



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Prospects and Challenges of the Proposed Intermodal Train Station at T.F. Green Airport in Rhode Island

**Farhad Atash
Professor
Community Planning Program
University of Rhode Island
308 Lippitt Hall
Kingston, RI 02881**

ABSTRACT

This paper focuses on the proposed intermodal train station at T.F. Green Airport in Rhode Island. Specifically, the paper has three objectives. First, it reviews the current conditions and status of the proposed intermodal train station. Second, drawing from the findings of the current conditions, the paper presents a list of primary benefits and challenges that have faced the development of the station. Third, the paper reviews the actions that have been taken and recommended to remove the barriers that have faced the project. The study concludes that although the proposed intermodal train station is a challenging and complex project, its successful development is within reach and the State of Rhode Island and the City of Warwick stand to benefit from it greatly. Benefits in the areas of economic development, improved environmental quality, and greater transportation alternatives clearly outweigh the possible drawbacks of the project.

INTRODUCTION

Intermodal transportation facilities and networks are a growing national trend and offer many benefits to the public, including improved mobility and air quality and reduced congestion and energy consumption. The term, intermodal, means that there are convenient connections available between various modes of travel, such as automobile, train, bus, ferry, and plane, so that multiple modes can easily be combined in a single trip. These connections increase the flexibility with which public transit can be utilized, making useful for more people and trip.

The State of Rhode Island, unlike other states in New England, has a unique opportunity to develop an intermodal train station at T. F. Green Airport in the City of Warwick due to close proximity of travel modes, namely air and rail. T.F. Green, the state's major airport, is located approximately 1500 feet away from the Amtrak Northeast Corridor rail line. Since 1991, more than \$210 million has been invested in constructing a new two-story terminal building, access roads, parking facilities and related improvements at T. F. Green Airport. The new facilities have been in operation since 1996 and have helped to attract the Southwest Airline to the Airport (Cameron et al., 2005). A train station at this location, approximately 10 miles south of Downtown

Providence, would make it possible for passengers to travel to and from T.F. Green Airport and the surrounding area by rail. Specifically, the station will provide rail service to Boston and New York via Massachusetts Bay Transportation Authority (MBTA) Commuter Rail and Amtrak respectively. With the completion of the Warwick Intermodal Train Station (WITS), the MBTA has agreed to extend commuter rail service south from its current terminus at Union Station in Providence to the City of Warwick, the second largest city in the State with a total population of 85,808 in 2000. There are also plans to extend MBTA service to Washington County with a new station at Wickford Junction in the Town of North Kingstown.

Planning, financing, and design for the WITS have been in progress since 1997, when the concept was first proposed. Initially, the plan was to build only a train platform with MBTA commuter rail service to Boston. Over time, the nature and function of the project were changed from a train platform to an intermodal train station with a parking garage to accommodate not only the commuters but also the car rental fleet at the airport. Additionally, an automated people mover was proposed to provide a direct link from the station and garage to the airport terminal. These changes have made the project far more expensive and complex compared to the initial concept plan. The end result has been numerous delays in the implementation of the project.

There were three general purposes behind the development of an intermodal station near the T.F. Green Airport. First, developing an intermodal train station could help to relieve peak hour traffic congestion on the I-95 corridor. It would provide better access to the T.F. Green Airport from Providence, as well as extend the MBTA commuter rail connection to Warwick. Second, the Warwick Station has potential to stimulate economic redevelopment in Warwick, Rhode Island. Finally, utilizing an intermodal station to access the T.F. Green Airport has potential to reduce harmful auto emissions in the surrounding areas (Atash, McCray and Sick, 2006).

This paper focuses on the proposed intermodal train station at T.F. Green Airport. Specifically, the paper has three objectives. First, it reviews the current conditions and status of the proposed intermodal train station. Second, drawing from the findings of the current conditions, the paper presents a list of primary benefits and identifies key challenges that have faced the development of the station. Third, the paper reviews the actions that have been taken and recommended to remove the barriers and address the challenges that have faced the project. Lessons learned from this project can help the planning and financing of other intermodal transportation facilities in the country.

CURRENT STATUS

The current plan for the WITS includes a train station, a consolidated car rental facility (CRF) garage and an automated people mover (APM) connecting the proposed train station with the airport terminal. The WITS is envisioned as a full service intermodal center with bus, taxi, and limousine services and a parking garage, where the various car rental companies associated with the airport would operate. The construction

of the station is expected to begin in early 2006 and the total cost of the project is estimated at \$175.5 million (De Paul, 2005b).

- Train Station

The original proposal for construction of a \$15 million train platform in Warwick was introduced in July 1997 (Lieberman, 1997). In May 1998, late U.S. Senator John Chafee announced that as part of the Congressional enactment of the TEA-21, the authorization of \$25 million for the train station. In July 1999, RIDOT received a Finding of No Significant Impact (FONSI) from the Federal Highway Administration (FHWA) for its Environmental Assessment (EA) of the Warwick Train Station (Providence Business News, 1999). The site of the former Baylis Chemical Plant was selected for the train station and the state cleaned up the area for the project.

- Car Rental Facility

Currently, eight rental car companies operate at T.F. Green Airport. Hertz, Budget, and Avis occupy 160 parking spaces inside of Rhode Island Airport Corporation's main parking garage. The remaining companies, Alamo, Dollar, Enterprise, National, and Payless operate near the airport and provide their customers with shuttle bus service to their facilities. A key element of the WITS is the consolidation of all of the rental car facilities for the airport into the future train station parking garage. The relocation and consolidation of rental car facilities would help reduce traffic volumes on surrounding roads. In addition, washing, vehicle storage, and possible fueling will be conducted at the consolidated rental car facility.

- Automated People-Mover

An automated people-mover (APM) is planned to transport passengers from T.F. Green Airport terminal to the planned WITS. The current plans for the APM are for it to extend from the third level of the Airport Terminal and span the upper departure level, cross the hourly parking lot and Route 1 (Post Road), and run to the proposed WITS and consolidated rental car garage lobby. The use of the APM would eliminate the need for rental car shuttle buses. A final design for the people mover is still needed while alternative moving sidewalks are being considered (Korney, 2005).

- Warwick Station Redevelopment District

The City of Warwick plans to redevelop the area surrounding the train station as a mixed-use, transit-oriented district. In 1998, the City of Warwick designated the area surrounding the proposed Intermodal Train Station as the Warwick Station Redevelopment District (WSRD). The 70-acre Station District is comprised of the 22-acre Intermodal District that connects the train station and the airport terminal and the adjacent 48-acre Gateway District that will lead to the Intermodal District. The Intermodal District will be a hub where one can access airplanes, trains, and buses. Car rental agencies will be available in the district. Full build out would represent

approximately 1.1 million gross square feet of mixed uses consisting primarily of office and hotel/conference use, supplemented by retail and entertainment. The district will also contain key landscaped areas that will connect into a pedestrian-friendly open space network. The landscaped area will be characterized by high-quality public spaces created to forge a center of public identity and allow convenient pedestrian access.

The Gateway District is intended to serve as a transitional area leading to the Intermodal District from outlying areas. The Gateway District will function as a “General Business District” and will allow limited commercial uses associated with transportation facilities such as airport and train station as well as general commercial uses commonly allowed within general business districts. The district may also include luxury apartments or condominiums.

The City of Warwick established the Warwick Station Redevelopment Agency (WSRA) to carry out the purposes of the WSRD. All developments in the district shall be reviewed and approved by the WSRA in conformance with the regulations adopted for the district. WSRA shall also provide assistance to property owners and the city on planning issues within the district related to design and site planning and on related issues as it deems appropriate (City of Warwick, 2001). The Agency is expected to expand economic development opportunity and capital investment in the area. In 2000, the WSRA selected the Bulfinch Companies, Inc. of Needham, MA as the Master Developer for the Warwick Station Redevelopment District.

Due to delays in the development of the WITS and related issues, the district has not attracted significant new private investments except the 160-room Hilton Garden Inn that opened in June 2005 and the Urban Growth Companies, a Real Estate Investment firm from Chicago that acquired approximately 6 acres of land, currently being used as a private parking facility. Their long-term plan may include office or hotel development (Providence Business News, 2005).

POTENTIALS AND CHALLENGES

The development of the WITS has great potentials for the City of Warwick and the State of Rhode Island. These include:

- The potential to create an intermodal transportation hub that will provide convenient and affordable public transit,
- The potential to reduce traffic congestion, auto emissions and fuel consumption,
- The potential to create a vibrant, urban, transit-oriented district in Warwick, which will improve quality of life in the city and for travelers; and
- The potential to generate economic development and revitalize neighborhoods.

The development of the WITS will also have benefits for the private sector.

- The potential to increase land values, rents and returns to real-estate investments, and
- The potential to increase retail sales.

Several key issues have made the development of the WITS complex and slow. First, T.F. Green Airport is located in a dense residential area therefore affecting the quality of life of its neighbors. The RI Airport Corporation (RIAC) has proposed extending the main runway to accommodate nonstop flights to West Coast. This has become a major concern for the City of Warwick and its residents as they attempt to stop the expansion of the airport (runway and terminal) and reduce its negative environmental externalities. Although the City of Warwick is in support of the development of the WITS, for some the Airport expansion and the development of the WITS are interconnected.

Second, there are many different stakeholders that will be impacted by the WITS and each has a different interest in the project. This is not unusual in the development of intermodal facilities, which require the cooperation of many diverse stakeholders who are not generally accustomed to working together. The discussions and negotiations among different stakeholders have slowed the development of the project. The stakeholders of the WITS can be categorized into five groups:

- The government bodies overseeing or funding the project: Rhode Island Department of Transportation (RIDOT), the Rhode Island Governor's Office, the Rhode Island Legislature, the U.S. Department of Transportation (USDOT) and the Federal Highway Administration (FHWA).
- The transportation providers who will carry on the day to day functioning of the facility: MBTA, Amtrak, Rhode Island Airport Corporation (RIAC), and Rhode Island Public Transit Authority (RIPTA).
- The businesses affected by or involved in the project, the car rental companies, Bulfinch Companies, land owners in the WSRD, nearby businesses, and bus, taxi, and limousine companies.
- The local community: City of Warwick, Warwick residents, Warwick Station Redevelopment Agency (WSRA), and Concerned Airport Neighbors (CAN).
- Travelers who will use the facility, including rail commuters and those who fly using T.F. Green Airport.

Some of the stakeholders have had major concerns about the project and its impacts. Some of these concerns have been addressed while others are still being negotiated. For example, existing car rental businesses at the airport have been

concerned about the need to relocate into the CRF and higher operating expenses associated with this move. Current businesses in the Warwick Station Redevelopment District (WSRD), immediately surrounding the station, have also been concerned about the relocation. Land owners have been concerned about receiving fair compensation for selling their properties. Lastly, Amtrak has raised concerns about the project as it owns the railroad tracks in Rhode Island. In early 2004, Amtrak reconsidered its decision to stop its trains at the Warwick Station. In order to avoid holding up train traffic on the main track, Amtrak required the existence of two side tracks at the Warwick Station. It was estimated that an additional \$50 million was needed to build one side track (Botelho, 2004) with a possible length of 2 to 2.5 miles. For the second side track, Amtrak has agreed on using an additional track already being built as part of the state's ongoing freight rail project to serve Quonset Point.

Third, the financing of the WITS has been a major challenge since the beginning. Although there are multiple stakeholders involved in planning for the project, the funding sources have been limited with an unbalanced match of public and private funding. The potential for private financing has been hindered by the slow progress in the development of the train station. As the size of the project has grown from a train platform to include additional features such as the CRF garage and APM, the financing of the project and its future operating expenses have become more complicated and difficult to plan for.

In 2004, the Rhode Island Department of Transportation (RIDOT) estimated the total cost of the project at \$168 million. The land acquisition, environmental clean up and engineering costs totaled \$14 million. Site work, drainage and landscaping were estimated at approximately \$3 million. Of the total, \$22 million was for the construction of the train station and platforms, \$92 million for the CRF garage, and \$37 million for the APM.

Currently, there are four sources of funding considered for the project. First, a Transportation Infrastructure Finance and Innovation (TIFIA) loan of \$58 million was approved for the construction of the garage. Through TIFIA, the federal government provides credit assistance, up to 33% of eligible project costs, for major transportation projects. The assistance can be in the form of a loan, loan guarantee, or line of credit. The loan will be paid back using a Customer Facility Charge (CFC) of \$3.75 for each car rented at the Airport. Second, TEA-21 funding granted the State \$25 million for the construction of the train station. This grant was dependent on the State meeting a 20% match of \$6.125 million. This money was spent on site acquisition and clean up and design. Third, it is expected that the construction of the APM will be funded by the "off-system bridge" funds (\$40 million) as Rhode Island currently does not have any bridges that currently qualify as "off-system." The balance will be covered by revenue bonds to be issued by RIAC and be paid back by CFC.

Fourth, the development of the Warwick Station Intermodal District has also been slow. The numerous delays in the construction of the train station have discouraged private investments in the district. The Bulfinch Companies has had no success in negotiating with property owners when it tried to buy dozens of parcels at what it termed

fair market value. The company had asked the agency to take the properties by eminent domain and sell them to Bulfinch. The owners had promised to fight any such coercion all the way to the Supreme Court. In the meantime, the City of Warwick has encouraged negotiation for voluntary sales and considered condemning property only if they get to a point where there was a real stumbling block (De Paul, 2005a).

The above issues point out three practical challenges that had to be addressed in order for the project to succeed. These include:

- Achieving stakeholder consensus;
- Securing financing for each stage of the development and for long term operating costs; and
- Managing the environmental externalities associate with a transportation hub in an urban environment.

POLICY RECOMMENDATIONS

The policy recommendations for the development of the WITS focus on the need for greater communication and collaboration between the various parties involved and affected by the development of the WITS. The recommendations are as follows:

Create a Stakeholder Council

The underlying goal for the stakeholder council would be to facilitate the formation of partnerships among stakeholders to create a level playing field. The council will provide a forum for all stakeholders to create goals and policies. The WITS Council would be made-up of local stakeholders (City of Warwick, citizens of Warwick, and impacted local businesses), state stakeholders (RIDOT, RIAC, Rhode Island Economic Development Corporation, Rhode Island Department of Environmental Management, and Rhode Island Public Transit Authority), federal stakeholders (USDOT, US Environmental Protection Agency, and Federal Highway Administration) and regional transit stakeholders (MBTA, Amtrak, car rental companies, regional bus services).

The purpose of the council would be to:

- Build consensus by bringing stakeholders together, allowing them to recognize common interests and goals as well as differences.
- Facilitate communication and intra-stakeholder understanding.
- Foster an environment of equality among stakeholders.
- Provide mediation when conflicting goals exist; and

- Coordinate planning efforts in a fashion that represent the goals and interests of all stakeholders.

Form a Regional Transit Organization

In order to recognize the full value of an intermodal transportation hub, it is recommended that a regional transit organization (RTO) be created that will link all public transit companies that will serve the WITC. The RTO will include MBTA, Amtrak, RIPTA, and regional bus services. The RTO will coordinate schedules and transfers among all public transit service providers; creating the opportunity for a seamless intermodal transportation system, with combined tickets available for all modes of transportation.

Develop a Public-Private Partnership

Currently, the WITS has successfully obtained sufficient funding from a number of sources to begin construction of the facility, but more funding will be needed in order to construct side rails for a future Amtrak stop and possibly a dedicated rail line for a Providence-to-Warwick rail shuttle. The current financing plan has 90% of the operating costs of the facility being paid for by the Customer Facility Charge (CFC) on car rentals at the airport. Additional private partners should be sought to help contribute to these costs. The development of the WITS and its surrounding district should be based on a strong public-private partnership approach. This approach will divide the costs and revenues among a larger number of stakeholders and thus minimizing the risks involved. Currently, the City of Warwick is considering using Tax Increment Financing (TIF) to finance bonds for public infrastructure in the WSRD. This financing technique would allow infrastructure improvements to be paid for by the increase in property values as a result of the development of the WITS.

Expedite the Land Acquisition and Assembly in the Station District

In order to expedite the land acquisition and assembly process, it is recommended that the Bulfinch Companies in conjunction with the Warwick Station Redevelopment Agency (WSRA) consider one of the two recommendations:

- Work with as many of the individual land owners to develop an informal organization. This will encourage individual land owners to work together and sell as a single unit, or several unified units. The land owners may consider hiring independent appraisers.
- Work with the City of Warwick on developing a land relocation and barter program. Working closely with the city, they can identify suitable land to relocate or be used in a barter agreement with the individual landowners. In this type of program each landowner would have to be dealt with individually.

Implement Comprehensive Monitoring Programs for Negative Environmental Externalities

It is important that the operation of the WITS and its possible negative environmental externalities be properly recognized and addressed. The two important negative externalities identified for the WITS in conjunction with the airport are air and noise pollution. Redistribution of air and surface traffic will have ramifications on air quality in the areas surrounding the WITS and beyond. Any improvements in air quality related to the operation of the WITS should be used to help generate public support and expand intermodal services. This helps to place a tangible value on the reduced automobile emissions likely associated with the intermodal station and allow useful data for comparison to pre-station pollution levels.

The future operation of the WITS will also affect the levels of noise pollution in the areas surrounding the station. Noise will remain a major issue with the station and associated airport since they are both within the surrounding residential areas of Warwick. This calls for a comprehensive noise monitoring program for train, auto traffic and air traffic. An effective monitoring and evaluation system for noise pollution could be used to develop a rewards and incentives program to encourage improvement among noise pollution generators and develop an abatement program to address serious continuing problems.

The need for comprehensive environmental monitoring and evaluation offers excellent opportunity for the development of cooperative relationships among the intermodal station, T.F. Green, local neighborhoods, RIDEM and other appropriate state and federal agencies.

CONCLUSION

The study concludes that although the proposed intermodal train station is a challenging and complex project, its successful development is within reach and the State of Rhode Island and the City of Warwick stand to benefit from it greatly. Benefits in the areas of economic development, improved environmental quality, and greater transportation alternatives clearly outweigh the possible drawbacks of the project. Three practical requirements for the success of the project are: Communication, effective collaboration and consensus among the various stakeholders of the project; creative financing to share the benefits and costs of the project and its operation among different stakeholders; and the management of the negative environmental externalities of the project.

The proposed intermodal transportation facility at T.F. Green Airport has the potential to become a national model and the center of a vibrant, urban, transit-oriented district in the City of Warwick, functioning as a new gateway to the State of Rhode Island. This vision and its associated benefits should compel the State and the City to proceed with the development of the proposed station.

James Capaldi, current Director of RIDOT, has recently predicted a three-year construction effort beginning in Spring 2006 and the opening of the station in the fall of 2008. The MBTA has agreed to link Warwick to Boston via commuter rail service, but the DOT and Amtrak are still negotiating whether Amtrak's intercity trains will stop in Warwick. He added "good projects take a while but great projects take an awfully long time" (De Paul, 2005b).

ACKNOWLEDGMENT

This paper is based on a study conducted by a group of seven graduate students in the Community Planning Program at the University of Rhode Island in Fall 2004. The study was funded by a grant from the University of Rhode Island Transportation Center.

REFERENCES

Atash, F., McCray, T. and Sick, J. 2006. *Developing Intermodal Train Station Projects in Rhode Island*. Annual Transportation Research Board (TRB) Meeting, Washington, D.C. (Forthcoming Presentation).

Botelho, B., 2004. Warwick Station Changes Tracks with MBTA Plans. *Providence Business News*, September 11.

Cameron, L., Dixon, B., Hahn, A., Persinova, B. Snead, S. Tootoo, J. and Watson, R., 2005. *The Warwick Intermodal Train Station Study*. A study prepared by graduate students in the Community Planning Program at the University of Rhode Island.

City of Warwick, 2001. Planning and Development Code of Ordinances, Chapter 51. <http://www.warwickri.gov/officialdocs/code/chapter51.htm>

De Paul, T., 2005a. High Court Ruling on Land Taking Could Rekindle Efforts in Station District. *Providence Journal*, June 27.

De Paul, T., 2005b. Rail Line Could Arrive at Airport in 2008. *Providence Journal*, August 2.

Korney, A., 2005. Intermodal Station Back on Track? *Providence Business News*, May 7.

Lieberman, E. 1997. Airport Neighbors Question Impact of Land Plan. *Providence Journal Bulletin*, July 2.

Warwick Intermodal Train Station on Time-2001, 1999. *Providence Business News*, July 26.

Warwick Station: Rhode Island's Gateway to the Future, 1999. *Providence Business News*, May 10.

Warwick Station Redevelopment District, 2005. *Providence Business News*. City of Warwick Supplement, June 6-12.