

Toward the Next Regional Transportation Plan . . .

Freight Villages in the NYMTC Region



Definition

- **DEFINITION OF A FREIGHT VILLAGE**

“A freight village is a defined area within which all activities relating to transport, logistics and the distribution of goods, both for national and international transit, are carried out by various operators”.

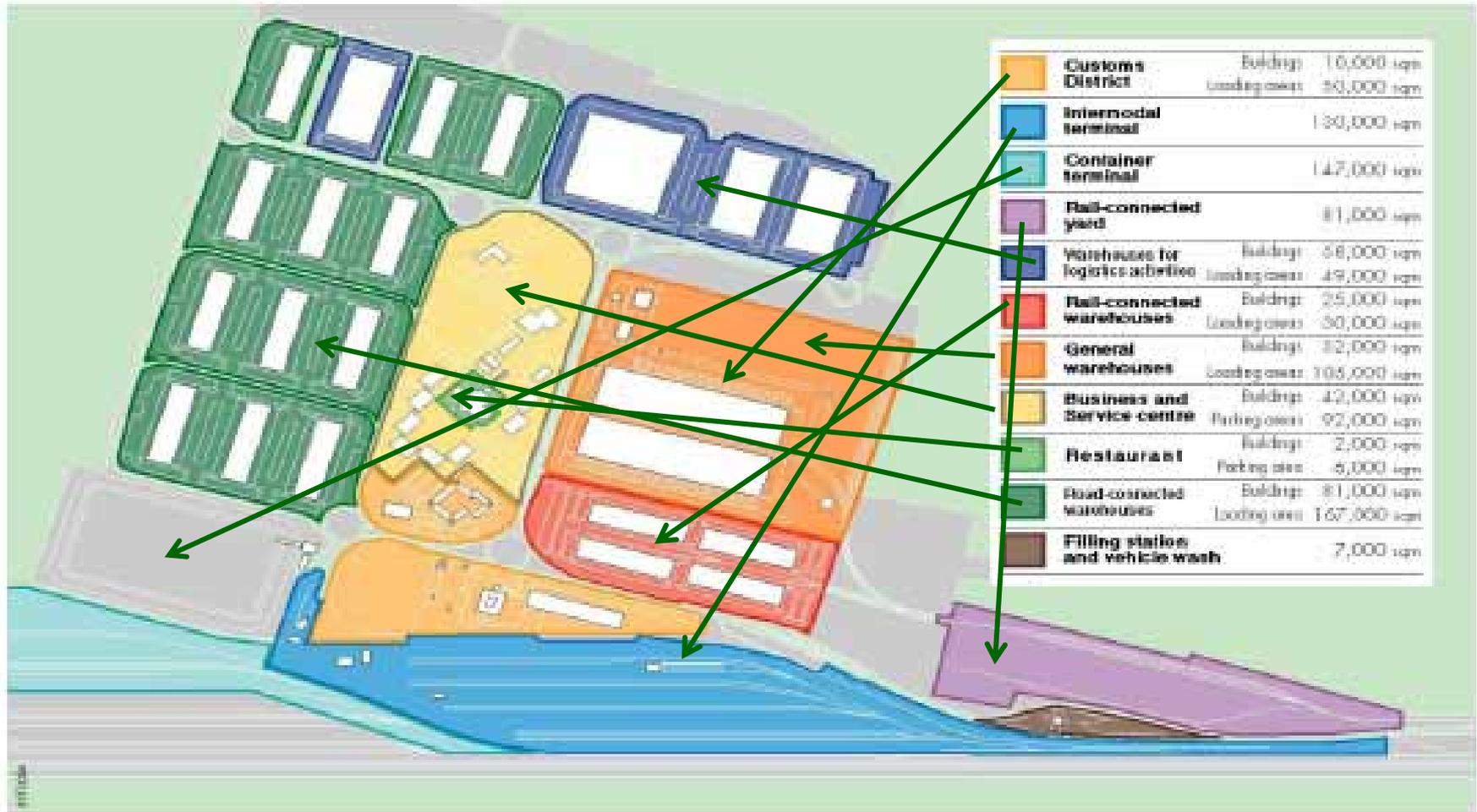
Design: metropolitan areas



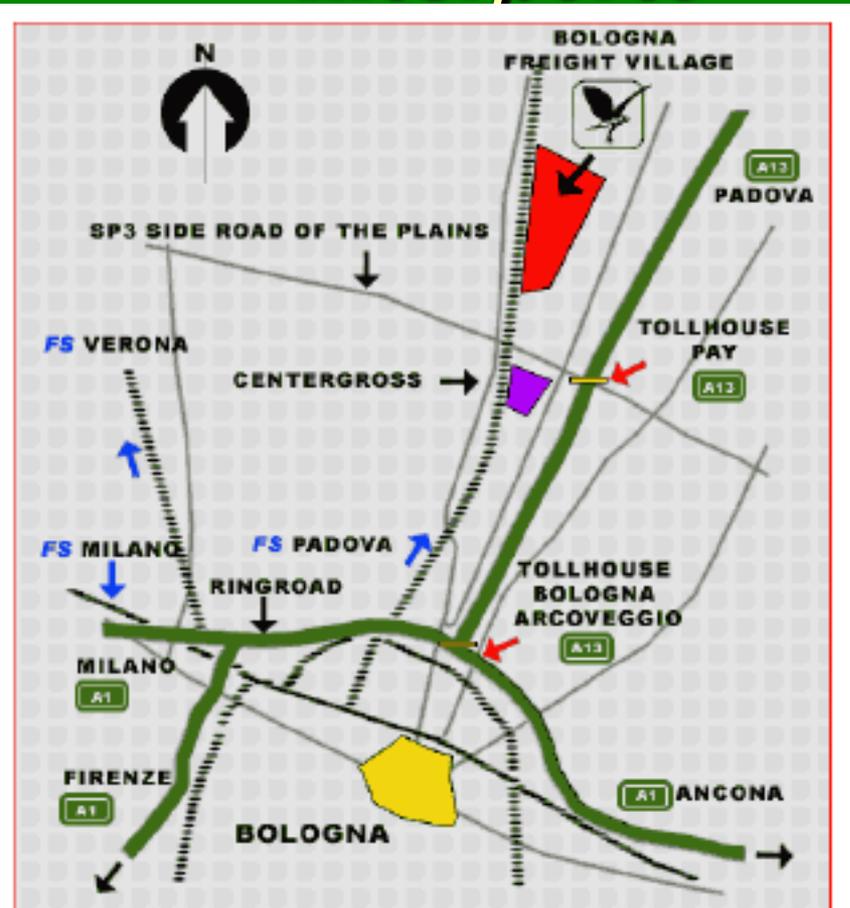
European Experience: Kiel, Germany, Japan



Anatomy of A European Freight Village: Interporto Bologna Italy

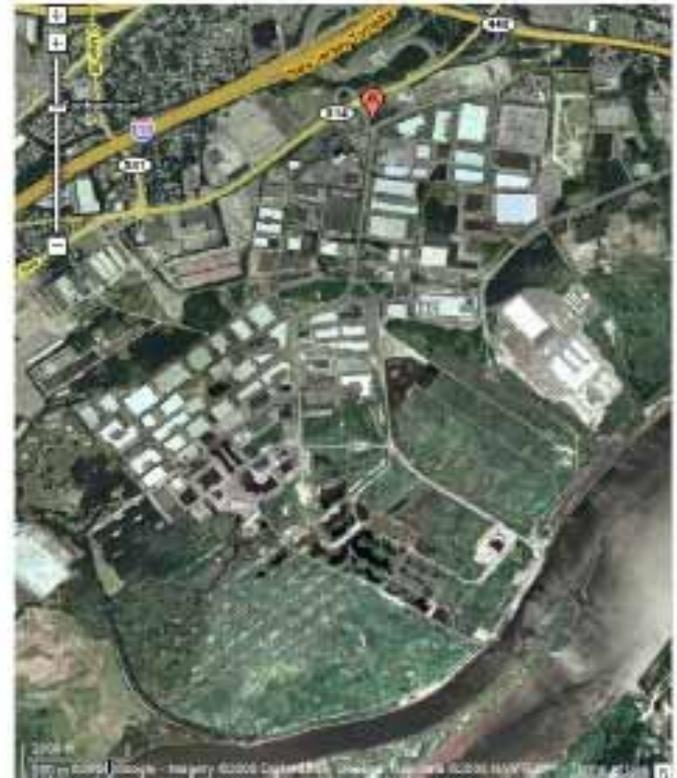


Overall Geographic Layout Interporto



Source: <http://www.bo.interporto.it>

U.S. Freight Village Near NYMTC Region: Raritan Center Middlesex County, NY



Source: Google Maps

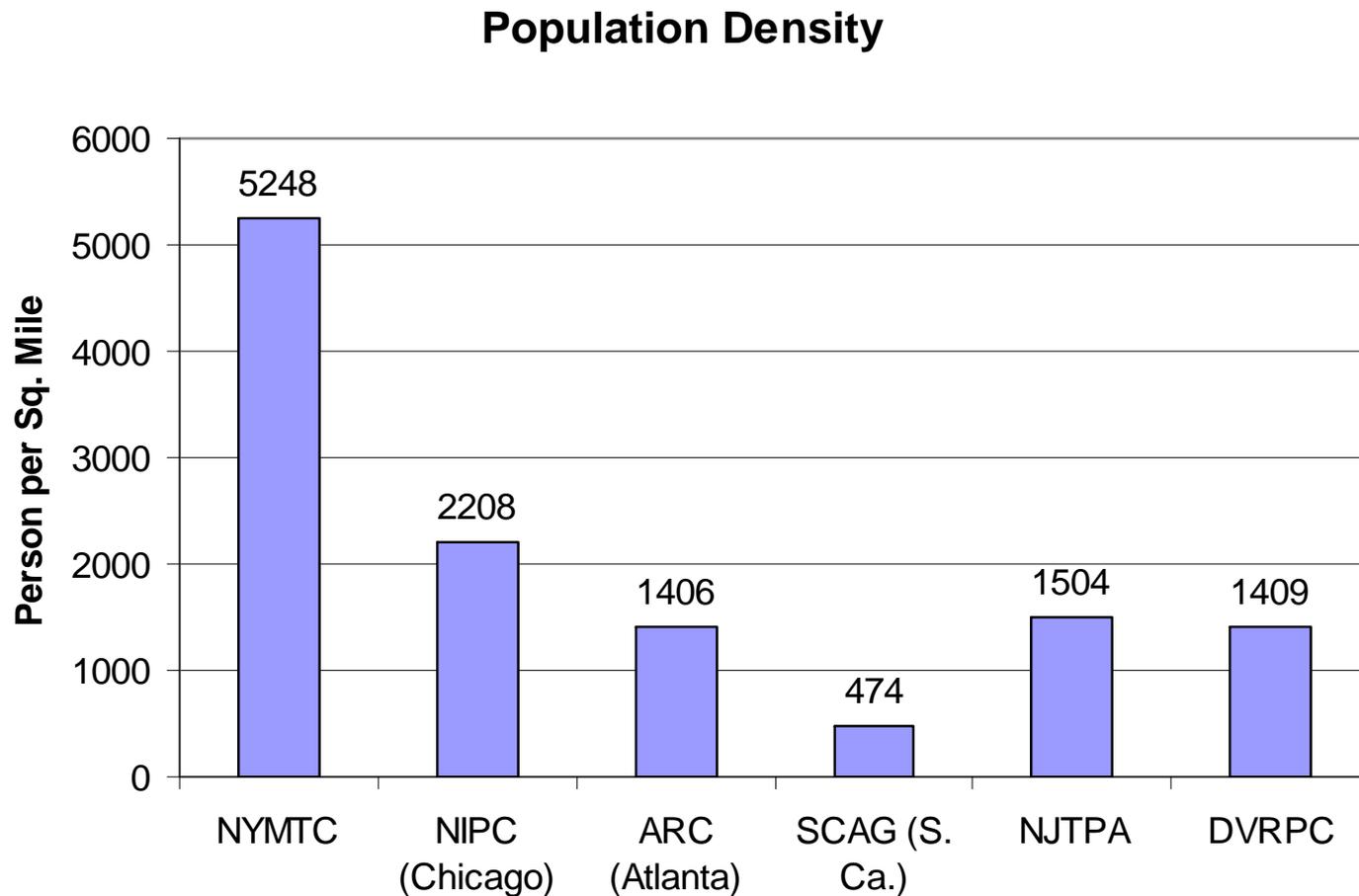
NYMTC Region:

Things To Think About

- **Demographics**
- **Land Use**
- **Transportation**

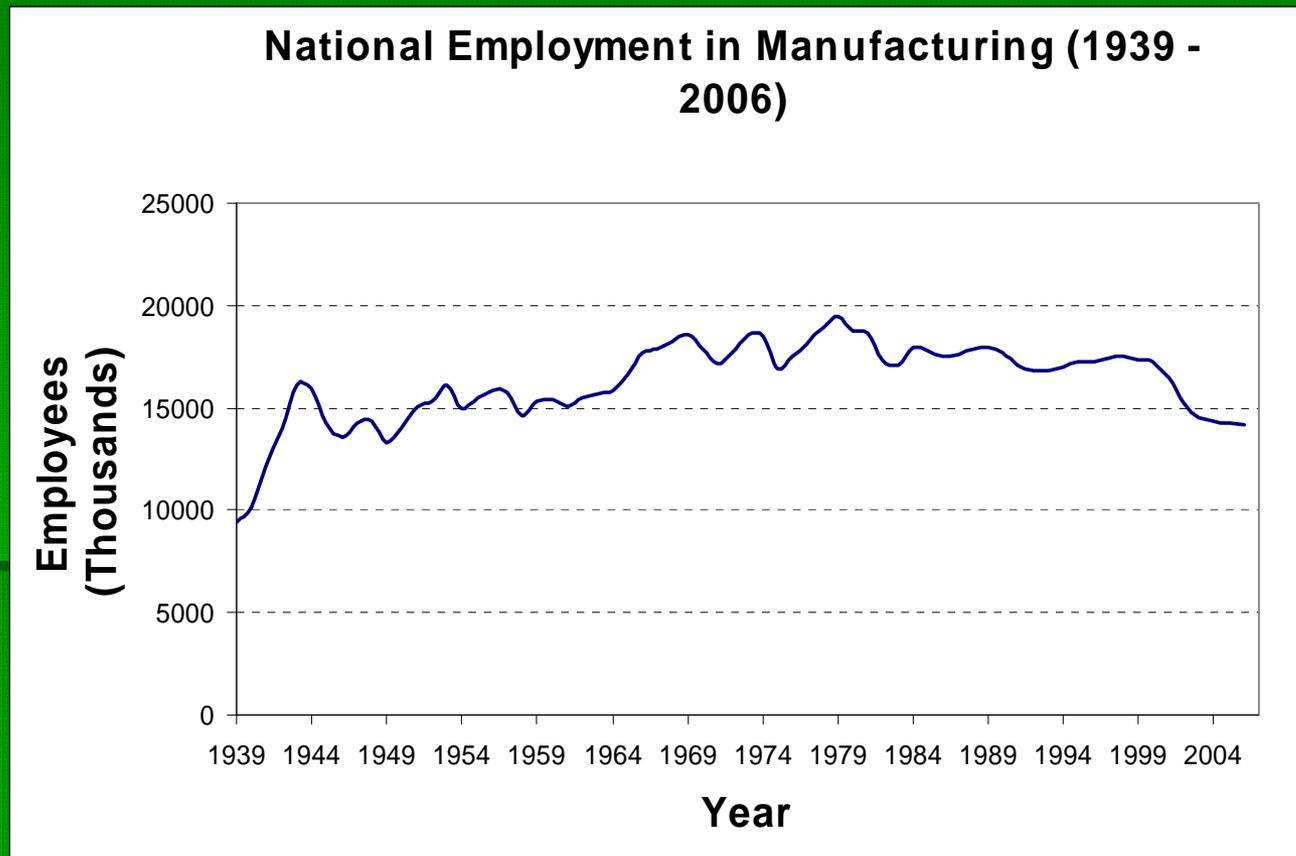
Demographics

Population Density



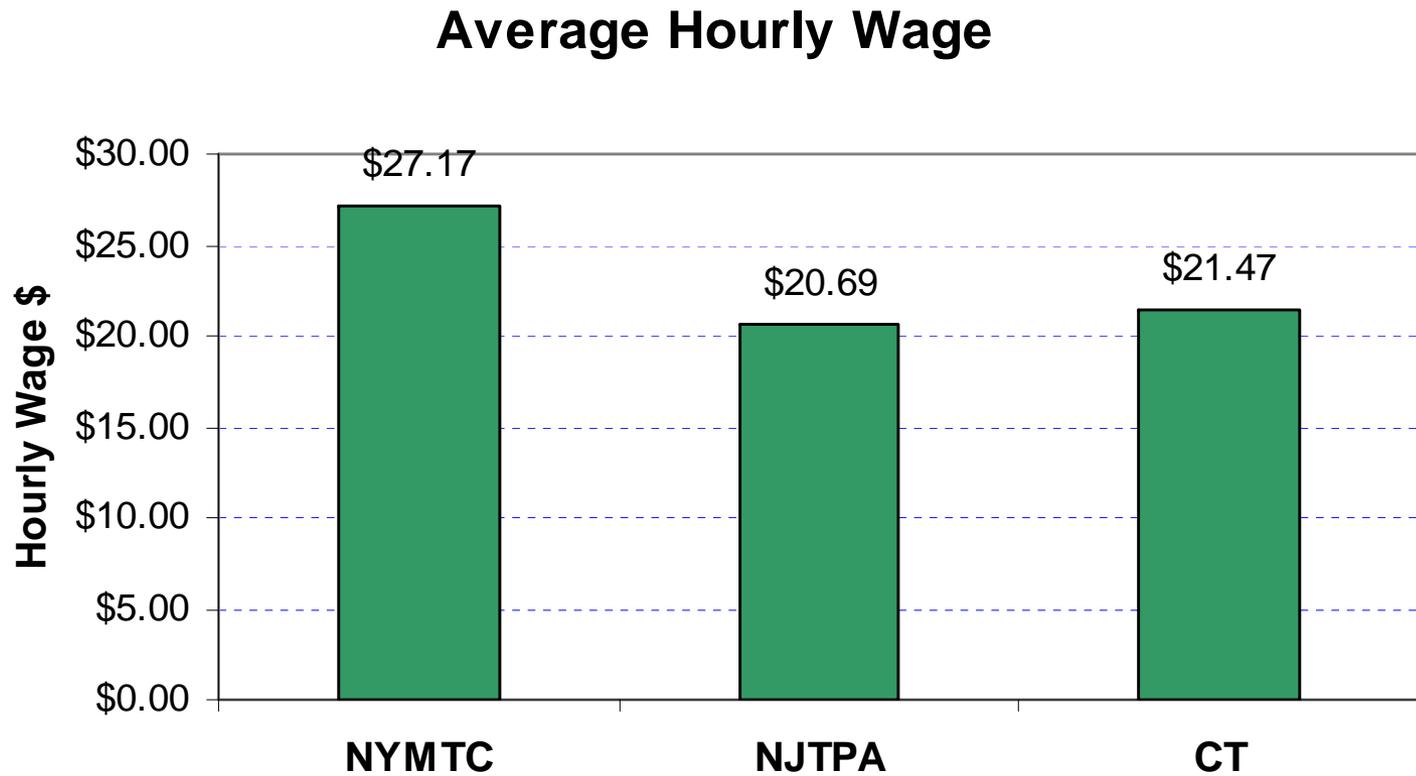
Demographics

Trend In Manufacturing



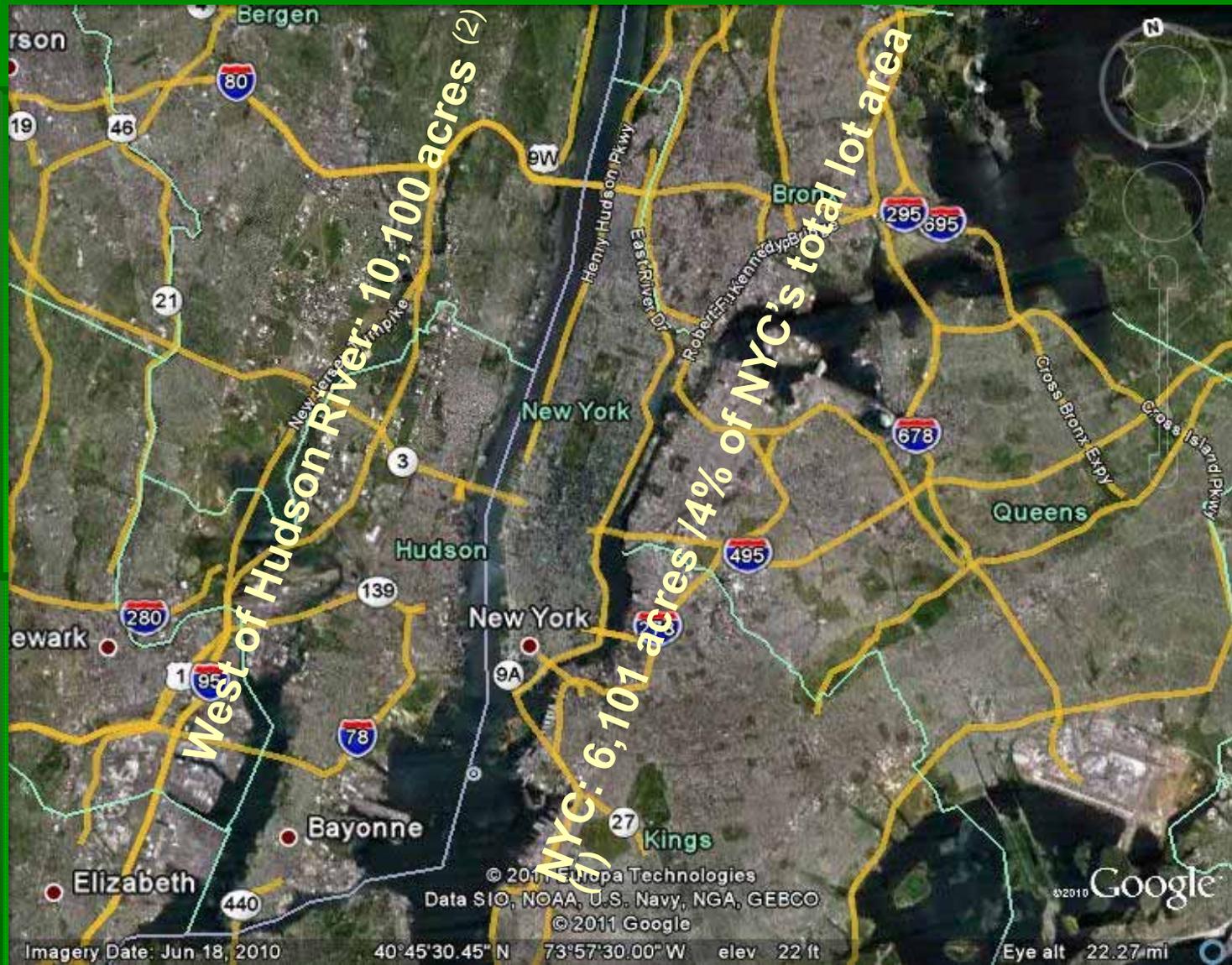
Demographics

Average Hourly Wage



Land Use

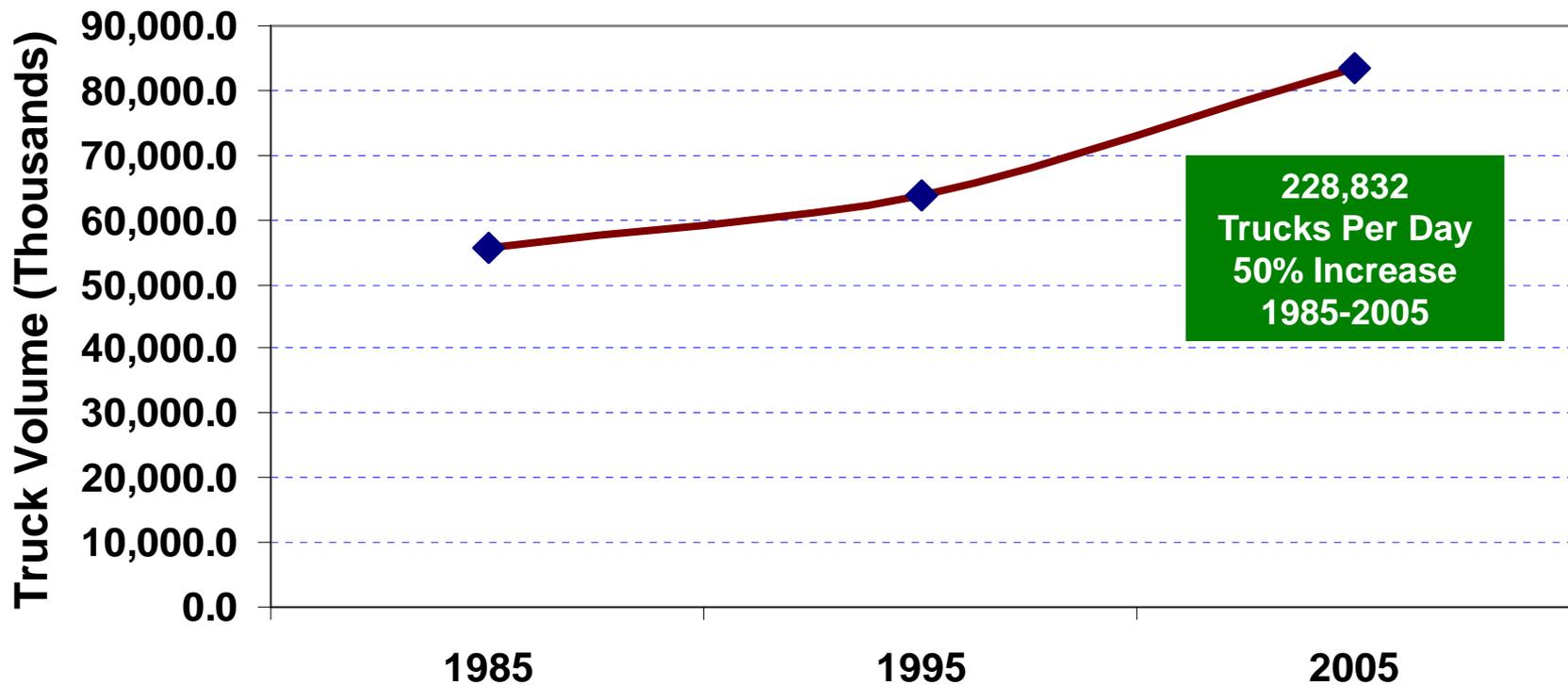
Location of Warehouse and Distribution Facilities



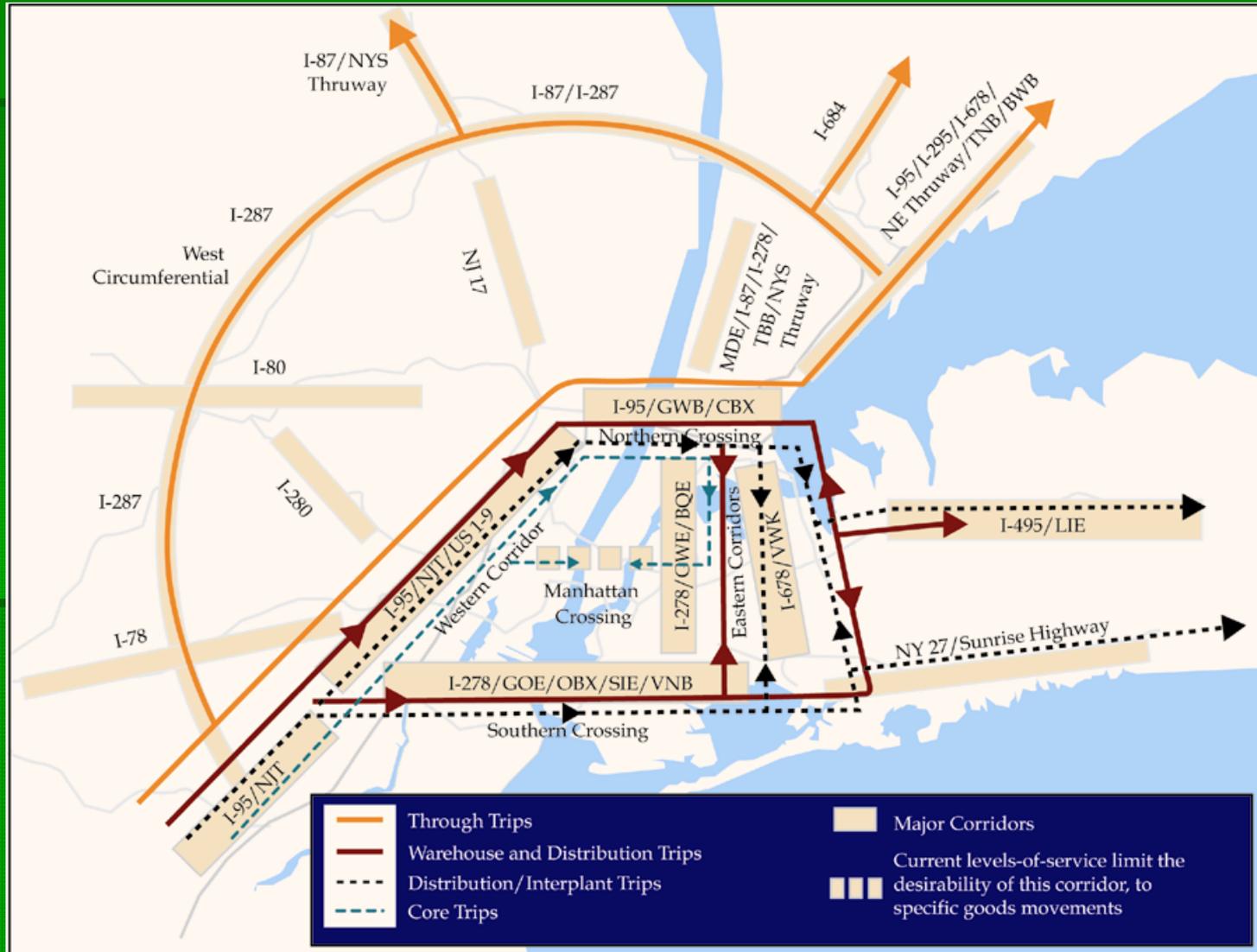
Transportation

Trans-Hudson River Truck Traffic

Total Truck Volume at NYNJ Toll Facilities



Transportation Truck Trip Purposes



Features:

Freight:

- Multimodal service
- Warehousing
- Distribution
- Intermodal terminal
- Customs
- Freight forwarders

Ancillary:

- Restaurants
- Motel/hotel
- Post office
- Transit service
- Banking services

NYMTC Regional Freight Plan Objectives

- *Reduce future truck volumes on some roadways*
- *Improve traffic operations on some roadways*
- *Increase rail mode share in the region*
- *Improve environmental quality*
- *Create a more efficient and cost-effective freight delivery system*

Benefits of Freight Villages

- *Create an efficient movement of freight*
- *Accommodate the increase in freight volumes*
- *Promote economic development*
- *Reduce truck miles of travel*
- *Community design/aesthetics*

What Criteria Are Used by the private sector to Determine the Location of A Distribution Facility?

- *Infrastructure*
- *Labor costs*
- *Proximity to customers*
- *Community and site characteristics*

Feasibility of Freight Villages in the NYMTC Region Study

- *The purpose of this study is to determine the feasibility of developing freight villages in the NYMTC region and to determine how or if they would address the objectives noted above.*

Feasibility of Freight Villages in the NYMTC Region Study

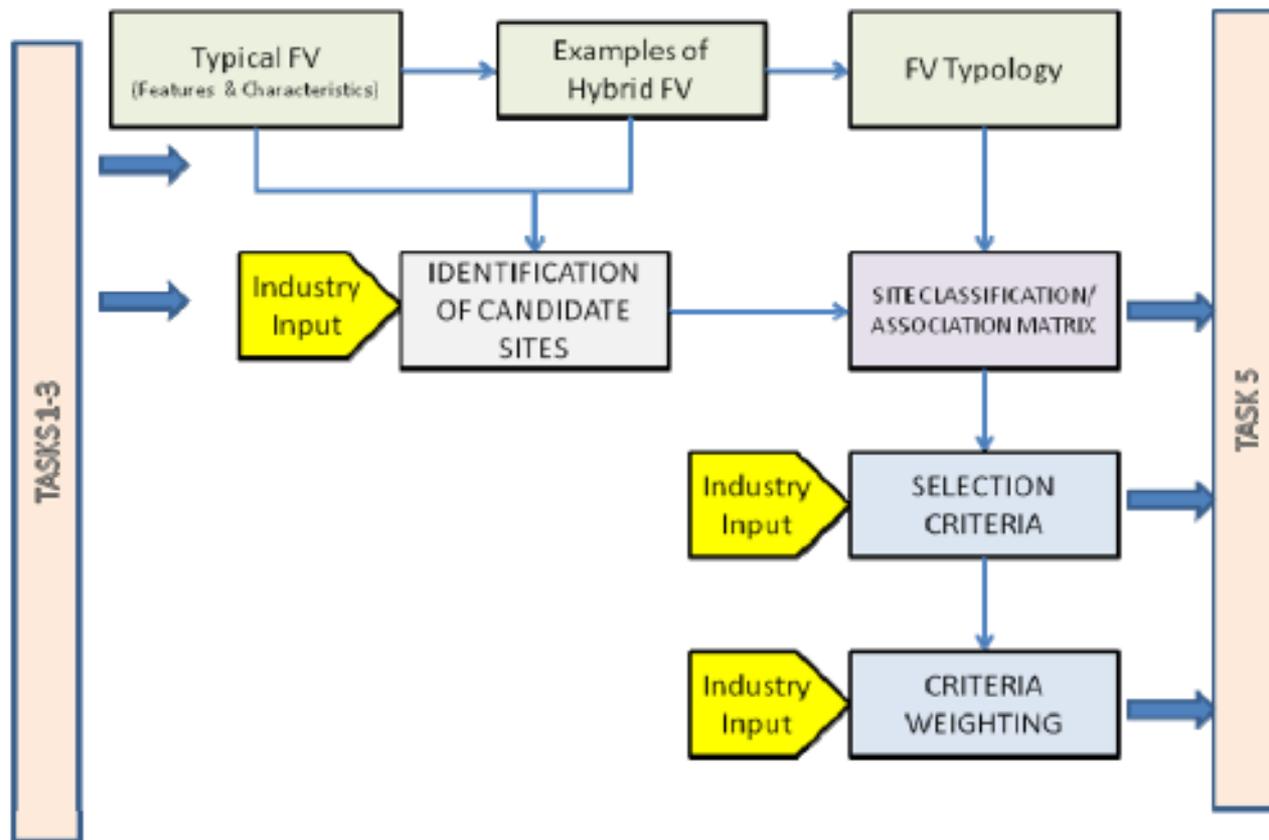


Figure 1 Task 4 Methodology

Six Sites Evaluated

Enterprise Park, Calverton
L.I.



LITRIM, Brentwood, L.I.



GATX – Staten Island

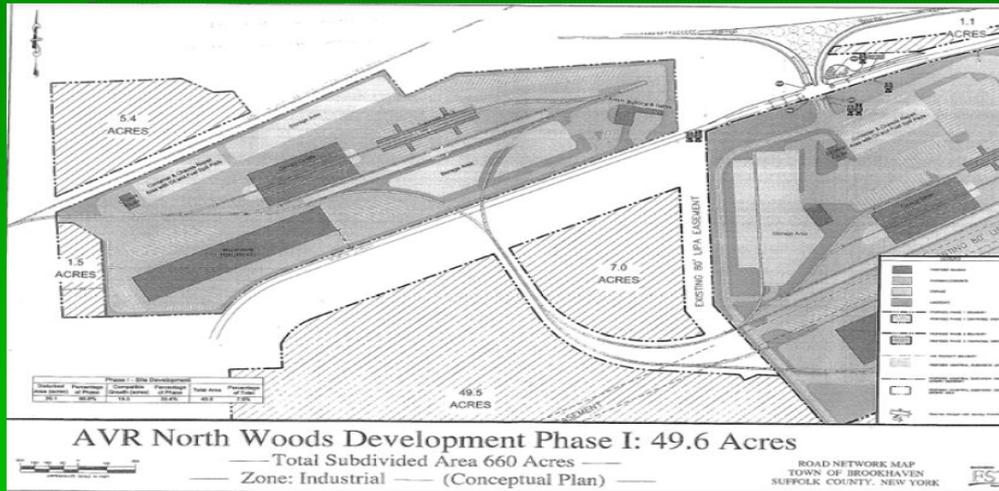


Sunset Park - Brooklyn

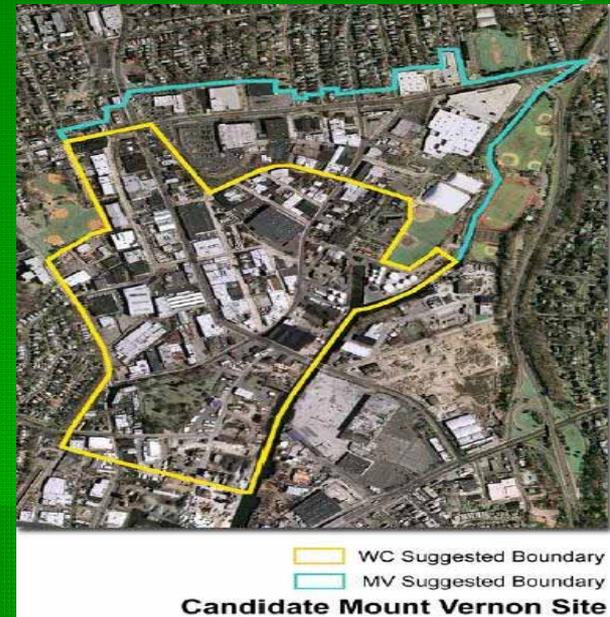


Six Sites Evaluated

AVR Realty, Town of Brookhaven, L.I.



Canal Village, City of Mount Vernon, Westchester County



Sites - Detail View



-  Proposed Maritime Use
 -  Suggested Boundary
- Candidate GATX Site**



NYMTC Goals Met by Different Types of Freight Facilities

	NYMTC Goals		
	Congestion Mitigation	Rational, Efficient Land Use	Economic Development
Community Integrated Freight Villages	X	X	X
Logistics Center Freight Villages	X	X	(X)
Freight Terminals	(X)		
Intermodal Industrial Parks	X	X	(X)
Multimodal Industrial Parks	(X)	X	(X)
Urban Distribution Centers	X	(X)	
Industrial Parks		(X)	(X)

X = likely would address

(X) = potentially could address, or could address but to a lesser degree

SELECTION AND QUANTITATIVE SITE ASSESSMENT

Numerical scores for each criterion and subcriteria Obtained Through A Delphi Process

A meeting was convened of supply chain managers and other logistics/transportation experts. The purpose of the meeting was to solicit key expertise from the NYMTC region to capture any criteria and metrics not included in the initial list but considered to be important for the region and to determine the relative weights and importance given to the various criteria from these region's experts.

SELECTION AND QUANTITATIVE SITE ASSESSMENT

Numerical scores for each criterion
and subcriteria

A. Site Suitability

*B. Background Activities &
Facilities*

*C. Access and Transportation
Networks Connections
& Infrastructure*

D. Property Conditions

*E. Location and
Interconnected Business
Activities*

MEASURING PERFORMANCE OF SITES COMPARED TO BASE PERCENT REDUCTION FROM BASE

	Truck Miles Traveled	Travel Time	Total Cost
Scenario 1	1.61	1.51	1.56
Scenario 2	8.64	3.74	3.81
Scenario 3	11.50	13.32	13.18
Scenario 4	22.98	31.98	31.70

MEASURING PERFORMANCE OF SITES COMPARED TO BASE REDUCTION IN LOGISTICS COSTS

	Base Case	Scenario 1	Scenario 2
Transportation Cost	131,540	120,181	118,977
Handling Cost	99,650	90,150	90,150
Holding Cost (storage only)	9,367	9,086	9,086
Total Logistics Cost	240,557	219,417	218,213

EFFECT ON ECONOMIC DEVELOPMENT – JOBS CREATED

Table 13 Employment Potential of each Candidate Site

		Sunset Park	Mount Vernon	LITRIM/Pilgrim	GATX	Calverton	AVR
Light Warehousing (LW)	Jobs	1844	2440	271	1112	2061	4555
	Area	68	90	10	41	76	168
Heavy Warehousing (HW)	Jobs	0	0	0	534	890	2137
	Area	0	0	0	33	55	132
General Light Industrial (GLI)	Jobs	0	0	0	0	1473	0
	Area	0	0	0	0	91	0
Crossdocking (CD)	Jobs	162	583	162	1068	648	2671
	Area	10	36	10	66	40	165
Industrial Park (IP)	Jobs	384	874	0	809	1182	2671
	Area	19	54	0	50	73	165
Intermodal Terminal (IT)	Jobs	0	0	60	60	60	60
	Area	0	0	30	30	30	30
Total number of jobs		2390	3897	493	3584	6313	12094
Total area (acres)		97	180	50	220	365	660
Average employment density (jobs/acre)		25	22	10	16	17	18

Conclusions

Assessment of Potential Impacts

- *Freight village development has the potential to assist in reaching NYMTC's regional objectives*
 - *(a) mitigating congestion by reducing vehicle miles traveled (VMT) and increasing modal balance;*
 - *(b) fostering rational and efficient land uses that curb sprawl, focus development on desired growth areas, and promote compatible land uses; and*
 - *(c) promoting economic development in the form of job creation.*
 - *(d) Each of six sites has some degree of potential to be a freight village*

■

More Information Available At:

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Thank You

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Questions from the
webcast?

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