

**Department of Transportation
Federal Aviation Administration
Dakota-Minnesota Airports District Office
FINDING OF NO SIGNIFICANT IMPACT
For a Proposed Runway & Apron Improvements Project
at the Jackson Municipal Airport
Jackson, Jackson County, Minnesota**

The Federal Aviation Administration (FAA) prepared this Finding of No Significant Impact (FONSI) for a proposed runway and apron improvements project at the Jackson Municipal Airport (MJQ).

In accordance with FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, FAA Order 5050.4B, *NEPA Implementing Instructions for Airport Actions*, and based on the evaluation in the Final Environmental Assessment (FEA), there are no significant impacts associated with the proposed project. Therefore, a Federal Environmental Impact Statement (EIS) will not be prepared and a FONSI is being issued. This FONSI provides a review of the Airport Sponsor's Proposed Project and the basis for the FAA's finding. Specific details are defined further in the FEA.

I. Purpose and Need

A Triggering Event Master Plan was prepared for the MJQ. The purpose of the Triggering Event Master Plan was to determine how to address runway pavement needs and accommodate taxiing connectivity to Runway 13/31, without negatively impacting the utility of the already narrow apron. The often-congested apron is already narrow, and it is difficult for the based King Airs to maneuver past one another safely. The study also evaluated how to eliminate a direct connection from the apron to the runway to improve safety. The existing runway and apron were constructed in 1995 and has undergone preventative maintenance several times but are reaching the end of their useful life. Reconstructing the runway in its current location would trigger a need to provide facilities (runway, taxiway, apron, and associated improvements) that meet FAA requirements. These needs include removing direct access to the runway, which includes the need for constructing a partial parallel taxilane. Meeting taxilane object free area standards require the need to remove apron pavement. In addition to taxilane and apron reconfiguration, the Runway 31 end would also need to be addressed as well to eliminate CSAH 34 as an obstruction to the 20:1 approach surface.

The purpose of the Proposed Project is to provide a primary runway, parallel taxiway or taxilane, preserve the existing apron design standards including provisions that need to be met for the design critical aircraft (King Air 200) to be positioned perpendicular to the runway while at the holdline. This requires a parallel taxiway or taxilane separation distance of 265 feet rather than the minimum 240-foot standard for runway to taxiway/taxilane centerline separation. The ability to hold perpendicular to the runway enhances safety by allowing the pilot to better observe any incoming traffic and decrease the chances of a runway incursion.

FAA Advisory Circular 150/5300-13A, Airport Design, Appendix 5 notes that efficient apron design should allow for flexibility and expandability. The current layout does not allow for

efficient aircraft movement on the apron because there is not a conforming OFA or separation for aircraft refueling. Bottlenecks occur during aircraft fueling operations and there is little room for existing aircraft to turn around on the apron if other aircraft are present. The King Air 200s currently based at MJQ require the entire existing apron width and there is a need to maintain sufficient apron size while providing access to the runway while aircraft are parked on the apron.

II. Alternatives Considered

In accordance with FAA Order 1050.1F, the EA identified and evaluated all reasonable alternatives. The following FEA alternatives were reviewed:

No Action Alternative (includes Reconstruction)

The No Action Alternative assumes the project would not be implemented. Use of the existing airport would continue and Runway 13/31 would continue as a non-precision runway at 3,591 feet long and 75 feet wide. Users of the airport would continue to face limitations with the current apron size and would be required to back-taxi on the runway when landing, as no parallel taxiway would be constructed. The Airport would continue to have direct access to the primary runway, which is not recommended.

If the runway pavement is not reconstructed within three years, the pavement would no longer meet FAA standards as it would fall below “good” PCI condition (PCI of 55 or greater). When routine maintenance can no longer keep the runway pavement in satisfactory condition, MnDOT may revoke the airport’s license for not meeting pavement condition requirements.

Therefore, the No Action alternative would include reconstructing the existing runway at its current location, which would be required to maintain a viable airport. Reconstructing the pavement would then trigger a need to eliminate direct access to Runway 13/31. To eliminate direct access, MJQ would have to construct a partial parallel taxiway on the east edge of the existing apron adjacent to the runway, as there would not be sufficient space to construct a full length parallel taxiway. The connection to the parallel taxiway would be located south of the existing fuel pumps.

As a result of the taxiway’s location west of the existing runway, the proposed OFA would require existing apron pavement be removed to a width of 90 feet to meet FAA standards. Approximately 64.5 feet of the pavement would be taken up by the taxiway and associated OFA, leaving 25.5 feet of apron for an aircraft to park and fuel. The design aircraft (King Air 200) has a wingspan of 54.5 feet. Currently, there is a tie down adjacent to the fuel facility which will need to be eliminated to meet taxiway object free area requirements.

The existing runway location has two roads within the RPZ, Highway 71 and CSAH 34. While FAA recommends the entire RPZ be clear of public roads, since runway end locations would not be change, the roadways would be allowed to remain. In addition, CSAH 34 penetrates the 20:1 approach surface to Runway 31, and therefore the runway end would need to be raised during reconstruction approximately 3 feet to clear the road and remove penetrations to the approach surface, meeting FAA design standards.

If the No Action Alternative is chosen, the following work elements would still be required to maintain the viability of MJQ:

- Reconstruct existing Runway 13/31 in its current location and dimensions (3,591'x75')
- Construct partial parallel taxiway (approximately 850' x 50'.) on the east edge of the existing apron, approximately 240' from the runway centerline. Remove approximately 18.3' of existing apron to accommodate the taxiway, resulting in a 90' wide apron.
- Remove one tie down to accommodate taxiway.
- Reconstruct connection from partial parallel taxiway to runway south of existing fuel pumps (approximately 50' x 35').

The No Action Alternative would not meet the purpose and need of the project but is included to provide a baseline from which to compare impacts of the build alternatives. The existing apron is currently narrow and does not meet FAA design standards. The apron pavement would not be improved with this alternative. Additionally, two public roads would remain within the RPZ, which is not preferable.

Alternative 1A - New Alignment without Declared Distances

Alternative 1A would shift Runway 13/31 east and rotate the runway alignment so the runway protection zones (RPZs) did not cross US 71 or CSAH 34. This alternative would construct a 3,600-foot non-precision runway, parallel taxiway, and associated improvements. The location of the runway would be shifted to the east so that the entire existing apron area could remain and be expanded to eliminate existing design standards deficiencies, while also installing tie downs to meet existing needs. The existing primary runway would be reduced to be a parallel taxiway.

The new runway alignment would allow for airport expansion, construction of a future hangar area parallel to Runway 4/22, and would provide necessary room to construct a parallel taxiway to increase safety and eliminate direct access to the runway from the apron while preserving existing apron infrastructure, which meets the purpose and need for the project related to a more efficient apron layout. The airport is home to a Fixed Base Operator, and the new alignment would allow expansion to accommodate business needs.

MnDOT bases zoning, clear zone, and licensing requirements on Part 77, so implementing this alternative would require zoning to be updated and land acquisition to occur. Alternative 1A would require both land acquisition and updates to zoning. A residential relocation would be required with this alternative due to the runway shift, which would place portions of the RPZ and MNDOT Clear Zone across buildings associated with an adjacent farmstead northwest of the existing airport.

There are penetrations to the Part 77 approach surface; Engineering Brief 99A, Table 3-2, Rows 4 and 6; TERPS departure surfaces and Engineering Brief 99A departure surface, sections 1 and 2 that would need to be mitigated as part of this alternative. Trees identified as penetrations would be trimmed. Approximately 2 acres of trees would be trimmed or removed to accommodate the necessary approach/departure surfaces. If the adjacent farmstead is acquired, it is likely the remaining trees associated with it would also be removed, resulting in a total of approximately 6 acres of tree removal/trimming.

The new runway profile would be similar to the existing profile, and the parallel taxiway would be lower than the runway. Culverts would need to be installed under connecting taxiways in order to accommodate existing drainage. Alternative 1A would require the largest amount of farmland acquisition when compared to other alternatives, and off-airport existing drain tile lines would be affected on property to be acquired. The drain tile lines come from the adjacent fields to the east and discharge onto airport property utilizing existing drainage ways.

Up to 0.1 acres of wetland impacts may occur from this alternative if it is determined the existing culvert under the existing Runway 13/31 is determined to be undersized during final design.

The following work elements are included in this alternative:

- Decommission the existing Runway 13/31 and convert to a full parallel taxiway (3,600' x 35').
- Construct new primary Runway 15/33 (3,600 x 75'), shifted north 450 feet and rotated on a new alignment.
- Construct associated taxiway to provide access from the apron to the parallel taxiway and eliminate direct connection from the apron to Runway 33.
- If required, improve culvert under the existing Runway 13/31 to accommodate airfield drainage. This need will be confirmed in final design and if implemented, could impact less than 0.1 acres of wetlands.
- Install new airfield lighting: medium intensity taxiway lighting and medium intensity runway lighting (MIRL, MITL), signage, and navigational aids (NAVAIDs): precision approach path indicators and runway end indicator lights (PAPIs and REILs).
- Install pavement markings.
- Establish approach procedures for a non-precision approach with visibility minimums greater than or equal to $\frac{3}{4}$ mile with vertical guidance.
- Acquire approximately 39.45 acres of land to accommodate the improvements, including acquisition of a farmstead, which would require relocation.
- Complete obstruction removal and mitigation, as applicable (approximately 1 acre of trees removal/trimming estimated currently; will be refined as design progresses).

Alternative 1A would meet the purpose and need for the project. However, MJQ determined that the need to acquire the adjacent farmstead was undesirable. Efforts were made to identify an alternative which would avoid acquiring the homestead and minimize the amount of farmland needing to be purchased. These efforts resulted in a modified version of this alternative using declared distances (Alternative 1B - New Alignment with Declared Distances). As such, Alternative 1A, New Alignment without Declared Distances, was removed from additional consideration due to the amount of impacts which would occur and dismissed from further analysis.

III. Airport Sponsor's Proposed Project

Alternative 1B New Alignment with Declared Distances

After careful analysis and consultation with various state and federal resource agencies, the Airport Sponsor's Proposed Project is Alternative 1B. This alternative satisfies the purpose and need for the project while causing minimal environmental impacts.

Alternative 1B was developed as a modified alternative to 1A to reduce impacts. This alternative would provide a 4,142 x 75' non-precision primary runway shifted to the east of its current location, implement declared distances, and convert the existing runway into a parallel taxiway (4,142 x 35') to preserve the existing infrastructure and the continued viability of MJQ. The conversion of the existing runway and reconstructing the pavement as a parallel taxiway would reduce the existing runway pavement width by 40 feet, which would include paving the 35 feet of runway and returning the remaining 40 feet to grass. Declared distances is a design methodology that is used for airports that are constrained from using typical design standards. Declared distances includes a set of four distances computed according to FAA design standards to indicate usable runway length. By incorporating declared distances, this alternative meets FAA standards for the runway protection zone to be clear of roadways while minimizing the amount of additional land needed to accommodate airport improvements.

The new runway alignment would allow for airport expansion, construction of a future hangar area parallel to Runway 4/22, and would provide necessary room to construct a parallel taxiway to increase safety and eliminate direct access to the runway from the apron while preserving existing apron infrastructure, which meets the purpose and need for the project related to a more efficient apron layout. The airport is home to a Fixed Base Operator, and the new alignment would allow expansion to accommodate business needs.

The alternative results in clear RPZs and minimizes land acquisition impacts. To achieve the 3,600' of usable runway using declared distances, the physical runway length would need to be 4,142'. Using declared distances would provide approach surfaces that meet FAA and MnDOT requirements. This alternative includes 542' displaced thresholds on each end to have clear approach and departure RPZs.

MnDOT bases zoning, clear zone, and licensing requirements on Part 77, so implementing this alternative would require zoning to be updated and land acquisition to occur to meet requirements. US Hwy 71 and CSAH 34 both clear Part 77 approach surfaces.

There are trees that penetrate the Part 77 approach surface and Engineering Brief 99A, Table 3-2, Rows 4 and 6, with this option. Trees proposed for removal or trimming include those within the threshold siting surface (TSS) for the Part 77 approach and Engineering Brief 99A, Table 3- 2, Row 4 and 6 surfaces. Removals would be made so the TSS would be clear for a minimum of 5-years beyond project implementation. Additionally, any on-airport trees within the 40:1 instrument departure surface would be removed. Approximately five acres of tree removal/trimming is anticipated.

An approximately one-acre avigation easement would be required to accommodate the necessary tree removal/trimming. An avigation easement is an avenue to secure airspace for a runway approach without needing to purchase the land in fee and would place limitations on the air rights or use of the air over a property. This option is sometimes preferable if acquiring in fee is not feasible. An avigation easement would be required for this alternative so MJQ can address trees which would be considered penetrations to airspace regulations. There is an existing easement associated with an underground rural distribution line on the farmstead northwest of MJQ. The existing powerline is currently underground, but the easement maintains the rights to construct overhead infrastructure.

This easement would need to be modified in such a way as to not conflict with airspace regulations. No residences would require relocation as a result of this alternative.

The following work elements are included in this alternative:

- Decommission the existing Runway 13/31 and convert to a full parallel taxiway (4,142' x 35').
- Construct new primary Runway 14/32 (4,142' x 75'), shifted 240 feet to the east of the existing primary runway, and implement declared distances. Construct associated taxilanes to connect to the parallel taxiway.
- If required, improve culvert under the existing Runway 13/31 to accommodate airfield drainage. This need will be confirmed in final design and if implemented, could impact less than 0.1 acres of wetlands.
- Construct associated taxilane (approximately 240' x 35') to provide access from the apron to the parallel taxiway and eliminate direct connection from the apron to Runway 32.
- Install new airfield lighting: medium intensity taxiway lighting and medium intensity runway lighting (MIRL, MITL), signage, and navigational aids (NAVAIDs): precision approach path indicators and runway end indicator lights (PAPIs and REILs).
- Install pavement markings.
- Construct apron expansion (approximately 300' x 50') along the east side of the apron between the existing Taxiway C and newly relocated Taxiway B.
- Install four new tiedowns in expanded apron area.
- Establish approach procedures for a non-precision approach with visibility minimums greater than or equal to $\frac{3}{4}$ mile with vertical guidance.
- Acquire approximately 13.06 acres of land to accommodate the improvements, in addition to 5.20 acres of aviation easement to accommodate obstruction mitigation and MnDOT clear zone.
- Complete obstruction removal and mitigation, as applicable (approximately no greater than 5 acres of trees removal/trimming estimated currently; will be refined as design progresses).
- An existing easement for an underground powerline at an adjacent farmstead would need to be addressed in a manner so as to not conflict with rights the airport is acquiring in the area.

Alternative 1B would meet the purpose and need for the project. Approximately 0.1 acre of wetland impacts may occur if the existing culvert under Runway 13/31 is determined to be undersized during final design.

IV. Section 163 of 2018 FAA Reauthorization Act

The FAA analyzed the project's nexus to Section 163 of the 2018 FAA Reauthorization Act. For the purpose of determining whether the FAA has the legal authority to approve or disapprove changes to the MJQ ALP for the proposed project, the DMA-ADO has determined that Project Elements 1, 2, 4, 6, 7, 8, 9, 11, portion of Element 5 (NAVAIDs), and portions of Element 10 (acquire land and easements) fall under Section 1.1 of the Section 163 Final Instructions and the FAA retains ALP approval authority. Elements 3, 6, portion of Element 5 (airfield lighting, signage), and portions of Element 10 (extinguish or modify an existing electrical easement) are not normally shown on an ALP and review

under Section 163 is not applicable. Information about these project elements is shown in the table below.

Project Element # if identified in a list or on proposed project exhibit (if needed)	All elements of the Sponsor's Proposed Project	ALP Approval Authority (y/n, unless explanation is necessary)	Elements of Proposed Project Subject to Section 163 Determination
1	Decommission the existing Runway 13/31 and convert to a full parallel taxiway (4,142' x 35').	Yes	FAA retains ALP approval: Materially impact the safe and efficient operation of aircraft at, to, or from the airport
2	Construct new primary Runway 14/32 (4,142' x 75'), shifted 240 feet to the east of the existing primary runway, and implement declared distances. Construct associated taxilanes to connect to the parallel taxiway.	Yes	FAA retains ALP approval: Materially impact the safe and efficient operation of aircraft at, to, or from the airport
3	Improve culvert under the existing Runway 13/31 to accommodate airfield drainage. This need will be confirmed in final design and if implemented, could impact less than 0.1 acres of wetlands.	Yes	FAA retains ALP approval: Materially impact the safe and efficient operation of aircraft at, to, or from the airport
4	Construct associated taxilanes (approximately 240' x 35') to provide access from the apron to the parallel taxiway and eliminate direct connection from the apron to Runway 32.	Yes	FAA retains ALP approval: Materially impact the safe and efficient operation of aircraft at, to, or from the airport
5	Install new airfield lighting: medium intensity taxiway lighting and medium intensity runway lighting (MIRL, MITL), signage, and navigational aids (NAVAIDs): precision approach path indicators and runway end indicator lights (PAPIs and REILs).	Yes	FAA retains ALP approval: Materially impact the safe and efficient operation of aircraft at, to, or from the airport
6	Install pavement markings.	Yes	FAA retains ALP approval: Materially impact the safe and efficient operation of aircraft at, to, or from the airport
7	Construct apron expansion (approximately 300' x 50') along the east side of the apron between the existing Taxiway C and newly relocated Taxiway B.	Yes	FAA retains ALP approval: Materially impact the safe and efficient operation of aircraft at, to, or from the airport
8	Install four new tiedowns in expanded apron area.	Yes	FAA retains ALP approval: Materially impact the safe and efficient operation of aircraft at, to, or from the airport
9	Establish approach procedures for a non-precision approach with visibility minimums greater than or equal to ¾ mile with vertical guidance.	Yes	FAA retains ALP approval: Materially impact the safe and efficient operation of aircraft at, to, or from the airport
10	Acquire approximately 13.06 acres of land to accommodate the improvements, in addition to 5.20 acres of aviation easement to accommodate obstruction mitigation and MnDOT clear zone. Extinguish or modify an existing electrical easement.	Yes	FAA retains ALP approval: Materially impact the safe and efficient operation of aircraft at, to, or from the airport
11	Complete obstruction removal and mitigation, as applicable (approximately no greater than 1 acre of trees removal/trimming estimated currently; will be refined as design progresses).	Yes	FAA retains ALP approval: Materially impact the safe and efficient operation of aircraft at, to, or from the airport

V. Major Federal Action

The FAA's Major Federal Action is the issuance of Airport Improvement Program (AIP) funding and mixed approval of the Airport Sponsor's Proposed Project on the Airport Layout Plan (ALP).

VI. Environmental Consequences and Mitigation

The FEA discusses the environmental consequences of the Airport Sponsor's Proposed Project. The Airport shall implement the following mitigation measures as a condition of environmental approval of the proposed development listed in this FONSI to support existing and proposed aeronautical activities at the Airport:

- The Airport will obtain any necessary permits prior to beginning construction.

- Tree mitigation may be provided to landowners whose property has been impacted by tree removal due to the proposed project.
- Use of BMPs to avoid additional unnecessary and/or unauthorized impacts to surface waters and aquatic resources.
- Prior to construction, an inadvertent discovery plan shall be created in the event that human remains or cultural resources are discovered during construction. Additionally, all work will cease until the Airport notifies appropriate authorities, State Historic Preservation Office (SHPO), applicable tribal governments, the State Archeologist, and the FAA Dakota Minnesota Airports District Office (ADO). The Airport shall protect the area with carefully placed tarps or construction back fill until cultural resource concerns have been appropriately addressed, and the Airport will take action to comply with the National Historic Preservation Act, the Native American Graves Protection and Repatriation Act, and the Archeological Resources Protection Act, as appropriate.
- During construction, in the event that previously unknown contaminants are discovered or if a reportable spill occurs, work shall cease until the Airport notifies appropriate local, state, and Federal agencies.
- If endangered species are sighted during construction, work shall cease in the immediate area of the endangered species and all sightings shall be reported to the USFWS and the FAA.

VII. Public Review and Comment

Public involvement is a vital component of the NEPA process. The notice of availability of the Draft EA and Opportunity for a Public Hearing was published on the City of Jackson's website. The FAA accepted written statements from February 18, 2021-March 22, 2021. The Draft EA was made available for public review at the Jackson City Hall and Dakota-Minnesota Airports District Office in Minneapolis, MN. A public hearing was not requested and no comments were received from the public. Comment letters were received from the U.S. EPA and Minnesota Department of Natural Resources and these comment letters are included in Attachment I.

VIII. Finding

I have carefully and thoroughly considered the facts contained in the attached EA. Based on that information, I find the proposed Federal action is consistent with existing national environmental policies and objectives of Section 101(a) of the National Environmental Policy Act of 1969 (NEPA) and other applicable environmental requirements. I also find the proposed Federal action will not significantly affect the quality of the human environment or include any condition requiring any consultation pursuant to section 102(2)(C) of NEPA. As a result, the FAA will not prepare an Environmental Impact Statement (EIS) for this action.

Having met all relevant requirements for environmental considerations and consultation, the proposed action is authorized to be taken when other requirements have been met. These decisions are taken pursuant to 49 U.S.C. § 40101, et seq. The FAA findings regarding the proposed airport improvements, and any necessary funding for the Jackson Municipal Airport, constitute an order of the Administrator, which is subject to review by the Courts of Appeals of the United States, in accordance with the provisions of Section 1006 of the Federal Aviation Act of 1958, as amended, 49 U.S.C. § 46110.



APPROVED: xxxxx

E. Lindsay Butler, Acting ADO Manager
Federal Aviation Administration
Dakota-Minnesota Airports District Office

DISAPPROVED: _____

DATE: March 31, 2021