

URS

In reply, please refer to: 20829663

December 23, 2004

MEMORANDUM

TO: Files

FROM: Mike Waibel / Chuck Trice

REFERENCE: Airport Master Plan Update
Carroll County Regional Airport
Westminster, Maryland

The second Technical Advisory Committee (TAC) meeting for the referenced project was held on Wednesday, December 8, 2004 at 7:00 p.m. at the Carroll County government office building.

Highlights of the meeting follow:

1. The project website is www.ccrasterplan.com. It is currently under construction, although the meeting minutes from the first TAC meeting and the agenda for the second meeting have been attached to the site. The web site will be developed further as the project progresses.
2. A new aerial photograph of the Carroll County Regional Airport was taken on November 6, 2004, and a copy of the new aerial was presented to the County. Photogrammetry will be completed in January 2004.
3. URS Corporation (URS) obtained information on the adjacent property surrounding the Airport from existing land records available in the office of the County Clerk. Available economic data for the Airport was also obtained through a meeting at the Office of Special Projects and Performance Auditing.
4. FAA classifies aircraft based on their approach speed and wingspan. The approach speeds of aircraft are divided into categories with a letter designation of A through E;

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with A being the slowest approach speed category and E being the highest approach speed. The wingspan width determines which design group the aircraft is in, and the design group is numerically categorized I through VI. These two factors together comprise the Airport Reference Code (ARC). Presently, the Airport is an Approach Category C, Airplane Design Group II airport, or an ARC of C-II. The critical aircraft in determining ARC is either the most demanding aircraft based at the Airport or the most demanding non-based aircraft that performs at least 500 annual operations at the Airport. One of the main considerations of this study is an evaluation to upgrade the Airport to an ARC C-III facility.

5. It was noted that the existing runway is not designed to accommodate the heavier aircraft currently operating at the Airport today and must be strengthened regardless of any planned C-III improvements.
6. It was also noted that an extension of the existing runway to 6,500 feet is needed based on the critical aircraft using the Airport today. During the warmer months, these aircraft must often restrict fuel and payload because of the existing runway length. The 6,500-foot length will also accommodate C-III aircraft if the decision is made to upgrade.
7. The County has recently been in contact with numerous companies who operate critical aircraft that would make planning for the C-III improvements at the Airport mandatory. Improvements would include, but not be limited to, a new parallel taxiway constructed at a 400-foot separation from the runway.
8. Fuel sales at the Airport have increased from approximately 150,000 gallons in the County's 2000 fiscal year to approximately 400,000 gallons in fiscal year 2004. While the sales of aviation gasoline (Avgas) have remained relatively stable or slightly decreased during the four-year period, the sales of Jet A fuel have increased from less than 50,000 gallons in 2000 to almost 300,000 gallons in 2004. It is likely that additional fuel sales revenue can be realized from C-III aircraft operating from the Airport, as these aircraft would have the potential to purchase greater quantities of fuel to travel longer distances.
9. In order to determine whether or not to upgrade the Airport to a C-III facility, it is necessary to consider several "build" alternatives. URS presented a series of three conceptual alternatives to indicate how the evaluation process would take place. If

the decision to upgrade to C-III were made, then additional alternatives would be considered in detail. Assumptions common for each of the “build” alternatives included: strengthening of the existing runway regardless of whether or not it is extended; a total runway length of 6,500 feet; removal of obstructions prior to construction of the new or extended runway; and installation of a full Category I ILS for the Runway 16 approach. ARC evaluation criteria applied to each alternative included: determination of capital costs; the ability of the alternative to meet current and future aviation demand at the Airport; the significance of operational impacts at the Airport during the period of construction; social impacts; the ability to optimize revenue; and the amount of property acquisition required.

10. Alternative 1 is the extension of the existing 5,100-foot runway to the north to a total length of 6,500 feet. The runway width would remain at 100 feet. The existing parallel taxiway would also be extended to tie into the new Runway 16 end. The runway-taxiway separation would remain at 300 feet. This alternative provides the required runway length for the existing C-II aircraft and maintains the airfield taxiing movements on the existing terminal side of the runway. It does not provide the required C-III runway-taxiway separation of 400 feet. Because the runway is being extended along its existing alignment and the existing runway must be reconstructed as noted above, it is likely that this alternative will result in a multi-season closure or shortening of the runway during the construction period. A preliminary evaluation has determined that construction of this alternative could impact the existing runway for as long as 200 calendar days, including an extended period during which the runway will be completely closed. Also, the FAA has indicated that future criteria may require a 400-foot runway-taxiway separation for any runway equipped with an ILS, regardless of the Airport Reference Code.
11. Alternative 2 is the construction of a new 6,500-foot runway located 375 feet west of the existing runway. The existing runway will be converted to a 50-foot wide taxiway. The separation between the new runway and the taxiway will be 400 feet. This alternative provides both runway length and runway-taxiway separation for the C-III design aircraft. The new runway can be constructed while still maintaining the existing runway in operating condition during daytime hours for the entire construction period. Closures of the existing runway to tie in any grading, drainage, or other work inside 200 feet from the existing runway centerline can occur during nighttime hours. However, these nighttime closures will be minimal, as a maximum of twenty (20) nights of over the course of the construction period has been

estimated. Also, the existing runway will only be converted to a taxiway after the new runway is opened for use. Moving the runway to the west, however, results in an increased number of obstructions that must be removed from the airspace surrounding the new runway. It is possible that the airspace may also limit the height of future buildings in the proposed Meadow Branch Industrial Park. Secondly, the grades west of the existing runway are substantially lower in elevation than the remainder of the airfield. Thus, construction of this alternative will require a significant grading and embankment operation.

12. Additional property acquisition will also be required for Alternative 2, including the existing asphalt plant, which is located in the Runway Object Free Area (ROFA), and the Association of Retarded Citizens of Carroll County facility, which is located in the Runway Protection Zone (RPZ). The ROFA is provided to enhance the safety of aircraft operations by having the area free of objects except for those required for air navigation or aircraft ground maneuvering purposes. The RPZ is located off the end of a particular runway and enhances the protection of people and property on the ground through the clearing of incompatible objects and activities, including those that would result in a congregation of people. Alternative 2 would require the acquisition and removal of the asphalt plant and the Association of Retarded Citizens building from the ROFA and RPZ, respectively.
13. Alternative 3 provides for the construction of a new 6,500-foot runway located 250 feet west of the existing runway. A new parallel taxiway will be constructed 400 feet east of the new runway, and the existing runway will be removed. This alternative also shifts the runway 600 feet to the north, which places the Runway 34 RPZ clear of the Association of Retarded Citizens of Carroll County facility. Thus, this facility is not proposed for acquisition under this alternative. Similar to Alternative 2, this alternative also provides for the C-III design aircraft. The new runway can be constructed while still maintaining the existing runway in operating condition during daytime hours for the entire construction period, and a maximum of twenty (20) nighttime runway closures is estimated to tie in any grading, drainage, or other work inside 200 feet from the existing runway centerline. The existing runway will only be removed after the new runway is opened for use. However, moving the runway to the west also results in an increased number of obstructions that must be removed from the airspace surrounding the new runway. Secondly, construction of this alternative will require a significant grading and embankment operation. This alternative will require acquisition of the existing asphalt plant.

14. Preliminary costs were discussed, and it was noted that the Federal Aviation Administration (FAA) share of the project is 95% of the total construction costs, regardless of which alternative is chosen. The Maryland Aviation Administration (MAA) share is 2.5% of the total construction costs, leaving the County to fund the remaining 2.5%. The preliminary costs of the three alternatives discussed at the meeting, along with the Carroll County share, are shown below. These costs do not include land acquisition requirements. Should the upgrade to C-III be realized, the costs for all alternatives will be refined in detail during the alternatives evaluation process.
 - Alternative 1 – Total Cost \$41,000,000. County Share \$1,025,000.
 - Alternative 2 – Total Cost \$51,000,000. County Share \$1,275,000.
 - Alternative 3 – Total Cost \$54,000,000. County Share \$1,350,000.
15. Members of the TAC requested that URS assess the existing C-II conditions at the Airport in greater detail and consider a “rehabilitation only” alternative that solely reconstructs the existing runway to accommodate the aircraft currently operating at the Airport. A no-build alternative, where no construction or reconstruction of any kind is performed, will also be evaluated in detail and applied using the alternative evaluation criteria discussed above.
16. A preliminary Alternative Evaluation matrix was developed. The matrix assigned values of 1 to 3 for each of the criteria referenced in number 9 above. A value of 1 was assigned to the alternative with the greatest impact for each criterion, and a value of 3 was assigned to the alternative with the least impact. The alternative with the highest total would be considered the most feasible. At this preliminary standpoint in the evaluation, it appears that Alternative 3 would provide the greatest benefit to the Airport with the least total cumulative impact. However, as noted above, rehabilitation-only and no-build alternatives must also be considered. URS requested that, should the TAC move to recommend upgrade the Airport to meet C-III criteria, then additional thought should also be given to the criteria and the rating system used to evaluate the alternatives.
17. Members of the TAC also recommended that URS consider elements of airfield safety in the development of alternatives, with an emphasis on improving the existing situation. Discussions from the first TAC meeting that were reinforced at the second

meeting included emphasis on Airport growth with respect to other plans of the County, as well as consideration of a new or rebuilt Fixed Base Operator (FBO) and the potential for an Air Traffic Control Tower (ATCT). URS will consider the growth of the Airport throughout the Master Plan process, and the need for a new FBO and/or an ATCT will be considered as part of the determination of facility requirements.

18. An additional and significant part of the overall project is the land use of existing Airport property. URS presented two (2) conceptual alternatives for the parcel east of the existing T-hangars. Each alternative included seven (7) sets of T-hangar buildings and five (5) corporate hangars. While additional revenue can be realized from the construction of these hangars, it is likely that the FAA will not participate in funding new hangar facilities themselves. However, the FAA has recently participated in funding a portion of the site development associated with new hangar facilities at various airports. URS will determine the potential of the County to receive FAA funding for the site work associated with the new hangars.
19. URS will compile and research each of the potential economic generators with respect to the build alternatives and present them in detail at the next TAC meeting. It was noted that the presentation would also include a review of the potential revenue and/or loss of revenue should the Airport remain a C-II facility with, at most, a reconstructed runway. These elements will assist the TAC in determining whether upgrade to a C-III facility is feasible.
20. Although the next meeting was tentatively scheduled for February 15, 2004 at 7:00 p.m., e-mail correspondence later confirmed that the next meeting would be Wednesday, February 9, 2004, at 7:00 p.m. at the County office building. It was recommended that members of the TAC meet at 6:30 p.m., prior to the regular meeting, to discuss rules of order and voting procedures.
21. Action items for URS for presentation and subsequent discussion at the next meeting are identified below.
 - Compile Airport inventory, including documentation of airside and landside facilities, airspace and navigation aids, on-Airport aviation and non-aviation land uses, additional financial data, and historical development;

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- Develop alternatives for a rehabilitation-only of the existing runway, and a no-build alternative. Provide the same type of evaluation as that presented for the three “build” alternatives;
- Initiate the economic analysis and thoroughly evaluate all alternatives from an economic standpoint;
- Determine property needs, including number and type of properties and total acreage for all alternatives;
- Continue to acquire and develop the information necessary for the TAC to recommend whether or not to upgrade the Airport to a C-III facility. The information **MUST** be presented at the next meeting; and,
- Contact potential C-III tenants and/or users of the Airport.

MJW:CHT:jam

Attachment