
Master Plan Alternatives Process

The Master Plan alternatives analysis is a multi-step process as depicted on **Exhibit 1**. The focus of the initial steps is the runway/taxiway system airfield because it requires the greatest commitment of land area. Once a preferred airfield concept is identified, terminal, automobile access, auto parking, and support facilities alternatives are considered.

The first step in the alternatives process is to identify a full range of airfield concepts. This range will include a “do nothing” scenario, closure of the airport, minimal growth beyond the airport boundary, minor improvements to correct existing operational deficiencies and improve safety, and a number of buildout scenarios. This list will reflect ideas and suggestions from the Rhode Island Airport Corporation (RIAC), the Study Resource Committee (SRC), and the Master Plan team. Many of the initial concepts will not prove feasible or will have unacceptable impacts, and will be screened out at the different levels of the process. Below are the basic airfield needs and objectives used to define the initial range of airfield concepts:

- Meet Federal Aviation Administration (FAA) safety standards
- Provide additional arrival and departure capacity
- Provide additional runway length based on the following parameters¹:
 - General aviation departures require 5,000 feet
 - Commuter departures require 6,400 feet
 - Air carrier departures to existing destinations require 7,500 feet
 - Air carrier departures to future destinations require 9,500 feet (non-stop)
 - Arrivals require 7,200 feet
 - Crosswind runway length should be 80 percent of main runway (7,600 feet)
- Improve existing operational deficiencies
- Minimize community impacts
- Minimize environmental impacts
- Provide flexibility to respond to changes in future aviation demand
- Preserve convenience for passengers

¹ Runway length requirements were identified for several aircraft groups (air carrier, commuter, general aviation), in addition to landing and takeoff requirements. These requirements do not imply that several different runways are needed to serve different aircraft groups. Rather, various runway length requirements were identified in order to provide as much information as possible for the alternatives analysis.

Secondly, the complete list of airfield concepts will be evaluated with two levels of “fatal flaw” analysis, which will screen out concepts with unacceptable impacts or that do not meet the long-term needs. Input from the SRC will be considered in developing the fatal flaw criteria.

Fatally flawed concepts will be eliminated from further consideration unless they can be modified to avoid the flaw in question. The concepts remaining after the first level of analysis will be further screened based on more detailed criteria in the second level of fatal flaw analysis. The results of the fatal flaw analysis itself will be presented and discussed with the SRC at the next meeting planned for June sixth, 2002.

After the second level of screening, a shortlist of several airfield concepts will likely remain. The level of detail used to evaluate these concepts will be as needed based on what concepts remain. These concepts may be evaluated against a variety of yet-to-be-determined operational, capacity, flexibility, community, and environmental criteria in order to select a preferred airfield alternative.

Next, alternatives will be developed that include the terminal, automobile access, auto parking, and support facilities. The final composite alternatives and their evaluation will be presented to the SRC at the a meeting planned for July 11, 2002.

The alternatives analysis in the Master Plan will set the long-term direction of T. F. Green and as such provide input for the Environmental Impact Statement (EIS) alternatives analysis. However, the EIS will be evaluating short-term (approximately five-year) projects for which approval will be sought while the Master Plan considers 20-year needs. (Approval of a Master Plan is always conditional on environmental approvals.) As a result, the EIS may develop and evaluate variations of the alternatives considered in the Master Plan, or even entirely new alternatives.

