RANGE REGIONAL AIRPORT STAKEHOLDER VISIONING

APRIL 2021

VERSION 1.0

Prepared by RS&H for the Chisholm-Hibbing Airport Authority

RANGE REGIONAL AIRPORT

RS&H

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

APPENDIX A

STAKEHOLDER VISIONING

1.1 INTRODUCTION

Change is constant in the aviation industry and airports are always looking for ways to provide quality facilities that meet user needs. As demonstrated during the COVID-19 global pandemic, the aviation industry is always adapting to a changing world and Range Regional Airport is not immune to these changes. HIB facilities must evolve as demands change, position to enable stakeholder investment, and remain innovative in thinking about how to provide public aviation facilities and services. That is why, on March 9th, 2021, Range Regional Airport hosted a visioning charrette to gather ideas and insights from a group of key airport community stakeholders. This charrette served as a foundation for developing a new Airport Master Plan which looks not only at the upcoming 20-year facility investment needs, but beyond to ensure today's plans do not hinder development tomorrow.

The new vision for Range Regional Airport represents a comprehensive view at how key stakeholders feel the airport should "look" and operate in the future, with consideration to both facilities and services. The vision includes ideas for new facilities to support anticipated growth or enhance services, as well as necessary improvements that must be undertaken to correct operational deficiencies. While the Master Plan Update creates a roadmap for development for the next 20 years, the visioning session sets the expectations of the ultimate buildout of the Airport beyond the Master Plan horizon.

Developing the vision was a collaborative process, with input from both internal (Airport) and external (tenants, users, and community) stakeholders. Input was obtained during a virtual visioning charrette that considered essential and desired enhancements for services and facilities, customer service improvements/innovations, considerations of capacity constraints, additions of new facilities and services, and maintenance of existing infrastructure. The input garnered during the charrettes was synthesized to aid in the development of a cohesive vision for the Airport.

Stakeholder input received during the virtual charrette was documented using GIS mapping technology and will be considered as relevant throughout the master planning process. For those unavailable to attend at the scheduled meeting time, the GIS portal was made available as an opportunity for stakeholders to provide feedback at any time. This input will assist the planning process by helping to focus attention on specific issues, resulting in established goals and objectives to guide analysis in a way that generates optimal development solutions.

The following sections provide an overview of the visioning charrette and present stakeholder input received during the visioning charrette exercises. Goals and objectives are then defined to help guide the Master Plan study.

1.2 VISIONING CHARRETTE OVERVIEW

A virtual visioning charrette was conducted for Range Regional Airport on March 9th, 2021 and the stakeholder groups who participated are described below:

- CHAA Staff (internal) – This group included Airport staff and leadership.
- HIB Stakeholders (external) – This group included representatives from organizations with an interest in the Airport's success.

Table 1-1 shows attendees of the Visioning Charrette and the organization they represent.

TABLE 1-1
VISIONING CHARRETTE INVITEES AND ATTENDANCE

Attendees	Organization
Barrett Ziemer	Range Regional Airport
Travis Marsh	Range Regional Airport
Mike Monico	Pilot (L&M Radiator)
Matthew Woodwick	MN DNR Air Tanker Base
Janelle Greschner	IRRRB Economic Development
Chris Ismil	IRRRB Economic Development
Michael Raich	Hibbing Community College
Bud Stone	Grand Rapids Chamber of Commerce President
Isaac Schultz	District Director for Congressman Stauber
Invited – Unable to Attend	**Organization**
Bre Katrin	Delta Air Lines Reservation Center
Dan Goldman	Metal Technologies
Lauri Passard	Travel Leaders Agency
Shelly Hanson	Hibbing Chamber of Commerce President
LaTisha Gietzen	Polymet Mining
Erik Holstrom	Laurentian Chamber of Commerce President
Kelsey Johnson	Iron Mining Association
Josh Debevec	Pilot (Premium Air)

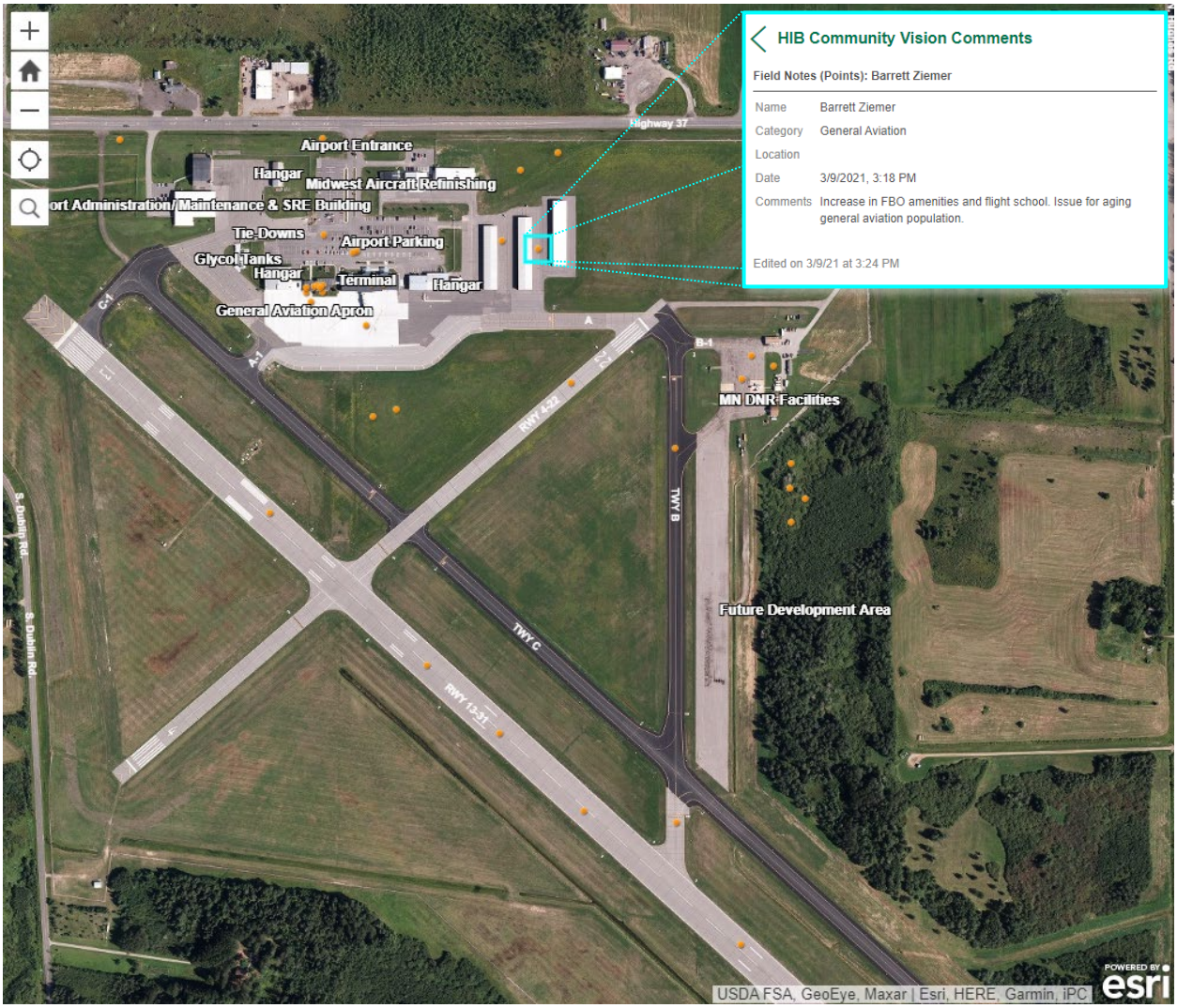
Using online video conferencing software and a GIS comment portal developed specifically for the project (shown in **Figure 1-1**), stakeholder comments were captured and organized. The conversation was framed using three questions:

1) "What is the topic?"
2) "What is the perceived challenge?"
3) "What is the vision?"

A total of ten topic categories were used to organize visioning thoughts. These included:

- Airfield
- Airspace
- General aviation
- Land Use
- Passenger terminal area facilities
- Support facilities
- Sustainability and environment
- Aviation industry trends
- Local community
- Airport finances

FIGURE 1-1
RANGE REGIONAL AIRPORT VISIONING CHARRETTE



Source: Esri; RS&H, 2021

1.3 VISIONING OUTCOMES AND OBSERVED THEMES

It is to be expected that stakeholders have varying perspectives on how airport facilities should evolve over the life of the airport, depending on how they use the airport. Overall, the goal of Range Regional Airport as a facility provider is to responsibly balance these needs, understanding that not all needs can be fully met, and compromise is often required. Within this context, the Visioning Charrette included a diverse set of stakeholders whose input is summarized within the following sections and tables.

The vast majority of stakeholder identified challenges and visions were aligned. The underlying focus was on preserving the airport's role in the community and region and providing safe and efficient facilities with high user levels of service. A secondary theme was improving airport user facilities to meet the needs of current and future users.

1.3.1 Airfield Vision

Airside facility visioning statements underscored the need for a safe, secure, and operationally efficient airfield layout. Stakeholders recognized the benefits of extending Runway 13-31 and accepted the limitations of doing so based on demonstrated aircraft performance requirements. The opportunity to provide an 8,000' runway to accommodate F35 military aircraft using HIB as an alternate airport for the DLH base was identified as well as the intergovernmental funding challenges associated any extension of a public runway for military purposes. Stakeholders also understood the safety and sustainability benefits associated with separating specific user types (general aviation and commercial air carriers) through organized aeronautical development and/or redevelopment. A need to bring the airfield up to FAA airport design standards was universally accepted as well as maintaining pavements in safe operational condition. The airfield visioning outcomes are shown in more detail in **Table 1-2**.

1.3.2 Airspace Vision

Preservation and protection of HIB airspace were identified as important elements in planning for the Airport's future. Providing safe and efficient flight operations for all runways, reliable service from navigational aids, and preventing airspace obstacles/obstructions, including those caused during off-airport land development, were all important themes established in the visioning exercise. The overarching vision for airspace was one that safely preserves HIB traffic routes within the regional airspace and accommodates any autonomous flight craft through defined corridors and airspace use agreements. Although the Airport has no Air Traffic Control Tower (ATCT), this was recognized as a strength with regard to encouraging flight training activity at HIB. The airspace visioning outcomes are shown in more detail in **Table 1-3**.

1.3.3 General Aviation Vision

The vision for General Aviation facilities focuses on developing a safe, functional, and efficient layout for aeronautical development as well as providing a quality experience for airport users. Although stakeholders applauded the management and amenities provided at the Fixed Base Operator (FBO) facility that is currently managed by Airport staff, it was also recognized as an opportunity for private management who might provide an even better user experience. Additionally, the location of the FBO is understood to be problematic for future terminal area development. Long-term separation of general aviation facilities from commercial service facilities was identified as a preferred plan with the caveat that

general aviation amenities increase and improve in a new location. The east side of the airfield was proposed as a fitting site for any relocation. Development on the east side does present landside access challenges because the intersection of MN-37 and Hughes Rd has a history of safety issues, especially during peak traffic hours.

Flight training was identified as an essential opportunity to promote at the Airport. Partnerships with regional and even national educational institutions was recognized as an important element to successfully bringing a flight training facility back to HIB.

Other general aviation topics focused on during the visioning included integration of deicing facilities, providing more corporate hangars, potential for community amenities, and finding a cost-effective solution for providing US Customs services. Additional details of general aviation visioning can be seen in **Table 1-4**.

1.3.4 Land Use Vision

The vision for land use at the Airport is best described as preserving, developing, redeveloping on-airport land for its highest and best use. Highest and best uses can be categorized as either aeronautical or non-aeronautical. The vision for off-airport land is one of cooperative and compatible planning through partnerships with local planning agencies and smart development. It was noted during the charrette that tying adjacent off-airport land to compatible industrial and/or commercial developments would benefit the community as a whole.

1.3.5 Passenger Terminal Area Facilities Vision

The vision for passenger terminal facilities relates to the ability of the terminal area to maintain a high level of service through a well-conceived expansion plan. The importance of the passenger terminal was underscored by the fact that it took priority within the hierarchy of airport facilities, second only to the airfield. Terminal expansion is currently constrained by adjacent facilities, so the vision presented was one that phases relocation of those impacted facilities, as appropriate, over time. Encouraging and providing opportunities for passenger service providing tenants (air carrier and charter) was also noted as a critical aspect of the terminal area vision.

Wayfinding to the Airport was recognized as lacking at both the regional and local level. The importance of maintaining utility corridors for future development was also recognized. Additionally, the importance of considering emerging technology needs such as electric vehicles and autonomous vehicles was addressed during the visioning. More details of the landside facility visioning outcomes is shown in **Table 1-6**.

1.3.6 Support Facilities Vision

Airport support facilities are critical to continuing airport operations. The vision expressed during the charrette for airport support facilities at the Airport primarily related to providing adequate facilities for aircraft and equipment storage (especially during winter months), meeting environmental goals while providing sustainable deicing facilities, and meeting the needs for emerging technologies such as electric aircraft and alternative fuels. **Table 1-7** shows visioning outcomes related to support facilities.

1.3.7 Sustainability and Environment Vision

The ultimate goal of any airport is to provide sustainable and environmentally responsible operations. Topics emerging during visioning included sustainable development, promotion of alternative energies, goals to eliminate/mitigate air and water quality impacts, and the reinforcement of compatible land uses where aircraft operations have potential impacts. Visioning outcomes in these areas included development of renewable energy production/self-sufficiency, elimination of air and water pollutants through sustainable deicing and aircraft wash facilities, reduction of aircraft noise impacts through land ownership/easements, development and integration of protective airport land use tools into all surrounding land use codes, and protection of airport facilities that contribute to community resilience during times of need. **Table 1-8** shows visioning outcomes from the charrette.

1.3.8 Aviation Industry Trends Vision

One theme heard during visioning was the need for additional hangars capable of storing smaller business jets. There was also a desire to reestablish flight training operations and aviation-related training facilities, including technical training opportunities such as those for Airframe and Powerplant (A&P) aircraft mechanics. Understanding that airports strive for self-sufficiency, visioning highlighted the importance of benchmarking airport key metrics such as rates and fees against competitive and comparable airports and stressed the importance of including non-aeronautical revenue generation into overall land use plans. Additional detail about these and other visions brought forward during the visioning charrette are shown in **Table 1-9**.

1.3.9 Local Community Vision

The community vision presented by stakeholders during the visioning charrette included themes of providing economic opportunities to the community and engaging the community to capture passenger market share being leaked to other airports in the state. Discussions stressed the importance of coordinating and integrating protective land use policies for the community and coordinating with Department of Defense regarding military needs to support regional long-term employment stability. **Table 1-10** shows more detail regarding the community vision outcomes from the airport visioning charrette.

1.3.10 Airport Finances Vision

The Airport Finances vision was the final discussion topic. This discussion focused on striking a balance between aeronautical and non-aeronautical development to support financial stability, upholding fair and balanced land lease policies, benchmarking airport key performance metrics, considering impacts of new and emerging energy sources on the airport rates and fee structure, and exploration of highest and best land uses in relation to producing optimal revenues for continued airport operations. More details related to the airport finances visioning outcomes are shown in **Table 1-11**.

TABLE 1-2
AIRFIELD FACILITIES

AIRFIELD		
Topic	**Challenge**	**Vision**
Airfield design	Nonstandard taxiway geometry	Maintain/correct airfield to current FAA design standards
Airport security	Damaged fencing	Address fencing and overall security needs
Primary runway length	Military needs alternate airport for DLH base	Accommodate F35 operations with 8,000' primary runway
Primary runway length	Runway length constrains landing ability for larger jets during certain inclement weather events	Accommodate current and future fleet mix performance needs
Primary runway length	DNR fleet requirements	Runway 13-31 extension would allow DNR to expand fleet and improve firefighting capabilities
Aircraft fleet mix	Air carriers using 50-seat C-II jets transitioning to 70-seat C-III jets	Airfield and terminal area facilities need to accommodate larger aircraft
Airfield lighting	No lighting on Taxiway B	Provide Taxiway B lighting for air carrier needs
Airfield lighting	Runway 4-22 is unlit	Lighting for crosswind runway
NAVAIDS	ILS and Runway 13 approach has issues	Resolve ILS issues for optimal fleet mix performance requirements
T-hangar taxilanes	Poor condition	Rehabilitate and maintain taxilanes in poor condition; Pavement Management Plan addresses timing for budget

TABLE 1-3
AIRSPACE

AIRSPACE		
Topic	**Challenge**	**Vision**
Flight operations and procedures	Instrumentation, ownership, and maintenance of navigational equipment	Provide navigational aids and flight procedures capable of meeting flight service provider minimum needs (visibility and decision heights)
Drones	Potential conflicts between drones and HIB user traffic, rogue drones, evolving regulations	Accommodate autonomous flight; establish flight corridors for autonomous flight which preserve HIB airspace
Drones	Potential conflicts between drones and HIB user traffic, rogue drones, evolving regulations	Governmental coordination; airspace use agreements related to drone activity
Obstructions	Prevent obstructions to airspace	Intergovernmental coordination; FAA 7460 process

TABLE 1-4
GENERAL AVIATION

GENERAL AVIATION		
Topic	**Challenge**	**Vision**
FBO	Dated building has issues; Need comfort, reliable internet/cell service, overnight "hotel" room, and access to vehicle	Modest new FBO with basic modern crew amenities including lounge area; Needs to be 24-hour access
FBO	Airport owned and managed facility	Private sector lease and manage FBO
Safe access	Hughes Road Access from MN-37 is unsafe during peak hour	Work with MnDOT to improve safety at this intersection
Flight training	Serious management issues with previous airport helicopter flight school	Operate flight school in partnership with regional educational institution
Flight training	Non-towered *vs* towered airport	Non-towered is advantage for bringing in flight training
Amenities	General airport amenities	Amenities for all (general community, tourists, and users alike); Partnerships with community development
Deicing	DNR lacks designated area for winter operations	Create designated area for deicing containment; DNR can lease during summer to contain retardant when not used in winter operations
Hangars	Corporate hangar storage lacking	Provide corporate hangars with attached offices; Minimum door dimensions 25' high by 75' wide
US Customs	No full-time customs service	Provide customs service

TABLE 1-5
LAND USE

LAND USE		
Topic	**Challenge**	**Vision**
Zoning	City-owned cemetery north of Runway 13 arrival end in RPZ	Airport should not own cemetery
Airport zoning	Minnesota statutes on airport zoning	Meet Minnesota Administrative Rules for Airport Zoning Standards[1]
Aeronautical/Non-aeronautical	Strike balance of land uses for highest and best use	Explore non-aeronautical revenue producing opportunities where aeronautical use is impractical
Compatible off-airport development	Compatible off-airport development	Cooperative planning with small airport and surrounding communities; partnerships to develop smart; tie to industrial parks

[1] Minnesota Administrative Rules 8800.2400 *Airport Zoning Standards*, https://www.revisor.mn.gov/rules/8800.2400

TABLE 1-6
PASSENGER TERMINAL AREA FACILITIES

PASSENGER TERMINAL AREA FACILITIES		
Topic	**Challenge**	**Vision**
Commercial terminal	Terminal expansion constrained by adjacent facilities	Plan for terminal expansion at existing location; Separate commercial service from general aviation operations
Wayfinding and regional connectivity	Lack of regional airport signage; Inconsistent application on-airport	Establish wayfinding plan that integrates intuitive on-airport wayfinding into regional system
Landscaping	Site specific	Landscaping Master Plan
Utilities	Required for development	Preserving utility corridors to development areas
Land use/development	Aeronautical vs non-aeronautical land development challenges	Develop land strategically for aeronautical and non-aeronautical uses as applicable
Airport land acquisition	Purchasing land around airport	Owning land around airport; Strategic selling of parcels with covenants/avigation easements
Rental car	Rental car service providers	Attract additional rental car service provider(s) to airport
Electric vehicles	Difficult to predict future implementation rate and timing	Stay flexible and current with changing consumer habits; Plan for charging locations and financial structure

TABLE 1-7
SUPPORT FACILITIES

SUPPORT FACILITIES		
Topic	**Challenge**	**Vision**
ARFF equipment and storage	Facilities lack adequate space for equipment and necessary functional areas	Construct modern ARFF facility in new location
Snow removal equipment and storage	SRE ages and requires replacement by larger multi-function equipment	Provide adequate SRE storage facilities with pull through bays
Maintenance equipment and storage	Lack of space for equipment storage, workspaces are used to store equipment	Maintenance facilities with space to accommodate all activities and equipment storage; Pull through bays
Wildlife	Protect airfield from wildlife hazards	Ensure wildlife fence is preventing intrusion onto airfield
Electric aircraft	Aircraft charging facilities	Provide facilities for charging electric aircraft batteries
Deicing	Deicing performed on terminal apron	Establish formal deicing location and facilities on airfield
Deicing	DNR lacks designated area for winter operations	Create designated area for deicing containment; DNR can lease during summer to contain retardant when not used in winter operations
Aircraft fuel distribution	Airport staff perform fueling	Contract fuel provider with national service program
Aircraft fuel storage	Alternative fuels require separate storage tanks	Consider storage space needs for alternative fuels
MRO facilities	No full-service maintenance and repair organizations	Provide full-service maintenance and repair

TABLE 1-8
SUSTAINABILITY AND ENVIRONMENT

SUSTAINABILITY AND ENVIRONMENT		
Topic	**Challenge**	**Vision**
Airport development	Sustainable development	All development needs to meet environmental requirements and sustainability objectives
Off-airport land use compatibility	No authority over surrounding land use, incompatible development	Protect Part 77 and TERPs airspace from obstructions
Utilities	Incomplete utilities, future technology is changing needs	Preserve future utility corridors and provide future needs as they become in demand
Water quality	Deicing effluent containment	Plan for collection of deicing effluent runoff
Air quality	Lack of control over aircraft emissions	Promote sustainable, alternative, and renewable energy for facilities and aircraft
Sustainability funding programs	Securing available grants	Seek out grants for alternative energy equipment (such as FAA VALE program)
Alternative energy	Capital investment costs, land availability	Introduce alternative energy GSE into operation
Crisis resiliency	Equipment capital investment costs	Continuity of operations; resiliency during/after disaster events

TABLE 1-9
AVIATION INDUSTRY TRENDS

AVIATION INDUSTRY TRENDS		
Topic	**Challenge**	**Vision**
Aviation industry related training	Need for training programs	Promote flight training, A&P training, and technical learning facilities
Aviation industry related training	Need for training programs	Encourage regional educational institution partnerships
Non-aeronautical revenues	Improve revenue streams for capital and operational budget needs	Diversify revenues through non-aeronautical development
Security	Balancing public access with security, protecting against terrorism	Organize facilities with varying levels of security/public access; "smart surveillance" by embracing new technology
Benchmarking	Stay current with fluctuations in pricing airport rates and fees	Regularly benchmark airport against peer airports for all aspects of EONS sustainability
Autonomous vehicles	Difficult to predict future implementation rate and timing	Stay flexible and current with changing consumer habits
General aviation storage	Growth occurring in larger hangars over smaller independently leased T-hangars	Plan for growth in larger box and corporate hangars

TABLE 1-10
LOCAL COMMUNITY

LOCAL COMMUNITY		
Topic	**Challenge**	**Vision**
Economic impact	Military needs alternate airport for DLH base	Supports regional jobs (~1,200) with estimated additional 30- to 50-year longevity of DLH base
Economic impact	Promote positive impacts of airport to broad public audience	Continue to provide and grow business and employee opportunities at the airport
Off-airport land use	Compatible off-airport development	Exploration of opportunities for collaborative community development
Community engagement	Many commercial passengers in catchment area are using alternative airports	Grow passenger market share within catchment area
Community engagement	Airport events historically have drawn little interest	Find creative ways to engage public and increase interest levels

TABLE 1-11
AIRPORT FINANCES

AIRPORT FINANCES		
Topic	**Challenge**	**Vision**
Airport leasing policies	Lease policy template	Track and provide fair market rate leases for reasonable term lengths; monitor and update as required; industry benchmarks; cap lease extensions
Airport minimum standards	Minimum standards are currently rather old; FAA does not fund analysis of airport minimum standards	Regular review and update of minimum standards; Balance benefit with burden on tenant businesses
Aeronautical vs non-aeronautical development	Strike balance of land uses for highest and best use	Explore non-aeronautical revenue producing opportunities in appropriate locations
Return on investments	Evaluations are complex	Secure proper return on investment for all capital improvements
Rates and fees	Paid vs free parking for commercial service customers	Keep commercial terminal parking free until operations/ maintenance necessitate implementing paid parking
Capital project needs	Difficult to assess degree of capital investment required for future facilities	Develop CIP including an unmet needs assessment
Renewable energy impacts	Challenge of generating revenue with changing source of fuel; fuel flowage fee	Create fair and reasonable rate structure for new energy sources; promote and provide facilities for changing energy needs
Alternative funding opportunities/partnerships	Not yet commonplace at airports	Explore Public-Private Partnership (P3) opportunities for future development
Sustainability grant initiatives	Securing funding	Leverage and support introduction of new grants; use VALE funds for cleaner ground service equipment

Airport land water/mineral rights	Water quality and mineral extraction limitations	Leverage water and mineral rights appropriately
Funding sources	Assess all sources of funding for all capital projects	Include all traditional federal and state; Aviation Innovative Deed Grant; Transportation For America; IRRRB; DoD

1.4 AIRPORT GOALS AND OBJECTIVES

Through airport leadership input and the stakeholder visioning process, a set of goals and objectives for the airport master plan and future planning efforts has been established. These are intended to be used as a framework to provide context and balance in airport decision-making. It is important to note that not all goals can be analyzed and completed during the airport master plan and the intention of these goals and objectives is to inform future planning efforts and studies as well. Aviation industry trends are incorporated into each of the following goals and objectives. These should be reviewed and revised with regularity as the Airport operating environment evolves.

1.4.1 Airfield Goal and Objectives

Goal: Plan for, and operate, a safe and efficient airfield that meets the needs of the current and future fleet mix.

Objectives:

- Provide safe and efficient airfield configuration through implementation of FAA design standards, recognizing modifications of standards may be warranted within reason.
- Identify trigger points for airfield/airspace enhancements to provide necessary capacity.
- Identify trigger points for airfield/airspace enhancements to provide infrastructure capable of meeting performance requirements for current and future fleet mix.
- Prevent/eliminate/mitigate hot spots for runway incursions through all available means to increase safety in the operating environment.
- Determine the preferred approach to accommodate economic development on Airport property. Consider development *vs* redevelopment *vs* repurposing.
- Promote integration of new technologies to provide secure facilities tailored to specific user groups where justified.
- Ensure airfield pavement strengths can safely accommodate critical aircraft.
- Accommodate growth in larger aircraft by providing adequate large hangar storage space.
- Provide demand triggers and qualitative/quantitative justifications for airport capital improvement needs. EONS sustainability principles (including tangible and intangible costs and benefits) should be considered in evaluation of development alternatives.
- Keep the Airport Layout Plan current to every reasonable extent in order to properly represent airport facilities and future development plans.

1.4.2 Airspace Goal and Objectives

Goal: Provide a safe environment for aircraft operating at/around the Airport and people/property within the communities underlying the influence area of aircraft operations.

Objectives:

- Eliminate existing obstacles/obstructions and prevent future obstacles/obstructions to airspace (Part 77 and TERPS) through intergovernmental coordination, the FAA 7460 process, and purchase of land or avigation easements where appropriate.

- Coordinate with FAA to provide flight procedures capable of meeting all user performance requirements.
- Coordinate with navigational aid owners (federal and state) to provide safe and reliable equipment to airport users.
- Plan to accommodate drone operations within local airspace system through tools such as designated corridors and staying involved and current on evolving federal regulations.

1.4.3 General Aviation Goal and Objectives

Goal: Develop safe, efficient, and sustainable general aviation facilities with an emphasis on providing a high-quality user experience.

Objectives:

- Separate commercial air carrier activity from general aviation activity to the extent possible.
- Plan for co-location of general aviation facilities with synergistic effects.
- Preserve land, access right of way, and utility corridors capable of serving ultimate development on east side of airfield.
- Coordinate with state agencies to provide safe vehicular access to all landside areas of the Airport.
- Relocate electrical vault in secure location.

1.4.4 Land Use Goal and Objectives

Goal: Establish locally coordinated land use policies that make highest and best use of airport land and promote compatible off-airport development.

Objectives:

- Establish long-term land use plans that define highest and best use of airport land (aeronautical and non-aeronautical).
- Meet Minnesota Administrative Rules for Airport Zoning Standards.
- Work with community officials to establish zoning practices which preserve and protect airport operations and local airspace.
- Work with community landowners and developers to ensure adjacent off-airport land uses are compatible with airport operations.
- Partner with community networks to promote compatible off-airport development and equitable access via regional transportation networks.

1.4.5 Passenger Terminal Area Facility Goal and Objectives

Goal: Plan for, and provide, safe, accessible, and thoughtfully designed terminal area facilities to support commercial passenger demand/needs.

Objectives:

- Plan for, and design, passenger terminal and landside expansion that provides a safe, efficient, and high-quality customer experience.
- Integrate Range Regional Airport into the regional multi-modal transportation network through the development implementation of a wayfinding master plan.
- Develop, construct, and maintain an intuitive, branded, full-coverage wayfinding system which integrates Range Regional Airport into the regional transportation system.
- Identify key utility corridors and preserve right-of-way for critical utility infrastructure.
- Identify impacts of alternative energy and autonomous vehicles to landside facilities and plan for needs to accommodate these new and emerging technologies.
- Consider timing of implementation of when paid parking is necessary to recover operating and maintenance costs.
- Address ground handing management challenges for commercial service flights.
- Beautify airport facilities through sustainable landscaped environments.
- Identify opportunities to acquire land near and adjacent to airport property which may be developed or resold with protective covenants.

1.4.6 Support Facility Goal and Objectives

Goal: Plan for, and operate, top-tier support facilities which meet/exceed user expectations of a premier general aviation airport.

Objectives:

- Study deicing facilities, operational needs, and glycol discharge goals to guide investments which minimize environmental impacts and meet DNR seasonal needs.
- Provide sufficient facility space in an efficient layout for equipment movements for all airport maintenance operations on the Airport.
- Store all maintenance equipment under structured cover free from inclement weather which reduces life of equipment.
- Provide rapid ARFF response during emergencies using modern equipment operated by professionally trained personnel using only federally approved firefighting agents.
- Humanely prevent/discourage wildlife from interfering with safe airport operations.
- Regularly evaluate fuel storage capacity need, types of fuel, optimal location(s), and delivery methods.

1.4.7 Sustainability and Environmental Goal and Objectives

Goal: Act ethically and with consideration to the EONS sustainability categories when forming policies, performing daily operational activities, or making capital investment decisions.

Objectives:

- Develop a sustainability master plan for the Airport.
- Develop and promote policies that minimize/mitigate/eliminate all negative externalities created by the airport and aircraft operations.
- Promote and provide a recycling and waste reduction program for the entire airport.
- Explore implementation of alternative and renewable energy options which accommodate user demand, minimize community/environmental impacts, and create opportunities for the Airport to produce and provide clean energy independent of the existing energy grid.
- Become energy independent to sustain operations, provide community support, and promote community resiliency during ongoing energy grid failures.
- Explore and understand how airport property rights related to natural resources such as water and mineral resources can be leveraged.
- Work with surrounding jurisdictions, land developers, and property owners to promote compatible land uses in areas exposed to aircraft overflights to preserve integrity of safe airport operations and prevent the placement of unnecessary burdens on property owners.
- Operate according to best practices in relation to spill prevention and preservation of water quality.

1.4.8 Local Community Goal and Objectives

Goal: The Airport will collaborate with local community leaders to promote and protect the utility of the airport to meet local and state transportation needs.

Objectives:

- Support sustainable economic growth within the region.
- Form plans and make capital investments that adequately address airport issues and satisfy local, state, and federal regulations.
- Document transparent policies and future aeronautical demand to support Range Regional Airport best practices on spending, debt, land use controls, and other policies.
- Encourage development of on- and off-airport land with investments that create economies of agglomeration reliant on airport access.
- Work with local governments and agencies to coordinate aviation-related public events with positive community impacts.
- Support charitable activities which encourage positive interactions and grow social capital within the community.

- Promote the importance of the Airport as a community asset which provides economic opportunities through regional access.
- Promote and support compatible development and land use policies that protect airport operations and property owners within a defined airport influence area.

1.4.9 Airport Financial Goal and Objectives

Goal: Operate in a financially self-sustaining manner and take advantage of available outside funding opportunities.

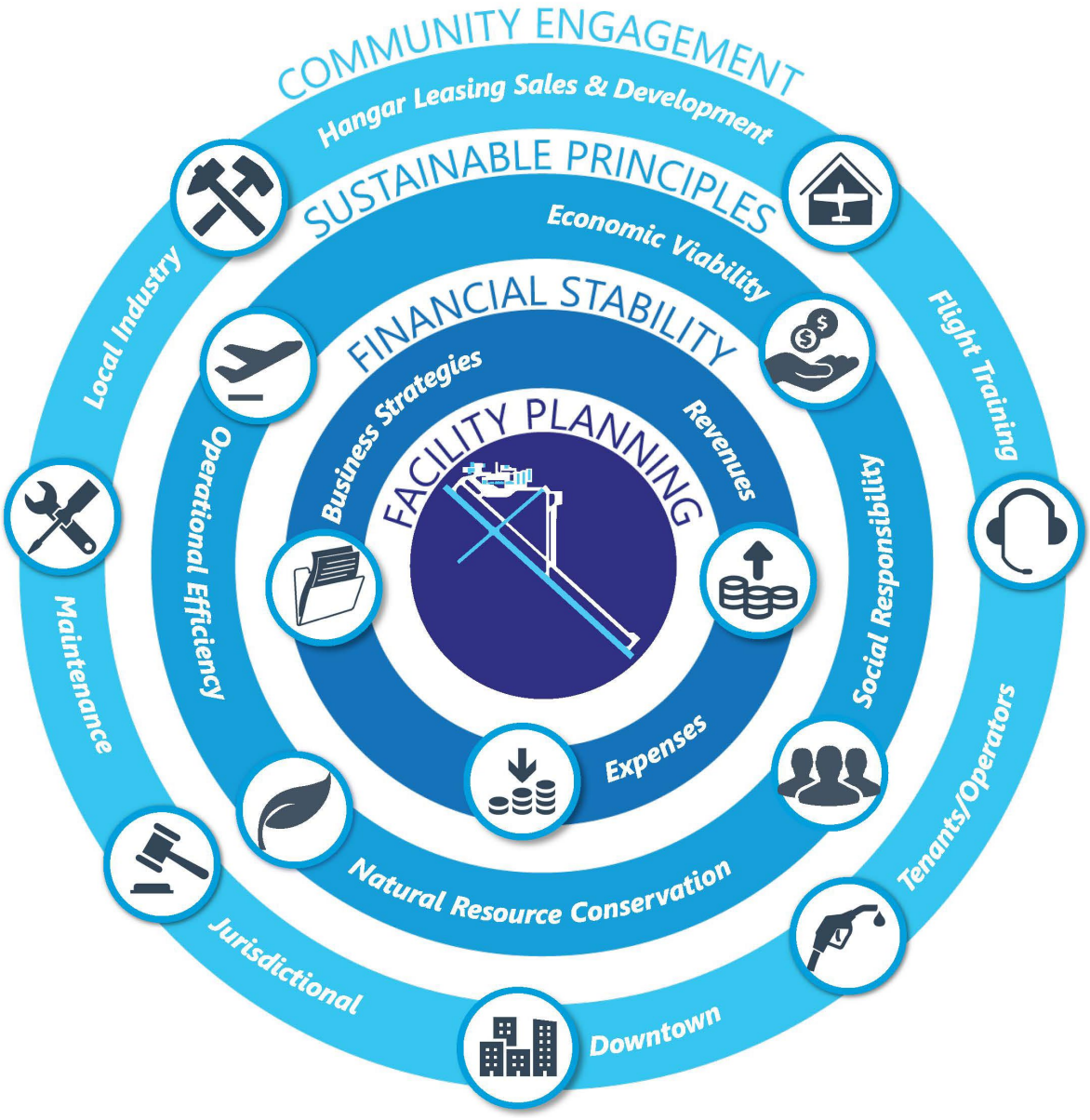
Objectives:

- Meet all FAA grant assurances to remain eligible for federal funding of approved capital projects.
- Explore and evaluate on-airport land use decisions which sustain adequate revenues which support capital development projects that meet demand and provide the best airport user experience.
- Enact land lease policies which provide fair opportunities for tenant businesses to thrive at reasonable terms to support airport development.
- Track and monitor airport lease policies through benchmarking against peer airports in order to stay current with prevailing industry practices.
- Identify and leverage alternative funding methods for capital development projects.
- Secure adequate return on investment for all capital improvements.
- Regularly review airport compliance documents and update as appropriate to sustain airport viability.
- Balance all financial decisions between desire to support airport tenant businesses and maintain necessary airport facilities.
- Study and enact policies which support and appropriately capture necessary revenues from alternative energy sources used at the airport.

1.5 MASTER PLAN GUIDING APPROACH

The FAA has established general guidelines for conducting airport master plans under Advisory Circular 150/5070-6B, *Airport Master Plans*. This guidance provides a sound approach for "traditional" airport facilities planning. However, every airport faces unique challenges that warrant an approach which incorporates broader thinking to include considerations such as those themes identified within the airport visioning exercise. For this reason, the Range Regional Airport Master Plan includes an innovative approach that integrates FAA Advisory Circular recommendations into a new framework focused on supporting sustainable development through informed decision-making. This customized approach to master planning evaluates airport land uses and facility development needs through an economic, environmental, operational, and social sustainability lens. Ultimately, this approach allows identified development solutions to be selected and implemented based on a more comprehensive and adaptable set of evaluation criteria. **Figure 1-2** shows a graphic representation of how this approach incorporates airport sustainability considerations and varying stakeholder needs.

FIGURE 1-2
RANGE REGIONAL AIRPORT MASTER PLAN APPROACH



Source: RS&H, 2021