



## TRUCKEE TAHOE AIRPORT DISTRICT BOARD OF DIRECTOR STAFF REPORT

**AGENDA TITLE:** FY2022 Runway 02-20 Reconstruction Design and Engineering Consideration for Widening

**MEETING DATE:** June 22, 2022

**PREPARED BY:** Robb Etnyre, General Manager

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**RECOMMENDATION:** Consider providing guidance to include the design to widen Runway 02-20, as outlined in Truckee Tahoe Airport District (TTAD) Master Plan and [Airport Layout Plan](#) (ALP), in conjunction with approved Airport Improvement Program (AIP) design for reconstruction of Runway 02-20. Direct staff to obtain a bid alternate from Brandley Engineering, Inc. be submitted for Board consideration at the July 27<sup>th</sup>, 2022, regular board meeting to consider at District cost.

**DISCUSSION:** Resolution Number 2020-09 of the Truckee Tahoe Airport District (TTAD) authorized the filling of an application for Federal and State AIP Matching grant for Runway 02-20 Reconstruction and Engineering with Runway Lighting. The U.S. Department of Transportation Federal Aviation Administration approved a Grant Offer of \$410,500 for Airport Improvement Program (AIP) Project No. 3-06-0262-042 2021 at Truckee-Tahoe Airport, California on May 11, 2021, with Truckee Tahoe Airport District accepting the grant offer the same day, May 11, 2021. Subsequently, TTAD entered into a Supplemental Service Agreement NO. 30 (Consulting Airport Engineer) on June 9<sup>th</sup>, 2021, to complete a Preliminary Engineering and Engineering Design for the Reconstruction of Existing Runway 2-20 (75' x 4,654'), including Runway Lighting as detailed in the FAA Grant Offer. Completion of the Runway 02-20 Reconstruction Design would provide for further application for FAA Grant Funding to Reconstruct Runway 02-20, with lighting, in the year 2023.

The current [TTAD 2015 Master Plan](#), Chapter 4 Alternatives Analysis, Figure 4-1 Runway Alternative Matrix outlines Alternative 2 – Runway 02-20 Modifications. In keeping with recommendation in Figure 4-20, Runway Alternative 2B is proposed to widen Runway 02-20 to

100 feet, with no lengthening, and moving the runway centerline 12.5 feet to the east from existing conditions. The objective would be to attract more aircraft to operate on Runway 02-20, but with less cost and environmental impact than alternative 2A (lengthening) at this time. While the ideal alternative Runway 02-20 recommendation is to extend and widen the runway, including the design of widening with the existing Runway 02-20 AIP Grant award for 02-20 reconstruction is only recommended at this time due to available funding. Combining the widening design via a bid alternate will allow the District to further consider reconstruction and minimize environmental impact, FAA review, reconstruction impact and budgeting of District resources to address this Master Plan Alternative.

The Master Plan selected runway alternative (2A – Extending & Widen Runway 02-20) is considered in the airport layout plan (ALP) and environmental implementation plans. Extending Runway 02-20 to 5,055 feet and widening to 100 feet offers the best possibility for dispersing traffic. Detailed technical analysis for Runway 02-20 lengthening & widening is provided in the Appendix of the Master Plan. While there are many important efficiencies in including a bid alternate design for Runway 02-20 to minimize future environmental and customer impact, the long-term recommendations should also be considered (extending 02-20), when appropriate budget and need supports consideration of additional improvements as outlined in recommendation 2A.

There has been discussion of addressing widening and extending Runway 02-20 as part of the 2023 planned AIP Reconstruction. These (lengthening and widening) options are not eligible for FAA ACIP Funding since runway 02-20 currently meets design capacity criteria, therefore would need to be funded solely by TTAD. However, these additional projects would be required to be approved by the FAA, therefore requiring environmental review and design be completed. Ideally, these additional projects, if approved, would be conducted in conjunction with the 02-20 redesign, although not required. Given the current planned FAA AIP Reconstruction of 02-20 budgeted for 2023, it is only likely that the widening of runway 02-20 funding, environmental review and design would be appropriate and completed in a timely fashion to be conducted in conjunction with the planned 02-20 Reconstruction in 2023.

The National Environmental Policy Act (NEPA) environmental clearance is required to widen and extend Runway 02-20. An Environmental Assessment (EA) will be required for extending runway 02-20. The FAA has a deliberate process in reviewing, making comments, and approving EA's. The entire process would likely take at least 30 months to complete. Noise modelling and approvals would be the most involved, as well as coordination with several different agencies and a more significant update to flight procedures. Therefore, the necessary NEPA approval process and associated TTAD budget resources necessary for extending 02-20 are not recommended at this time.

**ADDITIONAL FACTORS UNDER CONSIDERATION & RESEARCH:** If the runway ends or centerline move more than 6 inches, a review of Airports Geographic Information System (AGIS) / Airport Data and Information Portal (ADIP), Flight Procedures reevaluation and recertification of the

visual approach slope indicator (VASI) are required. VASI is a system of lights on the side of an airport runway threshold that provides visual descent guidance information during approach. Future consideration would also explore opportunities for a Precision Approach Path Indicator (PAPI). The further evaluation of these impacts will occur over the next month to address management concerns over schedule alignment of design and reconstruction in accordance with the currently approval Airport Layout Plan (ALP), and programed AIP funding opportunities.

**ALTERNATE RUNWAY 16-34 CONSIDERATION IMPACT ON RUNWAY 02-20 RECONSTRUCTION:**

TTAD is in the process of updating the Airport Master Plan, facilitated by Mead & Hunt. Work in this area, including two public workshops has further informed potential impact of Runway 16-34 on Runway 02-20 Reconstruction. There appears to be no significant impact.

**PROVIDE GUIDANCE FOR A BID ALTERNATE ON DESIGN OF RUNWAY 02-20 RECONSTRUCTION TO INCLUDE WIDENING:**

Board provide guidance to include bid design alternate as outlined in the TTAD Master Plan runway alternate 4B associated with already approved design work award related to FAA Grant for Airport Improvement Project No. 3-06-0262-042-2021. Any potential bid alternate would be provided to the Board for consideration at the July 27, 2022, regular board meeting.

**FISCAL IMPACT:** ~\$120,000

Preliminary budgetary costs estimates: These costs are based on the widening and extension occurring in conjunction with the Runway Reconstruction project. Costs may increase slightly if performed as individual projects.

**Widen Runway 02-20 from 75’ to 100’**

- *Engineering Design:* \$120,000
- Construction Cost: \$2,100,000
- Engineering/Project Management During Construction: \$300,000
- Total Estimated Project Cost: \$2,520,000

**Extend Runway 02-20 and Taxiway G to the South (Not Recommended at this time)**

- Engineering Design: \$320,000
- Construction Cost: \$4,500,000
- Engineering/Project Management During Construction: \$600,000
- Total Estimated Project Cost: \$5,420,000

**FUNDING AVAILABE:** Funding is available in the 2022 budget for widening design of Runway 02-20, yet it was not anticipated in the 2022 budget.

**ATTACHMENT:** Airport Layout Plan 2015