## FEASIBILITY STUDY TO INCREASE UTILIZATION AT THE PORT OF DAVISVILLE (QUONSET, RI)

Dr. James Kroes

University of Rhode Island August 2009

URITC PROJECT NO. 0002035

#### PREPARED FOR UNIVERSITY OF RHODE ISLAND TRANSPORTATION CENTER

#### DISCLAIMER

This report, prepared in cooperation with the University of Rhode Island Transportation Center, does not constitute a standard, specification, or regulation. The contents of this report reflect the views of the author(s) who is (are) responsible for the facts and the accuracy of the data presented herein. This document is disseminated under the sponsorship of the Department of Transportation, University Transportation Centers Program, in the interest of information exchange. The U.S. Government assumes no liability for the contents or use thereof.

#### **ABSTRACT**

This project investigated the logistics and transportation issues associated with establishing and increasing the use of shipping containers to import and export goods into the Rhode Island geographic area using the Port of Davisville. The Port of Davisville, located at Quonset Point in North Kingstown, Rhode Island is a sheltered deep water harbor which primarily used for the importation of foreign made automobiles into the eastern markets of the United States. Despite the volume of automobile shipments, the Port of Davisville is not fully utilized. This study examined if a portion of the port's excess capacity could be utilized to cost effectively ship containerized cargo in and out of the local market area. Currently, no shipping container traffic moves through the port; nearly all international container traffic into and out of the Rhode Island area moves through port facilities located in New York, New Jersey, or Boston. Movement of containerized goods between these ports and customers utilizes rail and trucking. Based on available data, approximately 200,000 TEUs (Twenty-foot Equivalent Units) are imported into the local area.

### TABLE OF CONTENTS

PAGE

A) INTRODUCTION	4
B) PROJECT GOALS	4
C) PROJECT TASKS AND TIMELINE	5
D) PROJECT TASKS DESCRIPTION	5
E) PROJECT FINDINGS AND RECOMMENDATIONS	12
Appendix A – Transportations Survey Questions	14
Appendix B - Interview Notes and Data	15

#### **A) INTRODUCTION**

This project will investigate the feasibility of establishing container operations at the port to serve local markets. Shipping containers through the Port of Davisville will benefit the local community in a number of ways including:

- Increased Environmental Sustainability: Reducing the distance that containers are moved via less environmentally efficient modes (rail and truck) and increasing the use of more efficient methods (ocean shipping) will decrease the environmental impact associated with the movement of containers in and out of Rhode Island.
- Decreased Infrastructure Use: By moving containerized goods closer to customers in the Rhode Island area via ocean shipping, the volume of containers utilizing road and rail assets will decrease, which will reduce the deterioration rate of these assets.
- Economic Benefits for Local Importers and Exporters: This project will identify geographic areas in which it may be more economical to ship containers through the Port of Davisville, compared to current practices. Firms located in these areas may be able to reduce their cost structures and improve their competitive advantages by utilizing the Port of Davisville.

This project will be a collaborative effort between the University of Rhode Island College of Business Administration (CBA) and the Quonset Development Corporation (QDC), who operates the Port of Davisville.

#### **B) PROJECT GOALS**

The purpose of this proposal is to study the feasibility of utilizing the Port of Davisville for container cargo operations. The research portion of this project will take place during the Spring 2009 academic semester. The research goals involve:

- 1. Developing an optimization model which will be used to identify the geographic areas where it is economically beneficial to ship goods via container through the Port of Davisville rather than through ports in New York or Boston.
- 2. Quantifying the reduction in environmental impact on the Rhode Island Area that can be achieved by utilizing the port of Davisville.
- 3. Determining the reduction in infrastructure usage that can be achieved by shipping containerized goods through the Port of Davisville.

The teaching goals of the research effort are to:

- 1. Allow students to gain valuable experience by investigating and developing a solution for a real-world logistics issue.
- 2. Expose undergraduate students to the academic research process.
- 3. Document the steps of this project and develop a case study which will be used in future Supply Chain Management course taught in the CBA.

#### C) PROJECT TASKS AND TIMELINE

This project commenced on February 2, 2009 and concluded on August 31, 2009. The schedule for the project tasks is detailed in the table below:

#	Task	<b>Completion Date</b>
1	Data Collection through Structured Interviews with local	March 1, 2009
	transportation managers.	
2	Development of Network Model of Current Import Operations	March 31, 2009
3	Development of Network Model of Proposed Operations	August 31, 2009
	through the Port of Davisville	
4	SAILS Training and Software Customization by Insight, Inc.	May 20, 2009
5	Development of Full Network Model of Proposed Import and	August 31, 2009
	Export Operations through the Port of Davisville	-

#### **D) PROJECT TASKS DESCRIPTION**

#### Task 1: Data Collection

To collect transportation rate data for the model, we conducted structured interviews with importers and exporters located in New England. The student assistants led the effort to contact and interview appropriate firms. A structured set of questions was prepared by the team and utilized in the interviews. The interview questions are included in Appendix A. Seven companies involved in the importing or exporting of goods in New England were interviewed:

Company	Location	
Canusa Hershman Recycling Company	9 Business Park Drive, Branford, CT 06405	
CSX Transportation	5656 Adamo Drive, Tampa, FL 33619	
CVS/Caremark, Inc.	1 CVS Drive, Woonsocket, RI 02895	
L.J. Rogers, Inc.	170 Cherry & Webb Lane, Westport,	
	Massachusetts 02791	
Ocean State Job Lot	375 Commerce Park Rd. North Kingstown,	
	Rhode Island 02852	
Rhody Transportation & Warehousing, Inc.	600 Callahan Road, North Kingstown, RI 02852	
Seafreeze, Ltd.	100 Davisville Pier, North Kingstown, RI 02852	

The notes and data from the interviews are included in Appendix B. The interviews allowed the research team to develop a clear picture of the costs and issues associated with import and exporting containerized goods in New England. These insights were incorporated into the models used in the succeeding project tasks.

Data for the analysis was also collected from the 2006 PIERS Global Importers and Exporters databases. Copies of the PIERS databases are owned by the URITC. The PIERS databases track imports and exports into the United States. From PIERS, we extracted data for all containers imported through the Port of New York / New Jersey (NY/NJ) and the Port of Boston. The data was aggregated by postal zip code to prevent the identification of specific companies and organizations included in our study. All firms within a single postal zip code were treated as a single "customer." Key data metrics include:

- 280 "Customers" throughout New England (Actual customers were aggregated into groups based on their zip codes.) Customer locations are shown in Figure 1 below.
- The data represents 140,424 Forty Foot Container Equivalents (FEU)
  - o 84,316 Imports through NY/NJ
  - o 34,619 Imports through Boston
  - o 17,872 Exports through NY/NJ
  - o 3,617 Exports through Boston



Figure 1 – Location of Customers in the Network Model

#### Task 2: Development of a Network Model of Current Operations

The SAILS Supply Chain Network Modeling software program was used to create models of current and proposed operations. SAILS was utilized in order to take advantage of it's internal databases of travel distances, it's optimization functions, and it's reporting functionality. For all models, the fuel prices as of April 2009 were used as a baseline.

#### Model 1 Summary: Port of NY/NJ Imports

The first model created models the current state of operations within New England for containers imported through the Port of NY/NJ. Currently, the ports of NY/NJ and Boston are the major centers for international container imports and exports within New England (while additional volume does enter and exit the region through other ports, our models are only considering the volume through New England ports.) Upon arrival in New York, containers are either trucked to their final destinations in New England or they are transported via rail to location closer to their final destinations. The major rail link into the Rhode Island area utilizes the CSX Railroad to ship containers from the Port of NY/NY to Worcester, Ma. This rail link is included in out models. The Port of Davisville at Quonset Point currently is not used for container imports or exports and not included in this model. After verifying Model 1, it was expanded to include all current operations, which includes exports through NY/NJ and imports and exports through Boston and barge service between NY/NJ, Boston, and Portland, ME; this model was designated as Model 1a (Fig. 2).



Figure 2 – Model 1a: Imports through NY/NJ

When this model was analyzed, we found trucking to be the most cost efficient method of moving containers from NY/NJ to the Rhode Island Area. Details from the analysis include:

Total Transportation Costs: \$66,089,000

- 0 FEUs use Davisville barge service
- 74,436 FEUs via Highway Trucking to Customers
- 11,014 FEUs utilize Worcester Rail Link
- 12,080 FEUs use Boston barge service
- 4,658 FEUs use Portland barge service

#### Task 4: SAILS Training and Software Customization by Insight, Inc.

The completion of task 3 was delayed to allow for onsite training for Professors Kroes and Yuwen Chen at Insight's headquarters in Manassas, VA. In this three day training session, personnel from Insight worked with the URI faculty members to review and correct the port network model. The result of this training was an accurate and robust model that reflects the actual operations within New England.

#### Task 3 and Task 5: Development of Model of Proposed Operations through the Port of Davisville and a Full Network Model of Proposed Import and Export Operations through the Port of Davisville

Tasks 3 and 5 were completed together after the training and consulting session with Insight. The complete model allowed for multiple scenarios to be analyzed investigating the financial feasibility of barge feeder service between NY/NJ and Davisville.

#### Models 2 through 5: Operations Including Barge Feeder Service from NY/NY to Davisville

The next set of models examines the feasibility of a barge feeder service moving containers from NY/NJ to Davisville. The cost effectiveness of this proposed service is highly dependent on factors such as fuel prices, barge service rates, and truck transportation rates. Models 2 through 5 were created to investigate the sensitivity

#### Model 2: NY/NJ Imports into New England – April 2009 Fuel Prices

- Barge Service to Boston & Portland, ME
- Barge Service to Davisville: \$700/FEU Import, \$500/FEU Export



Figure 3 – Model 2

Total Transportation Costs: \$65,741,000

- 6,584 FEUs use Davisville barge service for Export, 0 FEU for Imports
- 72,741 FEUs via Highway Trucking to Customers
- 6,125 FEUs utilize Worcester Rail Link
- 12,080 FEUs use Boston barge service
- 4,658 FEUs use Portland barge service

#### Model 3: NY/NJ Imports into New England – April 2009 Fuel Prices

- Barge Service to Boston & Portland, ME
- Barge Service to Davisville: \$600/FEU Import, \$500/FEU Export



Total Transportation Costs: \$65,399,000

- 17,926 FEUs use Davisville barge service: 11,342 FEU for Imports, 6.584 for Export
- 61,780 FEUs via Highway Trucking to Customers
- 5,776 FEUs utilize Worcester Rail Link
- 12,048 FEUs use Boston barge service
- 4,658 FEUs use Portland barge service

#### Model 4: NY/NJ Imports into New England – April 2009 Fuel Prices +25%

- Barge Service to Boston & Portland, ME
- Barge Service to Davisville: \$700/FEU Import, \$500/FEU Export



Total Transportation Costs: \$75,392,000

- 9,647 FEUs use Davisville barge service: 5,193 FEU for Imports, 4,454 for Export
- 60,462 FEUs via Highway Trucking to Customers
- 14,955 FEUs utilize Worcester Rail Link
- 12,413 FEUs use Boston barge service
- 4,711 FEUs use Portland barge service

#### Model 5: NY/NJ Imports into New England – April 2009 Fuel Prices +50%

- Barge Service to Boston & Portland, ME
- Barge Service to Davisville: \$600/FEU Import, \$500/FEU Export



Total Transportation Costs: \$83,863,000

- 14,296 FEUs use Davisville barge service: 11,652 FEU for Imports, 2,644 for Export
- 59,933 FEUs via Highway Trucking to Customers
- 11,164 FEUs utilize Worcester Rail Link
- 11,086 FEUs use Boston barge service
- 5,709 FEUs use Portland barge service

#### **E) PROJECT FINDINGS AND RECOMMENDATIONS**

#### **Key Findings:**

We found the volume of containers that would optimally flow through Davisville to be highly sensitive to changes in fuel prices and changes in the cost of the barge service. It was shown that decreases in the barge feeder service costs always leads to increases in volume through Davisville. However, increases in fuel costs appear to have a less straightforward effect. The variable effect of changes in fuel prices is due to the interplay between the three modes of transportation and the irregular placement and volume variances of the customers, i.e. Customers are not evenly distributed geographically; therefore small changes in price and fuel costs can lead to large changes in container volume. Figure 6 below plots the container volumes through Davisville for a number of fuel charges and barge feeder service rates. This analysis also identified the Worcester Rail Link to be the major "competitor" to the NY/NJ to Davisville barge feeder service.



Based on our analysis, we estimate the following range of volumes for the barge feeder service:

Estimated annual container volume market for the barge service from NY/NJ to Davisville:

- Most likely: 11,100 FEU / year
- Lower Estimate: 7,200 FEU / year
- High Estimate: 15,000 FEU / year

Which will lead to estimated Total Transportation Cost Savings to Customers of:

- Most likely: \$1,500,000 / year
- Lower Estimate: \$700,000 / year
- High Estimate: \$2,300,000 / year

#### **Study Recommendations:**

- A number of large "Customers" (Distribution Centers) in the Woonsocket area lie in a region where the cost benefits of the Davisville barge service and the Worcester Rail Links are very similar. Small price concessions to these customers on the cost of the barge service could results in significant container volumes for Davisville.
- Export customers should be aggressively pursued to reduce the "trade imbalance" at Davisville. This should allow the barge operators to lower the rates on imports, which will further increase the container volume through Davisville.

#### **Appendix A - Transportations Survey Questions**

Name of Firm: Name of Respondent: Respondent Title or Position: Telephone #: E-Mail: Address: Industry:

- 1. Where is your company headquartered?
- 2. Do you have domestic or international suppliers?
- 3. Do you have domestic/international customers?
- 4. What types of products/ materials do you currently import?
- 5. What types of products/ materials do you currently export?
- 6. Where are the distribution points for importing and exporting?
- 7. Do you partner with any other firms when importing goods?
- 8. Do you partner with any other firms when exporting goods?
- 9. Please describe how your company currently import products/ materials (i.e. do you use containers, bulk shipments, other modes)?
- 10. Please describe how your company currently exports products/ materials (i.e. do you use containers, bulk shipments, other modes)?
- 11. What types of containers do you currently use to export your products/ materials (dimensions, temperature controlled)? Why?
- 12. Do your shipments require special handling?
- 13. How many TEUs (gallons, tons, etc.) do you export annually?
- 14. What are the typical delays that a container will go through from arriving at the destination port until it reaches your distribution center?
- 15. What are the time constraints on the products/ materials that you import?
- 16. What are the tariffs that a container will be subject to when it transit from arriving at the destination port until it reaches your distribution center?
- 17. Currently does your supply chain for transporting containers of imports/ exports include rail service? If so, would you describe the costs involved?
- 18. Do you own and operate your own transportation assets?
- 19. Do you manage your logistics activities internally or do you partner with another party (such as a 3PL)?
- 20. Does your company use a system wide cost analysis?

#### Appendix B – Interview Notes and Data

Canusa Hershman Recycling Company 9 Business Park Drive, Branford, CT 06405 Respondent: David Ward, Sr. Vice President of Sales 203-315-3124 dward@ct.chrecycling.com

David Ward from Canusa Hershman Recycling Company (CHRC) was interviewed to assess an exporter's perspective on the proposed project. CHRC manages more than 100,000 tons per month of fiber and 3 million pounds per month of plastics and other materials. For our study we are focused on their shipments in the Northeast region; where they ship 840 FEU monthly. The company has a dozen offices and processing facilities across North America. The CHRC home office is located Branford, CT.

CHRC's business focuses on the procurement of recyclable commodities and then trading them with companies around the world. David explained the process that CHRC follows. Initially, CHRC acquires materials by sending a container to the supplier's location and then transporting it back to one of their processing centers. Typically 40-foot containers are used. The company operates four processing facilities; located in Vermont, New York, Maryland and a joint venture facility in Virginia. After the materials are processed they are packed in a container and delivered to the chosen exporting port. CHRC has customers in several foreign countries including: China, India, Bangladesh, Taiwan, and Indonesia.

CHRC had several concerns regarding their current logistics strategy. Their most pressing concern was the lack of time that they are allotted to accumulate containers. At the Port of New York/ New Jersey CHRC is only allowed four days to accumulate containers for their shipments. This causes a problem for the company because many of their customers will only accept large orders. If CHRC had the opportunity to accumulate containers for a longer period of time they would be able to ship containers more efficiently and effectively.

CHRC contracts several companies to serve their logistics needs. Their primary carrier for trucking is Evergreen Transportation, a carrier that operates in the eastern and southeastern United States. For ocean shipping CHRC uses several different carriers including: Maersk, NYK, and COSCO. The predominate amount of their ocean shipments go through the Port of NY/NJ.

#### CSX Transportation 5656 Adamo Drive, Tampa, FL 33619 Respondent: Eric Johnson Market Manager 813-664-6409 Eric Johnson@csx.com

Eric Johnson, the Market Manager of CSX Corporation, a Class I Railroad Firm based in Jacksonville, Florida was interviewed to gain insight into the railroad's perspective on transportation in New England. CSX is one of three Class I Railroads servicing the Eastern seaboard. Our data came from the Intermodal division of CSX also know as CSXI.

Because our research is focused mainly between the Ports of New York, Boston and Worcester Rail Yard we generated a list of cost analysis questions to gain a better grasp of the market in intermodal transportation.

CSX moves traffic from New York to Stackbridge (Worcester) in connection with the Providence & Worcester Railroad who pull the train for the last 50 miles into the terminal. No service exists between Boston and Worcester.

Currently CSX is the only Intermodal rail carrier offering service between New York and Stackbridge (Worcester).

CSX's intermodal trains can carry a maximum of 280 - 300 containers (depending on weight) while most railroads will not move a train with less than 85 - 100 containers. CSX has tariffs that define a price in each lane however customers can negotiate lower rates in specific lanes based on committed volume contracts that are negotiated. CSX rates are based on a combination of factors including volume, crew costs, rail miles, fixed terminal costs and variable costs. Volume discounts can be offered to customers who have considerable volume in various lanes and who are willing to contract for a minimum volume, scheduled rate increases and a specified time-frame.

CSX conducts business through Intermodal Marketing Companies (IMC's), Trucking Companies,

Brokers and Ocean Carriers. These companies represent the actual cargo owners such as retail stores and

manufacturers and are the customers for the railroad.

#### CVS/Caremark, Inc.

Name of Respondent: J. M. Estrella Jr. Respondent Title or Position: Director of Transportation & Logistics Network Telephone #: 401-770-2610 Fax: 401-770-2446 E-Mail: jmestrella@cvs.com Address: 1 CVS Drive Industry: Retail Drug Company

1. Where is your company headquartered?

Woonsocket, RI 02895

- Do you have domestic or international suppliers? Yes If so where are they?
  Domestic suppliers are located throughout the United States. International suppliers are
  - located in China (94%), Pacific Rim (5%), and Italy (<1%).
- 3. Do you have domestic/international customers? We have domestic customers. If so where are they? The United States.
- 4. What types of products/ materials do you currently import? General Merchandise
- 5. What types of products/ materials do you currently export? None
- 6. Where are the distribution points for importing and exporting?

Importing: Ports of LA/Long Beach, Savannah, Norfolk, New York, Oakland, and Honolulu. Exporting: None

# (We have 19 Company Distribution Centers located throughout the U.S. and have a DC in Woonsocket, RI).

- 7. Do you partner with any other firms when importing goods? No
- 8. Do you partner with any other firms when exporting goods? N/A
- 9. Please describe how your company currently import products/ materials (i.e. do you use containers, bulk shipments, other modes)?

#### We use containers.

10. Please describe how your company currently exports products/ materials (i.e. do you use containers, bulk shipments, other modes)?

N/A

11. What types of containers do you currently use to export your products/ materials (dimensions, temperature controlled)? Why?

N/A

- 12. Do your shipments require special handling? No
- 13. How many TEUs (gallons, tons, etc.) do you export annually?

We do not export any product however; we import approximately 8,000 TEUs per year.

14. What are the typical delays that a container will go through from arriving at the destination port until it reaches your distribution center?

Usually, we don't experience delays. The process that takes place is as follows: Unloading the container, using a drayage company to pick up the container and delivering the container to either a 3PL (who then ships the container with a common carrier to our DC's) or directly to one of our DC's.

15. What are the time constraints on the products/ materials that you import?

We build in the appropriate lead times to insure the product arrives well before the DC's distribute the product to our stores. Usually, the product we procure internationally is not time sensitive.

16. What are the tariffs that a container will be subject to when it transit from arriving at the destination port until it reaches your distribution center?

We have "door to door" rates (custom rates) with our ocean carriers and all ancillary charges (drayage, inland transportation, etc.) are factored into the rates we pay. The only tariff involved is that of the ocean carrier.

17. Currently does your supply chain for transporting containers of imports/ exports include rail service? If so, would you describe the costs involved?

Not usually. If we did use rail, the rates (door to door rates) would be included in the ocean carrier's invoice.

18. Do you own and operate your own transportation assets? Yes, on the domestic side of the business (DC's) and "NO" as it relates to imports. If not, what types of firms do you use for your transportation needs?

#### Ocean carriers, drayage companies, railroads, and common carriers.

19. Do you manage your logistics activities internally or do you partner with another party (such as a 3PL)?

#### Both

20. Does your company use a system wide cost analysis? No. If your firm does not use a system wide cost analysis do you feel that there is a need for one?

At the present time we feel there is no need.

#### L.J. Rogers, Inc. 170 Cherry & Webb Lane, Westport, Massachusetts 02791 Respondent: Laura Mullin, President & CEO 508-636-6658 Imullin@ljrogers.com

L.J. Rogers, Inc. is one of the most well known freight forwarding companies in the New England area. L.J. Rogers, Inc. offers several services to their customers including: warehousing and consolidation, domestic freight management, global logistics, customs brokerage and consultation. They also offer specialized expertise in shipping medical equipment and seafood. L.J Rogers, Inc. serves customers throughout the country, which offices in Westport, MA and Carson, CA.

Most of the containers that L.J. Rogers, Inc. exports and imports go through the Port of Boston. On average they import 500 TEUs and export 500 TEUs through the Port of Boston (Is this annual volume?). Most of these shipments are done using 40-foot containers. The company uses "reefers" to transport seafood and other temperature sensitive products. They will use the Port of New York/New Jersey to transport containers only if their customer is in the immediate vicinity of the port. This is due to x-ray delays and charges, \$100/container, that are imposed at the Port of NY/NJ and not at the Port of Boston. (Is this an error? In your final report Figure 2.1, you say \$100 x-ray fee is at Port of Boston. Please clarify)

L.J Rogers, Inc. doesn't own or operate any of their own transportation equipment. They have formed relationships with several local companies to fulfill their transportation needs. In the New England area, they use Unitrans Worldwide, Inc. and Roadlink Intermodal for their trucking needs. When they import and export through the Port Of Boston they use several ocean carriers including: Mediterranean Shipping, COSTCO, and CMA CGM.

#### Ocean State Job Lot 375 Commerce Park Rd. North Kingstown, Rhode Island 02852 Respondent: Jason LaPearl, Import Logistics 401-295-2672 ext 264 j.lapearl@osjl.com

Ocean State Job Lot is a retail business based in North Kingstown, Rhode Island. Job Lot provides such commodities as food, clothing, bulky items and seasonal products to 88 stores scattered throughout Rhode Island, Massachusetts, Connecticut, New York, Maine, Vermont and New Hampshire. Because Ocean State Job Lot is a close out business they rely on a number of different vendors domestically and internationally (mainly from China). They refer to their procurement division by using opportunistic buying. They will purchase inventory and merchandise from companies that are going out of business and then redistribute it their stores. This technique has made Job Lot very profitable in a small market.

Logistically Job Lot works with a number of different trade companies and ocean carriers to move their commodities from overseas to the United States. They do not participate in any exporting of goods. The containers used for transporting cargo are 20 feet, 40 feet and 40 HQ containers. Some cargo may require specials handling such as lighters and chemicals. For this they use Hazmat containers.

Like any U.S. company that imports, Ocean State Job Lot goes through the typical delays. They obey by normal United States custom holds for inspection and compliance verification. Normal time for a container to arrive to via ocean is about 37 days. All are shipments are subject to a duty rate based on the proper Tariff classification per the Harmonized tariff schedule of the United States. Currently all of Ocean State Job Lot's shipments are all water service to Worcester, MA. They have particular carriers that are responsible to get the container to Worcester, whether by rail or truck.

Domestically Ocean State Job Lot owns their own trucking fleet for picking up containers from the Worcester yard and also delivering goods to the New England Stores. Job Lot monitors all logistics operations internally.

#### Rhody Transportation & Warehousing, Inc. 600 Callahan Road, North Kingstown, RI 02852 Respondent: Christopher Tavares, General Manager 401-294-0037 christavares@rhodytrans.com

During the project, Chris Tavares of Rhody Transportation & Warehousing, Inc. was interviewed. Rhody Transportation offers a variety of services to their customers including: warehousing, just-in-time deliveries, inventory management, and finished goods storage and distribution. They offer overnight trucking service to points as far north as Newbury, MA and as far south as Stamford, CT. Service to the Port of NY/NJ and the Port of Boston is also offered.

Rhody Transportation is particularly important to our research because of their close proximity to the Port of Davisville. Their headquarters is located in the Quonset Business Park, where the Port of Davisville is located. Their customers are located across New England, with some also located in the Quonset Business Park. Their customers include: Toray, PepsiCo, Rhode Island Novelty, and Christmas Tree Shops.

Rhody Transportation's facility is a food grade and climate controlled warehouse that has 125,000 sq. feet of space. The facility also houses their customer support group, operations team, and corporate headquarters. During our interview, Chris assured us that they had the capabilities to offer any service needed for companies to ship effectively through the Port of Davisville.

Seafreeze, Ltd. 100 Davisville Pier, North Kingstown, RI 02852 Respondent: Geir Monsen, Vice President 401-295-2585 geir@seafreezeltd.com

Seafreeze, Ltd. is the largest producer of sea frozen fish on the east coast of the United States. They supply sea frozen and land frozen fish to a world-wide range of markets, including bait products to domestic and international fleets. Seafreeze, Ltd. Exports several different types of seafood including: squid, mackerel, herring, and butterfish.

Seafreeze, Ltd. on average exports between 700-800 TEUs annually through the Port of Boston and the Port of New York/New Jersey combined. However, the Port of Boston is usually preferred due to the closer proximity from their warehouse. They typically see a sharp increase in demand for their products around Christmas and during the summer months.

Seafreeze, Ltd. transports their containers from their warehouse to the port of export by either rail or truck. In most instances they use a truck to deliver the containers to the port since it doesn't take as much time as rail. All of their products are transported in "reefers" since the seafood is highly sensitive to temperature. Rhody Transportation is one Seafreeze's primary transportation providers.

One of Seafreeze's major concerns is the limitations set on the weight of the containers. When transporting their containers to the port of export by truck they can only ship 40,000 lbs. /18 tons in each container. However, if they eliminated the trucking weight limitations on containers they could fit an extra 10,000 lbs. more in each container. Seafreeze, Ltd. is located at the Port of Davisville, so they could be a key beneficiary if a barge service to the Ports of Boston/NY/NJ was offered.