Final Report

Feasibility Study for a New Transporation Center, Waterbury, Connecticut

Naugatuck Valley Development Corporation

STV Incorporated
in association with
Jeter, Cook & Jepson Architects, Inc.
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August 2001

TABLE OF CONTENTS

1.0 EXECUTIVE OUTLINE: THE BENEFITS OF A TRANSPORTATION CENTER

Waterbury, Connecticut, a city of over 100,000 people in Central Connecticut is in need of improvements to its public transportation facilities. With the current state of Waterbury's transportation system, it is not positioned to meet the future needs of the city, the region and changing landscape of public transportation in the U.S. While many cities in Connecticut and across the U.S. are building intermodal transportation facilities to consolidate multiple facilities with duplicate functions (that are often geographically spread apart), and to create better linkages between different transportation providers, Waterbury has been adhering to the old model of separate facilities for separate providers. A new Transportation Center would provide many benefits to Waterbury, and would be much more than just a place to transfer between bus routes or to catch a train.

1.1 Benefits for the City of Waterbury

There are a number of significant benefits to having a centralized Transportation Center in Waterbury. These include:

- **Creates a new transportation gateway for Waterbury:**

  A Transportation Center would act as a gateway to Waterbury and create a welcoming environment for transit users and visitors. Instead of arriving at open outdoor locations which is where all three existing facilities (the Green, Waterbury Train Station and the Travel Center) are currently located, people would arrive at a modern climate controlled facility that is pleasant and attractive. Local travel and tourist information could be made available so that wayfinding is not an issue.

- **Meets Waterbury's changing needs:**

  A Transportation Center should be part of the basic infrastructure of Waterbury because of the importance of transportation in a city's economy. Like previous investments in transportation infrastructure (i.e. the Waterbury Train Station, the shelters on the Green), the potential for a new Transportation Center shows that the transportation needs in Waterbury and around the country are changing. In the past, each transportation provider had its own facility and there was a lack of connection and coordination between them. This partly explains why there are currently three separate transportation hubs in Waterbury. However, today, connectivity, efficiency and reducing travel times are essential for transit to compete with the convenience of the automobile, and if growth in ridership is expected, then each service provider must not operate out of separate facilities.

1.0 EXECUTIVE OUTLINE: THE BENEFITS OF A TRANSPORTATION CENTER

❑ Puts Waterbury on an equal footing with other cities:

A new Transportation Center will put Waterbury on the same transportation footing as other cities in Connecticut. Various cities including Hartford, New Haven, Bridgeport, New London and Stamford are currently planning, building or have completed new Transportation Centers. If Waterbury doesn't keep pace with these cities, it may lose out on future economic development dollars. With increasing traffic congestion, an aging population and new land uses in Waterbury (i.e. University of Connecticut satellite campus), it is important that alternatives to the automobile are available.

❑ Fosters mobility through seamless connections:

The consolidation of many different transportation modes/providers into one center will make it much easier for passengers to connect/transfer from one transportation provider to another. In fact, if the various transportation providers can coordinate their schedules and offer through ticketing, then seamless connections can be created in which passengers can make efficient transfers without having to wait prolonged periods for their connecting service.

❑ Reduces traffic congestion and loiterers in downtown Waterbury:

By relocating the central transfer points for buses from the Green or the Travel Center to adjacent downtown areas, pollution, congestion and persons loitering on the Green can be reduced. The Green will revert from a bus terminal/transfer point to an intermediate bus stop, which means that fewer local buses will wait and idle around the Green, and the number of people that cluster around the Green waiting for buses will also be reduced. Bus riders clustering in front of stores and buildings is a complaint that is frequently expressed by area merchants and businesses.

❑ Improves safety and security for customers:

An indoor sheltered facility for customers to wait for their bus is a major safety and security improvement over the Green and other locations such as the Waterbury Metro-North train station, where customers must wait outdoors for their bus or train.

❑ Can help foster economic development:

In Waterbury, a Transportation Center can act as a catalyst for economic development. Station and station parking facility improvements can create momentum for the revitalization of an adjacent commercial district or residential neighborhood. There are several large tracts of land west of the Metro-North Railroad tracks and a Transportation Center can help "bridge the gap" and extend Waterbury's downtown to the west.

1.2 Benefits for Transportation Service Providers

Not only will the City of Waterbury and customers benefit from a new Transportation Center, but it will also benefit the transportation providers too. There are many reasons why each transportation provider should consider moving their operations to a Transportation Center:

- **Improved overall facilities (safety and security) for customers**:

  A Transportation Center can provide for:
  - Climate controlled waiting area for bus customers.
  - Ticket windows that not only provide information, but also enhances a Transportation Center's security – which reassures customers that assistance is at hand.
  - Retail establishments.
  - Public toilets.
  - Public payphones and other amenities.
  - A centralized transfer arrangement (e.g. less walking distances between buses than currently on the Green).

- **Improved overall facilities for each transportation provider's staff :**

  A Transportation Center can provide for:
  - Staff toilets.
  - Staff rest area/break room – providing staff relief facilities is important for staff moral, especially when layovers are short..
  - Staff offices.

- **Improved connectivity between different transportation providers:**

  - Commuter Rail.
  - Local Buses.
  - Intercity Buses.
  - Airporter Shuttle Buses/Taxis.
  - Rideworks (Commuter Trip Planning).
  - Tourist Railroad.

- **Buses can layover without impacting traffic flows and merchants:**

  - Currently an issue at the Green and the Travel Center.
  - Buses can park at the Transportation Center as long as they wish.
  - Buses can idle without impacting adjacent merchants.

- **A Transportation Center provides a visible focus for all transportation providers:**
  - A Transportation Center is a place each transportation provider can call its home:
    - Metro-North Railroad
    - Northeast Transportation Company
    - Land Jet Bus Lines/Bonanza Bus Lines/Other Intercity Buses.
    - Connecticut Limo (Airport Shuttle)
    - Local Waterbury Taxis
    - Rideworks of Greater New Haven
    - Naugatuck Railroad (Tourist Operation).

- **A single location for making transfers offers better security:**
  - More clustered activity creates a safer environment for customers and staff, which in turn encourages transit use.

- **A Transportation Center can better accommodate Northeast Transportation Company's pulse scheduling and its future growth:**
  - A well-planned Transportation Center can provide the needed room for additional bus bays (required for future increases in pulse service).

1.3 Benefits for Transit Oriented Development

A recent trend that has become popular has been to consider "transit-friendly" land use planning development initiatives surrounding station sites. Indeed, much of Waterbury owes its industrial era economic development to waterborne and railroad access – so Transit-Oriented Development (TOD), a concept that is currently very popular in many U.S. cities, is really nothing new for Waterbury. The idea behind TOD is to stimulate mixed-use, higher density development to occur in communities within walking distance of a rail transit station. Expected benefits include more ridership on the rail lines, less use of the auto (hence less congestion), more walking and local shopping, a stronger sense of "community" feeling and more compact neighborhoods (hence less urban sprawl).

Other benefits of TOD include improved air quality, promotion of economic development and increased housing options. It is essential to integrate a transit station into the other activities of the community in order to most effectively maximize the benefits of the transit investment and to maximize ridership.

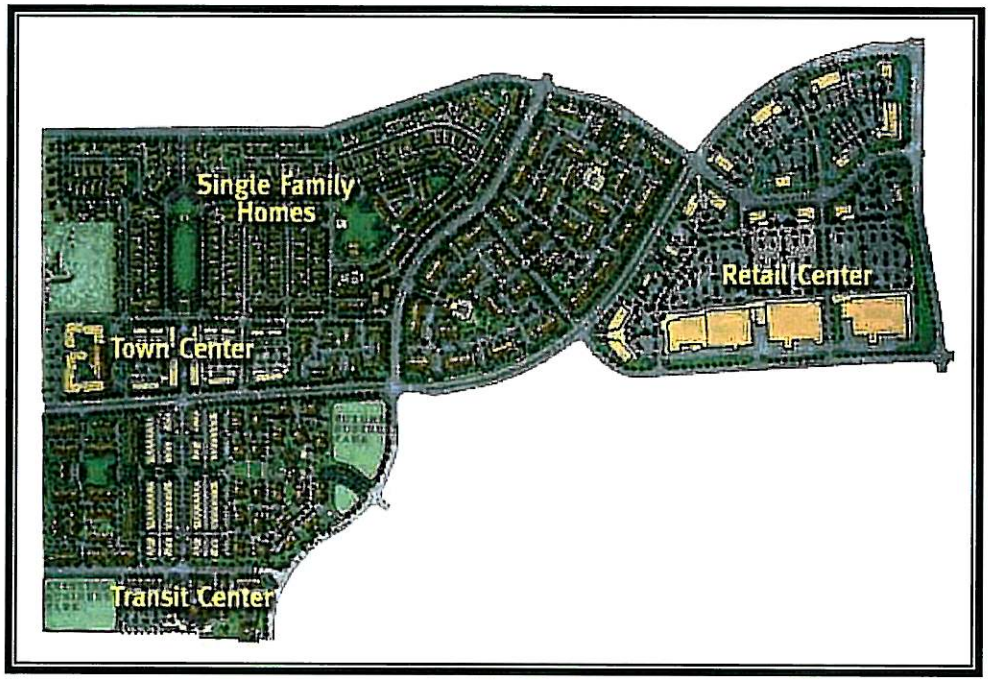
1.0 EXECUTIVE OUTLINE: THE BENEFITS OF A TRANSPORTATION CENTER

Transit-Oriented Development near the Braddock Road (WMATA) Station in Alexandria, Virginia.

A new Transportation Center in Waterbury could serve as a focal point for the city. It needs to be a welcoming, inviting place that will act as a gateway to the city. To make a Transportation Center an inviting place for people to use, it is simply not enough to plan and design the Center as attractively as possible. The area and streets around the Center also needs to be planned and designed in a similar fashion. Will people use a Transportation Center if the surrounding neighborhood is perceived to be unsafe? Most likely not. Therefore, urban design techniques such as upgrading the streetscape and adding sidewalk amenities, introducing public art and improving building exteriors should be applied around the transportation center and to portions of the downtown to improve the comfort and attractiveness of these places for residents and visitors.

The goal of transit oriented development is not solely to improve access to public transit ridership, but also to build livable and efficient communities. To successfully accomplish this, several things must be done, but the most important is good urban design. A community must be planned and designed to support pedestrian activity and reinforce a sense of community. Commuters need to be encouraged to rely on alternative modes other than the automobile to get to and from the train station. The built environment needs to be designed to support bus access, as well as pedestrians and bicycles.

Obviously, some potential sites in Waterbury are better suited for Transit-Oriented Development (TOD), but the STV team will examine the TOD potential for each site that is analyzed in this study.



Site plan for Orenco Station, Oregon. Located 11 miles west of Portland, Orenco Station is a Transit Oriented Development planned around a light rail station.

1.4 Benefits for Joint Development Opportunities

In this day and age, Transportation Centers are no longer simply used for transportation purposes but are places with retail and office space where people can access a variety of goods and services. Joint development with the private sector has become increasingly more important as Transportation Centers have become more expensive, and the demand for services complementary to transit has increased.

Examples of joint development can be seen in places such as Stamford and Bridgeport, where rail stations/Transportation Centers are designed to accommodate a range of retail shops and cafes, turning them into multi-purpose facilities. Other stations around the Tri-State Region have been converted into art centers, day care centers, community centers and retail stores, providing services such as newsstand, coffee shop, dry cleaners or shoe repair that are valuable services for commuters. For example, Stamford Station is currently being redesigned so that a pedestrian access road that cuts through a parking lot under Interstate 95 can be replaced with an enclosed pedestrian shopping arcade. By introducing other uses such as retail into transit stations, they can be transformed into centers of activity.

1.5 Example of Transit Oriented Development /Joint Development

For Transit Oriented Development (TOD) policies to work effectively, there has to be an underlying commitment from local transit and planning agencies to support this process. This is usually done through adopting transit-friendly policies to ensure that growth is managed and concentrated around transit stations and corridors. Below is an example of how effectively TOD policies work when transit providers work closely with local governments to develop initiatives that benefit everyone. This is the model that can be emulated in Waterbury.

A good example of an agency that has developed strong transit-friendly goals is the Santa Clara Valley Transportation Authority (VTA), which serves the greater San Jose area of California. VTA has made a concerted effort to focus its long-term Strategic Plan towards land use planning issues. One of VTA's Strategic Plan goals is to integrate transportation and land use planning and they have established a TOD Program to accomplish this. The TOD Program strives to intensify and diversify land uses and enhance pedestrian circulation at appropriate locations.

In California, the jurisdiction over land use rests with the cities and the County, and therefore VTA has formed partnerships with local municipalities to implement its TOD Program, ensuring that Transit-Oriented Development occurs. Several cities have even amended their zoning codes and regulations so that provisions for transit supportive land uses at existing and planned rail stations are included. VTA acts as a guide for its TOD Program by providing local jurisdictions with their expertise and resources on how to achieve transit friendly development. VTA expects that result of their planning policy efforts are better communities that will offer residents a wider variety of transportation choices.

The VTA definition of TOD is a mix of uses within a 2,000-foot (5-minute) walking distance of a transit stop. They believe that by building walkable neighborhoods around transit stations, it will provide large numbers of people with easy access to their light rail system as well as connections with other public transportation modes. The design, layout and density of uses in TOD neighborhoods puts emphasis on a pedestrian-transit environment. The neighborhood is designed to be mixed-use and often includes retail, office, open space and other community uses. The development of these comprehensive neighborhoods not only supports transit, but illustrates how transit can support land-use planning.

These are the four main elements of VTA's TOD Program:

- Station Area Planning
- Joint Development
- Development Review
- Outreach and Education

1.5 (A) Station Area Planning

There are three elements to the VTA's station area planning efforts. The first to analyze specific sites along existing and planned rail lines. Station area planning combines land use and rail planning efforts from the initial concept(s) through construction of a rail line. The second includes participating in efforts set forth by individual cities to stimulate Transit-Oriented Development near rail stations. The third element consists of focusing TOD efforts on a list of high priority sites. A database of sites is monitored to help track key sites that are high priority opportunities for TOD and provides information about project proposals, background information and current status.

1.5 (B) Joint Development

VTA has implemented many joint development projects that promote transit and pedestrian use. Projects built on VTA-owned land are designed to allow residents and employees easy access to transit. The goals of the VTA's joint development policies are to increase transit ridership, generate revenue, and enhance the station area environment. Current joint development projects are a varied mix that includes a child care center, a housing development and a mixed-use project.

1.5 (C) Development Review

VTA established their Development Review Program in 1995. It is a coordinated effort between the cities and VTA, in which cities refer projects to VTA for comment during the project approval process. Up 500 development projects are now reviewed annually to ensure that they are compatible with existing and proposed transit services.

1.5 (D) Outreach and Education

VTA staff use various forums to advocate TOD, station area planning and land use/transportation integration, including participation in conferences, seminars and the creation of promotional materials.

The above example shows that Transit-Oriented Development and joint development can transform a community into one that is relies less on the automobile and more on public transit. Santa Clara County is realizing the benefits of tying land use with transportation planning, which can be seen along the existing Caltrain and light rail lines where Transit-Oriented Development is taking hold. Planning for additional rail lines is already underway, and mixed-use, transit friendly development should be in place by the time these new lines begin operation.

1.6 Benefits for Neighborhood Revitalization

Design improvements make a Transportation Center more visible and help to integrate it into the surrounding community. Often, a poorly designed Center leaves transit users with a negative perception of safety and security. A good example of how poor design can influence people's perceptions is the South Norwalk (Metro-North) station in Connecticut.

The original South Norwalk train station was constructed on its site in the 1890s, but by the early 1990s had been neglected for many years and fallen into a state of disrepair. The fact that the surrounding neighborhood was a high-crime area did not help the situation. Most commuters never felt safe at the station because it was dimly lit, dreary, and depressing. The design of the station further added to its problems. There was a tunnel that connected the eastbound and westbound platforms, but this graffiti-filled tunnel had to be closed late at night to prevent criminal activity, thereby forcing late night train riders to walk 800 feet out of their way to get to the other side. It was finally decided that the station needed to be renovated.

In the spring of 1993, the City of Norwalk, using state and federal grant money, renovated South Norwalk station. Efforts were made to retain/restore as many historical features of the station as possible. The New Haven bound (eastbound) waiting area was refurbished and modernized and the original New York bound (westbound) structure was demolished and replaced with a modern waiting room and parking garage complex, which opened in 1996. The tunnel that connects the eastbound platform with the main station was also renovated. New bright lights and security cameras were added and the tunnel is accessible by stair or elevator.

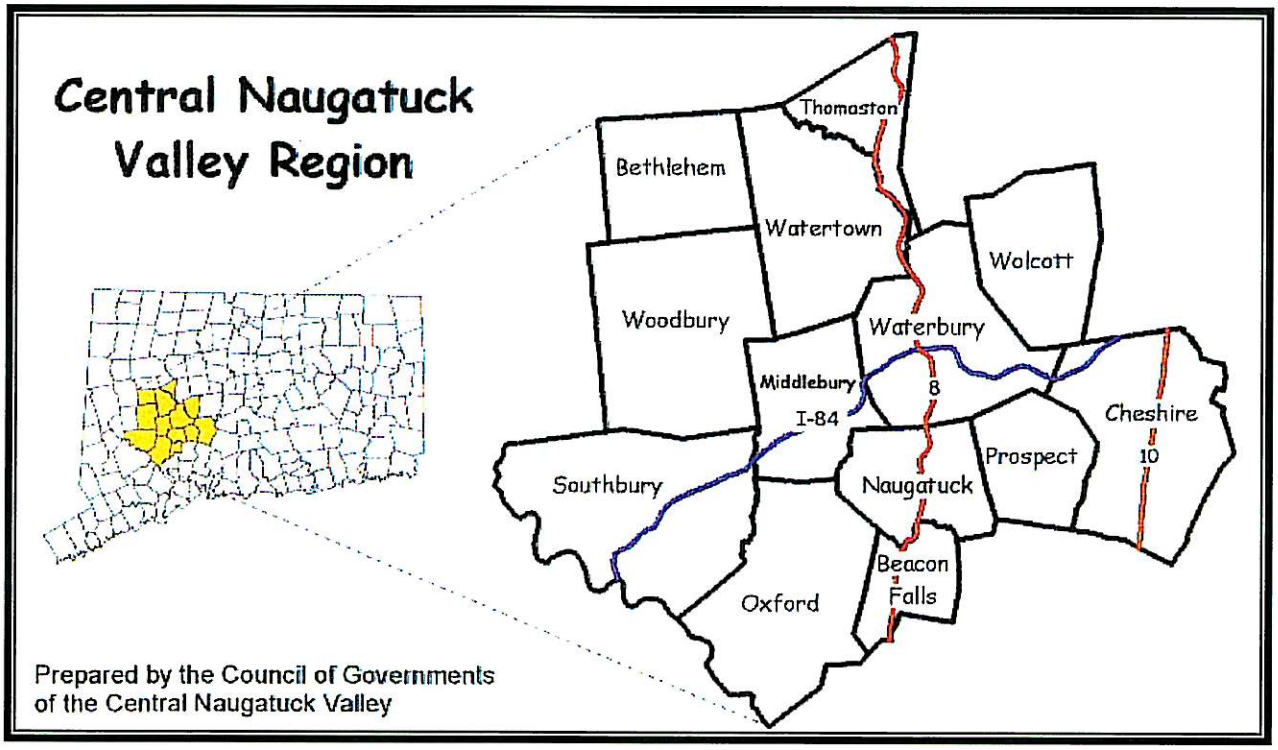
South Norwalk station is now patrolled by a private security force and an electronic security system was installed. These two additions have been important factors in allaying commuter fears, but more importantly, the design improvements to the station itself have contributed to improving the overall sense of security. The refurbishment of South Norwalk station has had a positive impact on the community and had helped to improve and revitalize the surrounding neighborhood. A new Transportation Center could have similar revitalization impacts to Waterbury's downtown, but on an economic level, where new and improved transportation linkages will make it more attractive for new businesses to open.

2.1 Introduction to Waterbury

The STV team was commissioned by the Naugatuck Valley Development Corporation (NVDC), a non-profit economic development corporation that serves the City of Waterbury and the Naugatuck Valley Region of Connecticut, to study the feasibility of a new Transportation Center in Waterbury. A Transportation Center would integrate all of Waterbury's major transportation services, including rail, local bus, intercity bus, and taxi, into one location for the first time and would act as a catalyst for new economic development.

Waterbury, located in Central Connecticut, has a population just over 107,000 making it the fifth largest city in the State behind 1.Bridgeport, 2.New Haven, 3.Hartford and 4.Stamford.

Located in west central Connecticut, Waterbury is the fifth largest city in the state, with a population of 107,271 (*2000 Census*) and an area of approximately 28.6 square miles. Waterbury is the metropolitan center of a region known as the Central Naugatuck Valley Region (CNVR), an area with roughly 262,000 residents.



Waterbury is located at the center of the Central Naugatuck Valley Region (CNVR), an area with approximately 260,000 residents.

Within this 13-town region many cultural, educational, and recreational destinations, including shopping malls, museums, nature trails and amusement parks, are readily available. In addition, Waterbury's close proximity to the ski resorts of New England to the north and the beaches and boating of Long Island Sound to the south means that the area's residents have easy access to a wide range of year-round, world-class recreational activities.

At the junction of Interstate-84 and State Route 8, Waterbury's strategic location makes it an important transportation hub for the region and a regional draw for shopping and entertainment. Waterbury is also slowly gaining prominence as a tourist destination.

2.2 Demographic Profile of Waterbury

Detailed year 2000 U.S. census data is not available at this time, so the STV team is using 1990 census data to provide a demographic profile of Waterbury. It should be noted that due to social and economic changes over the past 10 years, we expect a significant shift from the 1990 data to the 2000 data.

TABLE A: ***1990 Population Demographic Indicators for Waterbury***

POPULATION:		
Waterbury Population	108,961	100.0%
Population Density (persons per square mile)	3,816	-
Females	57,709	53.0%
RACE:		
White (Non-Hispanic)	86,674	79.5%
Black (Non-Hispanic)	14,104	12.9%
Asian & Pacific Islander (Non-Hispanic)	768	0.7%
Other (Non-Hispanic)	359	0.3%
Hispanic (Any Race)	13,902	12.8%
AGE DISTRIBUTION:		
0 – 4	8,544	7.8%
5 – 9	6,722	6.2%
10 – 13	5,218	4.8%
14 – 17	5,110	4.7%
18 – 24	11,460	10.5%
25 – 34	20,828	19.1%
35 – 44	14,306	13.1%
45 – 54	9,437	8.7%
55 – 59	4,622	4.2%
60 – 64	4,880	4.5%
65 – 74	9,869	9.1%
75 – 84	6,241	5.7%
85 and Over	1,724	1.6%
HOUSEHOLD SIZE:		
Total Households	42,979	100.0%
Average Household Size (Persons)	2.49	-
Single Person Households	12,684	29.5%
Single Person Households (Over 65)	5,492	12.8%
2 Persons Households	12,979	30.2%
3-4 Persons Households	13,109	30.5%
5+ Persons Households	4,212	9.8%

HOUSEHOLD TYPE:		
Total Households	42,979	100.0%
Families	28,535	66.4%
Married Couples	20,390	71.5%
Married Couples with Own Children	8,889	31.1%
Female Household (No Husband)	6,389	22.4%
Female Household (No Husb.) w/ Own Children	3,615	12.7%
Non-Family Households	14,444	33.6%
HOUSEHOLD INCOME (1989):		
Less than $10,000	7,001	16.3%
$10,000 - $14,999	3,465	8.1%
$15,000 - $24,999	7,175	16.7%
$25,000 - $34,999	6,656	15.5%
$35,000 - $49,999	8,132	18.9%
$50,000 - $74,999	7,504	17.5%
$75,000 - $99,999	1,999	4.7%
$100,000 and Over	1,047	2.4%
Median	$30,533	-
Average	$35,566	-
Persons Below the Poverty Level	12,922	12.1%
HOUSING UNITS:		
Total Units	47,205	100.0%
Owner Occupied Units	21,157	44.8%
Renter Occupied Units	22,007	46.6%
Vacant Units	4,041	8.6%
Single-Family Units	18,055	38.2%
In Buildings with 5+ Units	12,393	26.3%
Condominiums	5,012	10.62
VEHICLES AVAILABLE:		
Total Occupied Housing Units	43,164	100.0%
None	8,160	18.9%
1	16,348	37.9%
2	13,921	32.3%
3 or More	4,735	11.0%
COMMUTING TO WORK:		
Workers 16 Years and Older	49,858	100.0%
Percentage Using Public transit		3.2%

In many U.S. cities, certain segments of the population are more dependent on public transportation than others. A brief review of the 1990 Census numbers show that Waterbury's population is 25% minority and that 16% are elderly (over the age of 65). Also, over 40% of all households make less than $25,000 a year and that 12.1% of the total population is living below the poverty level. While these numbers could indicate that there is large segment of Waterbury's population that is transit dependent, a more telling number is the fact that 8,160 occupied housing units, nearly 20% of the total, have no vehicle available. This represents about 20,000 people that do not have a vehicle available that could benefit from any proposed public transportation improvements. At the same time, only 3.2% of Waterbury's working population took public transit to work. Obviously, it is hoped that transportation improvements will attract new users that are currently not using Waterbury's public transportation system.

3.1 Developed Goals and Objectives

Four goals were established early on in this study to serve as a guide for the STV team in their development of new transportation improvements for Waterbury. These goals were the product of a project kick-off meeting that was held on September 19, 2000 at the Waterbury offices of the NVDC. Based on their discussions with key stakeholders and other Connecticut transportation professionals (Technical Advisory Committee), the STV team was able to take a broad set of ideas and recommendations and combine them into four concrete goals. These were ultimately endorsed by the Technical Advisory Committee formed to oversee the progress of this study.

- **The marketing of transit services and the provision of travel information needs to be improved.**

  Meeting attendees noted that current transit marketing efforts in Waterbury were weak or non-existent. New transportation solutions need to be devised and must be adequately marketed to attract new ridership. Some suggested ideas included such things as placing more ads in local and regional newspapers, the establishment of an Internet website and the offering of incentives to riders, such as fare discounts. These marketing efforts should focus on the Greater Waterbury Region (population 262,000), not just central Waterbury itself.

  Easier access to travel information such as route maps, schedules, and fares needs to be provided for customers. Currently, there is no central place for customers to go and obtain travel information, and wayfinding to transportation facilities has also been a problem for many customers. Regardless if a new Transportation Center is built or not, the need for information kiosks and schedule stands is evident and should be placed in key destinations around the Waterbury area. All travel information should also be made available on the Internet.

- **Any new transportation solutions must be safe and secure for all users.**

  Some existing facilities, such as the current Waterbury Train Station, whether justified or not, have the perception of being unsafe and not secure. Often, the misconception that a location is unsafe can have a greater impact on ridership than the actual conditions themselves. Therefore, any new transportation solutions must be customer friendly and provide a safe and secure place to wait for transit. Defensible space concepts will be used to create an open, yet functional design that eliminates poor design features such as hidden pockets and blind corners.

Often overlooked in the design process is the condition of external facilities such as parking lots. These will be designed in such a way that they are easily accessible, visible and secure. Facility maintenance is also very important and can have a direct impact on customer perceptions of safety and security. A facility that is poorly maintained gives the perception that it is unsafe and uninviting.

- **Any new transportation solutions (improvements) should be tied in with economic development efforts in Waterbury.**

Any new transportation solutions should help to spur new economic development in Waterbury, particularly in the downtown area where a new Transportation Center might be located. The possibility of private/public partnerships and joint development will be incorporated into some of the STV team's early design concepts.

Any Transportation Center designs produced should have space available for business and retail components. Depending on the amount of space available, these could range from a small newsstand to a food establishment, or perhaps to something even larger such as an office development. A retail/office component would help to attract people to the center and would also help to eliminate the perception that the center is unsafe.

- **Travel (transfers) between different modes and providers should be seamless.**

Any new transportation solutions (e.g. Transportation Center) will need to provide a convenient transfer between different modes and providers. The layout of a Transportation Center should be arranged in a logical manner that provides the most efficient transfer between the different transportation modes. Ideally, a traveler's trip should be seamless in that they should be able to travel from their origin to their destination, regardless of mode or providers, without any major delays or complicated transfers. Operationally, there also needs to be schedule coordination between the different modes/providers so that travelers can make timely transfers without having to wait for long periods of time.

In order to develop overall consensus and support for this project, the STV team followed the project kickoff meeting with a series of highly interactive Technical Advisory Committee meetings to arrive at the best solutions. (A summary of Technical Advisory Committee meetings can be found in Appendices B & C at the back of this report.) During these meetings, the STV team explained the rationale for the project; developed mutually agreeable project goals and objectives; developed a variety of transportation and design alternatives; and presented viable alternatives. These meetings were attended by local stakeholders and transportation professionals from various agencies including Connecticut Department of Transportation, State public officials, the Regional Planning Agency, the City of Waterbury, and local business groups.

4.1 Waterbury's Transportation Options

Currently, there are several transportation options available to/from Waterbury and within Waterbury itself. However, once travelers arrive in Waterbury, transportation providers are geographically disjointed and there is no service coordination among these different providers.

Below is a brief summary of Waterbury's existing transportation system:

4.1 (A) Highway Access

Waterbury is located at the crossroads of two major limited access highways, Interstate-84, a highway that runs east-west, and State Route 8, a Connecticut state highway that runs north-south.

A plethora of interstate, US and state highways crisscross the state of Connecticut. Waterbury is located at the crossroads of Interstate-84 and State Route 8, two large limited access highways. If a Waterbury Transportation Center is built, it will give area commuters improved mobility alternatives to the automobile.

4.0 EXISTING TRANSPORTATION OPTIONS AND FACILTIIES

4.1 (B) Rail Transportation

Metro-North Railroad provides passenger service from Waterbury to Bridgeport, with six daily roundtrips. At Bridgeport, passengers can transfer to other Metro-North trains traveling south to Grand Central Terminal in New York City or north to Union Station in New Haven. At Bridgeport, connections can also be made to Amtrak, which has 8-10 daily northbound and southbound trains.

4.1 (C) Bus/Shuttle Transportation

The Northeast Transportation Company (NET) provides local bus transportation within Waterbury. The network is comprised of 22 bus routes that are grouped together by direction (north, east, west and south) that run 12 hours a day (6AM to 6PM) with headways of 15 to 30 minutes. Saturday service is more limited. All buses start/terminate in downtown Waterbury at the Green (Exchange Place).

Local bus service in Waterbury is operated by the Northeast Transportation Company (NET), which uses buses provided by CT Transit.

Bonanza Bus Lines offers regularly scheduled service to New York City, Danbury and Hartford, as well as to destinations in New England. Connecting service is available for bus travel nationwide.

Connecticut Transit – New Haven Division runs hourly bus service between Waterbury and downtown New Haven.

Land Jet Bus Lines (Travel Center) offers excursion service from downtown Waterbury to popular Connecticut tourist destinations such as the Foxwoods Resort and Casino.

Connecticut Limo provides a scheduled shuttle service from the Waterbury Sheraton Hotel on East Main Street (outside of the downtown area) to the region's major airports including John F. Kennedy and La Guardia in New York City, Newark International in New Jersey and Bradley International Airport in Hartford.

Other bus services available include ***New Britain Transportation*** service to Hartford and ***Valley Transportation, Inc.*** service to Bridgeport. ***On-demand dial-up paratransit*** is also available for persons with disabilities and the elderly.

4.1 (D) Local Taxicab

Waterbury Yellow Cab service is available, though pick-ups often must be arranged by telephone.

4.1 (E) Carpool/Vanpool

Rideworks of Greater New Haven is a regional, non-profit company working to get people in Connecticut to commute by means other than driving alone. They offer free help in finding options that best fit a commuter's needs, including arranging carpools and vanpools, or assisting with obtaining bus or train schedules.

4.1 (F) Tourist Railroad

During the warmer months, the ***Railroad Museum of New England*** and ***the Naugatuck Railroad*** offer scenic train rides along the Naugatuck River from the historic Thomaston, Connecticut, train station.

Naugatuck Railroad train.

4.2 Waterbury's Transportation Facilities

While Waterbury does have a plethora of transportation services available, they comprise a scattered and fragmented transportation system. Geographically, there are currently three major transportation facilities/hubs, located in various parts of downtown Waterbury, each serving as a terminal point for different providers. They are described in greater detail below:

A view of the former Waterbury Train Station (above) and the current Waterbury Train Station (below), which are adjacent to one another on Meadow Street.

The former Waterbury Train Station, with its distinctive clock tower (modeled after the Torre Del Mangia at the Palazzo Publico in Sienna, Italy), is an imposing landmark that serves as a visual focal point for Waterbury. It is currently home to the Waterbury Republican-American newspaper.

The current Waterbury Train Station is of a simpler design. Because its location is partly obscured behind a building, it is barely visible from the street.

4.2 (A) Waterbury Train Station

This station is located on Meadow Street between Grand Street and Interstate-84, adjacent to the landmark former Waterbury train station (now used by the Waterbury Republican-American Newspaper) and across the street from Library Park. Waterbury Station serves as a terminal station for Metro-North Railroad's Waterbury Branch and is an outdoor station with a single, high-level, covered platform.

4.2 (B) The Green (Exchange Place)

A park (traditional New England town green) located on West Main Street between Church Street and North Main Street, the Green serves as a terminal and transfer point for all local bus service operated by the Northeast Transportation Company. Buses primarily stop on the south and west ends of the park where a series of bus stops and shelters are located. Transfers between buses can be difficult, particularly during inclement weather, as customers often need to walk several blocks and wait outdoors for their buses.

Passengers waiting for a bus at the Green on a cold January morning. While there are sheltered bus stops on the Green, passengers must still wait outside, and some passengers must also walk several blocks to make a bus transfer.

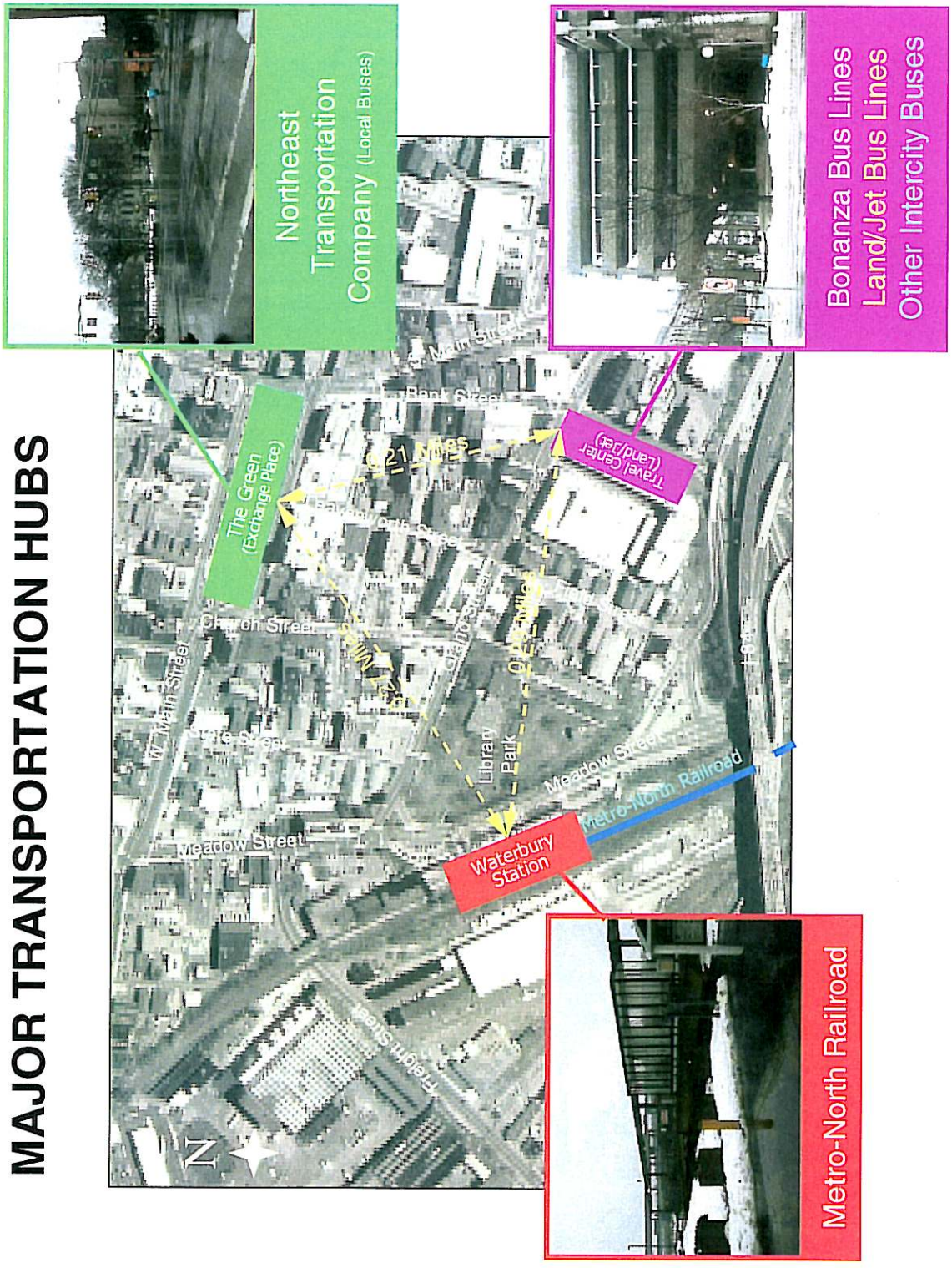
4.2 (C) Travel Center

Located on the corner of Bank Street and Grand Street on the ground floor of a multi-story parking garage, the Travel Center is a travel agency that also serves as the pick-up/drop-off point for intercity buses. Bonanza Bus Lines, Land Jet Bus Lines and other intercity buses stop their buses on Bank Street along the street curb.

Due to their locations and the distances between them, traveling between these three transportation sites can be difficult, especially during the winter months. For example, someone who arrives in Waterbury on Metro-North Railroad and wishes to transfer to a local or intercity bus must walk nearly 1/3 of a mile to the Green or to the Travel Center – assuming they know the route, as there are no signs indicating the location of Waterbury's three transportation hubs. Exploring options to geographically tie these three sites together, and improving wayfinding for customers are certainly key objectives of this study.

4.3 Distance Between Transportation Hubs

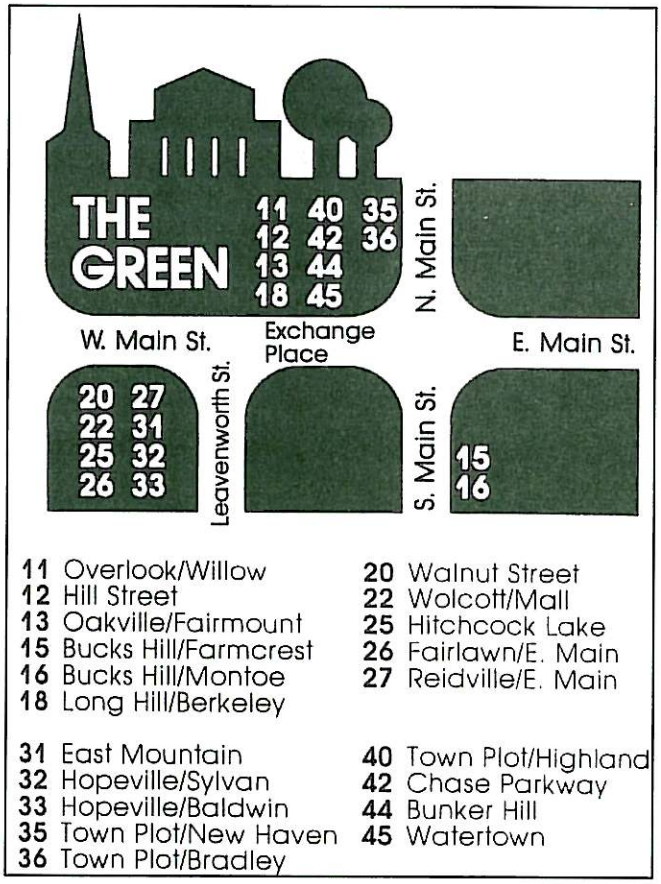
LOCATION & DISTANCES BETWEEN WATERBURY'S MAJOR TRANSPORTATION HUBS



5.1 The Green (Exchange Place)

The Green (Exchange Place) in downtown Waterbury currently serves as the starting/termination point for all NET bus routes and a key transfer point for passengers changing bus routes. NET buses run on a pulse system in which all buses arrive at different times, but depart at the same time. For example, it is 10:35 AM and there are people on the Green waiting for the 11 AM buses. Bus routes slowly begin to arrive at the Green from different parts of Waterbury. Some buses may arrive at 10:45 AM and some at 10:55 AM. Regardless of what time each bus arrives, it waits at the Green until exactly 11 AM when all the buses depart at once.

In Waterbury, most bus routes leave the Green on the hour and half past the hour. The majority of routes are short enough that a round trip can be completed in less than 30 minutes. Therefore, there are times when the Green is crowded and bustling with people and other times when it is quiet.



Bus boarding points at the Green (Exchange Place): Most westbound and northbound bus routes use the stops on the Green (northside of West Main Street) whereas eastbound and southbound use the stops south of the Green (southside of West Main Street).

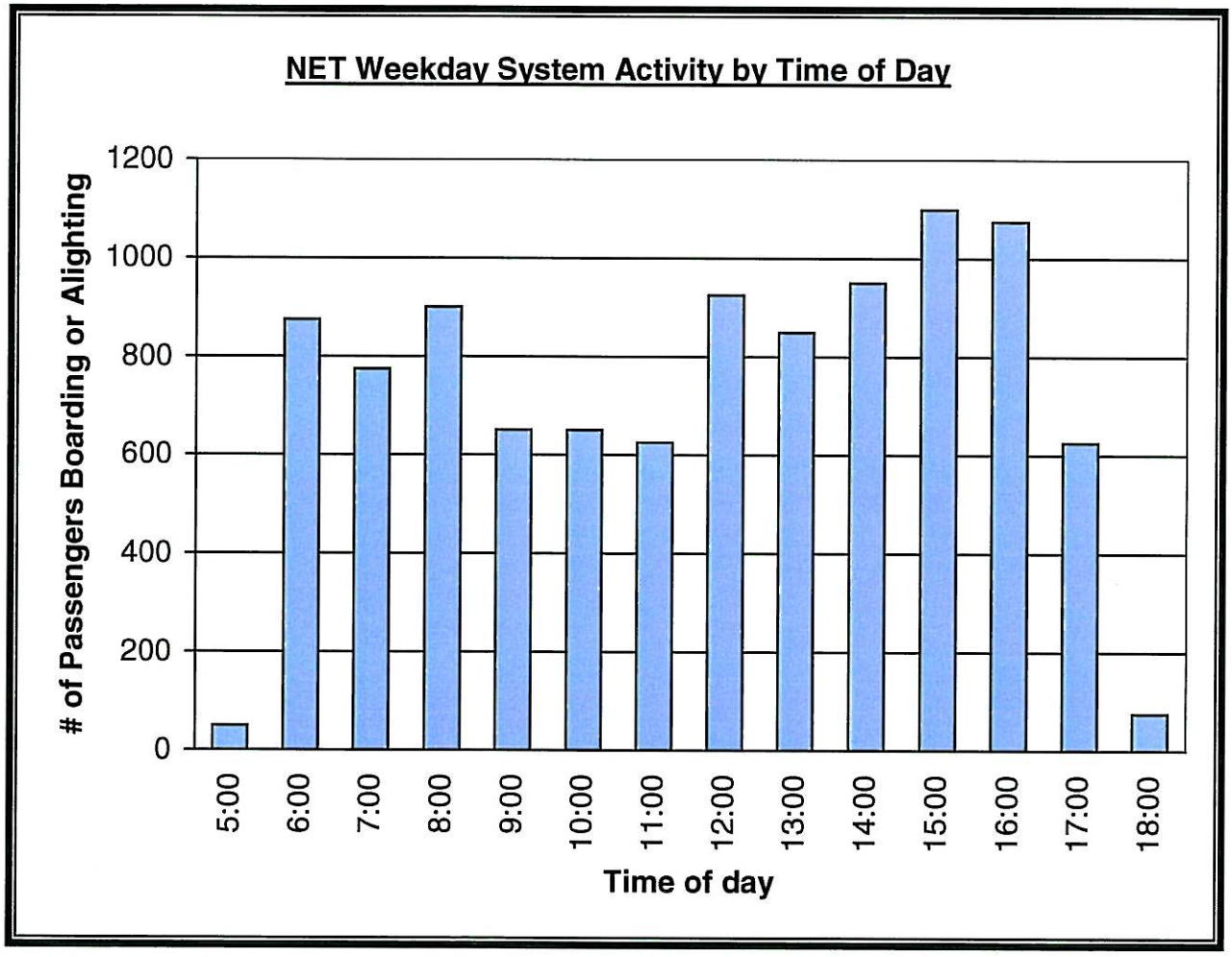
5.2 Northeast Transportation Bus Ridership

Weekday On/Off Counts (November 1997) were conducted for all NET-Waterbury trips.

- Total Daily Boardings: 5,129 (100 %)
  - AM Peak Period (5:00AM – 9:59AM): 1,655 (32%)
  - Midday Period (10:00AM – 2:59PM): 2,000 (39 %)
  - PM Peak Period (3:00PM – 6:59PM): 1,474 (29%)

- AM Peak Hour is 8:00AM
- PM Peak Hour is 3:00PM

FIGURE 2 – NET Weekday System Activity by Time of Day



5.3 Bus Boarding/Alighting Counts at the Green

TABLE B: *Weekday NET Bus ON/OFF Counts at the Waterbury Green*

ROUTE NO.	ROUTE NAME	DAILY RUNS	OUTBOUND BUS BOARDINGS	INBOUND BUS ALIGHTINGS	TOTAL
11	Overlook/Willow	21	191	121	312
12	Hill Street	18	106	53	159
13	Oakville/Fairmount	12	178	122	300
15	Bucks Hill/Farmcrest	12	109	142	151
16	Bucks Hill/Montoe	13	142	60	202
18	Long Hill/Berkeley	25	248	136	284
20	Walnut Street	13	35	46	81
22	Wolcott	13	137	98	235
25	Hitchcock Lake	13	121	83	204
26	Fairlawn/E. Main	13	42	22	64
27	Reidville/E. Main	13	71	33	104
31	East Mountain	9	7	10	17
32	Hopeville/Sylvan	10	21	26	47
33	Hopeville/Baldwin	25	115	98	213
35	Town Plot/New Haven	11	94	71	165
36	Town Plot/Bradley	12	56	101	157
40	Town Plat/Highland	13	70	56	126
42	Chase Parkway	16	147	71	218
44	Bunker Hill	13	123	79	202
45	Watertown	13	131	107	238
	TOTAL	288	2,144	1,535	3,679

Source: Connecticut DOT Statewide Bus System Study (July 2000)

5.4 Daily Metro-North Railroad Ridership

These figures will be available shortly and will be included in any subsequent work for this project that the STV team does.

5.5 Bus Ridership Comparison of Connecticut Cities

TABLE C: 1998 Unlinked Bus Trips for 8 Connecticut Cities

	WATERBURY	BRIDGEPORT	DANBURY	HARTFORD	NEW BRITAIN	NEW HAVEN	NORWALK	STAMFORD
	Northeast Transportation Company, Inc. (NET)	Greater Bridgeport Transit District (GBTD)	Housatonic Area Regional Transit (HART)	CT Transit (Hartford Division)	New Britain Transportation Company, Inc. (NBT)	CT Transit (New Haven Division)	Norwalk Transit District (Wheels)	CT Transit (Stamford Division)
Service Area - Population (1990)	161,886	282,710	184,220	1,075,000	143,500	648,524	102,741	168,760
Square Miles	58	90	298	936	54	477	45	88
Annual Passenger Miles (1998)	3,913,616	10,002,601	3,078,738	62,275,054	1,985,038	25,801,924	5,423,074	13,898,933
Annual Unlinked Passenger Trips	1,890,110	4,809,558	775,560	16,816,826	454,242	10,518,633	1,840,372	3,915,988
Average Weekday Unlinked Trips	6,719	16,220	2,771	59,718	1,638	36,543	6,424	13,484
Average Saturday Unlinked trips	3,400	9,836	1,323	25,433	825	18,139	4,013	9,184
Average Sunday Unlinked Trips	0	3,013	0	4,590	0	4,430	0	0
Buses Operated in Max. Service	36	58	31	188	11	86	64	31
Total Buses Available	47	75	51	223	11	111	71	42

Bus ridership levels in Waterbury, when compared with the other four Connecticut cities that have service areas of 100,000-200,000, place it in the middle. While it had nearly 2 million unlinked passenger trips in 1998, which totaled nearly 4 million passenger miles, is still lagged behind Stamford and Norwalk. Stamford has a similar sized service population to Waterbury, yet had over 3.9 million unlinked trips, nearly double that of Waterbury. Norwalk, which has a service population that is one-third smaller than Waterbury's, had slighter fewer unlinked passenger trips in 1998 (1.84 million versus 1.89 million), yet had more annual passenger miles (5.42 million versus 3.91 million). Clearly, there is potential in Waterbury for higher bus ridership.

6.1 Things to Consider When Planning For a New Transportation Center

There are many considerations that must be taken into account when planning for a new Transportation Center. The STV team has developed a list of key considerations that should be addressed in planning for a Waterbury Transportation Center.

- **Why do you want a new Transportation Center?**

  What are the goals & objectives for building a new Transportation Center? What purpose will the Transportation Center serve? These are questions that need to be researched and answered at the outset of the study. A set of clear goals and objectives need to be developed in order to give the study a clear direction in which to proceed. These issues have been addressed in this feasibility study and have been used in formulating solutions.

- **Talk to customers and stakeholders.**

  It is very important to talk to customers, staff and stakeholders that will be using the new Transportation Center and those that have a vested interest in order to garner their comments, opinions and support. Open houses, public displays, public meetings and surveys are some ways to find out what people want and expect from the new Transportation Center. The Technical Advisory Committee (TAC) for this feasibility study provided good initial insight into expectations for a transportation center.

- **Design and space planning (configuration) is important.**

  A good Transportation Center should provide a place for all transportation providers in a thoughtful and logical configuration. All attempts should be made to arrange the Center in such a way as to provide the most efficient transfer for customers from one provider/mode/route to another without conflicting with other users. Eliminating vehicular, pedestrian and other access conflicts improves safety.

- **Need to find a suitable site and location.**

  Access to the Transportation Center is important both for customers and transportation providers and each type of user has different access needs. A pedestrian arriving will have different needs than a motorist driving by at higher speeds – signage and lighting standards differ for these two groups, just to cite one example.

6.0 PLANNING FOR A NEW TRANSPORTATION CENTER

A Transportation Center should be in a location that is easy for pedestrians to access and is near major roads, highways and rail lines that provide access for transportation providers. The site also needs to be large enough to accommodate all the needs of each transportation provider.

- **Adequate shelters should be provided.**

This is a basic component of almost any Transportation Center, but are often overlooked by in the planning and design process or they are treated as an afterthought. When shelters are integrated into a design early on, they can become a nice architectural component – while protecting customers from the elements. However, if they are added later on, they could invoke feelings of being disjointed from the rest of the Center.

- **Safety and security should be considered from the outset.**

Good physical design is important and can help shape customer and community perceptions of safety and security. "Defensible space" concepts seek to limit access to a Transportation Center and to cluster customers together so as to provide a secure environment. Some defensible space concepts, which could be incorporated in a Transportation Center, include:

- Maintaining a sense of order throughout the Transportation Center.
- Promoting visibility throughout all station areas.
- Using building materials that are vandal-resistant and selecting materials and finishes that are easy to maintain.
- Providing high levels of lighting and illumination.
- Avoiding designs that have hidden corners or pockets.
- Promoting openness in the overall design and layout.
- Clustering customers together in certain areas of the Transportation Center.
- Using a design that provides a phased closure of certain spaces (correlating to time of day and service needs).
- Providing a human presence in the Transportation Center (ticket agent, retail activities or concessions).
- Installing Closed Circuit Television (CCTV) and providing intercoms to supplement defensible space concepts.

- **Make it obvious that it's a Transportation Center.**

  It should be obvious to customers that the Transportation Center is one. This should be achieved not only in its design, but also in the signage, amenities and landscaping that is applied.

- **Make the Center inviting and attractive.**

  Related to the previous point, it is often not the building but things such as amenities, commercial/retail activities, lighting, public art and landscaping that create an attractive and inviting environment.

- **Engineer the Transportation Center well.**

  If you want the Transportation Center to last a long time, then it needs to be engineered well. Good design and engineering go hand in hand.

The Kennedy Plaza Intermodal Transportation Center in Providence, RI is an example of a Transportation Center that is well designed, engineered and maintained. Located in Providence's financial district, it uses attractive landscaping to create a friendly, welcoming environment.

- **Don't forget to consider other details.**

  Lighting, graphics, signage, etc. are important details that should not be overlooked. The design and placement of signage, the type and intensity of lighting, the placement of furniture and landscaping can all have an impact the design of a Transportation Center.

- **Plan for ADA in advance, not as an afterthought.**

  Since compliance with the Americans with Disabilities Act (ADA) is a legal requirement, it only makes sense to plan for it during the initial design of the Transportation Center. Buildings that try to incorporate ADA requirements after design and construction are completed face many difficulties and often end up destroying the building's design.

- **Keep the Transportation Center well maintained.**

  The most beautiful Transportation Center won't stay that way if it can't be maintained. This includes the interior and the exterior.

- **Consider multifunctional opportunities.**

  Opportunities for Transit-Oriented Development and joint development should be studied early.

7.1 Three Potential Alternatives

With input from the Technical Advisory Committee, the STV team determined that there were three options/alternatives that needed to be explored.

A. Do nothing (maintain status quo).

B. Improve linkages between existing transportation hubs.

C. Provide a new Waterbury Transportation Center.

These options will be discussed in greater detail below:

7.1 (A) Do nothing (maintain status quo)

While some study participants maintain that the existing transportation situation in Waterbury is fine, further analysis shows otherwise. Without making any transportation improvements, transit-dependent persons in Waterbury will be forced to endure some of the flaws of the current transportation system, such as the geographical separation of transit providers. Existing transit hubs have basically reached their capacity limits, and if nothing is done, mass transit growth in Waterbury will be limited and conditions could worsen over time. It simply is not realistic to expect that the Green, which was never designed to be a bus transfer facility, could handle an increase in riders. Also, parking and traffic problems at the Green could intensify if buses continue to layover there.

7.1 (B) Improve linkages between existing transportation hubs

With the three main transportation hubs (Waterbury Train Station, the Green and the Travel Center) spread apart, it might be more feasible to improve the linkages between these sites than to relocate them into a new Transportation Center. One idea would be to reroute some of the local buses so that more buses could serve the Travel Center and Waterbury Train Station. Obviously, this would require NET to make major changes to their bus routes, which could be difficult due to the way their current bus schedule is structured.

Another idea would be to introduce some sort of shuttle bus connecting the three sites. The difficulty in this is determining the frequency of this service. Since there are no guarantees that the shuttle will be able to meet the schedules of existing transportation providers, customers could end up being shuttled from one place to another and end up missing their connecting service.

Other problems with a shuttle bus type service include:

- It is uncertain what market demand would be.
- It forces passengers to make one extra transfer.
- Capital costs would be incurred to purchase new buses.
- Operations & maintenance costs would be incurred to keep the service in operation.
- During certain time periods, the shuttle buses could be running with little or no passengers at all, which creates a poor public image.

7.1 (C) Provide a new Waterbury Transportation Center

This would be the most expensive of the three options, but would solve much of the fragmentation and interconnectivity issues currently facing Waterbury's transportation network. By having some or all of Waterbury's transportation providers at one location, it would create direct linkages and provide customers with a near seamless travel experience.

Due to the number of buses--particularly local and intercity buses--that a Transportation Center would need to accommodate, there are not too many parcels of land left in Waterbury that could accommodate such needs. With NET buses running on a pulse system in which all buses arrive and depart at the same time, a Transportation Center will need to accommodate a maximum of 20 local buses.

For a Transportation Center to have a successful rail interface, it will have to be located near the Metro-North Railroad tracks that run north-south, just west of Waterbury's downtown. This further limits the options available in developing a Transportation Center. The key factors in determining a suitable location for a Transportation Center are the following:

- The site must have a large enough footprint to accommodate NET buses running on a pulse system, a small number of intercity buses, passenger waiting areas (for taxis, kiss-and-ride and ridesharing), on-site parking and other amenities.

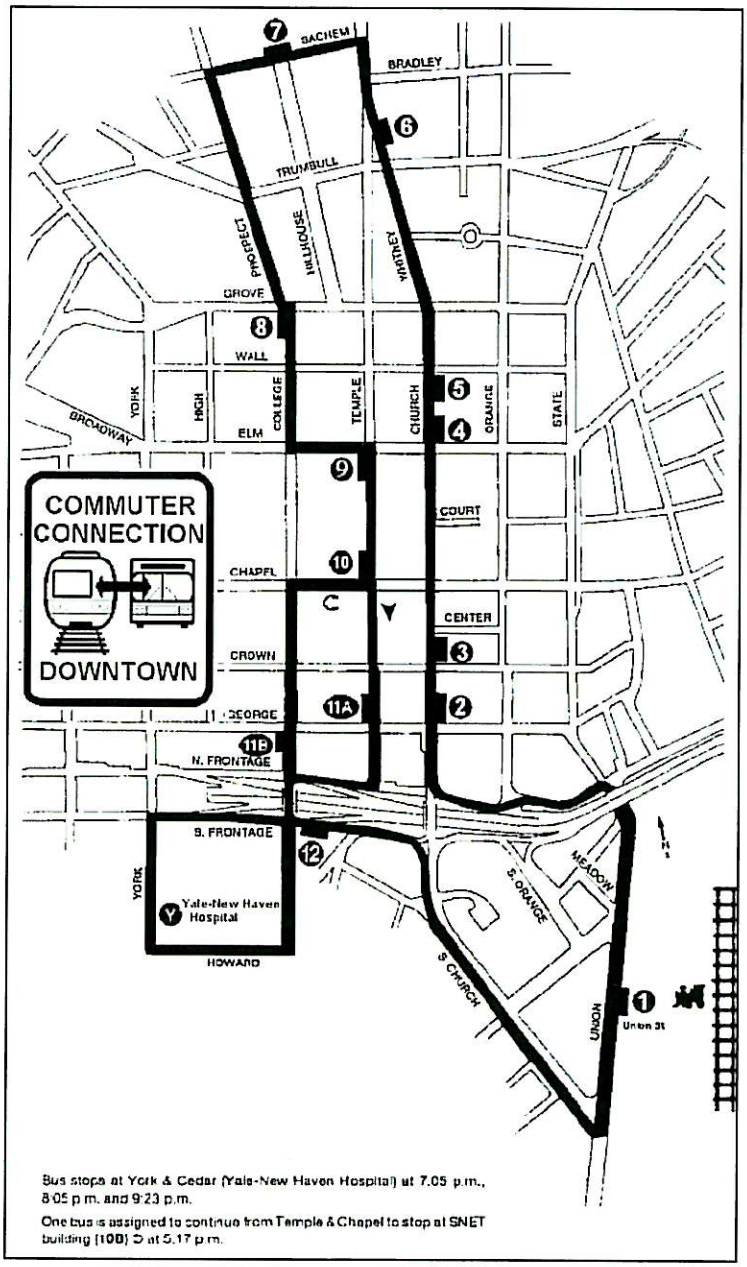
- The site needs to be within walking distance of/near downtown Waterbury, where the majority of local bus riders travel to and from.

- It is desirable to incorporate Metro-North Railroad and tourist train operations into the Transportation Center.

- The site has potential for joint development opportunities to occur.

7.0 OPTIONS/ALTERNATIVES STUDIED

Option A – do nothing, was determined to be unfeasible by members of Technical Advisory Committee, who reached a consensus that the existing system did not meet the current or future transportation needs of Waterbury. Therefore, the STV team concentrated its efforts *on Option B – Improve linkages between existing transportation hubs* and *Option C – A new Waterbury Transportation Center.* The STV team focused much of its energy on Option C, starting with an extensive search of available real estate parcels in Waterbury. The amount of land available would immediately indicate if Waterbury could even accommodate a new Transportation Center.



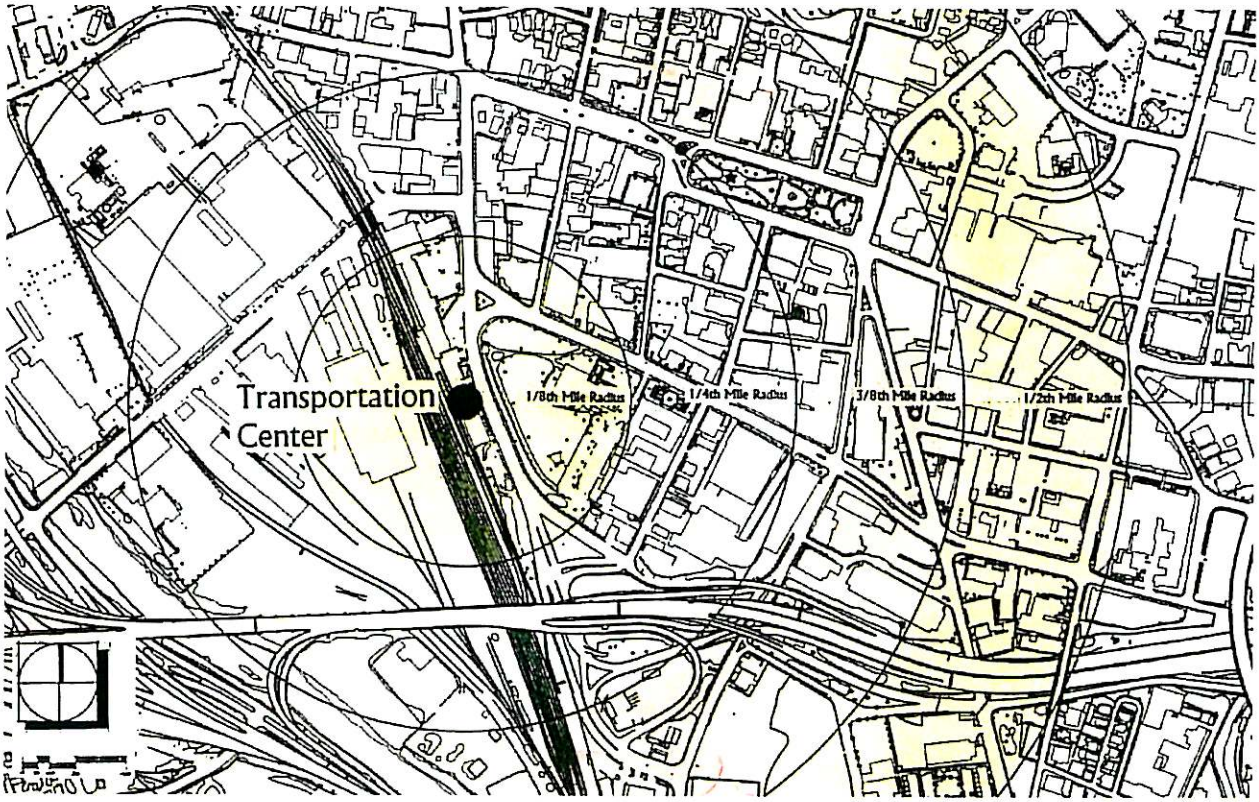
In New Haven, Connecticut, CTTransit provides shuttle bus service called "Commuter Connection" between Union Station and major downtown destinations in the morning and afternoon peak periods. Union Station is served by Metro-North Railroad, Shore Line East Railroad and Amtrak.

8.1 Site Overview

Based upon an extensive search of available parcels in Waterbury and their proximity to the downtown area, the STV team concluded that the current Waterbury Train Station site was the most logical location for a Transportation Center. Located on the west side of Meadow Street (south of Grand Street) and adjacent to the former Waterbury Train Station, the proposed station site sits on a parcel of land that is approximately 0.83 acres. Coupled with the adjacent property that is currently owned by Connecticut National Bank and available for purchase, the combined parcels of land would total over 3 acres.

Current Waterbury Train Station Site	*0.83 acres*
Connecticut National Bank Site	*2.29 acres (approximate estimate)*
TOTAL	*3.12 acres*

Since the current Waterbury Train Station site is too small, the adjacent Connecticut National Bank site would need to be acquired in order for a reasonable Transportation Center to be accommodated at this location.

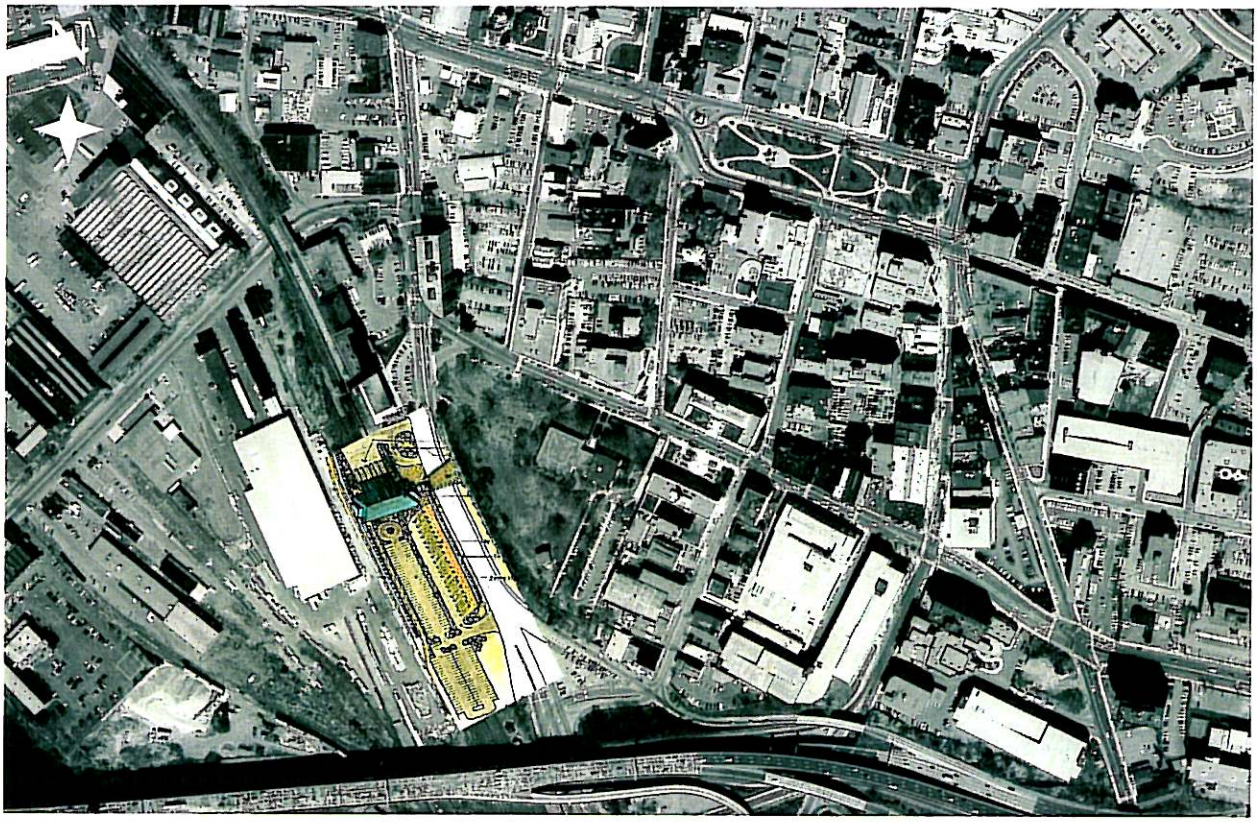


Map of downtown Waterbury showing the proposed location of the Transportation Center at the Waterbury Train Station and its relationship to the rest of the city.

A combined site would provide sufficient footprint to accommodate all the anticipated needs of a Transportation Center, including the Transportation Center building, two twin platforms for combined Metro-North Railroad and tourist railroad use, bus bays for local buses operating on a pulse system, bus bays for intercity buses, a pick-up/drop-off area for taxis, a kiss-and-ride and a parking lot.

8.2 Strengths of the Site

- Ties together trains, intercity buses, local buses, vanpools etc.
- Located adjacent to the existing Metro-North train station.
- Located near downtown Waterbury.
- Can serve as an impetus for future development on parcels to the west of the station.
- Interconnectivity will bring more people into downtown Waterbury, which will help revitalize the area.



Aerial photo of downtown Waterbury showing how one concept for a proposed Transportation Center could fit into the train station site.

During ongoing meetings with the Technical Advisory Committee (TAC), the two most vocal stakeholders were the Travel Center/Land Jet Bus Lines (intercity bus) and Northeast Transportation Company (local bus). Having run their operations for many years under the current arrangements, they expressed some hesitation at the impending changes that transportation improvements would provide. To address their concerns, the STV team held one-on-one meetings with each company and discussed the idea of a Waterbury Transportation Center in greater detail.

9.1 Travel Center/Land Jet

The Travel Center/Land Jet Bus Lines was primarily concerned that some of their existing customers would be unwilling to travel several blocks to the Transportation Center to buy their tickets and catch their bus. They felt that they were well established in downtown Waterbury on Grand Street and did not see any benefits to relocation. The STV team suggested that they could still keep their current location on Grand Street, perhaps to be used for marketing and sales efforts, while operating their buses from the Transportation Center.

9.2 Northeast Transportation Company

A major concern for Waterbury's local bus provider NET was the impact to their operations if their central hub was moved from the Green (Exchange Place) to the new Transportation Center (approximately four blocks (1/3 mile) southwest of the Green). Currently, only one bus route (#40 – Town Plot) passes by the Waterbury Train Station. To evaluate the impact to NET's operations, the STV team conducted an analysis of each NET bus route to determine if it would be problematic for them to start/terminate their bus routes at the Transportation Center instead of at the Green.

The results of the NET bus route analysis can be found in Appendix A at the end of this report.

The primary concern was the impact that rerouting would have on existing bus running times. Since some bus routes already run on fairly tight schedules, it would not be easy to reroute them without affecting their schedules and running times. Another concern was the existing street pattern/orientation around the Green and the Transportation Center and determining which streets should the buses be rerouted on.

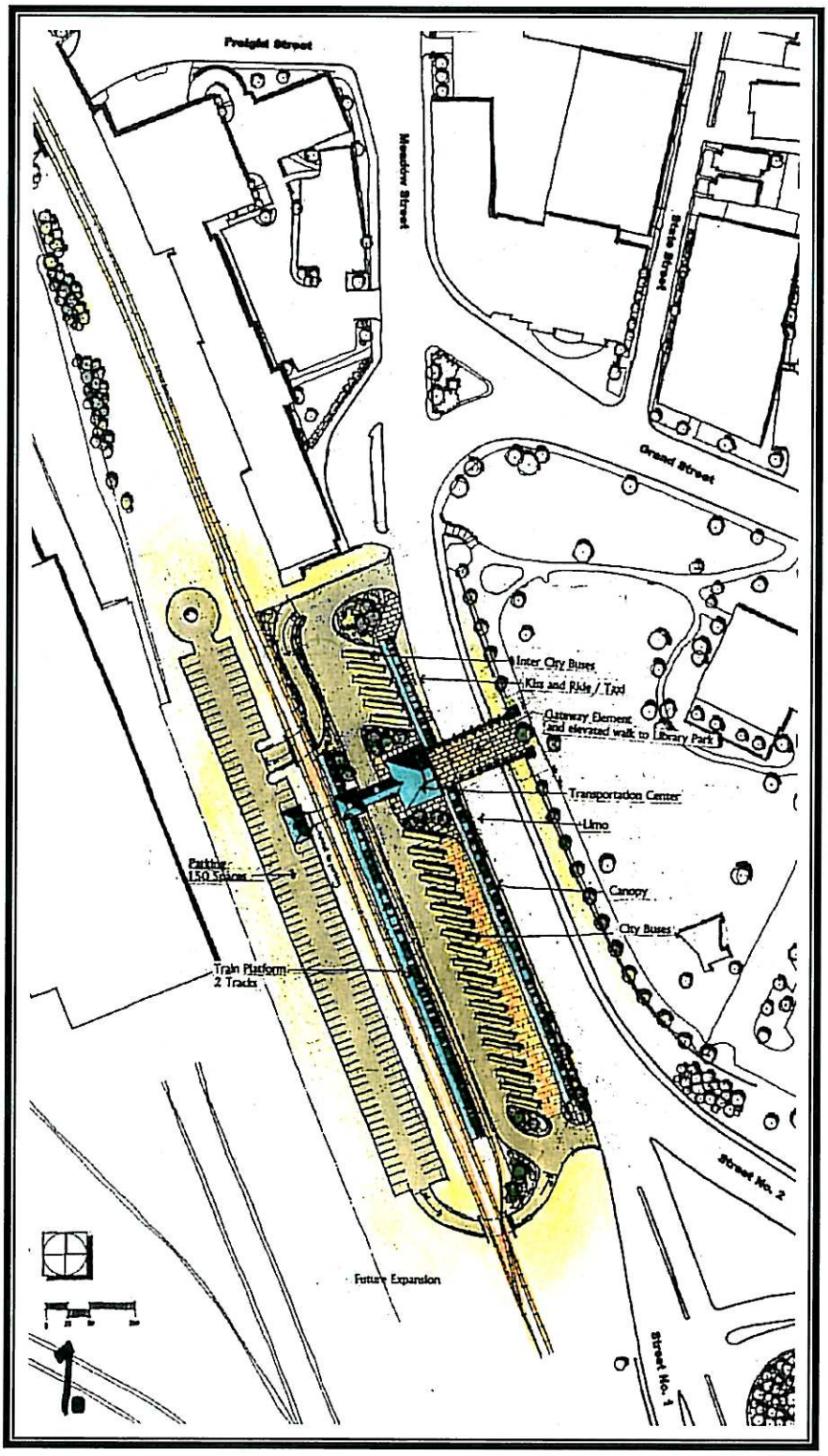
By carefully analyzing the running times and travel patterns for each NET bus route, we were able to determine if a bus could be rerouted from the Green to the Transportation Center site and still have enough layover time without negatively impacting the existing bus schedules. Of the 21 bus routes analyzed, it was determined that 14 routes could easily be rerouted and 7 routes might have some minor rerouting problems. However, these 7 routes will only require minor operational adjustments in order to be successfully rerouted to the Transportation Center site.

10.1 Four Potential Alternatives

Using the footprint of the Waterbury Train Station site, along with the adjacent Connecticut National Bank parcel, the STV team developed a series of conceptual alternatives of how different Transportation Center layouts could fit on the combined site. Essentially four designs were developed, each with their own unique design and layout. It should be noted that these are not final designs for a Waterbury Transportation Center, but rather conceptual designs of how one might look like.

Architect's rendering of what a Waterbury Transportation Center at the train station site could look like.

12.1 (A) Scheme 1



SCHEME 1:

Scheme 1 envisions a small-sized Transportation Center with on-site angled parking for 20 local buses, 6 intercity buses and a two-track train platform. A 150 space parking area is located to the west of the railroad tracks and is connected to the Transportation Center via pedestrian and car tunnels below the railroad tracks. There are provisions for passenger drop-off/pick-up area and a direct pedestrian connection to Library Park.

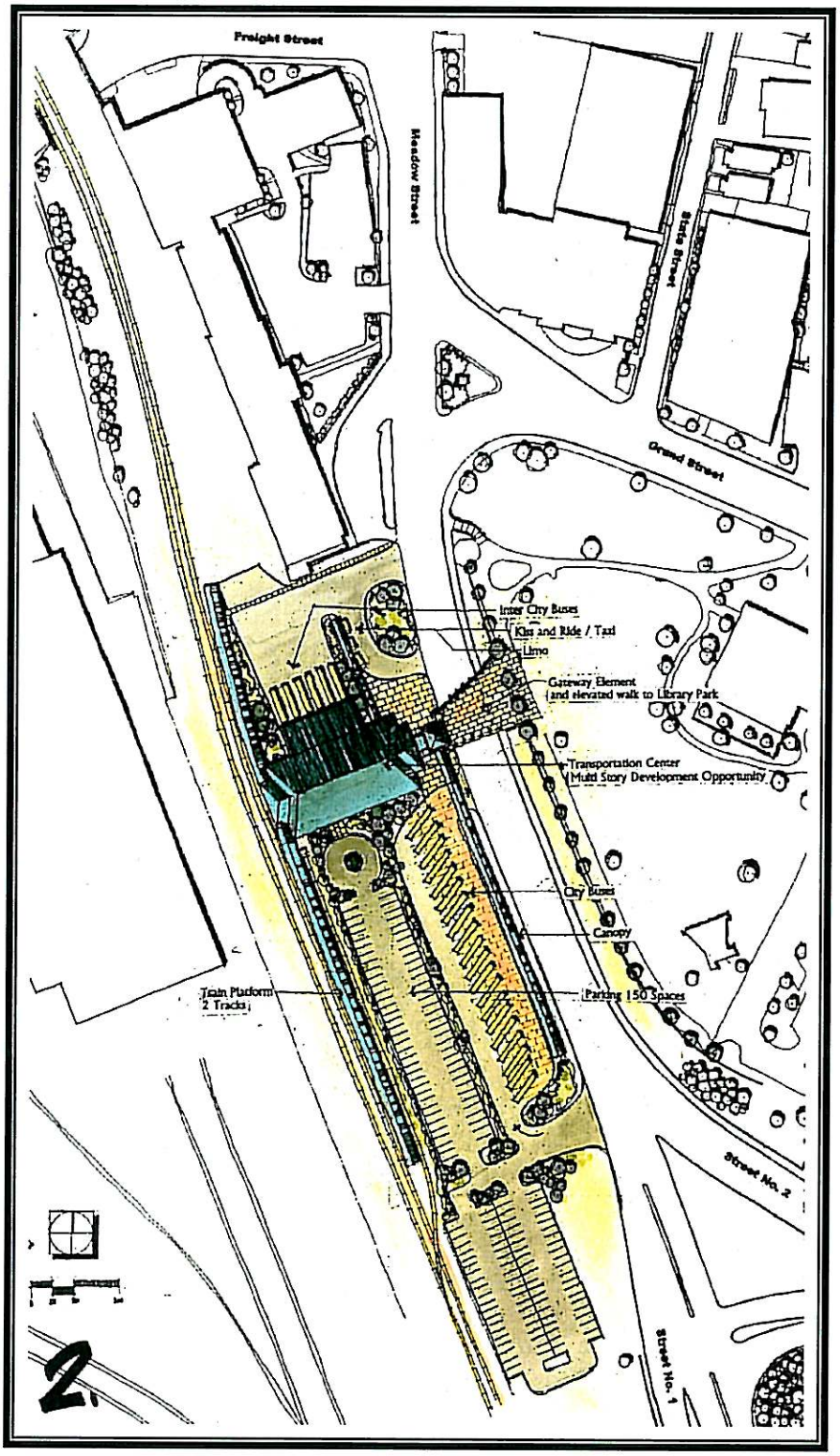
Advantages:

1. All elements of the Transportation Center are located on-site.
2. The entire facility is sized to meet the needs of the project.
3. It provides a direct connection to Library Park.
4. Train tracks use existing active track alignments.
5. This scheme provides the least built structure for project.
6. The series of canopies protects all customers from the elements.

Disadvantages:

1. Site access for all vehicles it limited to only two points.
2. The customer parking lot is located below street level, and is therefore less visible and secure.
3. A pedestrian and auto tunnel under the train tracks is required to get customers from the Transportation Center to the parking area.
4. Train customers must cross the path of all local and intercity buses.
5. Customers waiting for local city buses must cross the egress path of buses.
6. Site development does not lend itself to easy expansion.

12.1 (B) Scheme 2



Scheme 2:

Scheme 2 contemplates a medium-sized Transportation Center with on-site angled parking for 20 local buses, nose-in parking for 6 intercity buses and a two-track train platform. A 150 space parking area is located to the south of the Transportation Center. There are provisions for passenger drop-off/pick-up area and a direct pedestrian connection to Library Park.

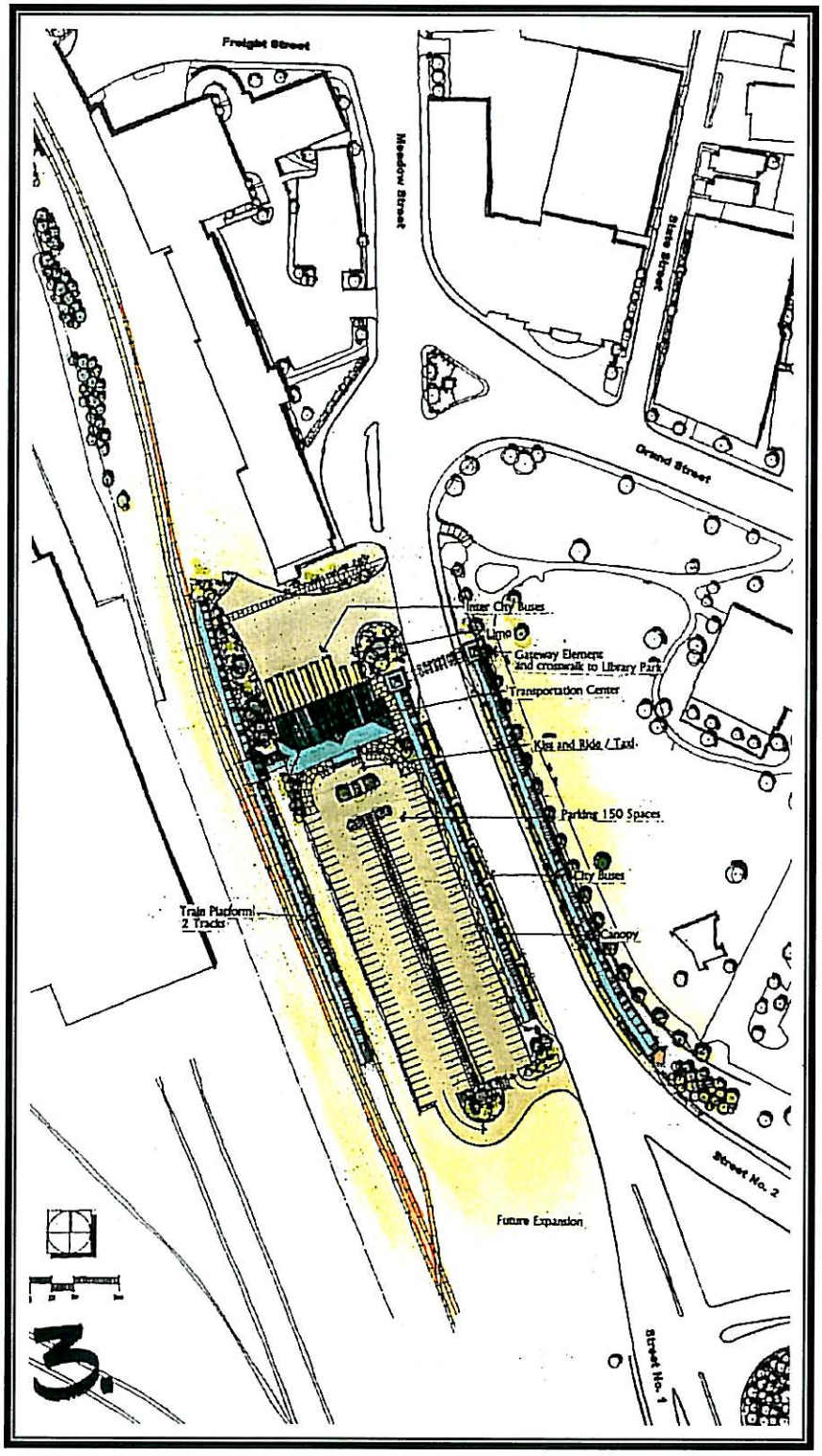
Advantages:

1. All elements of the Transportation Center are located on-site.
2. The size of the entire facility will be able to accommodate other uses such as retail and office space.
3. Local and intercity buses do not cross paths.
4. Tracks are moved to the side of the site to eliminate pedestrian track-crossings.
5. There is a direct connection to Library Park.
6. Allows for future expansion of parking without disruption to the Transportation Center.
7. Moderate sized development with private – public partnership opportunities.
8. Better interface between the intercity bus area and the Transportation Center.
9. Separate entrance to/from public parking area.
10. Kiss-and-ride/taxi drop-off/pick-up area is located off-street.

Disadvantages:

1. Local city buses and public parking area share the same entrance.
2. Kiss-and-ride/taxi drop-off/pick-up area is small.
3. Parking area is one bay wide, has 2-way traffic, and is a long walk to the Transportation Center from most parking spots.
4. Customers waiting for local city buses under the canopy must cross bus egress path in order to board their bus.
5. Kiss-and-ride and taxis must share the same space.

12.1 (C) Scheme 3



Scheme 3:

Scheme is a medium-sized Transportation Center with on-site nose-in parking for 6 intercity buses and a two-track train platform. Up to 15 local city buses will park off-site on both sides of Meadow Street where a series of canopies will provide shelter for passengers. A 150 space parking area is located to the south of the Transportation Center. There are no provisions for a passenger drop-off/pick-up area or a direct pedestrian connection to Library Park.

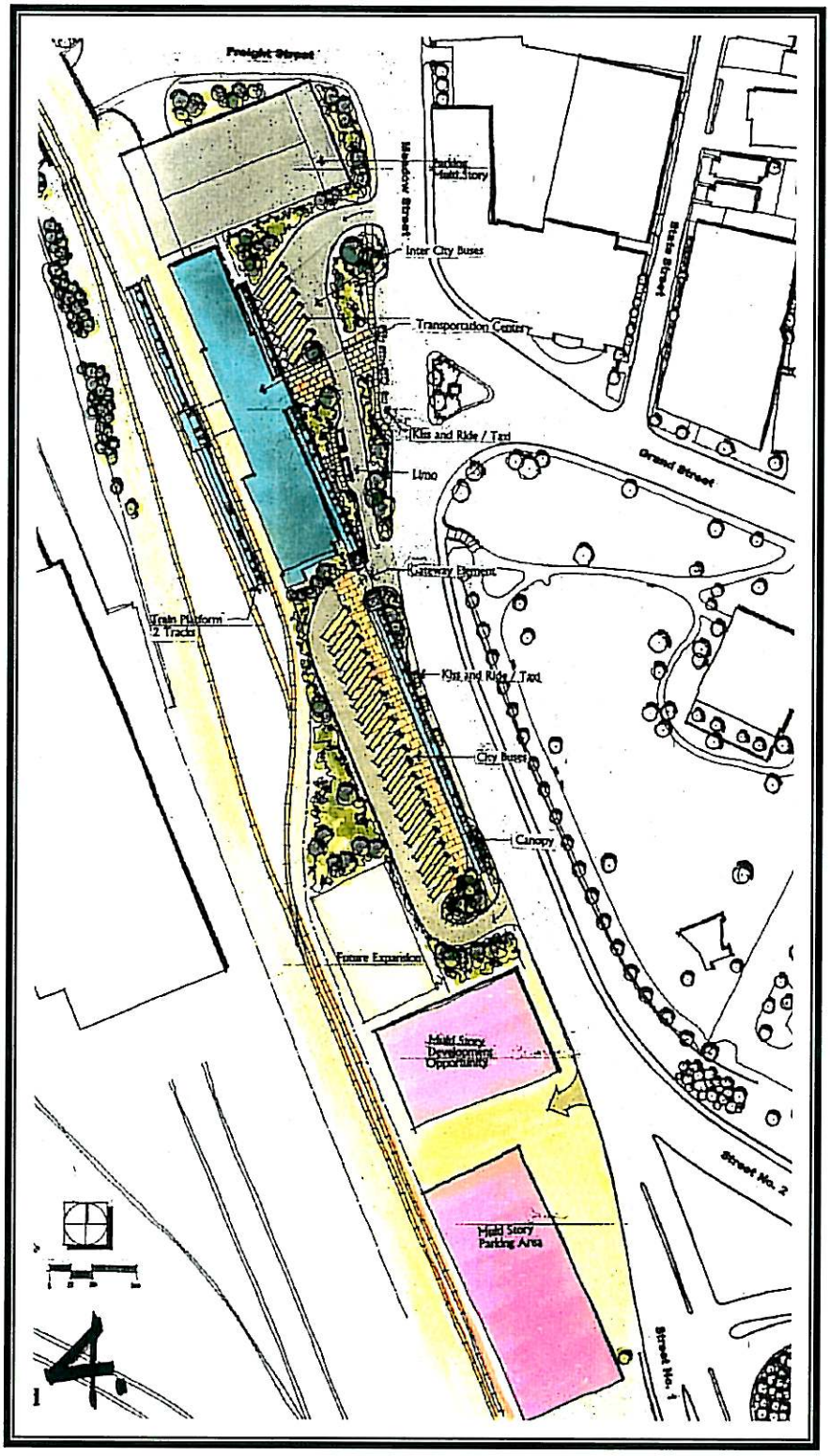
Advantages:

1. Future development beyond a basic Transportation Center is possible.
2. A connection to Library Park can be affordably incorporated.
3. Parking area has two banks of ample parking spaces, a loop for safe turns, and has its own entrance, meaning that it does not cross or share entrances with buses.
4. Parking area is located close to the Transportation Center.
5. Good interface between intercity buses, taxis and the Transportation Center.

Disadvantages:

1. Customers must cross Meadow Street to get to intercity buses.
2. The amount of available curbside space is limited and therefore the average distance a customer must walk to transfer buses or to other modes of transportation is long.

12.1 (D) Scheme 4



Scheme 4:

Scheme 4 consists of a large-sized Transportation Center that reuses the former Waterbury Train Station, and includes on-site angled parking for 20 local buses and 6 intercity buses and a two-track train platform. This leaves ample land available south of the Transportation Center for a potential multi-story development opportunity and a multi-story parking garage. There is a provision for passenger drop-off/pick-up area but no direct pedestrian connection to Library Park.

Advantages:

1. Reuses the landmark former "Waterbury Train Station" and restores it to its former grandeur.
2. Provides good spatial separation of the different uses.
3. Allows for future development/expansion, but has enough existing space to attract possible private/public partnerships.

Disadvantages:

1. The most ambitious and expensive of the four schemes.
2. Local bus loading/unloading area is remote from Transportation Center.
3. No direct connection to Library Park.
4. Reuses only a portion of the existing track location.

10.2 Cost Estimates for Each Scheme

These cost estimates are very general rough estimates and are included to provide a context for this study. It should be noted that these cost numbers should in no way constitute what the final costs of a Transportation Center in Waterbury will cost. Ultimately, when a site is finalized and a more specific design is developed for the Transportation Center, then a detailed cost estimate can be undertaken.

	SCHEME 1	SCHEME 2	SCHEME 3	SCHEME 4
DESCRIPTION	▪ Parking on the west side of the tracks ▪ Transportation center and buses on the east side of the tracks. ▪ Tunnel below tracks connect Transportation Center / Bus Area with Parking Area.	▪ Transportation Center with multi-story development opportunities east of tracks. ▪ City buses to the south of Transportation Center with inner city buses to the north. ▪ Elevated walkway to Library Park. ▪ Large parking lot.	▪ Transportation Center east of tracks. ▪ Inner city buses to the north of Transportation Center. ▪ City buses to operate in street curb cuts. ▪ Crosswalk to Library Park	▪ Renovate original train station for new Transportation Center. ▪ City buses in a lot south of Transportation Center, inner city buses in a lot east of Transportation Center. ▪ Multi-story development opportunity. ▪ ▪ Two multi-story parking areas.
SITE & CONSTRUCTION COSTS				
Site	$2,480,000	$ 2,970,000	$3,200,000	$ 5,860,000
Construction	$3,270,000	$ 7,430,000	$3,210,000	$47,470,000
Contingency	$ 580,000	$ 1,040,000	$ 640,000	$ 5,343,000
Subtotal	$6,330,000	$11,440,000	$7,050,000	$58,773,000
RELATED PROJECT COSTS	$1,950,000	$ 3,070,000	$2,020,000	$16,887,000
TOTAL PROJECT COST	**$8,280,000**	**$14,510,000**	**$9,070,000**	**$75,660,000**

10.3 Preferred Alternative

Upon careful review and analysis of the four conceptual design schemes, the STV team believes that a Transportation Center that resembles Scheme 2 would be the best option for Waterbury. Scheme 2 will meet the transportation needs of Waterbury and provides for the most functional and logical layout. The four conceptual design schemes were ultimately presented to the Technical Advisory Committee (TAC) for their analysis and opinions. The clear consensus among the group was unanimous – Scheme 2. The following is a summary of opinions for each scheme:

Scheme 1 – The TAC did not like the fact that the Transportation Center and the parking area were separated by the railroad tracks.

Scheme 2 – This was the clear favorite among TAC members because most people liked how each component of the Transportation Center was so well integrated and arranged.

Scheme 3 – The TAC felt that by spreading buses along the street, it did not solve the transfer problem that currently exists at the Green. People also felt that having buses park on Meadow Street would create congestion in the area.

Scheme 4 – While many TAC members liked this scheme, most felt that it was simply too ambitious for Waterbury. Also, the time frame to complete such a scheme would be much greater than for the others.

11.1 Funding of Transportation Projects in Connecticut

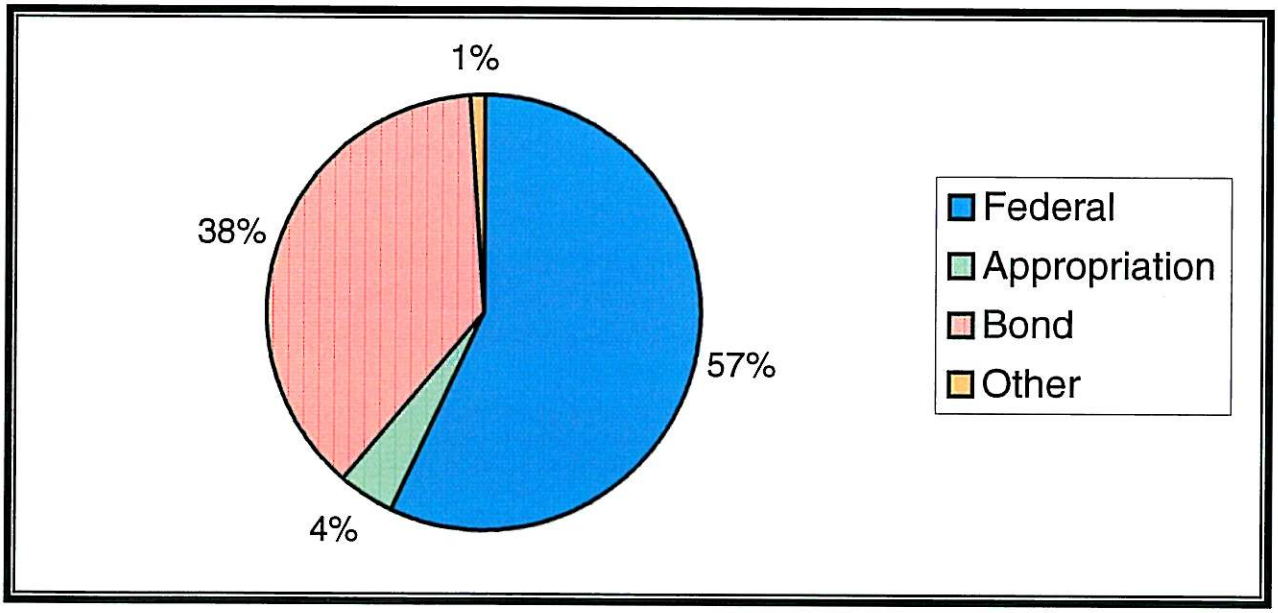
In the State of Connecticut, transportation projects are funded through three general sources (as illustrated in *Figure 1* below):

1. Federal appropriations.
2. State Special Transportation Fund (bonds and appropriations).
3. Limited local funds (other).

Federal funds, which represent approximately 57% of total capital sources, are derived from Transportation Equity Act for the 21st Century (TEA-21) and its various programs such as the Surface Transportation Program (STP), Federal Transit Administration (FTA) Section 5309/5307/5310/5311 Programs and the Congestion Mitigation and Air Quality Improvement Program (CMAQ).

The State Special Transportation Fund supports debt service on the state bonds issued to pay for transportation projects and also supports smaller pay-as-you-go projects, and represents approximately 42% of total capital sources. Limited local funds are derived from various city and county sources and represents approximately 1% of the total available capital funding over the last 15 years.

FIGURE 1: ***Source of Capital Funds for Roadways and Transit: FY1985 to FY1999***



Based on *Figure 1*, it is clear that the majority of transportation projects in the State of Connecticut are financed through Federal and State funding with the Special Transportation fund playing a major role in providing the local match for capital projects. It is likely that funding for a new Waterbury Transportation Center will follow a similar approach utilizing both Federal and State funding to implement the project. A review of the 2001 Statewide Transportation Improvement Program, the 1999 Master Transportation Plan and the 1998 Long Range Transportation Plan did not identify any specific funding sources for this project. In addition, our review did not indicate that the project was identified for future consideration. Based on this observation, it is assumed that regional project priorities and recommended funding sources will require adjustments to fit the Waterbury Transportation Center into the program over the next two to three years.

11.2 Potential Sources of Funding

The following discussion is intended to provide a general overview of the potential sources of funding for a new Waterbury Transportation Center and, in addition, approaches to innovative sources of funding that may have potential to support this project. It should be noted that the following funding sources are simply a listing of potential revenues that could support this project and are based on a review of the documentation discussed above.

Surface Transportation Program (STP) – This is a Federal source used for highway and transit capital and planning activities including construction/rehabilitation of roads and bridges, transit capital improvements, car and vanpool projects, fringe and corridor parking facilities and bicycle and pedestrian facilities. STP provides the best opportunity for flexing of Federal highway funds over to transit projects. The potential exists here for the funding of park-and-ride lots and/or bicycle/pedestrian facilities associated with the implementation of this facility.

Congestion Mitigation and Air Quality (CMAQ) – This is a Federal source of funding that must be used for projects that reduce congestion and/or vehicular emissions. Projects eligible for CMAQ funding include transit system capital expansion, which increase ridership, travel demand management strategies and shared ride services, HOV facilities, pedestrian/bike facilities and automobile inspection and maintenance programs.

FTA Section 5307 – These Federal funds are primarily used to assist in financing the acquisition, construction, cost effective leasing, planning and improvement of facilities and equipment for use by operation, or lease, or otherwise, in mass transportation service in urbanized areas. These funds have been used primarily to purchase vehicles for the Connecticut Transit bus agency and other state-subsidized bus operations. In addition, these funds can and have been used to subsidize bus and rail facilities (maintenance and operational) and other system improvements.

FTA Section 5309 – These Federal funds provide assistance in three categories: 40% of the funds are apportioned for fixed guideway modernization; 40% for new and extended fixed guideways (New Starts); and, 20% for the replacement, rehabilitation, and purchase of buses and related equipment and the construction of bus related facilities. Funds for bus and bus-related facilities are allocated on a discretionary basis. The Federal share on projects that use these funds can be up to 80% of total costs, but FTA recommends a higher level of local participation above the 20% level.

Special Transportation Fund – This fund was established by the Connecticut General Assembly on July 1, 1984, to provide a dedicated source of funding for the financing of transportation capital investments and transportation operating needs in the State of Connecticut. This fund provides the primary source of local match for many of the transportation projects in the State of Connecticut. The primary source of revenue generation for this fund is the Motor Fuels Tax. Other sources include motor vehicle receipts, license, permits, fees, FTA operating assistance grants, interest income, oil company tax, vehicle sales tax and general fund transfers.

Tax Increment Financing – Tax increment financing is based on collecting the additional property taxes due to increased property values caused by the transportation investment. The property values of the land and structures surrounding the investment have the potential to increase with the transportation infrastructure investment and the incremental difference in or a percentage of the property taxes would be applied to the operation and maintenance of the transportation investment.

Joint Development – Federal funds can be used for a variety of joint development activities, so long as they are physically or functionally related to a transit project and they enhance the effectiveness of the transit project. Further, consistent with the additional flexibility in funding and decision-making afforded by ISTEA, FTA has recently interpreted the Capital Program and the Federal Transit laws to allow such joint development projects under the Urbanized Area Formula Program and CMAQ Program when these funds are transferred to FTA for a transit project. Similarly, by this Notice, FTA is also alerting its grantees to the fact that assets previously acquired with FTA funds may be used for such joint development purposes. For example, land now used for station parking and no longer needed for transit purposes may be converted to use in a transit-related development project.

Use of Proceeds from Sale of Assets in Joint Development Projects – To facilitate joint development activities, FTA permits the sale of real property and property rights acquired with FTA assistance, in the following instances:

- Real property that is no longer needed for transit purposes may be sold and the proceeds may then be used to purchase other real property for a transit-supportive development. If the real property is leased, the proceeds are considered program income and may be used for any transit purpose.

- Air rights over transit facilities constructed with Federal funds may be sold to developers and the proceeds retained as program income for future use in mass transit, rather than returned to the Treasury.

State Transit Finance Support – States and local governments are permitted by FTA to develop the capability to provide support for transit finance initiatives. Where State law permits, FTA capital funds can be used to support transit-related State finance entities, such as transportation banks. Such finance entities could provide a range of financing options, including cross border leases, certificates of participation, joint procurements, and the like, that may not otherwise be available to the smaller transit agencies. While FTA capital program funds can be used to cover the initial capitalization, they cannot be used to cover the ongoing operating costs of such a program.

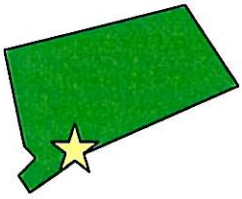
Revolving Loan Funds – By this Notice, FTA announces that Federal grant funds may be used to support State or local revolving loan funds established in accordance with appropriate State laws. These funds would be available to provide direct loans for transit projects, or to acquire equipment and facilities and lease them to providers of public transportation in their States. Payments to retire the loans or service the leases, including accrued interest, would be used to fund other transit projects. Such a revolving loan fund could be used in combination with pooled procurements, State or locally issued bonds, joint development, and other techniques to generate income for transit investment or to reduce the overall cost of transit capital investment. As with the State Transit Finance entities, FTA funds can be used to cover the initial capitalization, but they cannot be used to cover the ongoing operating costs of such a program.

Deferred Local Match – FTA permits grantees to defer the payment of the local share of transit projects. Under this policy, grantees may, with prior approval from FTA, draw down 100 percent of the first 80 percent of project cost of former section 5309 and 5307 projects, covering the local share of the costs at the end of the project.

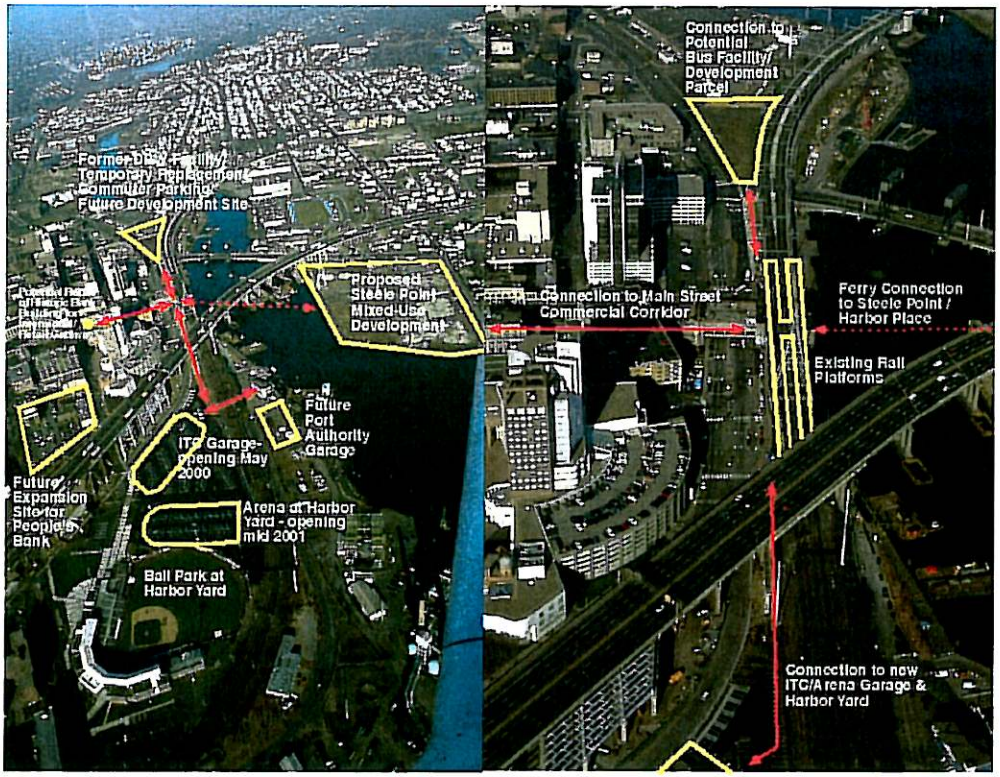
12.0 EXAMPLES OF OTHER TRANSPORTATION CENTERS

The past 10 years has seen an explosion in the number of Intermodal Transportation Centers being built across the United States. The majority of the cities building these centers are smaller places, generally with populations less than 200,000. The following four examples from across the country are intermodal transportation centers that either have been built or are in the planning/construction phases. These centers help to provide context for a new Transportation Center in Waterbury.

12.1 Bridgeport Intermodal Transportation Facility (Bridgeport, CT)



The City of Bridgeport, Connecticut (population 137,000) is currently building a new intermodal transportation facility in downtown that will serve local and intercity buses, Amtrak, Metro-North commuter rail service, taxicabs, as well as airport limousine service to New York Metropolitan Area Airports (Newark, LaGuardia, and JFK). Because of its location near the waterfront, the Intermodal Transportation Facility will be linked to the Bridgeport to Port Jefferson (New York) Ferry and potentially to a future Steele Point/Harbor Place ferry. Amtrak access provides Bridgeport with passenger service along the entire Northeast Corridor and connections elsewhere on Amtrak's national route system. Each weekday, nearly 40 Metro-North trains (northbound and southbound) provide service to New York City and New Haven.



Aerial plans that show the development phases of the Bridgeport Intermodal Transportation Facility in Bridgeport, Connecticut.

12.0 EXAMPLES OF OTHER TRANSPORTATION CENTERS

The City of Bridgeport is located at the junction of I-95, U.S. Route 1, and Connecticut State Routes 8 and 25. Daily vehicle traffic through Bridgeport is high with over 200,00 vehicles on I-95 and 60,000 the Merritt Parkway. It is hoped that the proposed Bridgeport Intermodal Transportation Facility will relieve traffic congestion and will service downtown Bridgeport's office, entertainment and retail markets.

The proposed location for the Intermodal Transportation Facility is on Water Street in the vicinity of the existing rail and bus stations. Public amenities and landscaping will enhance the street connections between the new facility and Main Street. The Bridgeport Intermodal Transportation Facility will integrate existing and proposed transportation services and is envisioned to serve as a catalyst for downtown revitalization. The new Intermodal Transportation Facility will serve as a gateway to Bridgeport and by consolidating all transportation providers into one area, thousands of residents, commuters, and visitors will experience seamless connections to downtown streets, the Ballpark and Arena at Harbor Yard, the waterfront, and new development at Harbor Point.

This project will also include development opportunities for retail uses along public concourses and adjacent streets. The Intermodal Transportation Facility could incorporate commuter support services such as a newsstand, coffee shop, dry cleaning, shoe repair etc. The project is anticipated to be completed in approximately 2 to 3 years and will cost approximately $50 million. A 900-car new parking facility (Transit Center Garage at Harbor Yard) will serve the new Intermodal Transportation Facility by providing parking for bus, rail and ferry customers. During off-peak hours the garage will serve as parking for patrons of the adjacent Ballpark and Arena at Harbor Yard.

The City of Bridgeport will receive $34 million dollars in transportation funds from the Building Efficient Surface Transportation and Equity Act (BESTEA) program for the Intermodal Transportation Center. The Connecticut Department of Transportation is providing another $10 million for the construction of the center's parking facility.

12.2 Illinois Terminal (Champaign, IL)

Located 130 miles south of Chicago, the twin cities of Urbana and Champaign have a combined population of about 100,000. The Champaign-Urbana Mass Transportation District (MTD), the transit agency for this region, dedicated a new intermodal transportation facility in Champaign – Illinois Terminal – in April 1999. Illinois Terminal provides a consolidated and centralized facility for inter-city bus service, rail passenger service, and serves as primary downtown transfer point for MTD local bus service. Before Illinois Terminal was built, almost every local bus route passed by this location, thus only a few buses had to be rerouted (with minimal service impacts) to serve this Terminal.

12.0 EXAMPLES OF OTHER TRANSPORTATION CENTERS

The planning and design of the 60,000 square feet Illinois Terminal was 10 years in the making and cost $9 million. The Terminal was financed entirely by public funds without the need for additional local taxes. The construction of the center was paid for with about $3 million in federal funds, $3 million in state funds and $2 million by MTD. An additional $1 million from the city of Champaign was used for infrastructure improvements around the Terminal including streets, sewers, parking and landscaping.

Illinois Terminal in downtown Champaign, Illinois.

Transportation providers that serve Illinois Terminal include MTD, Greyhound, Illini-Swallow Bus Lines, Burlington Trailways, The Bluebird Shuttle and Amtrak. Before Illinois Terminal, most of these providers had their own separate facilities scatted throughout Champaign. Older facilities such as the Amtrak train station were dilapidated and in need of much repairs. Several commercial/retail establishments have opened in Illinois Terminal including Bytes Cafe, The Global Gift Shop, Buena Vista Catering, Solid Ground, and the Champaign-Urbana Junior League.

Illinois Terminal is planned and designed so that all components are arranged logically within the facility. On the ground floor of the four-story transportation building is a boarding and waiting area for MTD buses. The ground floor also serves as a station for inter-city buses, such as Greyhound Bus Lines and Illini-Swallow Lines, which consolidated their separate Champaign operations into this Terminal. Most convenience retail establishments are also located on the ground floor. Amtrak services are located on the second floor of the Terminal and a covered pedestrian bridge allows passengers to easily walk to the northbound and southbound platforms to board their train. The third and fourth floors are leased out for commercial use, which allows the building to pay for itself.

The goal of Illinois Terminal is to better integrate transportation functions with the community by are to improving mobility, pedestrian safety, access between a major medical clinic and the intermodal center and connect the intermodal center with residential and commercial areas. Illinois Terminal benefits the travelling public by combining transportation uses into a centralized location. The facility will create more retail traffic for the downtown area and is expected to act as a catalyst for new development in Urbana-Champaign region.

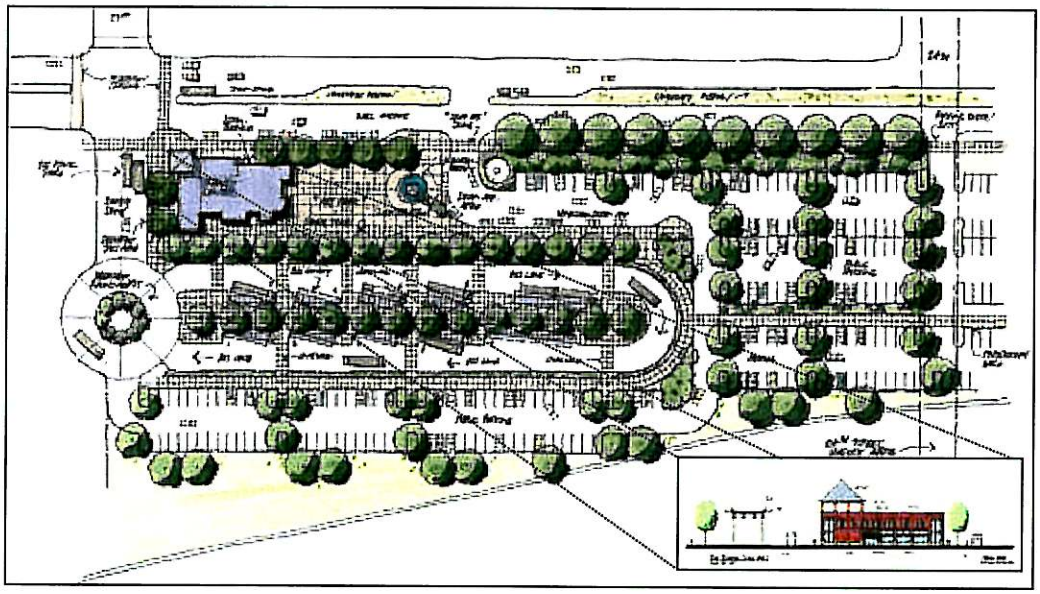
12.3 Ogden Intermodal Transit Center (Ogden, UT)

Ogden, Utah, (population 65,000) is situated at the base of the Wasatch Mountains and located 35 miles north of Salt Lake City. In February 2001, construction begun on a $6.7 million Intermodal Transit Center that is designed to be a modern hub for public transportation. Ogden, the hub of Northern Utah, is the county seat of Weber County and Utah's sixth-largest city. Ogden is easily accessible via automobile on I-15 and I-84, via rail by Amtrak (from intermediary points such as Salt Lake City, Portland, Seattle, Spokane, San Francisco and Chicago) and by airplane with private and chartered service from Ogden-Hinckley Airport and commercial service from Salt Lake City International Airport. Transportation needs are expected to increase in Ogden as Weber County is the proposed site of the 2002 Olympic Winter Games' skiing and curling events.

Ogden began pursuing federal grants for the Intermodal Transportation Center soon after Salt Lake City was awarded the 2002 Winter Olympics in 1995. Of the Center's $6.7 million cost, Ogden will only have to pay $1 million of the cost. The rest is from federal funds, including some from the Olympic Games fund and others from air quality funds. In 1999 and 2000, the Utah Transit Authority (UTA) was granted $3 million ($1.5 million in each year) for new intermodal facilities in the state. Of that, $1.6 million ($800K in each year) was earmarked for the Ogden Intermodal Center.

The Intermodal Transportation Center will house UTA buses, taxis, Greyhound buses, airport shuttles and ski resort shuttles. In about six years, a commuter rail line from Salt Lake City will stop at the Center. It will travel along the Union Pacific Railroad tracks that run just north of downtown's Union Station on Wall Avenue. The Ogden Intermodal Transit Center is expected to be completed by the end of the year and will serve as a hub and central transfer point for UTA buses. Adjacent to the Center will be park-and-ride lots for those using airport shuttles and express buses.

12.0 EXAMPLES OF OTHER TRANSPORTATION CENTERS



Site plans for the Ogden Intermodal Transit Center in Ogden, Utah.

The two-story 7,755-square-foot Intermodal Transit Center will be located on the west side of Wall Avenue just north of the 24th Street viaduct on a 6.7 acre site owned by Union Pacific Railroad. Provisions have been made to include travel-related retail shops and kiosks within the Center. On the north end of the Union Pacific site, the city hopes to attract developers for two other retail-commercial buildings. Nearby, the Internal Revenue Service is planning to construct an office building that will employ 1,000 workers. The streetscape around the center will be upgraded and sidewalks linking the transit center to the bustling 25th Street/Union Station area will be upgraded to provide a safe walking environment and improved urban ambiance.

The Intermodal Transit Center will replace the current UTA bus transfer point at 25th Street and Washington (several blocks away) and will allow the UTA to better its coordinate routes so passengers have fewer transfers. Local transit planners believe that by centralizing transit and giving riders more choices with the least amount of transfers, it will encourage transit use. Ogden is also expecting the Center to serve as a catalyst for redevelopment along Wall Avenue, the aging backbone of downtown.

12.4 Robert C. Byrd Intermodal Transportation Center (Wheeling, WV)

Wheeling, West Virginia, a city of 150,000 is located in the northwest corner of the state along the banks of the Ohio River, which borders Ohio. In the early 1990s, local economic development groups joined forces to aggressively stimulate the local economy by creating jobs and encouraging local entrepreneurs. The Wheeling Heritage Area Task Force was formed in 1990 with the support of U.S. Senator Robert C. Byrd (D- W.Va.), and its goal was to revitalize Wheeling's downtown area, which had been in decline for years. In 1996, the Wheeling Artisan Center opened as the first Heritage Area project, followed in early 1998 by the $11 million Robert C. Byrd Intermodal Transportation Center.

The Robert C. Byrd Intermodal Transportation Center serves as a gateway to the Wheeling National Heritage Area, which includes the Artisans' Center, a Visitors' Center, Independence Hall and the Historic Waterfront. It also serves as an entry point to many downtown attractions including the Civic Center, Capitol Music Hall, Community College, and the central business and shopping district.

Several views of the Robert C. Byrd Intermodal Transportation Center in Wheeling, West Virginia.

The Robert C. Byrd Intermodal Transportation Center includes a 850-car parking garage, and also houses the Wheeling Visitor Center, the offices of the Wheeling Convention and Visitors Bureau and the Greyhound and Wheeling-Ohio Valley Regional Transportation Authority (OVRTA) bus terminal.

12.0 EXAMPLES OF OTHER TRANSPORTATION CENTERS

The Visitor Center draws tourists to the Robert C. Byrd Intermodal Transportation Center by showing exhibits about the area including transportation related exhibits on the river, the road, the rail and the Suspension Bridge and interactive exhibits about Wheeling's role in the westward movement of the 19th century. Rents for each tenant vary: Greyhound leases their operating space while the office of the Convention and Visitors Bureau manages, maintains, and staffs the Visitor Center in exchange for their space under a long-term agreement.

In order to integrate the historical context of the area, the siting, massing and facade treatments of the Center and the surrounding streetscape were carefully planned and designed. The functional layout and design of the garage and bus facilities also ensures maximum operational efficiency, flexibility and durability. Once nice touch was to give passengers in the waiting room a clear orientation to the Heritage Area and its supporting venues. The construction of the Robert C. Byrd Intermodal Transportation Center was financed with Federal transit Administration (FTA) funds, while space for the National Heritage Area Visitors' Center was provided through additional funding from the National Park Service.

13.1 Project Summary

The original goal of this study was to determine if a new Transportation Center would be feasible for Waterbury. To determine if there was local support for such an endeavor, the STV team felt that it was important to speak with local stakeholders and transportation professionals to seek their opinions.

Based on the series of meeting with the Technical Advisory Committee, in which they received many comments and opinions, and supplemented with their own experience and technical analysis, the STV team can say *"YES"* a new Transportation Center would be feasible in Waterbury. Not only is it feasible, but it is also highly desirable and will help to resolve many of the transportation issues that Waterbury is currently facing, such as:

- Geographically disjointed transportation facilities/hubs.
- Lack of service coordination between the different transportation providers.
- Poor wayfinding of existing facilities.
- Lack of a centralized location for transportation information.
- The use of the Green for bus transfers.
- Current lack of amenities at existing bus shelters along the Green and at the Metro-North Railroad Station.

The STV team studied various sites in Waterbury (including those not adjacent to the railroad tracks) as potential locations for a Transportation Center. It was ultimately determined that a railroad (Metro-North) element was necessary to make such a center work, and therefore the existing Waterbury Train Station site was chosen. The STV team developed four conceptual illustrations of how various designs for a Transportation Center would look and fit on this site. These were presented to various stakeholders and transportation professionals who unanimously agreed that something similar to Scheme 2 was the preferred design choice. The STV team also agrees that Scheme 2 is the best choice based on the constraints of the site, but understands that a more detailed analysis and design must be undertaken.

Therefore, the STV team recommends that the NVDC's next steps should be to proceed with a more detailed design for a Transportation Center at the Waterbury Train Station site, based on many of the criteria presented in this report. A Transportation Center would:

- Link the transportation network.
- Has the potential to increase transit ridership.
- Reduce congestion and pollution.
- Help foster economic development.

APPENDIX A:

NORTHEAST TRANSPORTATION COMPANY (NET) BUS ROUTE ANALYSIS

A.1 Summaries and Analysis of NET Bus Routes

ROUTE NO.	ROUTE NAME / DESTINATION	CURRENT RUNNING TIME	CURRENT BUS FREQUENCY	ROUTE REROUTING PROBLEM?	PROPOSED ROUTE CHANGE (ALTERNATIVE A)	PROPOSED ROUTE CHANGES (ALTERNATIVE B)
11	Overlook/Willow	29 minutes	30 minutes	Yes	From W. Main St., south on Meadow St. to New Transportation Center (skips Exchange Place).	Continue to Exchange Place, then south on Leavenworth St. or Bank St. and west on Grand St. to New Transportation Center.
12	Hill Street	27 minutes	30 minutes	Yes	From W. Main St., south on Meadow St. to New Transportation Center (skips Exchange Place).	Continue to Exchange Place, then south on Leavenworth St. or Bank St. and west on Grand St. to New Transportation Center.
13	Oakville/Fairmount	55 minutes	60 minutes (Departs half past hour)	Yes	From Exchange Place, west on W. Main St. and south on Meadow St. to New Transportation Center.	
15	Bucks Hill/Farmcrest	28 minutes	60 minutes	No	From Exchange Place, west on W. Main St. and south on Meadow St. to New Transportation Center.	
16	Bucks Hill/Montoe	28 minutes	60 minutes (Departs half past hour)	No	From Exchange Place, west on W. Main St. and south on Meadow St. to New Transportation Center.	
18	Long Hill/Berkeley	27 minutes	30 minutes (Departs 10 min and 40 min past hour)	Yes	From Exchange Place, west on W. Main St. and south on Meadow St. to New Transportation Center.	
20	Walnut Street	26/27 minutes	60 minutes	No	From Exchange Place, west on W. Main St. and south on Meadow St. to New Transportation Center.	
22	Wolcott	25 minutes	60 minutes (Departs half past hour)	No	From Exchange Place, west on W. Main St. and south on Meadow St. to New Transportation Center.	
25	Hitchcock Lake	26/27 minutes	60 minutes (Departs half past hour; Afternoon service is variable)	No	From Exchange Place, west on W. Main St. and south on Meadow St. to New Transportation Center.	
26	Fairlawn/E. Main	28 minutes	60 minutes	No	From Exchange Place, west on W. Main St. and south on Meadow St. to New Transportation Center.	
27	Reidville/E. Main	28 minutes	60 minutes (Departs half past hour)	No	From Exchange Place, west on W. Main St. and south on Meadow St. to New Transportation Center.	
31	East Mountain	26/27/28 minutes	60 minutes (7-9AM; 1-6:00PM)	No	From Exchange Place, west on W. Main St. and south on Meadow St. to New Transportation Center.	
32	Hopeville/Sylvan	28 minutes	60 minutes (7-9AM; 12-6:00PM)	No	From Exchange Place, west on W. Main St. and south on Meadow St. to New Transportation Center.	

ROUTE NO.	ROUTE NAME / DESTINATION	CURRENT RUNNING TIME	CURRENT BUS FREQUENCY	ROUTE REROUTING PROBLEM?	PROPOSED ROUTE CHANGE (ALTERNATIVE A)	PROPOSED ROUTE CHANGES (ALTERNATIVE B)
33	Hopeville/Baldwin	28 minutes	30 minutes	Yes	From Exchange Place, west on W. Main St. and south on Meadow St. to New Transportation Center.	
35	Town Plot/New Haven Ave.	28 minutes	60 minutes	No	From Exchange Place, west on W. Main St. and south on Meadow St. to New Transportation Center.	
36	Town Plot/Bradley	28 minutes	60 minutes (Departs half past hour)	No	From Exchange Place, west on W. Main St. and south on Meadow St. to New Transportation Center.	
40	Town Plat/Highland	27 minutes	60 minutes (Departs half past hour)	No	Terminate at New Transportation Center.	From Freight St., north on Grand St., west on W. Main St. to Exchange Place, then south on Leavenworth St. or Bank St. and west on Grand St. to New Transportation Center.
42	Chase Parkway	26/27/36	Variable (There is a limited service route extension)	Yes	From W. Main St., south on Meadow St. to New Transportation Center (skips Exchange Place).	Continue to Exchange Place, then south on Leavenworth St. or Bank St. and west on Grand St. to New Transportation Center.
44	Bunker Hill	28 minutes	60 minutes (Departs half past hour)	No	From W. Main St., south on Meadow St. to New Transportation Center (skips Exchange Place).	Continue to Exchange Place, then south on Leavenworth St. or Bank St. and west on Grand St. to New Transportation Center.
45	Watertown	55 minutes	60 minutes (Departs half past hour)	Yes	From W. Main St., south on Meadow St. to New Transportation Center (skips Exchange Place).	Continue to Exchange Place, then south on Leavenworth St. or Bank St. and west on Grand St. to New Transportation Center.

APPENDIX B:

PROJECT MEETINGS

B.1 Summaries of Project Meetings

- **September 19, 2000 Meeting – TAC Project Kickoff Meeting at NVDC offices in Waterbury.**

  Agenda:

  1. Overview of the study goals and objectives and a brief introduction of the scope of work.
  2. Group discussion.
  3. The goal and objectives of each individual including their issues and concerns.
  4. Next steps.

  Goals and Objectives:

  1. To start the study process.
  2. To review the scope of work.
  3. To obtain input from participants on the direction the study should take.
  4. To make the whole study process as interactive as possible.

- **October 24, 2000 Meeting – 2nd TAC Project Meeting at NVDC offices in Waterbury.**

  Agenda:

  1. Review of the September 19 meeting notes.
  2. Discussion of goals for intermodal transportation improvements.
  3. Essential elements for transportation facilities.
  4. Discussion of alternative strategies.

- **November 14, 2000 Meeting – Meetings with Travel Center/Land Jet Bus Lines and Northeast Transportation Company.**

1. Discussion with the Travel Center concerning their needs and concerns regarding a new Transportation Center in Waterbury.
2. Discussion with the Northeast Transportation Company (NET) concerning their needs and concerns regarding a new Transportation Center in Waterbury.
3. Present to NET the findings of our bus route analysis in which the STV team studied route-by-route the impacts that a new Transportation Center will have on running times.

- **November 21, 2000 Meeting – 3rd TAC Project Meeting at NVDC offices in Waterbury.**

1. Update the group on the progress of the project thus far.
2. The STV team presented a slide show of various Transportation Centers in North America and Europe.
3. The STV team presented renderings of four illustrations of what a new Transportation Center could look like at the existing railroad site.
4. The advantages and disadvantages of each scheme were discussed with the group. Each participant was asked to name which of the four illustrations was preferred.

- **January 30, 2001 Meeting – Meeting with the Waterbury Chamber of Commerce.**

1. Discussed how a new Transportation Center will help Waterbury economically.
2. Received input and ideas from members of the Chamber of Commerce.

APPENDIX C:

TECHNICAL ADVISORY COMMITTEE (TAC) MEETINGS

C.1 Technical Advisory Committee (TAC) Meeting Notes

MEETING DATE: September 19, 2000

TIME: 10:00 A.M. – 1:00 PM

SUBJECT: Feasibility Study for a New Transportation Center
in Waterbury Connecticut – Kick-off Meeting
STV Project No. 01-10279

PLACE: Naugatuck Valley Development Corporation
100 Grand Street, 3rd Floor
Waterbury, CT 06702

ATTENDEES:

Anthony Arcari	(CDOT Public Transportation)
Barry Berson	(Engineer, City of Waterbury)
Jim Boice	(CDOT Transit Capital Planning)
Charles Brady	(Land Jet/Travel Center)
Dennis Brady	(Land Jet/Travel Center)
Allyn DeMaida	(Mayor's Office, City of Waterbury)
Peter Dorpalen	(COG Central Naugatuck Valley)
Jon Foster	(CDOT Rail Operations)
Carol Gould	(Fitzgerald & Halliday, Inc.)
Peter LaBouliere	(CDOT Rail Operations)
Kenneth Lin	(STV Incorporated)
Scott Persing	(Jeter Cook & Jepson Architects)
Carl Rosa	(CDOT Real Estate)
Keith Rosenfeld	(Planner, City of Waterbury)
Dan Sahl	(Naugatuck Valley Development Corporation)
Michael Sanders	(CDOT Public Transportation)
Maureen Shea	(CDOT Public Transportation)
Jim Sherwonit	(STV Incorporated)
Joseph Spina	(Northeast Transportation)
Garvin Tom	(STV Incorporated)
Carmine Trotta	(CDOT Planning)
Katharine Zatkowski	(Rideworks)

GROUP DISCUSSION

A kick-off meeting for the *Feasibility Study for a New Transportation Center in Waterbury Connecticut* was held on Tuesday September 19, 2000 at 10:00 AM in the offices of the Naugatuck Valley Development Corporation, the study's sponsors. The project team, which is comprised of STV Incorporated, Jeter Cook & Jepson Architects and Fitzgerald & Halliday, Inc., invited stakeholders and other interested parties to this meeting so their goals and objectives for this study could be heard.

- The meeting adhered to the following agenda:

  1. Introduction of the project team.
  2. Overview of the study goals and objectives and a brief introduction of the scope of work.
  3. Group discussion.
  4. The goal and objectives of each individual including their issues and concerns.
  5. Next steps.

- The objective of the kick-off meeting was:

  - ❑ To get the whole study process started
  - ❑ To review the scope of work
  - ❑ To get input from everyone on the direction the study should take
  - ❑ To make the whole study process as interactive as possible

- The STV/JCJ Project Team stated that some potential outcomes from this study could include:

  - ❑ An Intermodal Transportation Center is needed (recommend further action)
  - ❑ An Intermodal Transportation Center is not needed (do nothing)
  - ❑ Make some smaller improvements to existing transportation infrastructure

- The group agrees that Waterbury currently has a scattered and fragmented transportation system and that service is unreliable.

- Currently, there are three major transportation hubs in Waterbury:

  - ❑ Waterbury Train Station (commuter railroad)
  - ❑ The Green (local buses)
  - ❑ Travel Center (intercity buses)

Comments received from the group

After the group was briefed on the project, an open discussion took place where everyone was free to ask questions and give their comments regarding the study. These are the keys points made during the group discussion:

- New Haven's Union Station was cited as a good example of an intermodal transportation center

- The Travel Center expressed concern that placing buses and trains together will cause them to compete head-to-head. They may have to scale back the number of buses they operate. Landjet has grown from 2 to 16 coaches since 1983.

- Will buses and trains be competing or complementary modes?

- There is a lack of visibility and poor signage directing people to Waterbury's transportation hubs.

- People have nowhere to go to get transportation information.

- There is untapped potential in Waterbury for attracting new ridership.

- We should not think of buses and trains as competing modes, but as viable alternatives to the automobile. Trains and buses should be complementary not competitive.

- Waterbury's transportation should be regionally, not only locally focused.

- The COG Central Naugatuck Valley last studied the need for an intermodal transportation center in the mid-1980s.

- The Waterbury train station was rehabilitated several years ago. Most people feel that the station is currently underused and not really a transportation hub. Parking is provided for 150 vehicles but is poorly lit and considered unsafe.

- The owners/lessors of the land adjacent to the Waterbury train station are currently being evicted. CDOT is the owner of record. A title search is being performed to verify ownership. CDOT provided a property map of the site. This could be a potential location for an Intermodal Transportation Center. It was noted that the station might be too far of a walk from downtown.

- The new Intermodal Transportation Center needs to be large enough to accommodate all local and intercity buses, as well as taxis and limousines.

- Waterbury's transportation system needs to accommodate work trips, not just leisure trips.

- Northeast Transportation (NET) likes being at The Green. The area is a bit spaced out but is not bad overall. The Green can accommodate 7 westbound buses and 6 eastbound buses. There are potential scheduling problems if the transfers are moved from the Green.

- In many instances, merchants do not like people waiting for buses in front of their establishments because loitering and trash is a problem.

- The match-up of current NET bus schedules and the Waterbury Rail service is poor.

- The current location of the Travel Center gives it convenient access to interstate and state highways. It minimizes the number of city streets that buses need to travel on and it supports downtown by brining people to the Central Business District.

- Waterbury tourism should be a major focus for any transportation improvements.

- The Naugatuck Railroad (historical) is a major tourist attraction and we should encourage them to serve Waterbury.

- The Travel Center feels that tourism has grown steadily in Waterbury over the past few years.

- New York Airport limousines now drop-off and pick-up passengers at the Sheraton Hotel (3580 East Main Street) instead of the Travel Center.

- Taxi service is very sporadic in Waterbury. Taxi drivers pay $125 a day to lease a vehicle, so on bad weather days, may taxi drivers do not bother to go out. Some gypsy cabs do operate in Waterbury. The feeling is that a new Intermodal Transportation Center will create a critical mass of passengers that will attract more taxis.

- Many people are afraid to use the Waterbury Train Station, particularly at night, because there is this sense of isolation.

- Weekday NET bus service ends at 6:00 PM. Usually, the last major passenger rush for the day is around 5:30 PM.

- Waterbury's downtown is undergoing some urban revival with many new projects be planned and built. (Construction is anticipated to be completed in 2002) Some examples include:

  - Restoration of the Palace Theatre
  - The building of a new UCONN campus
  - The opening of the new Magnet school
  - Information Technology Zone

GOALS & OBJECTIVES OF ATTENDEES

During the second half of the meeting, each meeting attendee was asked to state one or two personal goals and objectives they have for this study. These goals and objectives have been grouped into the seven categories below:

1. Information & Marketing

- Improving information for travelers.
- Improved wayfinding for travelers.
- Improved marketing of transit services (e.g. schedule boards and kiosks).
- An information and ticket center should be placed in The Green.
- There needs to be a central place for information and it needs to be a coordinated effort by all transit providers.
- Computer kiosks that are linked with the Internet are important. Where should these be located?

2. Security Issues

- There needs to be more accessible and secure parking.
- Improved security at the Waterbury Train Station.
- Existing transportation facilities have been poorly maintained in the past and thus creates a perception that they are unsafe.
- Security problems, especially with parking facilities.

3. Economic Development

- Economic development and improvements to downtown Waterbury.

- Any new Intermodal Transportation Center should incorporate a business and retail component.
- The feasibility of private/public partnerships and joint development should be investigated.
- The Travel Center feels that any new Intermodal Transportation Center should remain in the downtown district.
- Transportation should be tied in with tourism and downtown revitalization – synergies
- Waterbury does not have much nightlife – can this be changed? Individual areas should be targeted first.
- Unlike other Connecticut cities, there is no central place or attraction that attracts people.
- Improving the transportation system depends on the "dynamics" of the City.

4. Improved Linkages Between Modes

- There needs to be a convenient transfer between different modes and providers.
- Intermodal Transportation Center should make a traveler's trip seamless.
- Users of individual modes should be studied to see if there is indeed a crossover to other modes or if riderships are separate.
- There are currently no physical and time linkages between existing transportation services.
- Waterbury currently has three transportation areas – can we consolidate these into one center?
- We need to examine the movement of people through Waterbury to establish travel patterns.
- Need a better match-up between the train and all other modes.
- There is great fragmentation and a lack of linkages in Waterbury. (E.g. people have to walk after they exit the train station).

5. Waterbury & Region

- There is still untapped transit potential – unmet demand.
- Waterbury's population is 105,000+/-
- The character of Waterbury will influence whether there is a single or multiple transportation centers.
- We need to include the Greater Waterbury Region (population 250,000) in our study. It is the only major region in Connecticut that does not have an Intermodal Transportation Center.
- Need to include Downtown Business Council in the planning process.

6. Ridership

- Is there enough market demand to support a new Intermodal Transportation Center?
- Improve and increase ridership on the New Haven Line (Waterbury Branch) and buses.
- Does increased ridership lead to more train service or does more train service lead to increased ridership.

7. Other Goals & Objectives

- Who are we trying to serve?
- NET would like the ease of use of the existing pulse system to be maintained.
- The Intermodal Transportation Center should be easily accessible to those dependant on public transit (e.g. seniors without cars).
- Railroad subsidies – do they impact bus operators?
- Will new highway improvements diminish the desirability of using transit to/from Waterbury?
- We might not need a new Intermodal Transportation Center as long as we improve the linkages between modes and providers.
- Is there enough land to build an intermodal facility that can accommodate all modes?

Next Steps

- We need to review existing transportation conditions in Waterbury. Any information that could be provided to the project team would be most helpful. The following are examples:
  - Planned highway improvements for routes 8 and 84 (Major Investment Study)
  - Previous bus and transit studies (COG)
  - New Haven Line Ridership Surveys – past and present (CDOT)
  - Statewide bus transit study (CDOT)
  - NET current schedule and routes.

- Stakeholders will be informed of any upcoming meetings.

MEETING DATE: October 24, 2000

TIME: 10:00 A.M. – 1:00 PM

SUBJECT: Feasibility Study for a New Transportation Center in Waterbury Connecticut – Second Meeting
STV Project No. 01-10279

PLACE: Naugatuck Valley Development Corporation
100 Grand Street, 3rd Floor
Waterbury, CT 06702

ATTENDEES:

Anthony Arcari	(CDOT – Transportation Planner)
Barry Berson	(Engineer, City of Waterbury)
Charles Brady	(Land Jet/Travel Center)
Allyn DeMaida	(Mayor's Office, City of Waterbury)
Peter Dorpalen	(COG Central Naugatuck Valley)
Carol Gould	(Fitzgerald & Halliday, Inc.)
Robin Hollander	(Metro-North Railroad)
Richard Hollis	(CDOT Transportation Planner)
Peter LaBouliere	(CDOT Rail Operations)
Kenneth Lin	(STV Incorporated)
Kerri Morotto	(CDOT
Scott Persing	(Jeter Cook & Jepson Architects)
Ernie Phillips	(Engineer, Waterbury)
Carl Rosa	(CDOT Real Estate)
Keith Rosenfeld	(Planner, City of Waterbury)
Dan Sahl	(Naugatuck Valley Development Corporation)
Maureen Shea	(CDOT Public Transportation)
Jim Sherwonit	(STV Incorporated)
Joseph Spina	(Northeast Transportation)
Katharine Zatkowski	(Rideworks)

GENERAL

The second group meeting for the *Feasibility Study for a New Transportation Center in Waterbury Connecticut* was held on Tuesday, October 24, 2000 at 10:00 AM in the offices of the Naugatuck Valley Development Corporation, the study's sponsors.

- The meeting adhered to the following agenda:

  1. Review of Previous Meeting Notes from September 19, 2000.
  2. Discussion of Goals for Intermodal Transportation Improvements.
  3. Essential elements for Transportation Facilities.
  4. Discussion of Alternative Strategies.
  5. Next steps.

- A project booklet was distributed that contained a section for meeting notes, goals, elements of a transportation center and alternative strategies. Booklets will be expanded as the study continues to include additional sections as data is gathered. Participants were requested to bring the booklets to subsequent meetings where additional handouts will be available.

- The following information was received by STV at the meeting:

  - Metro North track chart for Waterbury Branch.
  - CT Rail Passenger Fact Book - 1997
  - Bureau of Public Transportation – Biennial Report – 1998/9
  - Report on Waterbury/Hartford Commuter Rail Service - 1992

- No additional comments were received on the meeting notes of September 19, 2000.

- It was noted that other downtown businesses, chamber of commerce, etc. should/must be invited to provide input on the downtown character and needs and wants of business.

DISCUSSIONS ON GOALS & OBJECTIVES

At the September 19, 2000 kick-off meeting the attendees were asked to state one or two personal goals and objectives that should be the focus of the feasibility study. Section 2 of the project booklet contains four key goals and objectives that the STV study team developed based on an analysis of the group responses. The four key goals/objectives identified are:

1. The marketing of transit services and the provision of travel information need to be improved.
2. Any new transportation solutions must be safe and secure for all users.

3. Any new transportation solutions (improvements) should be tied in with economic development in Waterbury.
4. Travel (transfers) between different modes and providers should be seamless.

Carol Gould (F&H) briefly discussed the process by which the STV study group arrived at these goals/objectives and described in general each goal. The group was then asked if these goals/objectives truly represented their wishes. The following are the group comments and suggestions on these Goals and Objectives.

- In general there was a consensus on the goals and objectives as presented.

- There was a question concerning "how to make the ticketing more seamless". How do you integrate cash with passes, tickets, transfers, etc.

- Goals and Objectives Number 2 should also include "clean and attractive".

- An additional goal should be added to ensure that if a new terminal is pursued it should be economically feasible.

- Improvements to the existing systems (or a new transportation center) should have no adverse effects on existing services such as Land Jet and the Travel Center.

- Improvements need to maintain a friendly atmosphere (no bulletproof glass).

- It was noted that the Travel Center is a "mini" transportation center.

- Any new facility must be maintained (kept clean) to keep it robust. (Design should be low maintenance and funding provided for maintenance staffing).

- The facilities should be attractive and welcoming.

- Need to integrate the transportation improvements with other forms of development (economic development).

- The existing Rail Station has been left to decline.

- Property is available for development "behind" the train tracks.

- Any new center should provide convenient access to "downtown" (i.e. should be in close proximity).

- Transportation improvements should be tied into the Greater Waterbury Region and promote city to city travel. Look at Waterbury as a regional hub.

DISCUSSIONS ON THE ESSENTIAL ELEMENTS FOR TRANSPORTATION FACILITIES

The next topic of discussion concerned Section 3 of the booklet which outlined the STV Team's suggested needs and facilities required for/by each transportation provider. The outline included six "providers" and listed basic items and amenities for each along with Transportation Center "tie-ins".

The following are comments/additions for each provider:

1. Metro North
   - Current high-level platform type design is required.
   - Daily and long-term parking should be provided.
   - Add signage to "scheduling/notice/map display units".
   - Security is important.

2. Long Distance Buses
   - Note that there are currently 3 platforms at the travel center – new facility should provide 6 to 8.
   - Add long-term parking.
   - Add office space.

3. NET Buses
   - 20 bus bays is minimum required.
   - NET currently has 17 buses at peak.
   - Add spaces for vans, which may be added for "job access reverse commute".
   - There are currently two existing bus shelters on the green and one off the green. They are provided by an outside vendor who uses them for display advertising. Maintenance is an issue.

4. Airport Buses
   - No comments.

5. Rideworks
   - No Comments

6. Dinner Train
   - Change title to "Tourist" train.
   - Investigate high or low level platform.
   - Current service – Valley to Torrington - estimates 24,000 to 25,000 passengers per year.

7. Transportation Center Tie-Ins
   - Add Regional Planning Agency, NVDC, Rideworks, etc.
   - Security – security – security.
   - Add possible Bike Patrol substation or regional police training facility.
   - Research bikeway/greenway along Naugatuck River Corridor – (in planning stages).

DISCUSSIONS ON DESIGN ALTERNATIVES

The last topic of the meeting was a discussion on design alternatives which outlined and described variation on 5 alternative strategies for improvements.

NEXT STEPS

- Next meeting is scheduled for December 7, 2000 at the new NVDC headquarters at 144 West Main Street. Offices will be on the second and third floors of the Mattutuck Museum. An agenda and more information will follow in the mail.

- The STV Study Team will be evaluating input from today's session and developing the alternatives.

C.2 Participants of Technical Advisory Committee (TAC) Meetings

TAC meetings were comprised of stakeholders and transportation professionals from various organizations including the following:

- **CITY OF WATERBURY**
  - Barry Berson (Engineer)
  - Allyn DeMaida (Mayor's Office)
  - Ernie Phillips (Engineer)
  - Keith Rosenfeld (Planner)
- **CONNECTICUT DEPARTMENT OF TRANSPORTATION (CDOT)**
  - Anthony Arcari (Public Trans.)
  - Jim Boice (Transit Capital Plan.)
  - Jon Foster (Rail Operations)
  - Richard Hollis (Planning)
  - Peter LaBouliere (Rail Operations)
  - Kerri Morotto
  - Carl Rosa (Real Estate)
  - Michael Sanders (Public Trans.)
  - Maureen Shea (Public Trans.)
  - Carmen Trotta (Planning)
- **COUNCIL OF GOVERNMENTS OF THE CENTRAL NAUGATUCK VALLEY**
  - Peter Dorpalen
- **FITZGERALD & HALLIDAY, INC.**
  - Carol Gould
- **JETER COOK & JEPSON ARCHITECTS, INC.**
  - Scott Persing
- **METRO-NORTH RAILROAD**
  - Robin Hollander
- **NAUGATUCK VALLEY DEVELOPMENT CORPORATION (NVDC)**
  - Dan Sahl
- **NORTHEAST TRANSPORTATION COMPANY (NET)**
  - Joseph Spina
- **RIDEWORKS OF GREATER NEW HAVEN**
  - Katherine Zatkowski
- **STV INCORPORATED**
  - Kenneth Lin
  - Jim Sherwonit
  - Garvin Tom
- **TRAVEL CENTER/LAND JET BUS LINES**
  - Charles Brady
  - Dennis Brady
- **WATERBURY CHAMBER OF COMMERCE**