

Final Report

Chapter 1

Introduction

1.0 PROJECT BACKGROUND

Buffalo Niagara International Airport (BNIA) represents a gateway to Western New York State and portions of southeastern Ontario, Canada including Greater Buffalo and Niagara Falls. As such, the airport is often the first impression that both tourists and business travelers have of the area and the last thing they see before boarding a plane home. The airport is a well-planned and managed facility that offers a variety of passenger, cargo and general aviation services.

Recognizing the importance of BNIA as a vital community asset, the Niagara Frontier Transportation Authority (NFTA), which oversees BNIA, commenced this update of the previous master plan prepared in 2003. In addition to the previous master planning efforts, NFTA leadership has identified the importance of incorporating sustainability into all phases of the planning effort; resulting in a new Sustainable Master Plan. Funded through a grant from the Federal Aviation Administration, the primary goal of this Sustainable Master Plan is to develop a realistic approach that will guide the development of the airport well into the future in a sustainable manner. The sustainable master planning process also seeks to gain the public's support of proposed improvements and afford the public an opportunity to comment on the future of the airport.

Fundamental changes have occurred within the airline industry over the past several years. Changes in airline structure, fleet mix and financial outlook have impacted airports such as BNIA. BNIA and the aviation industry as a whole are starting to see a recovery in activity. The Sustainable Master Plan involves reviewing airport facilities and interests in light of these industry changes to ensure that the airport is able to respond to fluctuations in traffic and the aviation needs of the region.

The scope of work for the project proceeds though the Inventory and Forecasting process, and then evaluates airport needs based upon current and future demand. After documenting the airport needs; the plan identifies and analyzes development alternatives. The project culminates in the preparation of an Airport Layout Plan Drawing Set, which illustrates future development and serves as the airport's official planning document. Sustainable elements will be reviewed and incorporated throughout the planning process with findings and recommendations identified and described. These elements represent the chapters that make up this report. As this is a technical document, there is an extensive use of acronyms to simplify the text for the reader. As such, **Appendix A** provides a glossary of Federal Aviation Administration (FAA) acronyms used throughout this report.

1.1 MISSION STATEMENT AND GOALS

The NFTA has developed an overall mission statement for the services the Authority provides to the region. Beyond that, each facility operated by NFTA also has specific goals in order to achieve the overall mission statement of the Authority. NFTA's mission statement is presented below:



Final Report

The Niagara Frontier Transportation Authority is a multi-modal entity encompassing a skilled and dedicated workforce. We are firmly committed to providing efficient and professional transportation services that enhance the quality of life in the Buffalo Niagara region in a manner consistent with the needs of our customers.

Aviation: serves as a catalyst for economic growth by maintaining cost effective, customer oriented, and efficient airports to attract and retain comprehensive and competitive air transportation services.

Surface: enhance the quality of life of residents and visitors by providing the highest level of safe, clean, affordable, responsive, and reliable transportation through a coordinated and convenient bus and rail system.

Property: manage and develop the NFTA owned real property to optimize the generation of self-supporting discretionary revenue to support our transportation businesses while fostering economic growth.

Support services: proactively provide high quality, coordinated, innovative, technological, cost-effective support service solutions for our internal and external stakeholders.

For BNIA, the specific objectives include:

- Achieve optimal standards of performance in relations to delivering high quality customer service and satisfaction.
- Operate first class public parking facilities in a manner, which makes customer service the hallmark of the operation but still maximizes returns to the Authority.
- Increase the number of passengers utilizing BNIA by aggressively improving service and promoting low fare service to key markets.
- Maximize BNIA long term parking market share through sales and marketing to major local corporate travelers and contingent market radio advertising campaigns.
- Develop and implement a long-range plan to maximize usage of the expanded terminal space.
- Support maintenance and snow equipment replacement program to ensure safe air carrier operation.
- Promote and facilitate a safe working environment for BNIA employees, with an effort toward minimizing employee injuries and reducing works' compensation expense.

BNIA is proud of the services provided to the region and continues to focus on enhancing air service as well as providing world class and customer friendly facilities.

1.2 OBJECTIVES OF THIS SUSTAINABLE MASTER PLAN UPDATE

As presented above, BNIA's focus is to enhance the facility and services to the Greater Buffalo region. With the airfield running smoothly, this master plan update will address landside and support facilities as well as sustainability. Each of these elements are briefly discussed in the following sections:





Final Report

Landside and Support Facilities

The focus of this element is to enhance the overall terminal area that includes the terminal building and associated parking, as well as many of the support facilities on the airport. One area that will be assessed is the terminal parking areas. The increased passenger activity levels have put pressure on available parking. The terminal and parking areas are constrained by existing roadways that negate expansion of the automobile parking areas. The airport has a large remote lot located east of the main terminal area; however, during peak periods throughout the year, parking can be at a premium. The need to serve today's demand is paramount to the customer service focus of BNIA and will be even more critical with projected demand.

Support facilities at the airport include maintenance buildings, the airport rescue and firefighting building, associated equipment, cargo areas, general aviation areas, aircraft parking aprons, and deicing areas. One of the areas that will be assessed is the airport maintenance area. There are a number of buildings that make up the maintenance area, many of which have been modified to meet the needs of airport maintenance. However, as the airport has grown over the years, many of these facilities are in need of repair or cannot accommodate the operation, maintenance and storage of BNIA's maintenance equipment. Therefore, this master plan will evaluate options to improve the maintenance area to provide modern facilities that meet the needs of airport maintenance today and into the future.

Enhancements to the other support areas will also be evaluated to make these areas more efficient and to meet both existing and future needs of BNIA.

Sustainability

Sustainability has become a major consideration within communities, states and throughout nation over the past several years. Sustainable practices are actively used in redevelopment efforts in towns and cities as well as in new development. The aviation industry also embraces sustainable practices as many airports are beginning to develop sustainability plans that address a number of actions that are intended to reduce energy costs, recycle wastes generated at the airport, and reduce green house gases, to name a few.

BNIA recognizes the importance of sustainability and as a result, BNIA has collaborated with the Federal Aviation Administration (FAA) to incorporate a sustainability element as part of this master plan. This is one of the first master plans in the FAA's Eastern Region to incorporate a sustainability element into the master planning process. In order to develop a sustainable plan, a distinct sustainability focused meeting was held at the beginning of the project a bring together BNIA staff, airlines, and other tenants to discuss sustainable practices that are currently practiced at the airport and look at other future practices that can be implemented to reduce BNIA's overall impact on the environment. The resulting discussions generated a number of ideas that BNIA can assess and implement for both the short term as well as the long term.

The two elements above are only part of the overall issues that will be addressed in this master plan. Other elements that will be assessed include the following:

 Development of a Sustainability Plan that sets realistic targets and identifies appropriate practices





Final Report

- Scenario based forecasting using activity levels with associated "trigger points"
- Improved and innovative use of limited airport space to maximize airport revenue
- Evaluation of vehicle traffic patterns around the airport
- Development of Remain Overnight (RON) concepts that maximize parking and minimize operational issues
- · Review of auto parking strategies and recommendations for improvements
- Review of rental car requirements for ready/return parking
- Consideration of access improvements from Genesee Street and Kensington Expressway
- Establishing better "use areas" also known as "development nodes"
- Development of a GIS product based on FAA criteria that will permit airport management to
 easily access spatially linked data of all types for use in airfield maintenance, obstruction
 analysis, pavement management, environmental analysis (including noise), and that also will
 support future integration of real estate, space management and other tasks
- Recommendations for use/reuse of existing unused or underutilized facilities
- Consideration of terminal capacity and baggage, especially accommodation of inbound baggage
- Development of fuel facility expansion options
- Consideration of a Category II Approach to Runway 23
- Potential accommodation of new FBO facilities
- Completion of environmental planning components in a manner that allows for future expedited analysis of environmental consequences of the recommended development
- Siting for maintenance and operations facilities and snow removal equipment storage

The following chapters present the technical analysis to address the elements outlined above.