within current property
- Par 2.10.6 of AC 150/5300-13B



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### Preferred Turf Runway

- Existing
- No Turf Runway
- Parallel 300' Centerline Separation
  - VFR Simultaneous Use with Paved Runway
- Parallel 120' Centerline Separation
  - Use is either Paved or Turf (recognized as same Runway)



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10/30/2025



25



26



27



28

10/30/2025

## Alternative 5.4



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Planning Process

Pre-Planning

Alternative Concept Formulation

Finalize Planning Documentation

ALP

Entire A Property Map

Public Involvement

ADIP Components

Entire A Components

Instrument Meteorological Conditions

Weather Condition

Percentage

Days Per Year

Hours Per Year

VMC

93.53%

341.4

8,193

Usable IMC - 1 Mile Visibility

4.29%

15.7

376

557-foot Ceiling Runway 12

97.82%

357.1

8,569

292-foot Ceiling Runway 30

Additional Capture with Existing Usability

1 Mile Visibility

0.66%

0.00%

2.4

58

300-foot Ceiling Runway 12

0.11%

0.01%

1.0

24

292-foot Ceiling Runway 30

Parallel Taxiway Required

Below Weather Minimums

Total

2.18%

7.9

191

100.00%

365.0

8,760

Notes: VMC—Visual Meteorological Conditions. IMC—Instrument Meteorological Conditions. IFR—Instrument Flight

Wind Analysis

ALL WEATHER TOTAL OBSERVATIONS BY DIRECTION

ALL-WEATHER WIND COVERAGE

CROSSWIND COMPONENT

CONFIGURATION

10.5 KNOTS

13 KNOTS

16 KNOTS

20 KNOTS

Runway 12-30

92.67%

96.90%

99.03%

-

Runway 17-35

88.29%

93.95%

-

-

COMBINED

98.32%

99.36%

99.03%

-

SOURCE: KIMBG ASCS (2013-2022, HOURLY) FROM NATIONAL CLIMATIC DATA CENTER

86.117 TOTAL OBSERVATIONS

INSTRUMENT FLIGHT RULES (IFR) WIND COVERAGE

CROSSWIND COMPONENT

CONFIGURATION

10.5 KNOTS

13 KNOTS

16 KNOTS

20 KNOTS

Runway 12-30

85.23%

92.64%

96.82%

-

Runway 17-35

-

-

-

-

COMBINED

85.23%

92.64%

96.82%

-

SOURCE: KIMBG ASCS (2013-2022, HOURLY) FROM NATIONAL CLIMATIC DATA CENTER

5,573 TOTAL OBSERVATIONS

IFR = VISIBILITY LOWER THAN 3 MILES OR CEILING LOWER THAN 1,000 FEET

FAA Standard—Coverage at least 95% of the time

KLJ

Planning Items

| Capital Improvement Plan          |                                      |                                                                            |                                                                                                          |              |              |             |
|-----------------------------------|--------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------|--------------|-------------|
| Year                              | Project                              | Scope                                                                      | Estimated Cost                                                                                           | FAA Funds    | State Funds  | Local Funds |
| Near - Term (2025-30)             |                                      |                                                                            |                                                                                                          |              |              |             |
| 2027                              | Phase 1 Apron Extension Design       | Design to relocate 3 tie-downs, remove hangar taxi-lane & apron expansion  | \$140,000                                                                                                | \$126,000    | \$7,000      | \$7,000     |
| 2027                              | Remove Hangars                       | Remove hangars 1, 3, & 4                                                   | \$24,000                                                                                                 | -            | -            | \$24,000    |
| 2028                              | Phase 1 Apron Extension Construction | Relocate 3 tie-downs, remove hangar taxi-lane & extend apron & 5 tie-downs | \$1,860,000                                                                                              | \$1,422,000  | \$79,000     | \$79,000    |
| 2028                              | Airfield Pavement Maintenance        | State pavement maintenance                                                 | \$100,000                                                                                                | \$90,000     | \$5,000      | \$5,000     |
| Mid - Term (2031-35)*             |                                      |                                                                            |                                                                                                          |              |              |             |
| Parallel Taxiway (South Portion)  |                                      |                                                                            | Sub-Total                                                                                                | \$1,844,000  | \$1,638,000  | \$91,000    |
| Row Hangar (3 unit)               |                                      |                                                                            | New taxiway from 30 turnaround to south edge of the current apron with connector west taxi-lane          | \$1,330,000  | \$1,197,000  | \$66,500    |
| Apron Hangar                      |                                      |                                                                            | New 3-unit row hangar on current south-west taxi-lane                                                    | \$800,000    | \$0          | \$0         |
| T-Hangar (3 unit)                 |                                      |                                                                            | New large box hangar on apron extension                                                                  | \$825,000    | \$742,500    | \$0         |
| Parallel Taxiway (Center Portion) |                                      |                                                                            | New 3-unit T-Hangar between southwest & south center taxi-lanes                                          | \$660,000    | \$0          | \$0         |
| Parallel Taxiway (Center Portion) |                                      |                                                                            | New taxiway from north corner of apron to the new connector, remove part of apron & connecting taxiway   | \$2,344,000  | \$2,109,600  | \$117,200   |
|                                   |                                      |                                                                            | Sub-Total                                                                                                | \$5,959,000  | \$4,049,100  | \$1,883,700 |
| Long - Term (2036-40)*            |                                      |                                                                            |                                                                                                          |              |              |             |
| Parallel Taxiway (North Portion)  |                                      |                                                                            | New taxiway from connector to 12 turnaround                                                              | \$5,760,300  | \$5,184,270  | \$288,015   |
| Phase 2 Apron Extension           |                                      |                                                                            | Add apron north of Phase 1 extension & 4 tie-downs                                                       | \$1,000,000  | \$900,000    | \$50,000    |
| Access Road & Parking             |                                      |                                                                            | New access road & parking behind new apron hangars                                                       | \$300,000    | \$270,000    | \$15,000    |
| Terminal                          |                                      |                                                                            | New 60'x30' terminal building, reconfigure parking lot, remove existing terminal & replace with pavement | \$2,100,000  | \$1,890,000  | \$105,000   |
| Phase 3 Apron Extension           |                                      |                                                                            | Add apron north of Phase 2 extension & 3 tie-downs                                                       | \$1,000,000  | \$900,000    | \$50,000    |
|                                   |                                      |                                                                            | Sub-Total                                                                                                | \$10,160,300 | \$9,144,270  | \$508,015   |
| TOTAL                             |                                      |                                                                            |                                                                                                          | \$17,963,300 | \$14,831,370 | \$2,349,215 |
|                                   |                                      |                                                                            | Hangar Development (Demand Based)                                                                        | \$2,385,000  | \$742,500    | \$0         |
|                                   |                                      |                                                                            | Other Development (Demand Based)                                                                         | \$8,060,300  | \$7,254,270  | \$403,015   |

Notes: *Blue* highlight—Demand based Hangars. *Orange* highlight—Demand based Other development. \*Mid & Long Term do not have set years for they will be accomplished when funding becomes available.



Critical Design Aircraft

- Aircraft Approach Category B

  - Represents speed that aircraft approaches runway
  - 91 to 121 Kts
- Airplane Design Group II

  - Represents wingspan and height of aircraft
  - 49' to 79' wingspan
- Taxiway Design Group 2A

  - Represents pavement width and turning clearance needed by aircraft
  - Main Gear Width – 15' to 20'
  - Cockpit to Main Gear – 20' to 40'



The picture above shows a Beechcraft 1900 utilized by Alpine Air that is a B-II aircraft that frequently uses MBG

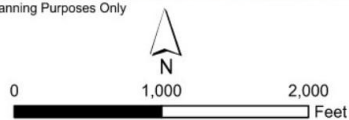
Mobridge Municipal Airport

Preferred Airfield Layout

AIRPORT MASTER PLAN UPDATE



\*Intended for Planning Purposes Only

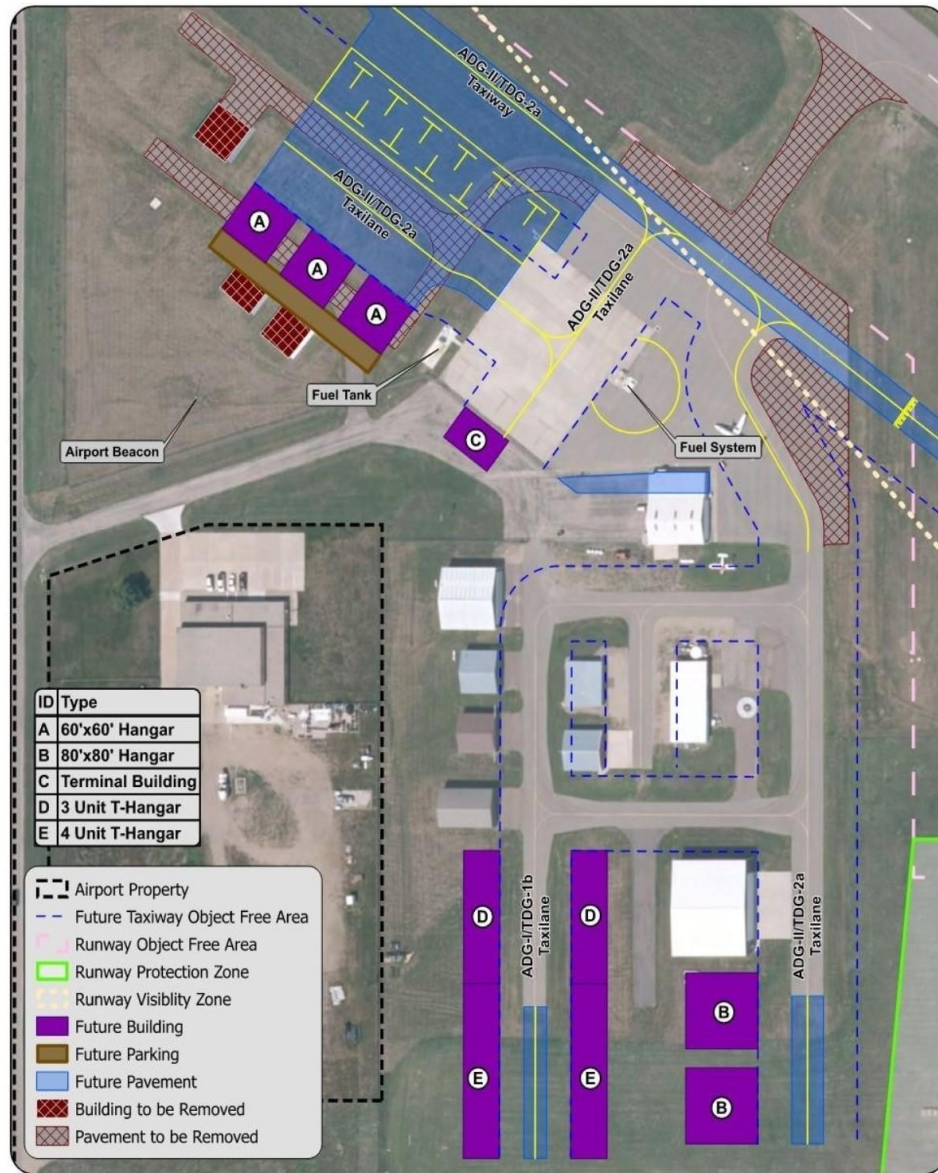


Mobridge Municipal Airport  
Airfield Alternative

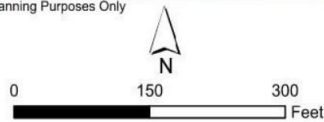
Mobridge Municipal Airport

Preferred Terminal/Hangar Area Layout

AIRPORT MASTER PLAN UPDATE



\*Intended for Planning Purposes Only



Mobridge Municipal Airport  
Terminal Alternative

Mobridge Municipal Airport

## Mobridge Municipal Airport (MBG) Airport Master Plan Update

### Airport Master Planning (AMP)

An Airport Master Plan is a comprehensive study of an airport and usually describes the short-, medium-, and long-term development plans to meet future aviation demand. The Master Plan includes an Airport Layout Plan (ALP) which is required for an airport to be considered for federal project funding.

### Wind Analysis

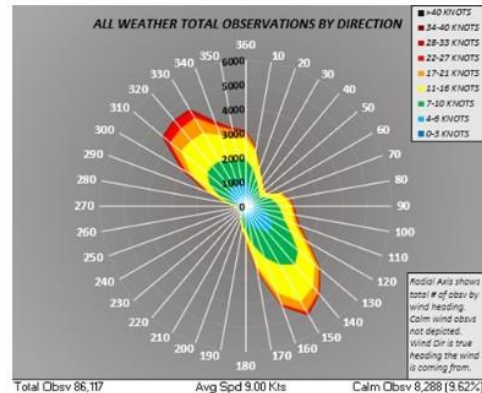
A runway's wind coverage is determined by an aircraft's ability to operate with a "direct" crosswind, which is defined as 90 degrees to the direction of travel. The FAA recommends that primary runways accommodate at least 95 percent of local wind conditions.

| ALL-WEATHER WIND COVERAGE |                     |          |          |          |
|---------------------------|---------------------|----------|----------|----------|
| CONFIGURATION             | CROSSWIND COMPONENT |          |          |          |
|                           | 10.5 KNOTS          | 13 KNOTS | 16 KNOTS | 20 KNOTS |
| RUNWAY 12-30              | 92.67%              | 96.90%   | 99.03%   | -        |
| RUNWAY 17-35              | 88.29%              | 93.95%   | -        | -        |
| COMBINED                  | 98.32%              | 99.36%   | 99.03%   | -        |

SOURCE: KMBG ASOS (2013-2022, HOURLY) FROM NATIONAL CLIMATIC DATA CENTER  
86,117 TOTAL OBSERVATIONS

| INSTRUMENT FLIGHT RULES (IFR) WIND COVERAGE |                     |          |          |          |
|---------------------------------------------|---------------------|----------|----------|----------|
| CONFIGURATION                               | CROSSWIND COMPONENT |          |          |          |
|                                             | 10.5 KNOTS          | 13 KNOTS | 16 KNOTS | 20 KNOTS |
| RUNWAY 12-30                                | 85.23%              | 92.64%   | 96.82%   | -        |
| RUNWAY 17-35                                | -                   | -        | -        | -        |
| COMBINED                                    | 85.23%              | 92.64%   | 96.82%   | -        |

SOURCE: KMBG ASOS (2013-2022, HOURLY) FROM NATIONAL CLIMATIC DATA CENTER  
5,573 TOTAL OBSERVATIONS  
IFR = VISIBILITY LOWER THAN 3 MILES OR CEILING LOWER THAN 1,000 FEET



### Critical Design Aircraft

The critical design aircraft is a single aircraft or a family of similar aircraft with the most demanding operational characteristics. These aircraft are the basis for airport design standards. The current and future critical design aircraft is Airport Reference Code (ARC) B-II with a Taxiway Design Group (TDG) of 2A.



Beechcraft 1900 utilized by Alpine Air that is a B-II aircraft that frequently uses MBG

### Aircraft Approach Category B

- Represents speed that aircraft approaches runway
- 91 to 121 Kts

### Airplane Design Group II

- Represents wingspan and height of aircraft
- 49' to 79' wingspan

### Taxiway Design Group 2A

- Represents pavement width and turning clearance needed by aircraft
- Main Gear Width – 15' to 20'
- Cockpit to Main Gear – 20' to 40'

### Contact

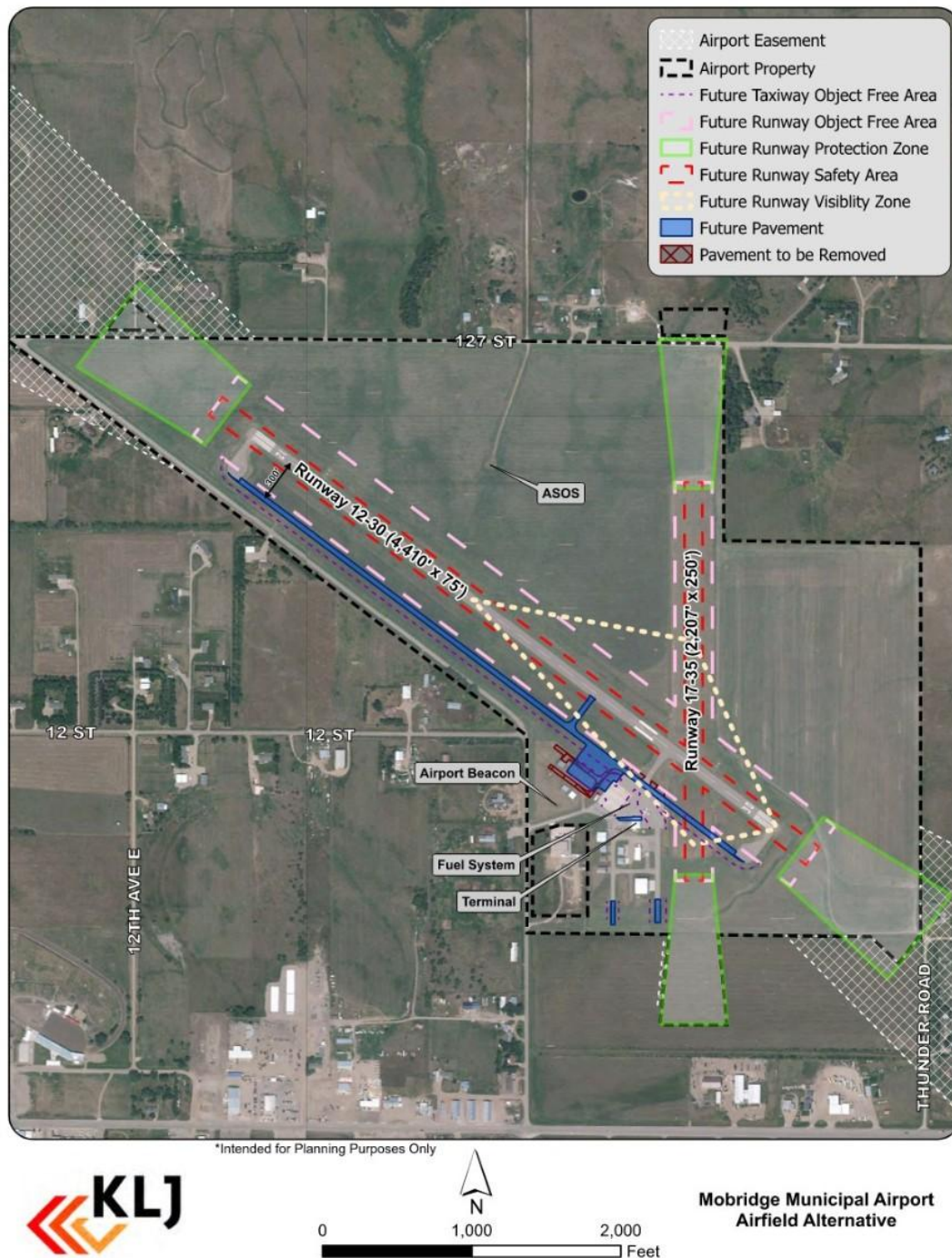
Kent Penney, Airport Planner (KLJ) at 605.721.5553

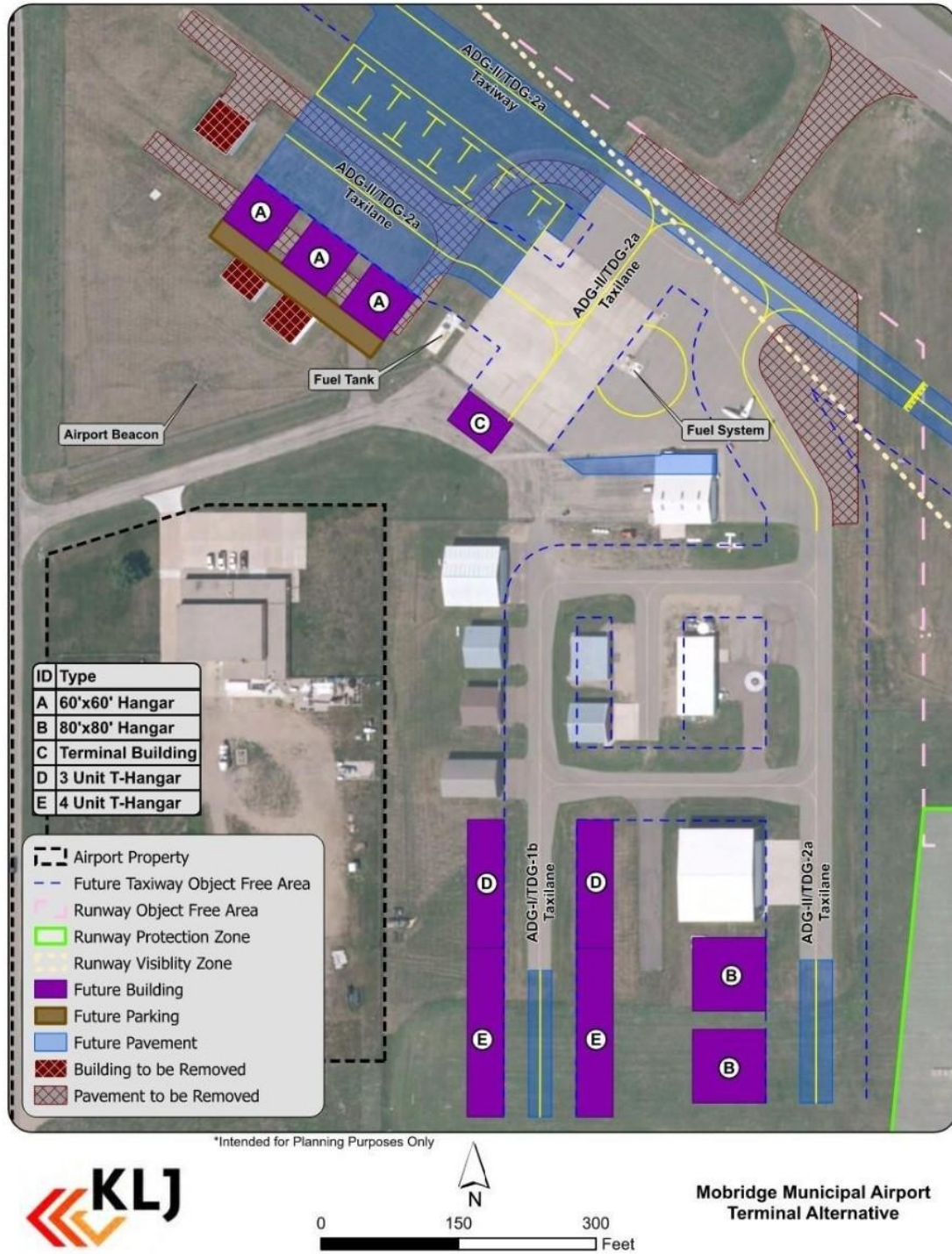
Study material & comments placed here:  
<https://inputcentral.com/mobridge-airport-plan>

Project Briefing: October 2025



## Mobridge Municipal Airport (MBG) Airport Master Plan Update





Project Briefing: October 2025

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