

Ithaca Tompkins Regional Airport, New York

Green Master Plan White Paper

Ithaca Tompkins Regional Airport has the unique opportunity to lead the country in integrating sustainability into airport master planning. As the world around us changes, behaviors and attitudes are evolving to become more harmonious with the world around us. As environmental concerns grow and people's impact on the planet increases, environmentalism is experiencing a resurgence in the public conscience. "Green" is everywhere, from consumer products to energy production to emerging technologies.

Ithaca is positioned to be on the forefront of a growing movement. While sustainability has saturated many industries, aviation is still just beginning to make the shift to green. Individual green projects, such as LEED-certified terminals are becoming more common, but a comprehensive, holistic plan for long-term sustainability has not been fully formed. By introducing the concept of a "green master plan" to the American aviation community, Ithaca will set an important precedent for similar projects moving forward.

For nearly 40 years the Federal Aviation Administration's approach to airport planning has been relatively the same—prepare a plan that supports the modernization or expansion of existing airports or the creation of a new airport. The master plan is the sponsor's strategy for the development of the airport. According to FAA's guidance, "the goal of a master plan is to provide the framework needed to guide future airport development that will cost-effectively satisfy aviation demand, while considering potential environmental and socioeconomic impacts."

Traditionally, the environmental impacts have been viewed through the lens of legal requirements. Airport impacts are measured against set

standards enforced and maintained by federal, state, and local governments. A green master plan would take this aspect of master planning a step further to proactively address environmental issues in a manner that goes beyond the minimum standards and embraces sustainability as an important achievement. Through smart planning decisions that concentrate environmental impacts, a green master plan can achieve all of the required elements of a standard master plan, but with enhancements that will benefit the airport and the surrounding community, with minimal additional costs.

To date, many airports across the United States have undertaken sustainable and environmental initiatives. According to Debby McElroy, executive vice president, policy and external affairs for the Airports Council International (ACI) North America "ACI-NA conducted the first benchmarking survey of environmental initiatives and practice at North American airports. Responses were received from 73 airports, representing 60 percent of passenger traffic in the United States and Canada." Results included:

- 32 airports conducted an air emissions inventory
- 15 airports conducted a greenhouse gas (GHG) emissions inventory
- 17 airports established GHG/climate change goals
- 48 airports have installed or upgraded improved HVAC systems
- 59 airports use more efficient lighting
- 48 airports have at least one loading bridge with 400 Hz power
- 38 airports have at least one loading bridge with preconditioned air
- 19 airports purchase renewable energy

- 53 airports have a waste management program
- 33 airports have green purchasing programs
- 26 airports have consolidated rental car facilities
- 34 airports have infrastructure to support clean vehicles
- 9 airports are generating renewable energy
- 24 airports have an environmental management system

Framing the Issue

Ithaca Tompkins Regional Airport has the chance to begin the evolution of master plans in this country, taking them to a new level of environmental responsibility. This new breed of master plans takes into account the lessons learned from other airports in the US and around the world when it comes to sustainability and environmental policy.

While this project will produce a green master plan for the airport, it will still adhere to established FAA regulations for master planning. This master plan will blend sustainability with the prescribed master plan components, creating a more comprehensive document. Taking into consideration future needs to satisfy forecasted aviation demand, the plan will also consider ways to develop a more green airport in conjunction with FAA-mandated capital improvements.

The airport is in the unique position of being part of a distinctly environmentally focused community. The city of Ithaca has long been known for progressive politics and viewpoints, especially in the area of environmentalism. The city is known for supporting sustainable endeavors and is a major research center for green technologies. The community at large will be

extremely supportive of a green master plan and also has the ability to contribute their wealth of knowledge and skills to the project. Significant partnership opportunities exist with the community, local businesses, Cornell University, Ithaca College, and other entities.

Developing the country's first green master plan will position Ithaca as a nationwide leader in sustainable aviation practices. From this experience, the FAA and other airports will learn best practices and be able to develop policies and procedures to help other airports take this same important step. As environmental regulations become more strict, many methods for protecting the environment will not only expand, but may become mandated. With Ithaca's experience to learn from, the learning curve for other facilities will be greatly reduced.