

## Executive Summary

### Regional Intermodal Transportation Center Master Plan and Efficiency Study

Southeastern Connecticut  
Council of Governments

March 2010



EXPERIENCE | Transportation



## Acknowledgements

This study was prepared in cooperation with the Connecticut Department of Transportation. The opinions, findings and conclusions expressed in this publication are those of the Southeastern Connecticut Council of Governments and do not necessarily reflect the official views or policies of the Connecticut Department of Transportation.

This study was sponsored by the Southeastern Connecticut Council of Governments. The project was managed by SCCOG Executive Director James S. Butler, AICP. Also involved in the management of the study was SCCOG Assistant Director S. Richard Guggenheim.

This study was funded by a grant from the Connecticut Department of Transportation. The Connecticut DOT Project Manager was Andrew H. Davis. Other Connecticut DOT staff made significant contributions to the study and served on the Stakeholder Steering Committee, including Deputy Commissioner Albert Martin; Grayson Wright of the Bureau of Policy and Planning; and Eugene Colonese, Craig Bordiere and Jon Foster of the Rail Office.

SCCOG and the consultant team would like to acknowledge members of the *Stakeholder Steering Committee* and the interested study participants listed in alphabetical order below:

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Ella	Bowman	SEAT General Manager
John	Brooks	New London Development Corporation
Karen	Bryant	City Center District
Michael	Carey	Suisman, Shapiro, Wool, Brennan, and Gray
Kevin	Cavanagh	City of New London
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Jenny	Contois	Congressman Joe Courtney, District Director
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Charles	Curtin	Curtin Transportation
Chris	DuPont	Fishers Island Ferry (invited)
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Rep. Ernest	Hewett	State Representative
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Chris	Jennings	Mystic Coast and Country (early in study)
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Waterford	Dan Steward	First Selectman

## **The Consultant Team**

The consultant team was led by TranSystems with Larry Englisher as Project Manager. The other members of the consultant team were Crosby Schlessinger Smallridge, LLC; Fitzgerald & Halliday, Inc.; Basil Baumann Prost and Associates, LLC; and URS Corporation. Individuals from these firms who contributed to the study are listed below:

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### 1. Introduction

#### 1.1 Background

Downtown New London is the confluence of various modes of transportation serving the entire southeastern Connecticut region. Today, the collection of several individual transportation terminals and facilities located in close proximity to each other in downtown New London constitutes the Regional Intermodal Transportation Center (RITC). At the center of the RITC is Union Station, an historic, architecturally-significant and imposing structure designed by H.H. Richardson and built in 1888. This privately owned building serves as the region's train station for Amtrak intercity rail (Acela Express and Regional trains operating on the busy Northeast Corridor) and Connecticut DOT's Shore Line East commuter rail service (its easternmost terminal). Located alongside Union Station are the Amtrak-owned tracks used by passenger and freight rail services.

Union Station is also the site of New London's intercity bus terminal and the New London hub of the region's bus transit system. The Greyhound intercity bus station is located in a separate brick structure on Union Station property just north of the station's old baggage shed. The local transit system, Southeast Area Transit (SEAT), has a curbside bus stop with a simple shelter on Water Street, north of the building and the Greyhound station. This bus stop serves as its New London hub.



Union Station

Space for the transportation uses at Union Station is currently leased from the private owners by the operators of rail (Amtrak) and intercity bus service (Greyhound). The private owners of Union Station, who acquired the building in order to preserve it, have been exploring alternative uses for the building which includes considerable vacant space.

Various ferry services operate from the adjacent waterfront area to points in New York State and Rhode Island, although seasonal cruise ships dock at the Admiral Shear State Pier, beyond walk distance from the site. Private bus operators serving the two casino resorts in the region connect with passenger ferries. Local travel is also provided by three taxi companies which have a taxi stand in front of Union Station. There are two parking garages and several surface lots in the area serving patrons of the RITC and the local street network connects travelers to I-95 and the rest of the interstate highway network. Across Water Street, the City of New London operates parking garage with over 900 spaces providing parking for downtown needs as well as for the transportation terminal, particularly ferry and rail users.

Despite the general proximity of the modes, the actual connections between services could be improved in terms of physical conditions, directness, wayfinding, information and other factors. This Master Plan and Efficiency Study, commissioned by the Southeastern Connecticut Council of Governments (SCCOG) and funded with a grant from the Connecticut Department of Transportation, was undertaken to determine how the intermodal hub can be improved. The study was conducted by a team of consultants led by TranSystems, including Basile, Baumann Prost & Cole LLC, Crosby, Schlessinger, Smallridge LLC, Fitzgerald & Halliday, Inc., and URS Corporation.

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## 1.2 Study Purpose and Objectives

The purpose of the Master Plan and Efficiency Study has been to develop a seamless regional transportation hub to meet regional transportation needs that also supports the revitalization of downtown New London. SCCOG and the City sought to ensure that a vital transportation hub is maintained with enhanced functionality for all transportation connections. These transportation assets are seen as key to New London's future development. The City of New London, a key stakeholder, wishes to promote development in downtown New London near the hub in a manner that will provide economic benefits, build on the transportation features as well as the waterfront and historic and architectural assets, and correct some past urban redevelopment decisions that have not contributed to the vitality of downtown.

The study contained the following specific objectives:

1. Determine if the Regional Intermodal Transportation Center (RITC) should remain at this site or be relocated to an alternate site
2. Conduct a physical inventory of RITC component facilities
3. Evaluate existing and future operational needs for each mode at the RITC
4. Analyze market potential for transit-oriented development at or near the RITC
5. Identify and evaluate potential improvements for the short and long term
6. Evaluate costs and economic impacts
7. Evaluate environmental conditions and implications
8. Develop a master plan including recommended actions

In addition to the technical objectives listed above, reaching public consensus was an important objective. There was ongoing stakeholder and public involvement and agency coordination throughout the study. This included two public meetings and six meetings of a Stakeholder Steering Committee including representatives of transportation providers, property owners, downtown business and other interest groups, and representatives of City and State agencies. (The public process is documented in Appendix F including meeting minutes.) Individual meetings were also held with key stakeholders. A study webpage was maintained on the SCCOG website ([www.seccog.org](http://www.seccog.org)) and fact sheets were prepared and distributed. Finally, passenger surveys conducted early in the study (in summer 2008) were a means of outreach to travelers.

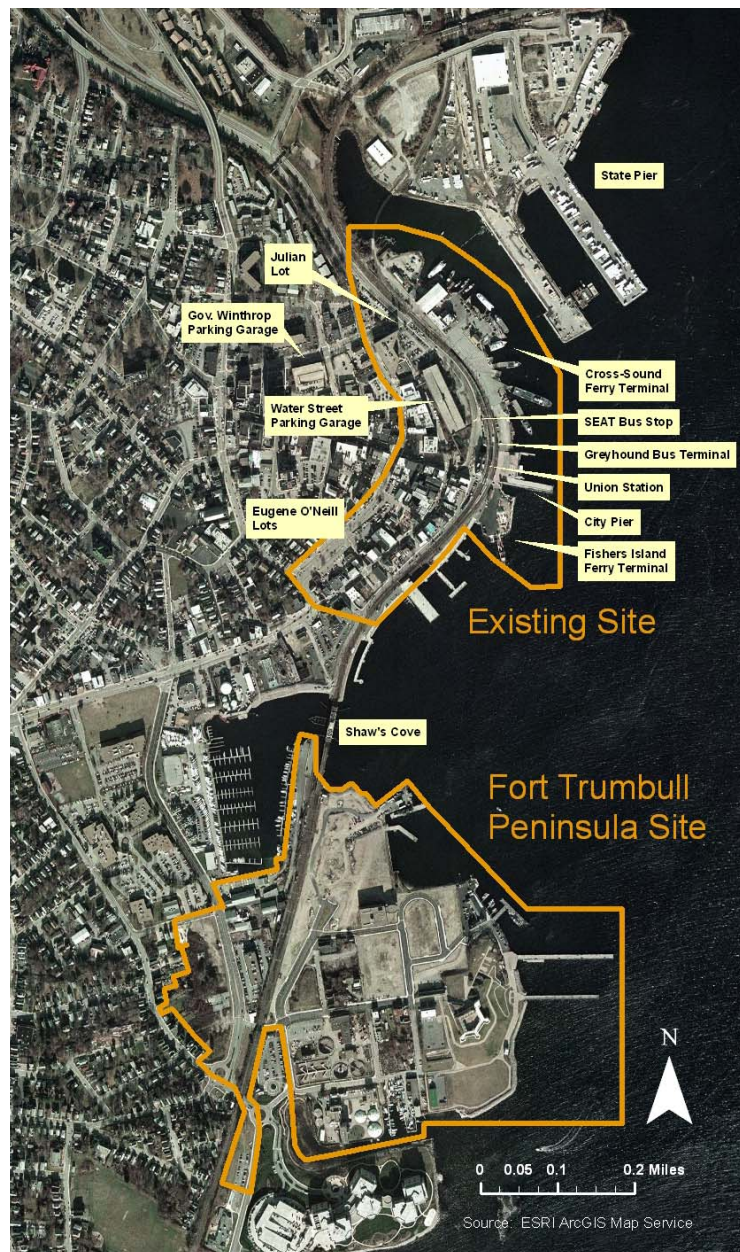
This Executive Summary provides a brief description of each major step of the study with the emphasis on providing a summary of the recommended master plan. Each step is more fully documented in the final report.

## 2. Confirmation of Site Selection

A comparison of alternative sites was requested by Connecticut DOT, the agency funding the study, to serve the purposes of an alternatives analysis (as far as site location) for any subsequent NEPA documentation. The site for the future improved Regional Intermodal Transportation Center (RITC) was selected based on a comparison of two pre-selected alternative sites for the RITC - the existing site located in downtown New London along Water Street and the Fort Trumbull peninsula, a redevelopment site in the City of New London. (Fort Trumbull was cited as a place with visitor interest – due to the presence of Fort Trumbull State Park -- and a possible site for cruise ships to dock. It also is along the railroad right-of-way.) Figure ES-1 shows the location of the two sites.



Figure ES-1: Location of the Two Candidate Sites



Specific criteria for use in the evaluation included:

- Capacity for Operations - Landside
- Capacity for Operations - Maritime
- Compatibility with Other Existing/Potential Uses
- Environmental Sensitivity
- Parking Capacity (for all modes)
- Pedestrian Access (for all modes)
- Vehicular Access (for all modes)
- Traffic Impacts (for all modes)
- Capital Cost (for all modes)
- Economic Development Opportunity
- Likely Public Support
- Capacity to Accommodate the Entire Package of Modes

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The recommendation of consulting team was that the RITC be maintained at the downtown site based on the following reasons:

1. There is widespread and firm desire among stakeholders interviewed, including the transportation operators, to keep the RITC at their current sites to support and serve downtown. There are perceived advantages to retaining the downtown location for each mode of transportation.
2. Only the cruise ships which currently dock at the Admiral Shear State Pier would really benefit from being at Fort Trumbull (it was one of the major considerations of ConnDOT in their suggesting Fort Trumbull as the alternative candidate site for the RITC). Moving the cruise ships to Fort Trumbull might enhance the attractiveness of New London to cruise ship operators and passengers, but it is not functionally necessary to move them and it is certain to be costly and, after thorough consideration, was deemed infeasible due to landside access constraints and marine operational factors.
3. Many transportation operators would face constraints at the Fort Trumbull site, such as the limited and circuitous access to the site, parking requirements and the need to dredge to create ferry terminal.
4. The existing RITC sites offer the needed capacity and opportunities for improvements, some of which are underway.
5. There is existing support for enhanced development around the existing sites and there are some sites for such development.

The Stakeholder Steering Committee reached a clear consensus agreeing with the consultant recommendation. With the concurrence of the SCCOG, the current site became the focus of the remaining tasks of the Master Plan and Efficiency Study, which developed a plan for creating an improved RITC at the selected site.

### 3. Transportation Services at the RITC

The following long distance modes are provided at the existing RITC:

- Amtrak intercity rail service, with a ticket office and waiting area in Union Station
- Shore Line East (SLE) commuter rail service, operated for Connecticut DOT by Amtrak and currently limited to one roundtrip per day at New London but expected to expand soon to six roundtrips per weekday
- Greyhound intercity bus service (operating from sawtooth bays and its leased terminal building just north of Union Station)
- Cross Sound Ferry (located on property east of the railroad tracks with vehicular access from the Governor Winthrop Boulevard crossing)
  - Auto ferry service to/from Orient Point, NY (Long Island)
  - Sea Jet passenger-only ferry service to/from Orient Point, NY (Long Island)
  - Block Island Express passenger-only ferry service
- Fishers Island auto ferry service (owned by the municipal government of Southold, NY and operating from a fairly new terminal building located east of the railroad tracks at State Street near City Pier)

In addition there are several local access modes, including:



- SEAT bus transit service (seven routes which pulse on an hourly basis) operating from a curbside location on the east side of Water Street just north of the Greyhound bus area (except for the route to Foxwoods which operates from directly in front of Union Station)
- Casino coaches (which meet Sea Jet passenger ferries on Cross Sound Ferry property)
- Taxis, which stand in front of Union Station
- Automobile parking, including the City-owned Water Street Garage, Cross Sound Ferry on-site parking (partially on land leased from the City), Governor Winthrop Garage, City-owned Eugene O'Neill Drive lots, and the Julian lot (open on summer weekends)

#### 4. Existing Facilities at the RITC

The existing physical conditions of the transportation facilities located in downtown New London that make up the Regional Intermodal Transportation Center (RITC) were inventoried. These include the rail station, bus facilities, ferry facilities, parking facilities, taxi stand, vehicular and pedestrian network, and the City Pier area, shown in the aerial photo below in Figure ES-2.

Figure ES-1: Existing Transportation Facilities in Downtown New London



Most of the physical facilities are in good or very good condition, although some deficiencies were identified through observations of the consultant team and information from user surveys and interviews. The most notable deficiencies were the poor pedestrian connections, lack of amenities and comfort at the rail and bus facilities, conditions of elevators and stairways as well as deterioration of the concrete at the two garages,

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inadequate security systems at parking facilities, and lack of wayfinding signage between transportation modes.

Current pedestrian facilities need improvements to ensure safe and convenient access between travel modes and to and from the parking facilities. The most notable deficiencies are between Cross Sound Ferry and the other facilities. Improvements are also needed to and from the Water Street Garage and Julian surface lot and the various transportation services. The Parade Project, for which construction is now nearly completed, will improve pedestrian safety in the vicinity of Union Station through enhanced crosswalks, sightlines and traffic calming. However, there are other needed improvements.

Union Station has had renovations to the lobby and roof, and the station platforms are in good condition. The Greyhound terminal, leased from the owners of Union Station, is in sound condition but is very basic and has not undergone renovations to enhance its appearance. The SEAT bus stop is minimal as a passenger facility, consisting of a simple shelter and several outdoor benches. It would benefit from improvements to enhance passenger comfort or relocation to a location which could provide indoor waiting areas and other amenities. Bus and rail users surveyed indicated particular concerns about amenities (e.g., lack of food services, newsstand and clean restroom facilities) and comfort at the rail and bus facilities.

Fishers Island Ferry has a new (3-year old) terminal facility that is in very good condition. The Cross Sound Ferry facilities are in good condition. Some of the parking areas in use at Cross Sound Ferry are unpaved. Users of the Cross Sound ferry facilities indicated concerns about lack of amenities and sufficient convenient parking.

The Water Street Garage and Governor Winthrop Garage show evidence of deferred maintenance (in particular, deteriorating concrete), although some repairs are now underway at the Water Street Garage addressing elevators, security, lighting and signage and others are planned. In addition, the elevators at the Water Street Garage need repairs. (A new tower is being constructed at the south end of the garage with a new elevator as part of the Parade Project.) Surveys of users of the parking facilities conducted as part of this study indicated the most dissatisfaction was with the stairways and elevators at the garages, as well as handicapped access. Another concern expressed in the surveys at the parking facilities was about security features. There is a lack of security systems in the garages and parking lots, including closed-circuit TV and blue light call boxes. The Water Street Garage will have security cameras installed as part of upcoming renovations.

Overall, the transportation facilities are not providing adequate access for persons with disabilities, based a field assessment conducted as part of this study in late 2008. Handicapped access in the Water Street Garage was considered to be a problem in the user survey. This may largely be due to the fact that the elevators were out of order. This will be corrected with the installation of a new elevator at the south end as part of the Parade Project.

Additional improvements to the remaining elements are warranted. Lighting and wayfinding signage are lacking. Although many of the survey respondents did not identify that lighting was poor or deficient, lower level pedestrian fixtures will both improve aesthetics and also provide a stronger sense of security. While survey respondents generally identified ease of access as being good; there was less satisfaction with signage. In general, wayfinding signage throughout the city street network is lacking; the existing signage doesn't provide clear and concise messages nor are the signs strategically placed. Better than 30% of the respondents indicated that signage was below average at the Cross Sound Ferry Lot location.

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Finally, while there is a large “Welcome to New London” sign on the Water Street Garage (in letters along the face of the garage near the roofline), more needs to be done to attract the visitor in terms of restaurants, shopping, etc. that can be seen by visitors arriving at the RITC, particularly for those arriving at the Cross Sound Ferry Terminal, Greyhound Bus Terminal or SEAT bus stop. The railroad right-of-way area was found to be unattractive and did not appear to be well-maintained during the field review in late 2008. However, over the course of the study, several improvements have been made. The Parade Project has been constructed and is nearing completion. It is improving the area to the south of the Water Street Garage by opening up views and creating an attractive pedestrian plaza. The City has been installing new steel post fencing along the west side of the railroad right-of-way. (The decision to use steel post fencing rather than cyclone fencing was influenced by this study’s recommendations.) New London Main Street has installed some new wayfinding signage and is installing “gateway” signage at strategic locations. Despite this progress, there is a need to take additional actions to create a more pedestrian- and tourist-friendly area around the RITC.

## 5. Existing and Future Transportation Needs

The study identified elements of the transportation center that are working well and should be maintained, as well as many elements that are in need of improvement. Future ridership increases, expansion of services, growth in tourism, and new development in New London will likely create new needs that must be addressed in the future. Each of these areas is summarized below.

### 5.1 Current Needs

For the most part, each individual transportation provider’s operation is working fairly well. Amtrak operates smoothly through New London. Buses come and go with minimal delays from local traffic on most days. Ferry operations run smoothly. Parking facilities fill on only a few days each year.

Several key connections between modes were identified. Where these key connections are good, they should be maintained. Good connections are close together, on good surfaces, esthetically pleasing, weather protected and free from obstructions and delays. The good key connections that should be maintained include:

- Greyhound to/from SEAT
- SEAT’s Foxwoods Route (#108) to/from Amtrak southbound (northbound requires crossing the tracks)
- Greyhound to/from taxis and pick-up/drop-off
- Amtrak to/from taxis and pick-up/drop-off (although some may have to cross the tracks)
- Amtrak northbound to Fishers Island (southbound requires crossing the tracks)
- SeaJet high-speed passenger ferry to/from the casino shuttles
- Amtrak southbound, Greyhound, and SEAT to/from the Parade and downtown
- Roadway access to the Long Island Auto Ferry and to the two garages

There are also several other good quality connections that are made less frequently and thus not deemed key connections. While less critical, these should also be maintained if at all possible.

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**Bus Facilities** - Bus facilities and operations are most in need of improvement. Greyhound's ticketing and waiting area is antiquated and there is no outdoor waiting area or outdoor seating. The existing saw-tooth bus bays are not configured as Greyhound prefers and create possible safety concerns when buses need to back up into traffic. Greyhound also desires access to a third bay. SEAT would prefer a location closer to the train station and would like an indoor facility for both passengers and operations personnel. SEAT's passenger facilities are minimal and need improvement.

**Ferry Facilities** - While both ferry operators have adequate indoor ticketing facilities for the vehicle ferries, indoor waiting areas are limited. The Block Island passenger ferry has no indoor waiting area and no restroom. A more substantial passenger ferry terminal building is needed.

**Traffic** - Traffic issues focus on the two railroad crossings. The crossings at State Street and Governor Winthrop Boulevard are frequently closed by incoming and outgoing trains at the station, impacting the ability of pedestrians and vehicles to access both ferry terminals. Downtown festivals and events also cause general traffic problems affecting bus and ferry operations. The area in front of Union Station, even after Parade construction is complete, may be too small for efficient use by the taxis and private vehicles picking up and dropping off passengers.

**Parking** - Parking facilities are located a distance from the ferry terminals. The parking capacity is adequate for current needs unless existing surface parking at Cross Sound Ferry and the Julian lot (an office building parking lot adjacent to the Water Street Garage that has been open on summer weekends to meet peak parking demands created by the ferry) become unavailable. Security, signage and elevators at the parking facilities are poor. Many passengers using the Block Island Ferry must park in the garages and walk a few blocks and across the tracks. Wayfinding signage and access routes from the garages to the ferry terminals are poor.

**Connectivity and Information Needs** - Several key connections between facilities were identified as deficient. The most difficult key connections to make are those that involve crossing the railroad tracks and accessing the ferry terminals. The major obstacles are the distances involved, level changes, wayfinding signage, condition of the pathways and delays and safety at the two railroad crossings. The key connections identified as deficient include:

- Greyhound to/from the Long Island Ferry
- Amtrak to/from the Long Island Ferry and the Block Island Ferry
- Water Street and Governor Winthrop garages to/from the Block Island Ferry
- Union Station and southbound rail platform from the Fishers Island Ferry
- Taxis and Water Street Garage to/from the Fishers Island Ferry
- Downtown to/from the Long Island Ferry and the Block Island Ferry

Other less than optimal connections result from pedestrians and vehicles needing to cross the railroad tracks at State Street. Trains in the station can cause delays and pedestrian areas are not clearly distinguished from the roadway. These include:

- Amtrak/SLE northbound platform to/from the Water Street Garage, SEAT 108 and taxis
- Amtrak/SLE northbound platform to Union Station lobby and ticket counter
- Fishers Island Ferry roadway access

Schedules are not generally coordinated to facilitate intermodal connections and real time status information is generally not shared among operators. Joint marketing and ticketing among New London



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operators is minimal and schedule information and information on how to connect to other modes is lacking both pre-trip and on-site. Wayfinding signage is minimal, non-existent or misleading. Little information on downtown New London is available through the transportation operators. Performance of the RITC as a transportation center could be improved by more joint marketing and ticketing efforts and improved pre-trip and on-site information on how to make connections. A centralized system to provide real time connection information in all terminals may be beneficial. Downtown New London could benefit from more information on downtown attractions and activities being provided in advance, both on vehicles and in the station area.

**Amenities and Commercial Needs** - The deficiency that was mentioned most often by passengers at the RITC surveyed during this study was the general lack of amenities in each of the facilities. The Union Station area lacks any retail amenities or food concessions. Restroom facilities are locked and in need of accessibility improvements. SEAT passengers have no restrooms. While the rail station has a substantial waiting area, the Greyhound waiting area is cramped and antiquated. SEAT has only a single standard outdoor bus shelter and a few benches. While there is a single food concession at the Long Island Ferry terminal, there are no other retail or food concessions at either ferry terminal.

## 5.2 Future Needs

Two future transportation scenarios were developed, reflecting assumptions based on past trends and input from the operators. These were developed for the purpose of setting reasonable upper and lower bounds for decision-making concerning the RITC facility and should not be taken as projections of future travel. Both scenarios would result in increased demand for transportation services at the RITC. Ridership and parking demand was assessed for both 2015 and 2030 under each scenario.

**Parking and Traffic** - The demand for parking is a key element in determining future facility needs. If the Cross Sound parking lot is needed for auto ferry staging, and the Julian lot (open on summer weekends) is developed without public replacement parking, existing demand would create an immediate need for additional parking. Otherwise, under either scenario, additional parking may not be needed before 2015 but would certainly be needed well before 2030. By 2030, in the low demand scenario, peak summer weekend demand would be near the total capacity of all downtown parking facilities, while in the high scenario, higher growth rates and expanded ferry services would increase demand to well over total parking capacity. RITC parkers alone would take up all of the available capacity in the high scenario, leaving no room for other users. If RITC parkers were limited to the three closest facilities, they would nearly fill the facilities, even in the low demand scenario. It is also likely that additional space will be needed for taxis and for passenger pick-up/drop-off, possibly through the creation of an off-site taxi holding area. Increased traffic at the Water Street intersection with Governor Winthrop Boulevard may result in unacceptable traffic levels of service that would also need to be addressed.

**Rail Facilities** - Ridership and service under the future scenarios will likely require some additional or enhanced facilities. While current rail facilities appear to be adequate to meet future demand, it was determined late in the study that Shore Line East service when expanded will be shifted to Track 6 (the freight track) at Amtrak's request. Connecticut DOT will modify the existing platform and may consider construction of an additional platform in the future to the east side of Track 6.

**Bus Facilities** - Bus facilities may need to be expanded and enhanced. Greyhound may need access to a third bay. Greyhound's ticketing and waiting area would likely need to be enhanced and expanded. For SEAT, increased corridor route frequency in either scenario will create a need to layover an additional bus and any new routes would further increase space requirements. The increase in frequency in the high

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scenario would result in much more SEAT activity visible at the RITC bus stop. This increase in vehicles using the facility and the accompanying increase in ridership would make the case for an enhanced facility with an enclosed waiting area, additional amenities and an indoor facility for operating personnel. Finally, the proposed but unfunded tourist transit system included in the high scenario would also create additional need for bus facilities, both close to downtown and accessible to the Cross Sound Ferry terminal. (At Cross Sound Ferry, the tourist transit buses would replace the casino shuttles using the same, or preferably enhanced, facilities.)

**Ferry Facilities** - Ferry operators may also need to add facilities to accommodate the expanded services reflected in the high scenario. Cross Sound Ferry may wish to construct a new high-speed passenger ferry terminal at the site of the Block Island ticket office and dock, serving the Block Island Ferry, SeaJet and any new passenger ferry services. Fishers Island would need a new ferry slip if they begin operation of a passenger-only ferry.

Current and future operational and facility needs for all modes, the need for improved connections between modes, the need for additional parking and the need for improved amenities all played a key role in developing proposed improvements to the Regional Intermodal Transportation Center

## 6. Potential Transit Oriented Development (TOD)

The enhancement of the RITC is envisioned to serve as a catalyst for transit oriented development (TOD), that is, concentrated development within walk distance of the RITC that builds on the advantages of convenient public transportation access and in turn generates passengers that will use the RITC. A market analysis was conducted to assess the development potential at and in the general area around Union Station (i.e., downtown New London). Through a demographic and economic overview of the RITC site area, as well as analyses examining the residential, office and retail market development potential of the station and surrounding areas, this market analysis considered the land uses and services that can complement the RITC. This analysis was prepared using an industry standard research process, taking into consideration emerging demographic and economic factors, transit oriented development factors, and public/private development opportunities. The result was projections for residential, retail and office development in the succeeding ten year period. This was followed by an evaluation of transit oriented development (TOD) sites and the development of some general TOD scenarios.

### 6.1 Summary of Strengths, Challenges and Opportunities

Strengths, challenges, and opportunities for potential development in downtown New London's Historic Waterfront District were identified as a result of site visits, interviews with stakeholders, and market analysis conducted during the study.

- **Strengths**
  - historic downtown with unique characteristics
  - national trends of residential, office and retail shifts into urban centers
  - growth in key industries (professional/scientific, maritime, and creative arts and technology)
  - large regional tourist industry
  - existing demand for market rate downtown residential space
  - eclectic niche of retailers and restaurants



- entertainment and arts venues
  - local and regional metropolitan connections (Boston, New Haven, Stamford, New York, Philadelphia, and Washington)
  - a historic multimodal transportation center in downtown serving as an origin or destination for 1.8 million passengers annually
- **Challenges**
    - difficult/expensive renovations
    - obsolete retail spaces
    - perception of crime
    - low traffic counts
    - national economic downturn
    - difficult pedestrian environment connecting the train station, ferries and downtown
    - low occupancy of existing commercial space
    - predominantly lower income population in the city
    - small downtown residential population
    - a relatively small downtown worker population
  - **Opportunities**
    - build on local economic and demographic trends with an expanded residential presence downtown for empty nesters and young professionals
    - attract businesses in key employment industries
    - encourage more tourist visits to the area
    - encourage niche retailers
    - bolster downtown entertainment/arts/cultural events
    - improve streetscape to attract public transportation users to the downtown
    - implement a marketing/branding program of downtown and the RITC to capture a larger share of the “culture class” emerging in the new economy and visitors who use the various transportation modes

## 6.2 Projections for the Next Ten Year Period

The market analysis projected that downtown New London can support modest additional retail, office and residential space over the next ten-year period. However, development will stall in the short term as the nation-wide economic downturn negatively influences market conditions that support growth. It is expected that the supportable square feet and units can be phased in throughout the ten year period, but the majority of the development will occur in the later years. The market analysis for office, residential and retail suggested the following potential projected development program:

**Table ES-1 Downtown Development Program over a Ten-Year Period**

	Low	Mid	High
Office	20,215 SF	39,000 SF	66,616 SF
Retail	19,422 SF	40,675 SF	62,460 SF
Residential Units	93 (93,000 SF)	211 (211,000 SF)	347 (347,000 SF)
<b>Total Square Footage</b>	<b>130,707</b>	<b>288,262</b>	<b>473,181</b>

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While there is potential for new office and retail development, the greatest potential is for residential development. The level of development in downtown New London depends on the market conditions, available space, micro and macro economic trends, public policy incentives and proactive marketing programs. Any combination of these factors will influence the development potential of downtown New London. Taking into consideration the current economic downturn, downtown New London is not projected to see rapid growth in the near term years. As businesses and households begin to recover, they will look for new business, tourist, and retail opportunities. The City of New London, and other organizations aiming to make downtown a more attractive option for office locations, residential living and retail shopping and restaurants, have the near term to foster incentives and develop a marketing campaign to reach out to potential office and retail space users, tourists, residents and other groups potentially spending money in downtown.

Over the longer term (in ten years), the total estimated fiscal impacts from the RITC induced development program are over \$1.6 million in property tax, \$1.2 million in income tax and \$600,000 in sales tax annually. The induced economic impacts are 317 new downtown residents and 356 new employees (209 office employees and 156 retail employees).

### 6.3 Development Scenarios

The market analysis projected three conceptual development programs which included a low, mid and high scenario. Significant rehabilitation of existing buildings along Bank and State Streets as well as the development of several small infill sites within the downtown would accommodate the Low Scenario downtown development program (consisting of 20,215 SF of office, 19,422 SF of retail, and 93,000 SF of housing, i.e., 93 units). In combination with the rehab/development under the Low Scenario, the development of larger development parcels, including the Eugene O'Neill Drive parking lots would accommodate the Mid Scenario downtown development program (consisting of 39,000 SF of office, 40,675 SF of retail, and 211,000 SF of housing, i.e., 211 units). Lastly, in combination with all of the above, the redevelopment of large potential redevelopment sites on Atlantic Street, Eugene O'Neill Drive, Union Street, and Governor Winthrop Boulevard would accommodate the High Scenario downtown development program (consisting of 66,616 SF of office, 62,460 SF of retail, and 347,000 SF of housing, i.e., 347 units).

Sites that could potentially accommodate TOD range from small infill parcels to large, long-term redevelopment opportunities. Presently, there are very few undeveloped sites and, consequently, most of the major opportunities for TOD around the RITC are long term (20 or 30 years). The most immediate opportunities lie in the vacant storefronts on Bank and State Streets, and small infill parcels identified above. Although it is conceivable that these sites could be rehabilitated/developed within the short range, they are too small to achieve a significant portion of the future land use program identified in the market analysis. In addition, achievable as-of-right development densities may not be great enough to make it worth the investment for developers.

If there is a decision to raze and replace the Water Street Garage in the future (e.g., 20 or 30 years from now), consideration should be given to redeveloping the "superblock" bound by Water Street, State Street, Eugene O'Neill Drive, and Governor Winthrop Boulevard. This 235,000 sq. ft. site (5.4 acres) represents an opportunity to use the site more efficiently, create a new "face" for downtown New London fronting on Water Street and create a lively, pedestrian-friendly interior street pattern linking Bank and State Streets to the new multi-use district.

Developing the identified sites with well-designed, higher density, mixed-use development (with an emphasis on residential development) could potentially improve connections between the RITC and the downtown, increase transit ridership, and help transform the RITC and downtown New London into a vibrant, pedestrian-friendly, self-supporting district. The realization of this TOD potential will require public/private partnerships and community support.

## 7. Development and Evaluation of Improvement Options

To guide the development of options for the master plan and the screening evaluation of those options, the following guiding principles were developed to reflect the goals of SCCOG, the City and the Stakeholder Steering Committee.

**Table ES-2: Guiding Principles**

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| <ol style="list-style-type: none"><li>1. Emphasize short term improvements that are specific, low cost, and easy to implement, that address identified deficiencies and that work towards, or at least are not incompatible with the desired long term vision(s)</li><li>2. Include one or more long term visions, which should be more general and allow for some flexibility so that the City can respond to private developer proposals</li><li>3. Identify possible phasing of improvements</li><li>4. Preserve and enhance the viability and growth of the transportation operators and local businesses</li><li>5. Make transfers between modes safe and convenient</li><li>6. Capitalize on the synergies of transportation services and development</li><li>7. Balance the space needs of transportation services and development</li><li>8. Maximize opportunities for those types of development that are likely given the character and advantages of New London</li><li>9. Avoid schemes that would involve land takings / focus instead on opportunities for public-private cooperation</li><li>10. Consider the goals of private businesses/property owners as well as public goals</li><li>11. Create an attractive gateway for New London and the region and encourage travelers to visit New London</li></ol> |
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### 7.1 Short Term Alternatives

Several options were identified for short term, lower cost improvements for the RITC. These improvements were designed to enhance the traveler and visitor experience, particularly as a pedestrian. These improvements would be implementable in a relatively short time frame, through cooperative arrangements among the City and the major property owners. The improvements would not require major redevelopment or reconstruction efforts; however, they would make significant progress in addressing identified issues, including pedestrian safety, unclear connections, amenities, image, aesthetics, etc. The potential improvements are compatible with the longer term visions.

For all practical purposes, the locations of the auto ferry terminals and rail station are fixed. The location of the major parking facilities serving the RITC are also fixed at least for the short term. It should also be

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noted that the Parade Project which is under construction and nearing completion was assumed to need to remain in place without modification (or incur only very minor impacts).

The most flexible components of the RITC are the Greyhound Bus Terminal, the SEAT pulse-point bus hub, the taxi stand, the pick-up/drop-off areas at Union Station, the location of the high speed passenger ferry docks, and the allocation of staging versus parking space on the Cross Sound Ferry site. Also subject to possible new uses are the area in front of the Water Street Garage and some areas on the Cross Sound Ferry property. (Cross Sound Ferry has identified the potential removal of some existing buildings to allow for additional parking and staging areas.)

The most urgent needs to address were (in no particular order):

- Pedestrian Safety Improvements
- Enhancing the Pedestrian Environment
- Facilitating Transfers Between Modes
- Improving Wayfinding
- Enhancing Bus Passenger Amenities
- Enhancing the Aesthetic Appearance and Welcoming Visitors
- Encouraging Transportation Uses at Union Station.

#### *Improvements Common to All Short Term Alternatives*

Among the components of the short term improvement are several that are common among all the short term alternatives. These are:

- Enhanced pedestrian crosswalks and pathways including ADA compliance
- Enhanced pedestrian scale lighting
- Wayfinding signage between all components of the RITC
- Enhanced traveler information through signage, information kiosks, information center
- Aesthetic improvements to the façade of the Water Street Garage and the railroad right-of-way, that is, new fencing and landscape improvements, events banners and welcome signage on Water Street Garage façade
- Use of Union Station as a gateway to New London
- Extend taxi stand along State Street between Bank Street and South Water Street

The most critical focus areas for short range pedestrian and aesthetic improvements in the RITC area are at the two intersections where streets cross the railroad and that provide pedestrian and vehicular access to the waterfront, ferry services, City Pier, and Union Station. Another focus for pedestrian improvements is along the waterfront. These short term pedestrian and aesthetic improvements will create a higher-quality pedestrian environment and will tie together the transportation modes. Together, they will create a safer and more secure and attractive RITC area for residents, tourists, and transit and ferry patrons.

#### *Improvements Specific to Particular Short Term Alternatives*

The short term alternatives differ primarily in what changes are assumed to occur in the location and configuration of the bus facilities. Specifically, the differences are related to whether one or both of the two bus operations are retained in their current locations or relocated to the space now available in front of the

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Water Street Garage. In either case, there should be upgrades to the customer facilities for the bus services.

As a result of the bus facility alternatives, there are options as to how the curb space along the east side of Water Street is used if the buses are moved from their current location and how the space in front of the Water Street Garage is used if the buses remain in their current location. Improved taxi stand and vehicle pick-up/drop-off areas at Union Station would be made in all options but in different locations depending on the location of the bus facilities.

The four primary alternatives for the bus facilities studied were as follows:

1. Enhance both facilities in place on the east side of Water Street
2. Move both facilities across the street to the off-street space in front of the Water Street Garage
3. Move only SEAT to the space in front of the Water Street Garage and leave Greyhound at the current site with some possible reconfiguration
4. Move only Greyhound to the space in front of the Water Street Garage and extend SEAT southward to include the former Greyhound site

Within these basic alternatives, some variants were identified.

Besides the location of bus facilities, another potential major difference between alternatives could be how Cross Sound Ferry uses its space. After discussion with Cross Sound Ferry, however, it was concluded that the current configuration of the passenger ferries works best even if Cross Sound Ferry removes some buildings to expand and reconfigure its auto ferry staging area. As a result, short term alternatives did not include options for reconfiguring the Cross Sound Ferry area.

Options considered but not included in the original set of Short Term Alternatives were:

- Bringing SEAT into Union Station
- Moving the Greyhound Terminal Farther North on Water Street and SEAT Closer to Union Station
- Removing a Travel Lane to Extend a Wider Sidewalk on the East Side of Water Street to Governor Winthrop Boulevard
- Shifting Taxi, Bus or Auto Pick-up/Drop-off to the East of the Railroad Right-of-Way
- Including a Pedestrian Bridge in Short Term Options

*Note that as the Short Term Alternatives were refined in the Master Plan, a pedestrian bridge was included in the Short Term Preferred Alternative and utilization of Union Station for bus terminal space requirements was included in the Fallback Minimum Construction Alternative. A wider sidewalk on Water Street was also included in the Preferred Alternative, but this was made possible by relocating Water Street rather than removing a travel lane.*

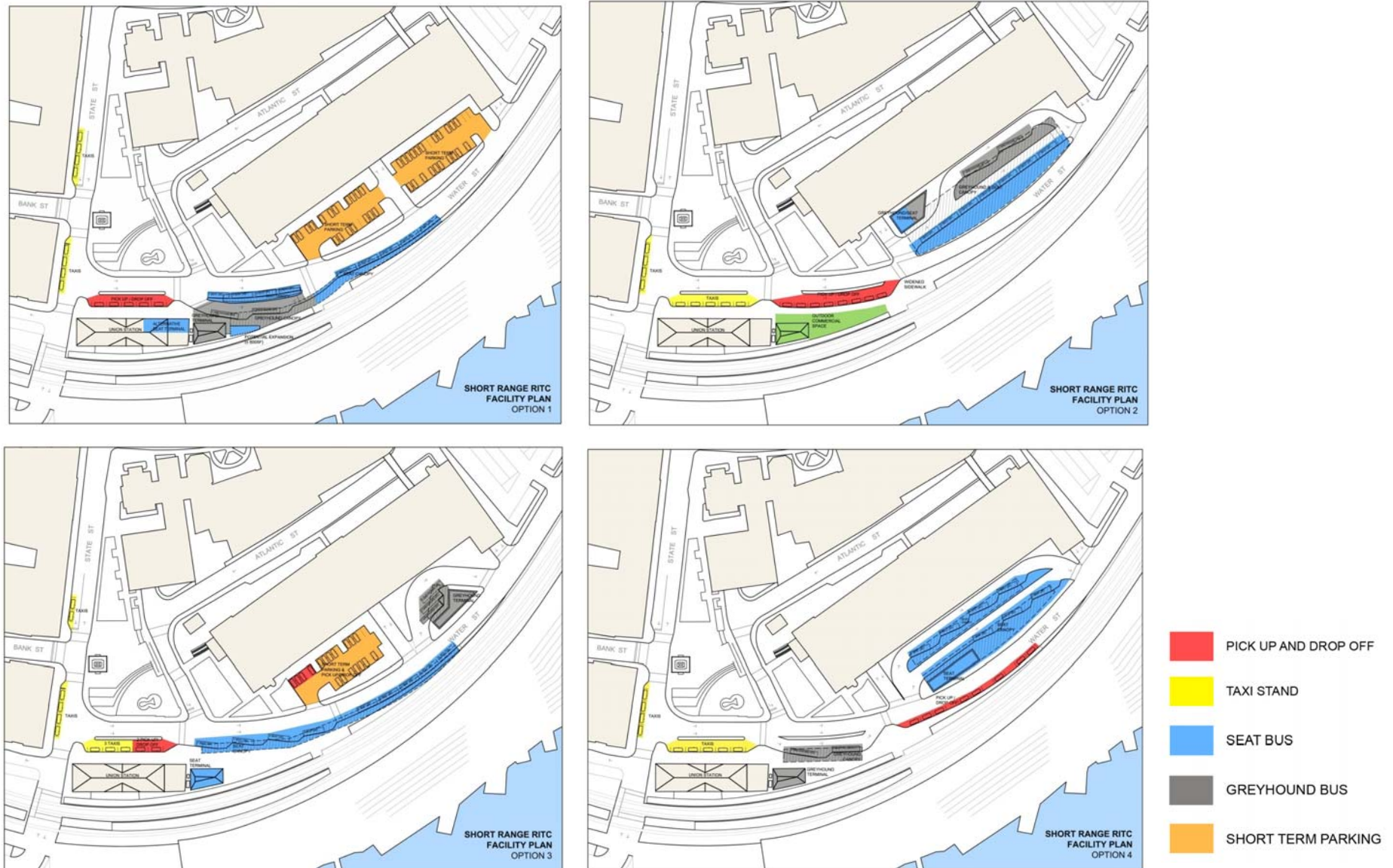
The four alternatives considered are summarized in Table ES-3. The plan representation of these options is shown in Figure ES-3.

Table ES-3: Primary Short Term Alternatives

Alternative	Name	Description	Greyhound	SEAT	Water Street Garage	Other
1	Both SEAT and Greyhound Stay on East Side of Water Street	One new expanded terminal building and canopy along curb (or SEAT terminal in Union Station)	2 sawtooth bays in current location	4 parallel to Greyhound, 5 north of Greyhound	Short term parking/pickup-drop-off (and/or public event space)	Need to Relocate Parade Crosswalk
2	Both SEAT and Greyhound Move to West Side of Water Street (off street)	New Free-Standing Passenger Terminal	2 sawtooth bays	7 parallel bays	Bus terminal with building; need to relocate center entrance	Reuse east side space for Pickup-Drop-off and plaza; Reuse Greyhound building for café; Need to Relocate Parade Crosswalk
3	Only Greyhound Moves to West Side of Water Street (off street)	SEAT relocated to Greyhound area	3 sawtooth bays and new terminal building	9 bays (4 sawtooth and 5 parallel); terminal at renovated old Greyhound building	Greyhound terminal and some short term parking and pickup-drop-off	Can't use FTA funds for exclusive Greyhound Terminal; Need to Relocate Parade Crosswalk
4	Only SEAT Moves to West Side of Water Street (off street)		2 sawtooth bays	7 sawtooth (or 9 parallel) bays, new terminal building	SEAT bus terminal with building; need to relocate center entrance	Need to Relocate Parade Crosswalk



Figure ES-3: Short Term Alternatives



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## 7.2 Long Term Vision Concepts

The long term vision concepts are necessarily less specific than the short term alternatives. They are designed to identify alternative visions for the RITC area beyond the year 2030 when the Water Street Garage and some other facilities and properties are due for reconstruction or redevelopment. The Master Plan does not propose one single long term vision concept, but rather includes several alternative visions that can be followed as the opportunity arises

The concepts reflect two primary decisions that will have to be made:

1. Should the RITC be concentrated at the immediate Union Station area near the intersection of State Street and Water Street, or should the RITC be extended to include the area from State Street to Governor Winthrop Boulevard in the Water Street corridor?
2. Should the parking facilities for the RITC be concentrated, thereby dispersing potential transit-oriented development (to multiple small sites within walk distance of the RITC)? Or should the parking be dispersed over a wider area (but within walk distance of the RITC) thereby allowing more concentrated transit-oriented development near the RITC, taking maximum advantage of the waterfront location as well as the proximity to the RITC? Note that given the scale of downtown New London and the desire to protect the character of the city, it was deemed infeasible to concentrate both parking and development near Union Station.

Table ES-4 summarizes the resulting concepts. Figure ES-4 illustrates the concepts. Note the concepts generally can include a Pedestrian Bridge or rely on surface connections.

Options considered but not included in the Long Term Concepts due to either a lack of feasibility or other disadvantages were:

- Building a Deck over the Railroad Right-of-Way
- Building a Tunnel Under the Railroad Right-of-Way<sup>1</sup>

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<sup>1</sup> Disadvantages of a tunnel with respect to security, maintenance, disruption to rail traffic, de-watering and a connection to the Water Street Garage, make this a less desirable option than the pedestrian bridge structure which has the ability to connect the garage, station, and ferry terminal less expensively with improved security and less maintenance requirements.



Table ES-4: Four Long Term Concepts

**A: Concentrated Transportation Center**

**(Concentrated Parking / Dispersed Development)**

- Transportation facilities concentrated near Union Station
- Expanded parking as close to Union Station as possible
- Parking/transportation facilities limit development opportunities near the waterfront
- Large development opportunities are far from the Parade and Union Station

**B: Concentrated Transportation Center with Parking Facilities along Water Street**

**(Concentrated Parking / Dispersed Development)**

- Transportation facilities concentrated near Union Station
- Expanded parking on sites along Water Street closer to Governor Winthrop Blvd.
- Parking/transportation facilities limit development opportunities near the waterfront
- Large development opportunities are far from the Parade and Union Station

**C: Concentrated Transportation Center with Relocated Parking Facilities and New Water Street Development**

**(Dispersed Parking / Concentrated Development)**

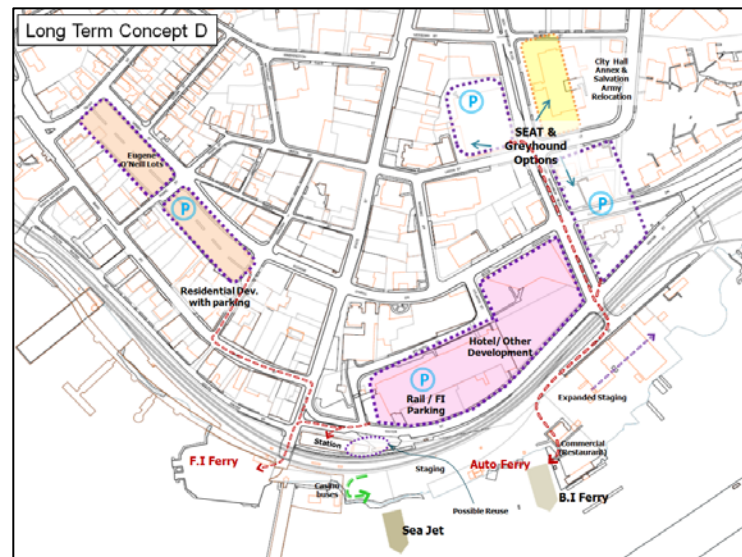
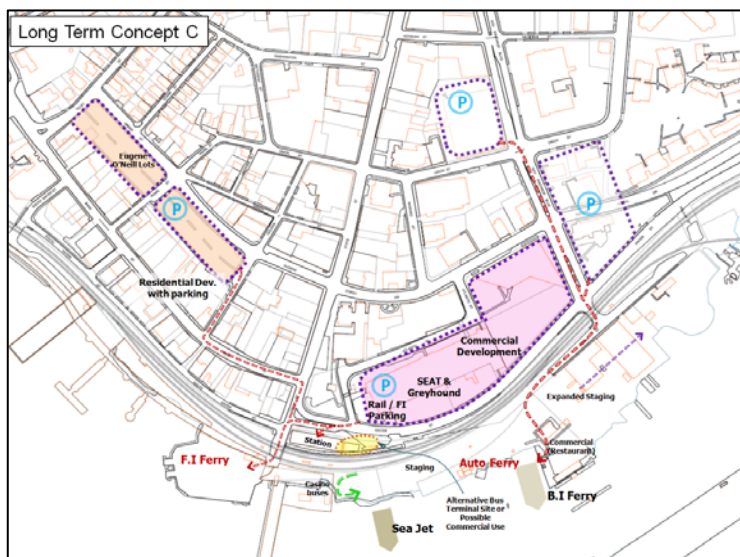
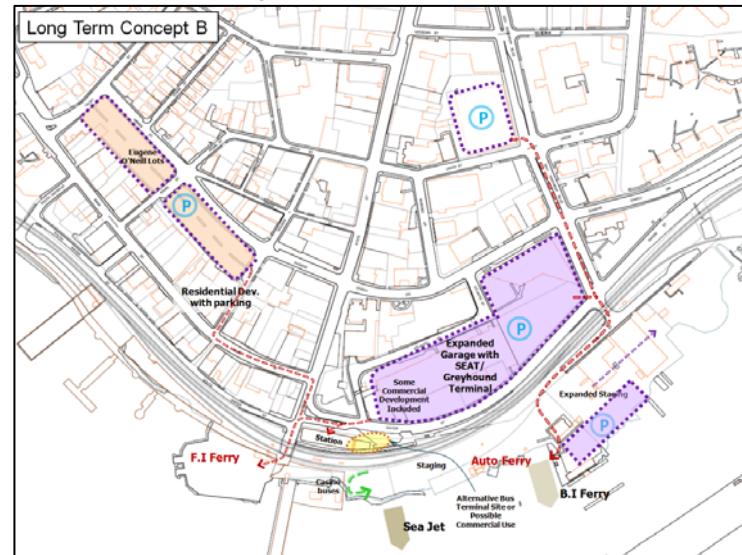
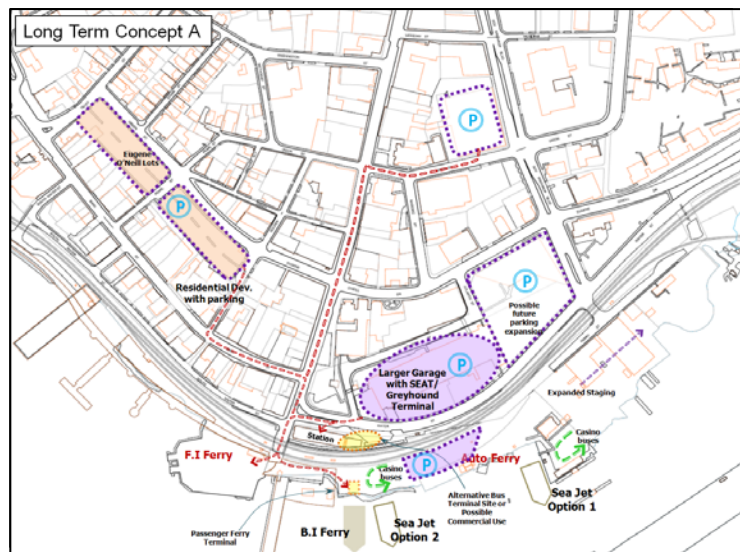
- Transportation facilities concentrated near Union Station
- Some parking relocated from Water Street to sites along Governor Winthrop Blvd.
- Relocation of parking facilities increases development opportunities near the waterfront and Union Station

**D: Extended Transportation Center with Relocated Parking Facilities and New Water Street Development**

**(Dispersed Parking / Concentrated Development)**

- Some transportation facilities relocated along Governor Winthrop Blvd.
- Some parking relocated from Water Street to sites along Governor Winthrop Blvd.
- Relocation of parking/transportation facilities increases development opportunities near the waterfront and Union Station

Figure ES-4: Long Term Vision Concepts  
(Note that Concepts A, C and D were also examined with a Pedestrian Bridge)



### 7.3 Evaluation and Stakeholder Input

Screening evaluation criteria, as listed in Table ES-5, were used to evaluate the Short Term Alternatives and Long Term Concepts. The results, documented in the final report, were presented to the stakeholders, identifying the many trade-offs.

Table ES-5: Screening Evaluation Criteria

<b><i>Common Criteria</i></b> <ul style="list-style-type: none"><li>• Low Cost</li><li>• Improves Safety and Convenience for Transfers</li><li>• Enhances Pedestrian Safety</li><li>• Enhances Wayfinding/Information</li><li>• Has Sufficient Capacity (Operations in Short Term, Demand and Growth for Public Transportation Modes and Parking in the Long Term)</li><li>• Enhances Attraction of Visitors</li><li>• Minimal Environmental Issues</li><li>• Minimal Property Issues</li><li>• Potential for Public Private or Grant Funding (for the Transportation Improvements in the Short Term)</li></ul>
<b><i>Short Term Criteria</i></b> <ul style="list-style-type: none"><li>• Easy to Implement</li><li>• Adaptable to Future Changes in Operating Needs</li><li>• Flexible to Accommodate Long Term Commercial Development</li><li>• Compatibility with Bus Terminal Long Term Concepts</li><li>• Maintains or Enhances Traffic Operation/Safety</li></ul>
<b><i>Long Term Criteria</i></b> <ul style="list-style-type: none"><li>• Ease of Project Development</li><li>• Ease of Phasing</li><li>• Improves Convenience for Parking Access</li><li>• Enhances Pedestrian Environment</li><li>• Promotes Likely Development/Local Economy</li><li>• Capitalized on Synergies between Transportation &amp; Development</li><li>• Balances Need for Transportation &amp; Development</li></ul>

The stakeholders had considerable suggestions and comments on the identification and evaluation of the short term alternatives and long term vision concepts presented at a Stakeholder Steering Committee meeting held in early summer 2009. TranSystems proceeded to examine the feasibility of some of the stakeholder suggestions such as introducing another railroad crossing between the two current crossings, shifting rail platforms northward to allow surface crossing while trains were in the station, relocating or removing the freight siding, etc. The consultant team was redirected by SCCOG to respond to the stakeholder consensus that emerged and to develop revised short term alternatives. The direction was to 1) develop alternatives for bus terminal facilities located on the east side of Water Street adjacent to Union Station, incorporating use of the building currently used by Greyhound, and shifting Water Street to the west, if needed, to provide adequate space to meet the bus operator needs, and 2) to include an up-and-

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over pedestrian bridge or tunnel in the short term alternatives that would enable passengers to cross the tracks when trains are in the station (as required by Connecticut DOT) and which could include additional spans to connect to the Water Street Garage and the waterfront. This is reflected in the Preferred Alternative of the Master Plan described in the next section.

With regard to the long term concepts, there was no clear consensus on a specific vision for the future. There was agreement that the replacement of the Water Street Garage would not occur for many years considering the investment the City was making to repair the facility. The sentiment of the Stakeholder Steering Committee was that the alternative visions would be helpful in the future but the Master Plan should focus on the short term alternatives including immediate actions. As a result, the long term visions were not carried forward into the Master Plan. The most important long term consideration will be to continue to keep options open to respond to development opportunities in the future and to continue discussion on the long term vision.

## 8. Master Plan

The Master Plan includes a Preferred Alternative and a Fallback Minimum Construction Alternative. Both of these are short term alternatives and the Preferred Alternative includes an immediate action and short term component. Long term vision concepts were prepared during the study and are described in the Final Report but no single long term concept was advanced into the Master Plan.

The Master Plan does not represent a detailed design, but rather provides a conceptual design of the suggested improvements to the RITC.

### 8.1 The Preferred Alternative

The Preferred Alternative consists of the following major elements reflecting the input from the stakeholders and the direction from SCCOG and Connecticut DOT:

- Water Street Relocation
- Pedestrian Bridge
- Other Pedestrian Improvements
- Wayfinding Improvements
- New Combined Bus Terminal on the East Side of Water Street
- Rail Facilities
- Other Modal Improvements

#### *Water Street Relocation*

To provide the necessary space on the east side of Water Street for the bus terminal, pedestrian bridge vertical circulation (elevator and stairs) and pedestrian circulation, the plan envisions the relocation of Water Street to the west, utilizing part of the City-owned land in front of the Water Street Garage. The relocation of Water Street would at its maximum point extend about 50 feet west and would have some impacts on the Parade Project improvements (i.e., pavement, landscape and crosswalks) north of Atlantic Street. It was designed not to impact the Parade itself (south of Atlantic Street), the Julian property or the functioning of the Water Street Garage. The relocation plan preserves two travel lanes on Water Street parallel to the bus stop and continues to provide a 500-foot long right lane on Water Street approaching



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Governor Winthrop Boulevard (for right turns and through movements). Travel lanes are narrowed slightly to 11 foot lanes with a total cartway width of 35 feet. Finally, although the City-owned parcels in front of the Water Street Garage are reduced in size by the relocation, 27 short-term parking spaces can be accommodated there, essentially preserving all the parking spaces currently provided there.

### *Pedestrian Bridge*

After an evaluation of bridge and tunnel options, a pedestrian bridge was selected as the preferred means of providing direct unimpeded crossing of the railroad tracks. A tunnel would cause more disruption to rail traffic during construction, would require ongoing dewatering, would be impractical to extend to the Water Street Garage and would have greater security issues than a pedestrian bridge. Connecticut DOT required that a bridge or tunnel over the primary tracks be included in the short term plan and stated that no additional at-grade crossings could be introduced. Extensions of the pedestrian bridge westward to Water Street Garage (over Water Street) and eastward to the Cross Sound Ferry property (over the freight track) are optional and could be added in a phased manner. Thus, the pedestrian bridge is conceived as a mandatory center section and two optional extensions.

The mandatory central section would connect from the southbound platform area and bus terminal area on the east side of Water Street spanning the Amtrak tracks to the northbound platform. The bottom of the bridge would need to be about 30 feet above the tracks and would reach to an elevation of about 55 feet. At the west end of the center section, the elevator and stairway would be incorporated into the proposed new bus terminal building. At the east end of the center section, the elevator and stairs would be located at the end of the northbound platform accompanied by a short northward extension of that platform. The location of the bridge is largely fixed by the need to serve the northbound platform at its northern end since the space between the two tracks is not wide enough to accommodate vertical circulation elements and a rail platform. (Although stakeholders also suggested considering a location at Union Station or south of Union Station, such options have disadvantages such as greater impacts on the historic structure, impacts on South Water Street, requiring passengers to cross State Street, and eliminating the potential to directly connect to the Water Street Garage.)

The optional extension to the Water Street Garage would not require new vertical circulation at the western (garage) end but could instead rely on the stairs and new elevator at the south side of the garage. Optionally, the existing unused elevator shaft located in the southeast corner of the garage could be rehabilitated. The pedestrian bridge would connect to the top floor of the garage. (The final design should consider how the bridge structure can remain intact while accommodating an eventual replacement of the garage with a new structure.)

The optional extension to the Cross Sound Ferry area could be integrated with a new passenger ferry terminal. Such a terminal was previously proposed by Cross Sound Ferry but has not been advanced. For the purposes of the Master Plan, the bridge extension has been assumed to extend to the location identified on such prior plans but the vertical circulation to ground level is assumed to be part the bridge extension. At the request of Cross Sound Ferry, to accommodate the large number of Block Island Express passengers disembarking at once, an escalator is included at this location as well as an elevator and stairs. While no specific design of the bridge structure is proposed in the Master Plan, it has been assumed that a more transparent style bridge would reduce visual impacts. Nevertheless, the height of the bridge (elevation from about 36 to 55 feet) would result in visual impacts. Three dimensional visualizations have been prepared to convey the impacts for the center section of the bridge and for a full bridge with both extensions.

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### *Other Pedestrian Improvements*

Besides the Pedestrian Bridge described above, a wide variety of other pedestrian improvements are proposed as part of the Master Plan's Preferred Alternative. These include:

- Sidewalks/pathways on both sides of railroad right-of-way including:
  - An 8-foot wide sidewalk on the east side of Water Street from the current bus stop to Governor Winthrop Boulevard and beyond to the park at Crystal Street
  - A widened sidewalk on the west side of Water Street to Governor Winthrop Boulevard
  - Pedestrian pathways from City Pier through the Cross Sound Ferry area
- Use of pavers to unify the RITC bus terminal area with Union Station
- Quad gates/ rubber surfaces at the two railroad crossings at State Street and Governor Winthrop Boulevard including wider clearly delineated crosswalks and sidewalks
- Steel post fencing along the railroad right-of-way (Note the City has already installed this on the west side of the right-of-way along Water Street.)
- Landscaping along Water Street and the waterfront
- Gateway structures to delineate the waterfront area (located at opposite ends of the Cross Sound Ferry area)
- Pedestrian scale lighting throughout, similar to that used in the Parade Project
- Canopies with lighting for bus passengers at the Greyhound and SEAT boarding areas.

The pedestrian plan is shown in Figure ES-5. It assumes that Water Street is relocated and the bus terminal and pedestrian bridge are constructed. Similar pedestrian improvements could be made even if those improvements are not constructed. Improvements at the two railroad crossings and east of the railroad right-of-way can be implemented immediately, if funding is available, while other improvements along Water Street would need to wait until Water Street is relocated and the bus terminal and pedestrian bridge are constructed or they would have to be redone.

### *Wayfinding Improvements*

The Master Plan includes a plan for wayfinding improvements. This includes 17 locations where signage would be erected to direct pedestrians and vehicles to transportation functions and to downtown business districts. The plan also includes recommendations that wayfinding maps be erected at three locations (Union Station, Bus Terminal and Water Street Garage) to help orient pedestrians. Specific examples of signage and information to be included on signs are shown in the Master Plan section of the Final Report. Note that recently New London Main Street has erected new wayfinding signage of a similar design at selected locations and is erecting "gateway" signs to encourage visitation to downtown New London.

### *New Combined Bus Terminal on the East Side of Water Street*

The Master Plan includes a new combined bus terminal for Greyhound and SEAT located on the east side of Water Street made possible by the relocation of Water Street. The relocation of Water Street makes it possible to create two parallel bus boarding areas along Water Street while also accommodating the vertical circulation elements (stairway and elevator) for the pedestrian bridge over the railroad tracks and sidewalks for pedestrian circulation. However, even with the relocation of Water Street the space is constrained and the sidewalk would be only about 11 feet wide at its narrowest point. With the two parallel

[illegible]

**COMBINED GREYHOUND & SEAT TERMINAL : ALTERNATIVE B**  
REGIONAL INTERMODAL TRANSPORTATION CENTER (RITC)  
NEW LONDON, CT



bus boarding areas, the bus bays desired by the bus operators can be accommodated. The existing Greyhound building would be re-used for some bus terminal functions with interior modifications to the building. However, to provide the most functional space for the passenger waiting area and ticket/information counters, a new building addition with a glass front is proposed just north of the existing Greyhound building. This new building will allow bus passengers to have a view of the buses and the staff at the counter to view the passenger waiting area and the buses. Interior waiting space would allow for 50 SEAT passengers and 25 Greyhound passengers, consistent with the minimum requirements expressed by the bus operators. Canopies would be provided to provide shelter for passengers boarding buses or waiting outdoors. These canopies would extend from the new terminal building along the Water Street east side sidewalk curb line and along a 15-foot wide SEAT passenger boarding island. The design also allows for some ancillary curbside space for Greyhound freight pick-up/drop-off and SEAT maintenance vehicles. Figure ES-6 shows the layout of the bus terminal, and pedestrian bridge and the relocation of Water Street.

It should be noted that the plan envisions using currently privately-owned property (Union Station) and therefore would require negotiation for purchase or long term leasing of this property.

While the plan accomplishes the goals identified, it is a fairly tight fit and has some drawbacks. Among these are the constrained sidewalk width, the long and narrow building shape leading to less efficient use of space, and the fact that the new terminal tends to create a barrier between Water Street and the rail platform.

Figure ES-7 depicts a conceptual interior floor plan, whose purpose is primarily to show that it is feasible to accommodate the space required. A final floor plan would be part of the building design to be undertaken in a future implementation step.

### *Rail Facilities*

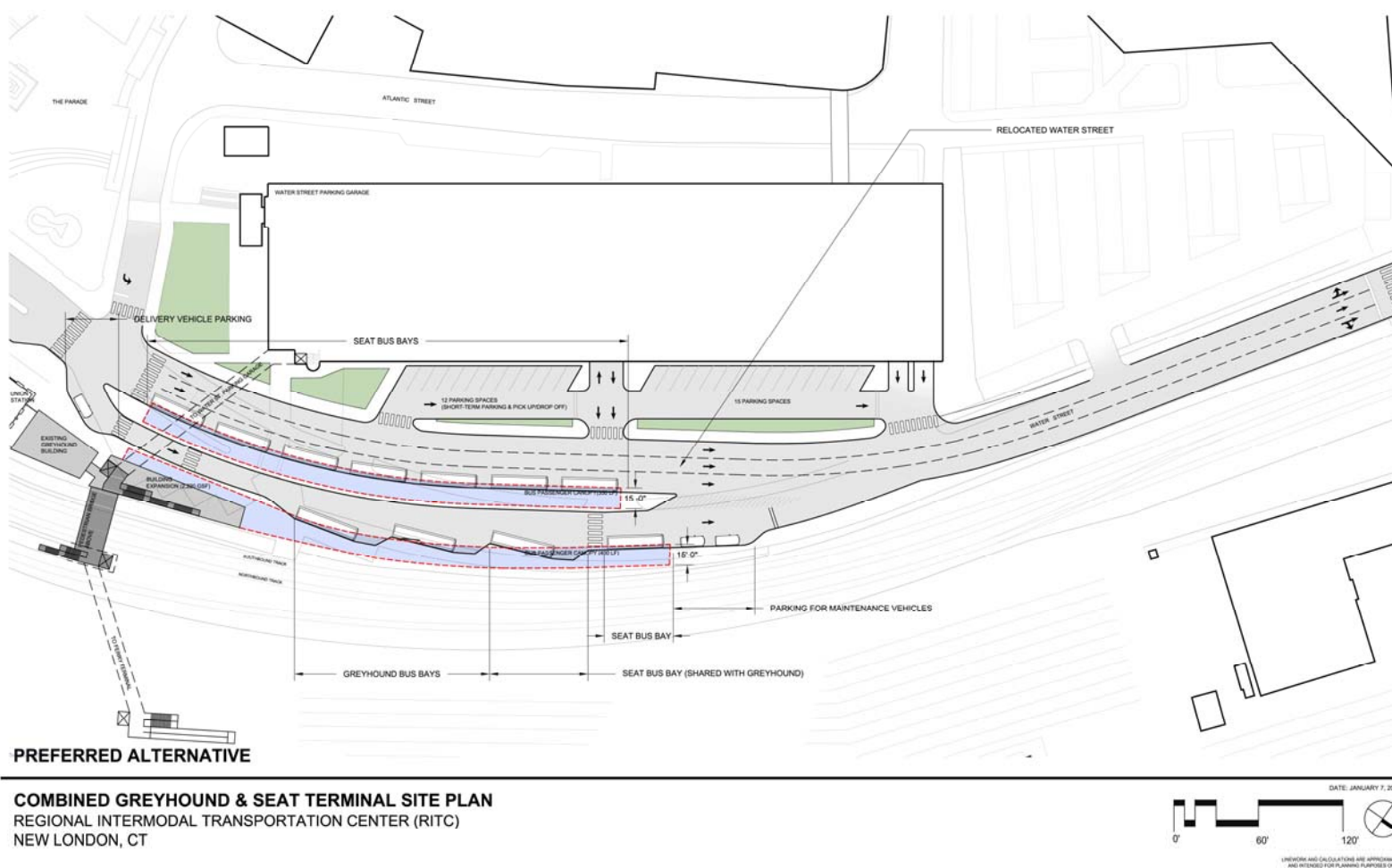
The Master Plan has not identified the need for additional facilities for Amtrak rail operations although enhanced amenities for passengers at Union Station would be desirable and minor adjustments are needed for ADA compliance. At the outset of the study, it appeared that Shore Line East would continue to operate from the current platform and that its primary need was commuter parking which could be accommodated at the Water Street Garage. However, late in the study, it became clear that Amtrak desires expanded Shore Line East service to operate from the freight track (Track 6), the track farthest from Union Station. Connecticut DOT is therefore examining immediate modifications to the northbound platform to enable it to be used to access Track 6. In the longer term, Connecticut DOT may consider a new platform for Track 6 located on the east side of the track adjacent to City Pier and Cross Sound Ferry. This was not examined in this study. However, it would have an impact on the proposed pedestrian bridge, requiring extension of the center section of the bridge and either requiring additional vertical circulation for the new platform or consolidation of the vertical circulation at the east side of the optional extension to the Cross Sound Ferry area with vertical circulation for this platform.

### *Other Modal Improvements*

**Taxis and Automobile Pick-up/Drop-off** - Taxi and automobile pick-up and drop-off are critically important access modes for the train service at Union Station and are expected to grow in importance with the increased presence of Shore Line East at the station. However, the space available for taxi and automobile pick-up and drop-off at the rail station and bus terminal is already constrained by the limited space on Water Street and strong competition for uses. The proposed relocation of Water Street and the



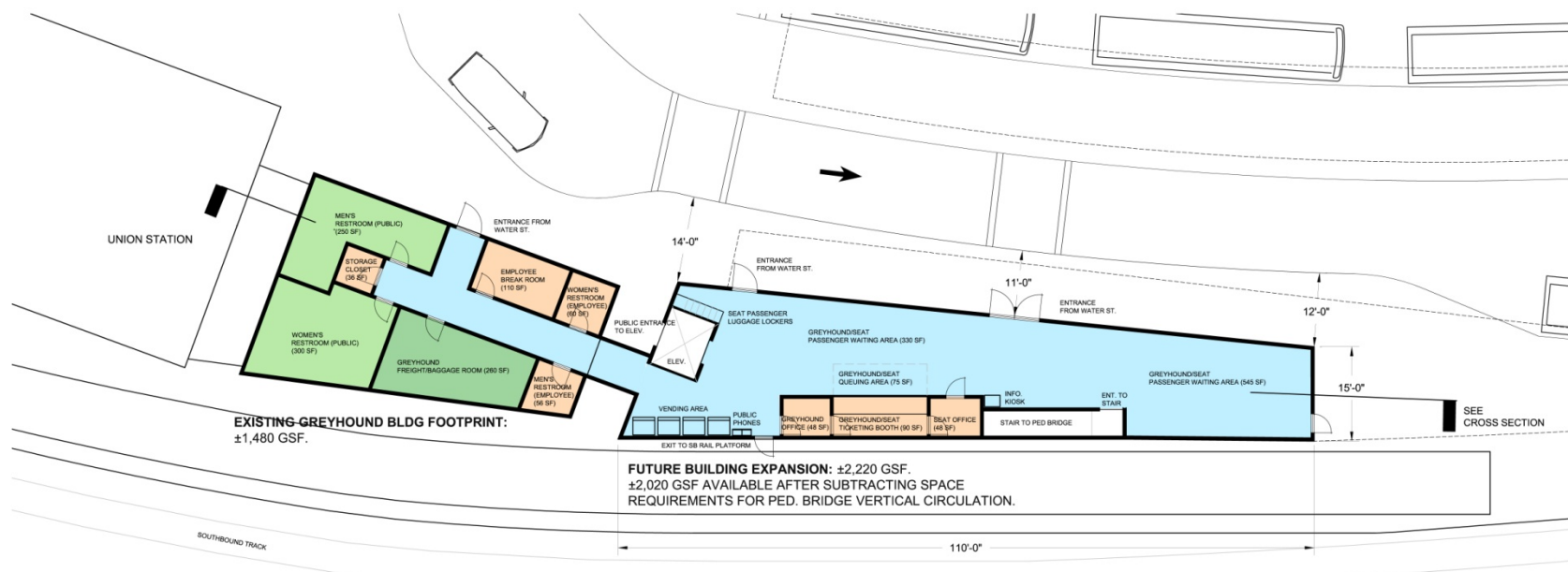
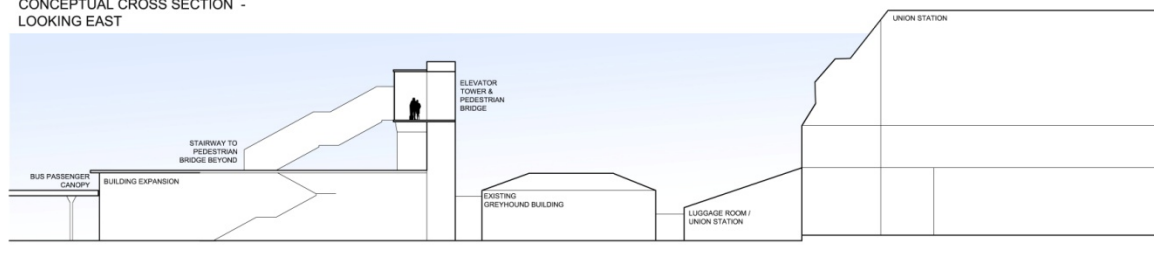
Figure ES-6: Combined Greyhound and SEAT Terminal Site Plan in the Preferred Alternative



NOTES:

1. THIS FLOOR PLAN ***DOES*** MEET MINIMUM SPACE REQUIREMENTS FOR PASSENGER WAITING AREA, AS DEFINED IN THE DRAFT ARCHITECTURAL PROGRAM.
- MINIMUM WAITING AREA REQUIRED FOR SEAT: **500 SF**  
(50 PASSENGERS AT 10 SF PER)
  - MINIMUM WAITING AREA REQUIRED FOR GREYHOUND: **375 SF**  
(25 PASSENGERS AT 15 SF PER)
  - TOTAL MINIMUM WAITING AREA: **875 SF**
  - TOTAL PROVIDED: **875 SF**

CONCEPTUAL CROSS SECTION -  
LOOKING EAST



REGIONAL INTERMODAL TRANSPORTATION CENTER (RITC)  
NEW LONDON, CT

DATE: JANUARY 7, 2011



LINEWORK AND CALCULATIONS ARE APPROXIMATE AND INTENDED FOR GENERAL PURPOSES ONLY.

plan for the Bus Terminal and Pedestrian Bridge does not negatively impact any of the existing designated auto or taxi pick-up, drop-off, queuing or parking spaces. It is envisioned that taxis would continue to pick-up and drop-off passengers directly in front of Union Station and that auto passengers would at least be dropped off in front of Union Station as well. It is suggested that the available short term parking spaces in front of the Water Street Garage be used for automobile passenger pick-up so that automobile standing in front of Union Station is limited to the short time needed for actual unloading. It is also recommended that the first block of State Street (that is, between South Water Street and Bank Street) be used for taxi queuing so that taxis wait there in an orderly queue and then can pull up in turn to pick up passengers at two designated spaces in front of Union Station nearest the State Street corner. The remaining three spaces in front of Union Station would be designated for passenger drop-off for automobiles and taxis. The final operational arrangements will need to be worked out with the taxi operators.

***Car Rental*** - There may be opportunities to locate a car rental counter in Union Station provided nearby parking for rental cars can be arranged. A ZipCar space or two could be located in the Water Street Garage or in front of the Garage.

***Bicycle Accommodations*** - A bike rental business might be located in Union Station. Bike racks should be provided at the station. Possible locations include at City Pier, in front of the Water Street Garage or in the current Amtrak parking spaces on South Water Street if these parking spaces can be relocated to another nearby location.

### *Visualization*

Figures ES-8 and ES-9 show the view from the Parade of the RITC bus terminal and pedestrian bridge with the mandatory central section of the pedestrian bridge and with the full bridge with the optional extensions to the Water Street Garage and to the Cross Sound Ferry area, respectively.

## **8.2 The Fallback Minimum Construction Alternative**

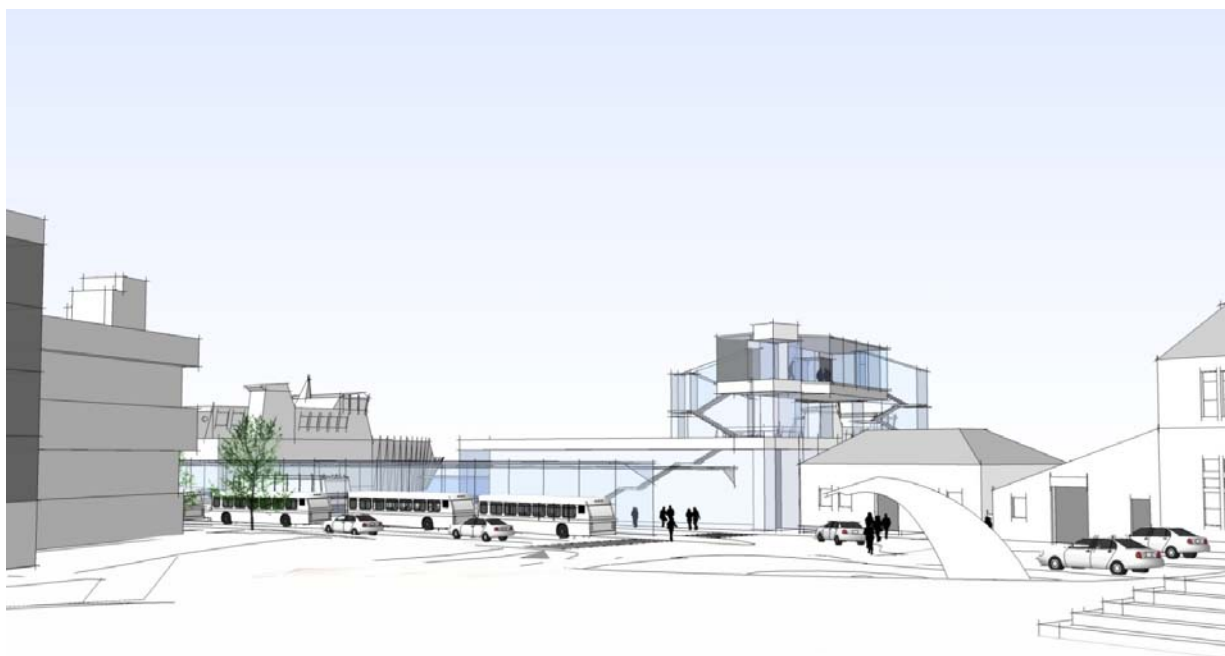
The Master Plan includes a second alternative, called the Fallback Minimum Construction Alternative (hereafter called the Fallback Alternative for short). This alternative has been included, at the City's request, to identify an option that could be exercised to meet needs in the short term if the funding cannot be obtained to construct the Preferred Alternative or if there are other reasons not to pursue the Preferred Alternative. Since one primary reason for including it is the lack of funds, it is assumed to exclude the Pedestrian Bridge that is included in the Preferred Alternative; however, if funding can be obtained for the Pedestrian Bridge, it is compatible with the Fallback Alternative.

The Fallback Alternative differs from the Preferred Alternative in the following aspects:

- Water Street remains in its current location
- Bus loading areas remain in their current locations
- The Pedestrian Bridge and new bus terminal building addition are not included
- Indoor bus passenger facilities are located in existing structures.

The pedestrian improvements other than the Pedestrian Bridge would be assumed to be included in the Fallback Alternative although the design would be revised to accommodate the current street configuration.

Figure ES-8: Preferred Alternative with Center Section of Pedestrian Bridge  
View from the Parade



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Figure ES-9: Preferred Alternative with Full Pedestrian Bridge Including Extensions  
View from the Parade



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The Fallback Alternative, like the Preferred Alternative, keeps all the public transportation services on the east side of Water Street. However, it does not involve construction of new bus terminal building and it does not involve the relocation of Water Street or the creation of two parallel set of bus boarding areas. As a result, it cannot provide expanded capacity for buses, though it does accommodate the current needs. It utilizes existing buildings including both the Greyhound Building and Union Station itself for the bus terminal facilities, requiring interior modifications and the construction of a connection between the two buildings. Figure ES-10 shows the configuration of the bus terminal area and Figure ES-11 shows a Conceptual Floor Plan within the existing buildings (for the purposes of a feasibility assessment and not a final design).

The major drawback of the Fallback Plan is the fact that the indoor waiting area would be located considerably farther from the SEAT buses than in the Preferred Alternative. Experience suggests that bus passengers prefer to wait near their buses. Canopies are provided at the bus boarding areas as in the Preferred Alternative. To accommodate winter and other poor weather circumstance, a large bus shelter is incorporated closer to the SEAT buses to address this drawback. However the Floor Plan shows the same indoor waiting area in the Greyhound Building as proposed for the new bus terminal building addition in the Preferred Alternative.

It should be noted that the Fallback Plan, like the Preferred Plan, envisions use of privately owned property (Union Station property) and that arrangement to purchase or lease the required property would need to be negotiated.

### 8.3 Estimated Costs

Costs to construct the Preferred Alternative and the Fallback Alternative were estimated in 2012 dollars (except the immediate pedestrian improvements which are in 2011 dollars.)

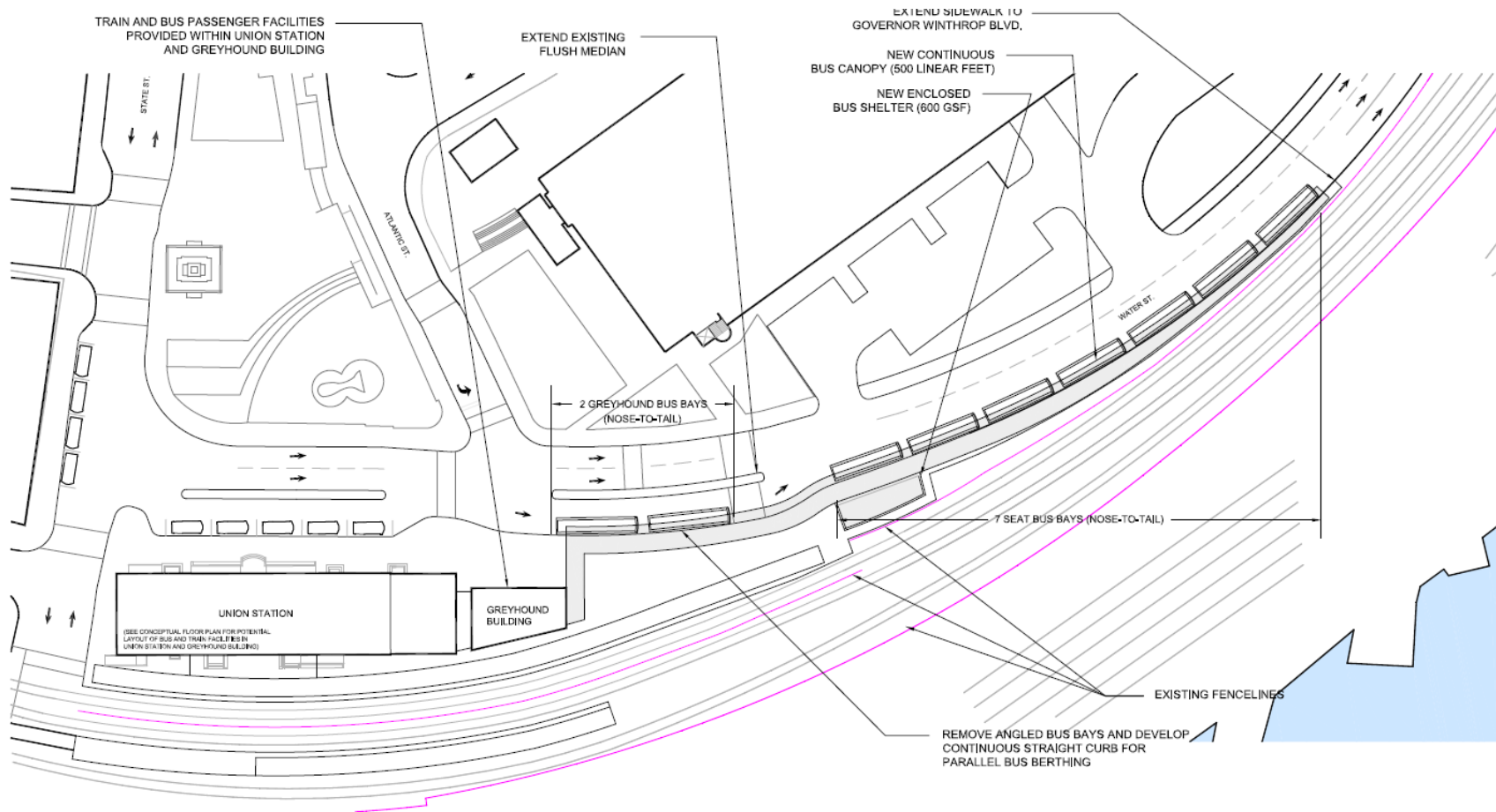
Immediate pedestrian improvements that are not dependent on the relocation of Water Street or the Pedestrian Bridge were estimated to cost \$5.5 M including those on both public and Cross Sound Ferry property (or \$4.7M excluding improvements solely on Cross Sound Ferry property).

The cost for the remaining short term improvements in the Preferred Alternative, including the center section of the Pedestrian Bridge, Water Street relocation and the bus terminal and canopies is \$9.9 M. Note that this excludes any costs associated with the purchasing or leasing the Union Station property which would be required (and also any cost of purchasing or leasing the Water Street Garage property if that is also desired to be a part of purchased RITC property, as noted in a later section of this Executive Summary). It also excludes any repairs underway or needed to be made at Union Station or the Water Street Garage. Repair costs, based on prior studies, appear to be in the range of \$1.6 M for Union Station and \$2.6 M for the Water Street Garage. (Some repairs at the Water Street Garage are underway.) These costs represent additional costs that would need to be taken into account, meaning that the total cost of immediate and short term improvements with the center section of the pedestrian bridge excluding purchase or lease would be nearly \$20 M.

ConnDOT is currently preparing cost estimates for immediate improvements to allow Shore Line East to use Track 6 from the platform currently used for Track 2. These costs or the costs for a new platform are not included.



Figure ES-10: Fallback Alternative Site Plan



**FALLBACK / MINIMUM CONSTRUCTION ALTERNATIVE**

**CONCEPTUAL SITE PLAN**  
REGIONAL INTERMODAL TRANSPORTATION CENTER (RITC)  
NEW LONDON, CT

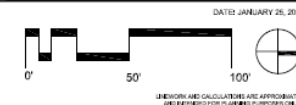
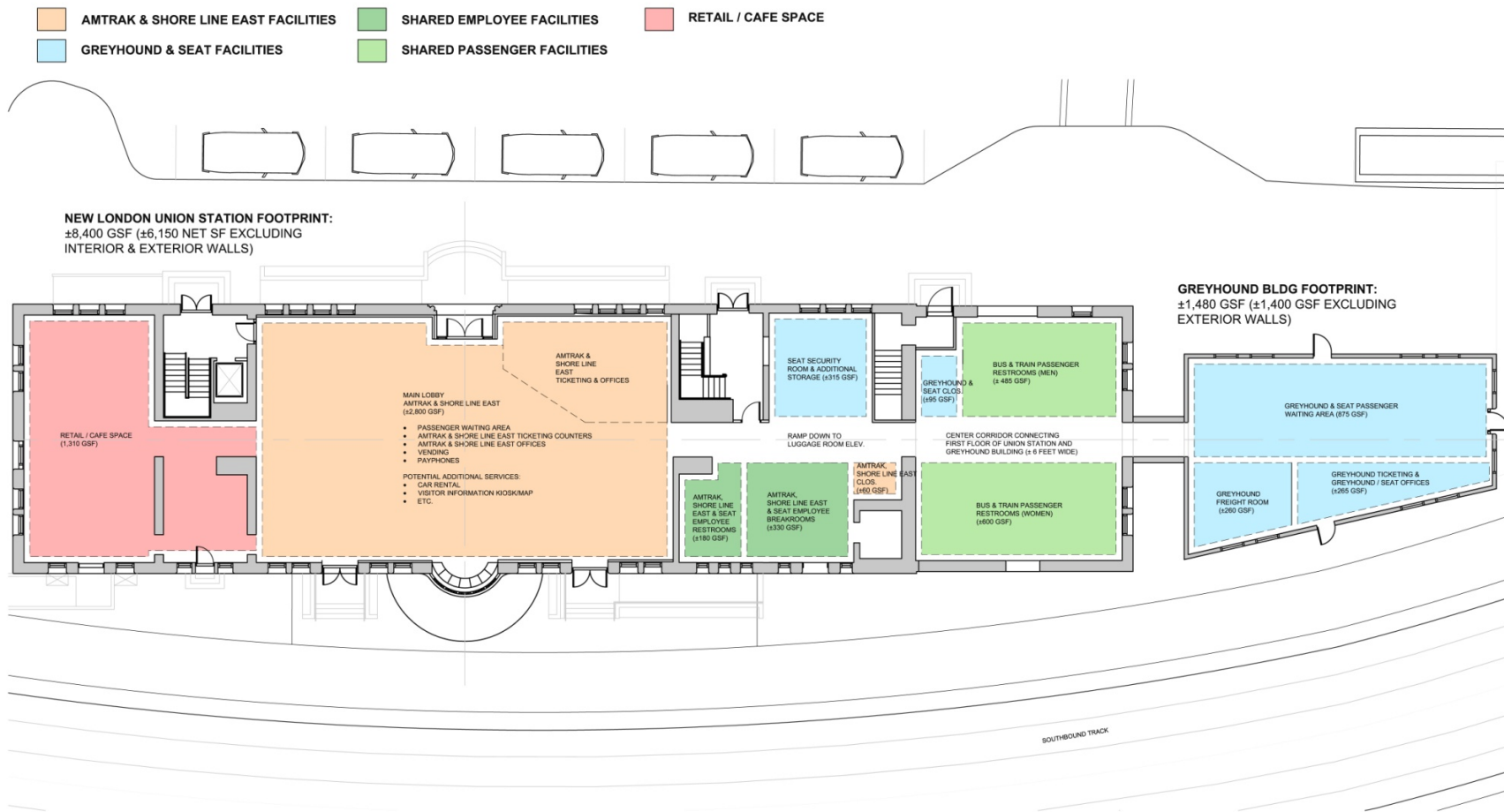
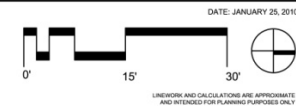


Figure ES-11: Fallback Alternative Conceptual Floor Plan



#### FALLBACK / MINIMUM CONSTRUCTION ALTERNATIVE

**CONCEPTUAL FLOOR PLAN (DRAFT)**  
REGIONAL INTERMODAL TRANSPORTATION CENTER (RITC)  
NEW LONDON, CT



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The center section of the pedestrian bridge constitutes approximately \$4.9 M (including engineering inspection, contingency and escalation) of the estimated \$9.9 million in short term improvements. The additional costs for the optional extensions to the pedestrian bridge are \$1.4 M for the extension to the Water Street Garage and \$4.9 M for the extension to the ferry area with the needed stairways, elevator and escalators (including engineering inspection, contingency and escalation).

Annual operating and maintenance costs for the bus terminal and pedestrian bridge are estimated at \$0.3-\$0.4 M per year. (This cost does not include the effect of any Greyhound lease revenue.) Operating costs for Union Station (approximately \$0.3 M) and Water Street Garage (approximately \$0.4 M) are additional; each of these facilities has revenue sources that cover some or all operating costs.

The Fallback Alternative would include the same \$5.5 M in immediate pedestrian improvements plus \$3.0 M for the bus terminal facilities. There would be additional costs to purchase or lease the Union Station (and possibly Water Street Garage) property and to make necessary repairs as in the Preferred Alternative.

## **8.4 Use of Union Station for Non-Transportation Functions**

Union Station is the core of the existing and future RITC. This study has identified how Union Station property can be used to create an enhanced intermodal center. The Master Plan contained in this report continues the current use of the Union Station lobby for rail passenger facilities and the use of the Greyhound building for bus facilities. The plan proposes that outdoor space included in the property be used for expansion of bus facilities, the pedestrian bridge and passenger pickup and drop-off space. Incorporation of these transportation facilities, however, leaves some space inside the building available for other uses.

The TOD market analysis conducted in this study addressed the potential demand for residential, office and retail development within walking distance of the RITC. The analysis considered the potential for development over a ten year period within ½ mile walking distance around Union Station. Union Station represents just one key resource that could be positioned to serve some of this demand. Although residential demand was found to have the greatest potential in New London, the Union Station building is more suited to office development with possible first floor retail uses.

To date, however, the Union Station property has not been redeveloped to its full potential. Recently, the interior space in the Union Station building, both on the ground floor and the upper floors, has been underutilized. In the past, the upper floors were occupied office space and there are still some limited office uses there today. A restaurant occupied the second floor and some first floor space in the past. However, even before the current economic downturn, much of this space remained vacant.

Given the recently announced departure of Pfizer from Fort Trumbull and the overall economic downturn combined with the previously weak position of New London as an office market, the market for office space is severely depressed in the short term. Union Station faces competition from other downtown building spaces and the newly vacant first class office space at Fort Trumbull. However, looking several years into the future, one can envision Union Station being better positioned as a result of proposed transportation and other downtown improvements, improving economic activity nationally, and a series of policy decisions designed to promote downtown New London as a transportation center and a site for TOD. It will be critical



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to take advantage of this time to develop a comprehensive TOD plan for the Historic Waterfront District, including Union Station, and to make policy decisions that support that plan, while also keeping options open to take advantage of arising opportunities.

While a comprehensive TOD strategy is needed, the strategy for Union Station could be one of incremental improvements. It may not be reasonable to attract full time retail tenants into the ground floor until a market can be developed. An incremental approach could mean bringing kiosks for retail uses in summer and holiday seasons and introducing part time cafes and later evolving to full time retail and restaurant space. However, part-time uses should only be introduced for a limited time with the understanding that they will eventually be replaced by full-time uses.

## 8.5 Implementation Considerations

To move the project forward, consideration will need to be given to environmental issues and to the appropriate lead agency, as well as funding.

### *Environmental Considerations*

Clearly there are visual impacts associated with the Preferred Alternative. The newly reconfigured Parade area now allows for direct views of the Thames River along a line of sight to the north of existing Union Station and the Greyhound Terminal Building. The bus terminal and pedestrian bridge obstruct some of the view, so the RITC project conflicts with the Parade Project in this respect.

Approval of the State Historic Preservation Officer will be required given that the project is located in an historic district listed on the National Register of Historic Places and given that Union Station is individually listed. If federal funds are used, Section 106 of the Historic Preservation Act applies as does Section 4(f) of the 1966 Department of Transportation Act. The latter prohibits use of historic property unless there is no feasible and prudent alternative and all possible planning has been done to minimize harm to the historic resources. View shed impacts will have to be thoroughly examined.

Since this is an already built environmental, natural resources are not likely to be major constraints. Connecticut Department of Environmental Protection (CTDEP) permits will be required since the project is within the coastal boundary area and there are shorelands and coastal flood hazard areas that are impacted. In addition to triggering the need for a Connecticut Coastal Consistency Review, the proposed undertaking may also trigger the need for a local (City of New London) Coastal Site Plan Review. Because a portion of the site is located within the 100-year floodplain as designated by the Federal Emergency Management Agency (FEMA), a Flood Management Certification may need to be filed with the CTDEP for the RITC project.

Since the project area has a history of former industrial uses which has been well-documented during this study, there is some potential for hazardous materials. Testing of the soil should be undertaken as part of the environmental assessment in the next phase of design studies.

Finally local building permits and City Council approval would be required.

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### *Funding, Leadership and Governance*

The project as proposed requires substantial funding and a lead agency that could own and build the project. ConnDOT has previously submitted a request for a Congressional earmark for improvements at Union Station in the amount of \$7. Transportation Enhancement Funding once reauthorized may be another source. Federal funds will require local match and the State looks to municipal entities to supply local shares.

While some elements of the RITC would continue to be owned, managed and operated by individual entities, there will likely be a need for coordination between the various transportation operators and shared funding of some elements. The study examined the governance of other intermodal transportation centers and developed a recommendation that the State take the lead role in owning and building the project. Based on its role in Shore Line East, rail stations and transit systems in the state, and its requirement that a pedestrian overpass or underpass be included in the short term plan, the Master Plan recommends that the State manage the rail station, the bus terminal and the pedestrian bridge. This would be accomplished through negotiation with the private owner to purchase or entering into a long term lease for the Union Station property (or a lease could be limited to the ground floor of Union Station, the Greyhound building and the land needed for the bus facilities and the pedestrian bridge). Connecticut DOT has indicated that this may need to include purchase or lease of the Water Street Garage to insure a revenue stream to cover operating costs. Negotiations with the private owner and the City would be needed.

In addition to acquiring Union Station, Connecticut DOT would also be responsible for building the SEAT bus terminal (which would then be leased to SEAT) and would be responsible for building the pedestrian bridge.

The consultant team also recommends that an RITC Association be formed to continue to involve the key stakeholders. The principal membership of this Association would be the transportation providers, the City and Connecticut DOT and any private owner if private property is involved. Responsibilities of this association would likely include arrangements for ongoing operational coordination (e.g., schedule coordination, information sharing, joint marketing and ticketing, etc.), sharing of maintenances responsibilities for intermodal linkages and longer term planning for the RITC. Members could be asked to contribute funding to this Association to cover expenses. Formation of this group may be an important first step toward implementation of the Master Plan.

## **9. Conclusions and Next Steps**

This *Master Plan and Efficiency Study* has confirmed that the existing site is the preferable site for the enhanced Regional Intermodal Transportation Center. The study has identified the physical and operational needs of the Regional Intermodal Transportation Center at the current site and developed conceptual alternatives. The Master Plan includes a Preferred Alternative, comprised of both immediate and short term improvements, as well as a Fallback Minimum Construction Alternative that would be less costly. The capital and operating/maintenance costs associated with the two alternatives have been estimated as well as the costs for some optional elements. Environmental issues have been identified. The Master Plan recommends that the State take a lead role in managing the RITC and building the new facilities with the support and ongoing guidance of an association of key stakeholders including the City of New London and

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the transportation providers at a minimum. Finally, an ongoing public process, including an active Stakeholder Steering Committee, has been carried out throughout the study to obtain stakeholder input.

The next steps to advance the project include the following:

- obtain City endorsement of study recommendation
- coordinate with the Connecticut Department of Transportation
- form an association to continue key stakeholder involvement
- pursue funding opportunities
- negotiate with the property owners to acquire or lease the necessary properties
- develop more detailed facility designs and conduct required environmental studies.









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