Final Environmental Impact Statement and Section 4(f) Evaluation

FTA-CT-EIS-01-01-F

NEW BRITAIN – HARTFORD BUSWAY

NEW BRITAIN, NEWINGTON, WEST HARTFORD AND HARTFORD, CT

December, 2001

PREPARED PURSUANT TO:

National Environmental Policy Act of 1969, §102 (42 U.S.C §4332); Federal Transit Laws (49 U.S.C. §5301(e), §5323(b) and §5324(b)); Executive Order 12898 (Environmental Justice); Department of Transportation Act of 1966 §4(f) as Amended (49 U.S.C. §303), National Historic Preservation Act of 1966 §106 (16 U.S.C §470f), Executive Order 11990 (Protection of Wetlands), Executive Order 11988 (Floodplain Management), Clean Water Act §404, as amended (33 U.S.C §1344)

and

Sections 22a-1 to 12 inclusive of the Regulations of Connecticut State Agencies

by the

U.S Department Of Transportation
Federal Transit Administration (FTA)

and the

Connecticut Department of Transportation

in coordination with:

U S Environmental Protection Agency
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
Federal Highway Administration

Connecticut Department of Environmental Protection
Connecticut Office of Policy and Management
Connecticut State Historic Preservation Office
Federal Railroad Administration

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ABSTRACT

This Final Environmental Impact Statement evaluates the potential impacts associated with the Recommended Action for the New Britain – Hartford Busway. The proposed project, which is located in the towns/cities of New Britain, Newington, West Hartford, and Hartford, Connecticut would construct a Bus Rapid Transit facility along 15.1 kilometers (9.4 miles) of inactive and active rail corridors. The facility would provide an exclusive bus-only roadway, along with up to 12 busway stations which would include sheltered platforms, and other amenities. In addition to the Recommended Action, other alignment options that were considered in the southern end of the corridor are discussed for comparison. Implementation of the Recommended Action would meet the purpose and need for the project as it would address congestion on Interstate 84 and parallel arterial roadways, while enhancing alternative mode opportunities and expanding interregional transit service. Social, economic and environmental impacts that have been considered include noise, hazardous materials, wetlands, environmental justice, relocations, cultural resources, visual impacts, and a variety of other issues. Mitigation measures to reduce anticipated impacts are detailed in this document.

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Chapter ES
Executive Summary

The Connecticut Department of Transportation (ConnDOT) is proposing to construct the New Britain – Hartford Busway project ("the busway"), an exclusive Bus Rapid Transit (BRT) facility on a 15.1-kilometer (9.4-mile) right of way between New Britain and Hartford. This Executive Summary is intended to provide a concise description of the Final Environmental Impact Statement (Final EIS) for this proposed action.

The exclusive busway would improve bus service in the region by increasing travel speeds and improving reliability over conventional on-street bus or express routes, since buses would not be delayed by congestion on local streets or Interstate 84 (I-84). Buses on the busway will get preference over cross street traffic either by a grade separation or by signal priority.

Up to twelve stations would be provided along the BRT route. Service and station amenities would be similar to commuter or light rail service, except that the facility would utilize buses on a paved surface rather than rail cars on railroad tracks. Stations will have low, sheltered, lighted platforms for passengers to board and alight from buses. At appropriate station locations, passengers could wait inside a climate-controlled building. Other amenities such as drop off areas, park and ride lots, bike racks, security systems, pay phones, newspaper boxes, etc will also be provided. At locations with a building, it may be desirable to encourage complementary retail development (coffee shop, dry cleaner, etc.)

Regional bus routes will be able to use the busway, and new routes would be provided where appropriate. The busway would have more flexibility over a rail service since it would have local access points along the corridor that allow buses to enter and leave the facility. Therefore, buses could circulate through local areas before and after accessing the busway, greatly increasing the numbers of origins and destinations that can be served without a transfer. It is expected that long-distance coach buses may be able to use the facility as well.

ES.1.0 PURPOSE AND NEED FOR PROJECT

The Hartford West Major Investment Study (MIS), completed in July 1999, evaluated a variety of Reasonable Alternatives Packages (RAPs) to address transportation needs in portions of the towns/cities of: Hartford, West Hartford, Newington, New Britain, and Farmington. RAPs were

groups of actions or strategies including roadway improvements (new lanes, High Occupancy Vehicle [HOV] lanes) and transit improvements (commuter rail, light rail, and busways on various routes). Ultimately, a "hybrid" RAP was selected, with the busway as its primary improvement, along with several other actions. The proposed busway and associated station locations is shown on Figure A (inside back cover).

The New Britain – Hartford Busway project will address three core needs identified in the Draft EIS:

- Reduction in Peak Hour Congestion on Interstate 84 (I-84) and Parallel Arterials.
- Increased Opportunities for Alternative Modes
- Expanded Interregional Transit Service

Chapter 1 of the Draft Environmental Impact Statement (Draft EIS) devoted a substantial effort to defining the purpose and need for the project, and the reader should refer back to that section for more information. The purpose and need for the project are summarized below.

ES.1.1 Reduction in Peak Hour Congestion on I-84 and Parallel Arterials

The Hartford West Major MIS process clearly showed that adding travel lanes to I-84 would not be reasonable because of cost, environmental impact, and public opposition. Therefore, a multi-modal transit solution was proposed to remove single occupancy vehicles from I-84. A range of transit options was evaluated in the MIS. These included different types of transit services, such as Light Rail Transit (LRT), commuter rail, and busways, also called Bus Rapid Transit (BRT). In addition, these transit services were evaluated in several possible corridors, including the median of I-84, along Farmington Avenue between Hartford and Farmington, and in the Amtrak/abandoned rail corridor between Hartford and New Britain.

The New Britain – Hartford Busway was selected as the most cost-effective and service-effective option analyzed in the MIS. Of all the transit options that were evaluated, the New Britain – Hartford Busway had the highest projected new transit ridership levels. In addition, it had the greatest effect on reducing Vehicle Miles Traveled (VMT) of all transit options, a 5.2% reduction in VMT in the year 2020 PM Peak hour.

The New Britain – Hartford Busway will encourage motorists to switch to a transit mode, and therefore address roadway congestion on I-84 and parallel arterials. In addition, the project offers the opportunity to encourage Transit Oriented Development (TOD) near the busway. By providing an impetus for development in close-in urban areas that are well served by transit, the project could further reduce the overall vehicle miles traveled in the region, and reduce the travel demand on I-84.

ES.1.2 Increased Opportunities for Alternative Modes

Transit ridership increases that are anticipated will counteract recent decreases, as shown in Table ES.1-1. Ridership is expected to increase because the new busway system addresses many

of the deficiencies of the existing transit system. The busway will provide improved transit amenities, with attractive, secure, convenient stations that are a notable improvement from existing on-street bus stops.

Table ES.1-1
Forecast Daily Bus Boardings Under Recommended Action

Type of Routes	1997 Actual	2004 No-Build	2004 Build	2020 No-Build	2020 Build
Existing Routes Diverting to Busway/ New Busway Routes	1,600	1,600	19,000	1,600	22,300
Local Hartford Feeder Routes	14,600	14,500	7,500	11,400	8,800
Local New Britain Feeder Routes	600	600	700	700	900
New Feeder Routes	0	0	1,300	0	1,500
Total	**16,800**	**16,700**	**28,500**	**13,700**	**33,500**

Services will be attractive both to existing transit users, and new users that have a discretionary choice whether to use transit or drive a car. New bus routes and services are proposed to capitalize on the busway's exclusive, congestion-free right-of-way. In addition, improved existing services will increase transit's attractiveness. The hours of service, frequency of service, dependability of service, and trip duration will all be greatly improved.

The project will serve a more dispersed area efficiently, and provide improved "reach" for transit dependent persons to access jobs, education, healthcare, etc. Another way that the project will increase opportunities for alternative modes is the provision of a new multi-modal center in downtown New Britain and improved access to the existing multi-modal center in Hartford's Union Station. Transit users will have greatly improved intermodal access to Amtrak services in Union Station.

Other alternative modes that will be improved by the project are bicycle and pedestrian modes. A wide range of bicycle and pedestrian amenities and improvements will be provided at and near all busway stations to ensure that pedestrians and bicyclists can take full advantage of the busway. In addition, a multi-use path will be included with the project between the downtown New Britain Station and Newington Junction Station and between Park Street and Sigourney Street in Hartford, where space is available for such a path. Consideration has also been given to off-corridor extensions of the multi-use path elsewhere along the corridor that could be pursued by local communities. ConnDOT will encourage such efforts.

ES.1.3 Expanded Interregional Transit Service

The busway will increase transit's regional reach by providing an exclusive, direct, express facility. An improved regional transit system of express bus routes will offer a competitive

option versus driving between regional locations. Regional services will bypass congestion and improve their dependability, flexibility and attractiveness to commuters.

Enhanced regional express bus routes are proposed to serve Bristol, Cheshire, Southington and Meriden with express service to and from downtown Hartford. In addition, a new regional service is proposed from Waterbury to Hartford. All regional express buses will use expressways that do not experience congestion, and enter the busway in downtown New Britain off of Eastbound Route 72, before using the busway to bypass I-84 congestion and reach downtown Hartford. As regional express passengers can transfer to local busway services in New Britain, the project will greatly increase the number of destinations that those passengers can reach easily.

ES.1.4 Other Benefits of the Project

The project will offer many additional ancillary benefits beyond the purpose and need for the project. Some of the benefits include:

- Reducing traffic diversion through local neighborhoods
- Improving corridor aesthetics
- Improving corridor security and maintenance
- Enhancing neighborhood continuity, connectivity and identity with busway stations
- Easing demand for parking in downtown Hartford
- Reducing regional air pollutant emissions from mobile sources
- Encouraging sustainable development and redevelopment of urban and suburban core neighborhoods through TOD
- Improved emergency access for fire and police to the corridor and to Amtrak

ES.2.0 RECOMMENDED ACTION

During the Draft EIS process, several different alignment options were developed for the southern most segment of the corridor. In addition, at many of the station locations throughout the entire proposed busway, several station options were developed. As a result of this effort and the subsequent agency and public review process, Section 2.0 of the Final EIS outlines the recommended action, which is summarized here, and also describes the rationale for selecting the recommended action over other options considered.

ES.2.1 New Britain – Hartford Busway Recommended Action: General Description

The recommended corridor follows an abandoned rail line from New Britain to Newington Junction. North of Newington Junction, the corridor runs within active Amtrak rights-of-way Refer to Figure A in the inside back cover of this document for a map of the alignment. A total of up to 12 transit stations (including Union Station in downtown Hartford) would serve the users of this busway. Buses using this corridor would have more competitive travel times when compared with automobiles, since they would bypass congestion on arterial streets and I-84. The facility would permit bus access at intermediate points, so circulator bus routes could readily

serve surrounding neighborhoods and then traverse the busway, thus providing a one-seat trip. In addition, the busway will include express, shuttle, circulator and separate feeder bus service. A multi-use trail will be constructed adjacent to the busway from downtown New Britain to the Newington Junction Station and between Park Street and Sigourney Street in Hartford.

ES.2.2 Guiding Principles of The New Britain –Hartford Busway

ES.2.2.1 Station Accessibility Under Americans with Disabilities Act

All stations have been proposed to this point with attention to the needs of mobility-impaired individuals. Several stations on the New Britain – Hartford Busway will have facilities that are above grade, below grade, or at multiple levels. At all such stations, ramps and/or elevators will be provided to accommodate mobility-impaired individuals. Amenities within station areas such as telephones, water fountains, etc. will be provided that can accommodate disabled persons. Where parking is provided, accessible spaces will be included for disabled persons with permits.

ES.2.2.2 Facility Security and "Defensible Space"

"Defensible Space" concepts, also known as Crime Prevention Through Environmental Design (CPTED) will be pursued in project design to help passengers feel secure when they approach stations, leave stations, and wait within stations. CPTED design issues/features, to the extent possible and practicable, will be included in each station or stop, such as: Appropriate lighting; Intelligent Transportation Systems (ITS) linkage to facility security; Design and use of materials that are easily maintained and vandal-resistant; Sufficient trash receptacles; Design that provides sightlines to and within the facility with windows or mirrors; Structures, amenities and landscaping located in a manner that minimizes the ability o people to hide from view; Clear signage and maps that help direct passengers; Design that offers multiple entrances and exits to stations, parking lots, and other public areas.

Facility surveillance systems and security patrols, if warranted, could also prevent unauthorized entry of non-busway pedestrian traffic.

ES.2.2.3 Station Architecture and Context Sensitive Solutions

Another guiding principle is the need to provide "Context Sensitive Solutions" (formerly "Context Sensitive Design") of busway stations and facilities so that they blend into the context of the surrounding community, rather than "stick out" from the existing landscape. Stations need to be attractive if ridership goals are to be met. The public has offered a great deal of input into how stations should look and how they should fit into their community.

During the design phase, ConnDOT will provide communities, agencies, and the general public with opportunities to provide input into the appearance and amenities at stations and along the roadway itself. Measures to involve the public will include public information meetings, advertisements, a mailing list, a web site, and a Technical Advisory Committee. Based upon the input received to date, project designers will be able to take the community's concerns into

account. Elements of context sensitive solutions that will be considered in the design of the stations to the extent possible and practicable are scale, siting, landscaping, color, and material.

Although ConnDOT and its design consultants intend to develop the busway amenities to be sensitive to the neighborhood and regional context, a more comprehensive analysis in the form of a Context Sensitive Design Report will be prepared to achieve the best results. This report will catalog local amenities, study vernacular trends, and compile images that describe the local neighborhood fabric. This report will serve as a template to guide the aesthetic design of busway amenities, including stations, bridge structures, screen walls, landscaping, and visible utilities.

While it is desirable to provide continuity among busway facilities to help establish an identity to the system, the design of stations will also strive for context-sensitive solutions that relate to the specific neighborhood.

ES.2.2.4 Busway and Station Landscaping

Provision of landscaping is an important element in achieving the goals of attracting customers, providing a secure environment, and achieving context-sensitive design. Landscaping is proposed throughout the corridor, to help beautify the busway, mitigate visual impact on local neighborhoods, improve the appearance of the busway through Fairview Cemetery, etc. During the design phase of the project, a landscaping plan will be formulated at all busway facilities. As the design process takes place on this project, ConnDOT will make a commitment to provide the communities, agencies, and the general public with opportunities to provide input into the landscaping plan. More details can be found in the body of the Final EIS.

ES.2.2.5 Facility Lighting

Lighting is an important consideration for the busway. It is proposed that facility lighting will be limited to station areas, including platform areas, walkways, parking areas and community connection points, where pedestrian security is of paramount importance. The busway roadway will not be lit beyond station areas. Decisions on lighting will be made during the design phase with public input.

ES.2.2.6 Signage

Facility signage will serve several important functions. At the gateway or entrance to a station area, it will provide an identity to the facility, which is especially important for visitors that may not be familiar with the area. In addition, signs within the facility are important to augment the design clues in the architecture itself and to help direct passengers to where they need to go, and discourage trespassing in unauthorized areas. Variable message signs will be used with the Intelligent Transportation System (ITS) to provide information to passengers on the status of approaching buses. Informational signs will also be needed along the busway itself to provide guidance to bus drivers about approaching geometric limitations, etc.

ES.2.2.7 Station Amenities

Many different station amenities will be needed to provide passenger accessibility, comfort, security, and convenience, and these are described in greater detail in the Final EIS under each station. Preliminary decisions have been made regarding what will be placed at each station. The public has provided input during the Draft EIS comment period, and this input will continue during the design phase, where site amenities will be ultimately determined.

Outside the stations:

- Pedestrian (or bus user) drop off/pick up
- Gateway signage
- Pedestrian and bicycle access meeting ADA requirements
- Bus System Maps/Schedules
- Informational Kiosks
- Bicycle racks
- Pay phones
- Emergency phones
- Trash receptacles

Within Station Buildings

- Pay phone
- Trash receptacles
- Clocks

On Busway Station Platforms:

- Raised platforms for entering/exiting buses
- Shelters over platforms
- Benches or seats
- Variable message signs
- Clocks
- Emergency phones

ES.2.2.8 Facility Maintenance

The condition of the facilities is an important factor in providing a secure, comfortable, convenient transit experience, and passengers will not want to use the busway if it is not well maintained. It is not known at this time whether busway facilities will be publicly or privately maintained. ConnDOT, through the mechanism of its choosing, will be responsible for maintenance of busway facilities.

ES.2.2.9 Construction Methods

In order to expedite busway construction, ConnDOT intends to use a design-build construction process (also called "total cost basis") as required by Connecticut Public Act 01-105, Section 5. Design-build means that project design and construction take place on a simultaneous schedule, with the same contractor team bidding to both design and construct the facility. Under a design-build process, the construction is staged such that one phase of the project is designed, then constructed before or simultaneously with design on other phases of the project. This saves time over the traditional design-bid-build process, where the project is fully designed, and then bids go out separately for construction. While the design-build process will expedite the overall completion of construction, the process will not in any way impede the ability of the public to review designs and provide input.

ES.2.3 Busway Features

The New Britain – Hartford Busway has many features that fit together to create a functional BRT facility. The following is a discussion of each of these elements with the exception of the stations, which are discussed in Section ES.2.4.

ES.2.3.1 Roadway Facility

The roadway surface itself would pave over portions of the abandoned and active railroad rights-of-way. This dedicated roadway would be exclusively reserved for buses, and would be two lanes wide (one lane in each direction). However, at stations, additional lanes would be provided to allow non-stop buses to bypass stopped buses that are picking up passengers. The two-lane roadway would be protected on each side by "Jersey" barriers and fences to keep unauthorized vehicles and people off the roadway. Additional consideration has been given to those areas where the busway is directly adjacent to the backyard of private homes. In those areas where noise walls are deemed necessary, the type and size will be determined during the design process. Where noise walls are not deemed necessary, fencing to provide visual separation between the busway and adjoining properties may be used. Additionally, where the busway is adjacent to Amtrak, a 1.8 meter (six-foot) high fence will be installed on top of the barrier.

ES.2.3.2 Bridge and Culvert Reconstruction

While existing structures would be used in their current form wherever possible, several locations will require modification. This includes reconstruction or replacement of railroad bridges and culverts to serve the busway. The most prominent bridge structures that will require alterations are listed here and are discussed in greater detail in the Final EIS:

- Bridge over Route 9 in New Britain
- Bridge over connecting roadway in Fairview Cemetery
- Bridge over New Britain Avenue in West Hartford
- Bridge over Trout Brook in West Hartford
- Bridge over Park Street in Hartford

- Bridge over Capitol Avenue in Hartford
- Bridge over the old Park River alignment
- Bridge over Capitol Avenue On-Ramp to Westbound I-84 in Hartford
- Bridge over Asylum Street in Hartford
- Upper Deck of Union Station in Hartford
- Bridge over Church Street in Hartford

In addition to bridge alterations, a number of culverts will need to be altered:

- Culvert of Piper Brook Between Saint Mary's Cemetery and Route 9 Southbound
- Culvert of Bass Brook Between East Street and Route 9 Southbound
- Culvert of unnamed Piper Brook tributary between Cedar Street and Newington Junction
- Three culverts/pipes of unnamed Piper Brook tributary between Newington Junction and Willard Avenue Bridge
- Underground conduit under unnamed Piper Brook tributary at Newington Junction Station
- Culvert/pipe of Jacobs Brook north of Newington Junction Station
- Culvert of Kane brook (Under I-84 viaduct)

ES.2.3.3 Multi-Use Trail

Originally, a multi-use pathway was considered in the Draft EIS to be a separate project, with the busway design not precluding implementation of the path. Numerous comments indicated a need for the multi-use path to be incorporated into the busway.

ConnDOT is committed to constructing a Multi-Use Pathway between Downtown New Britain and Newington Junction and between Park Street and Sigourney Street in Hartford. (See Figure A, inside back cover of document). The trail will begin at its south end in downtown New Britain and parallel the busway over the Route 9 to the East Main Street Station. It would continue north, passing at grade at East Main and Smalley Street, through Fairview Cemetery, then exit the ROW onto East Street at the Route 9 underpass. The trail would then split onto the two sides of East Street with a five-foot bike lane and a five-foot sidewalk. The section continues to Lester Street where it returns to the busway corridor, onwards north to Newington Junction. The other trail segment that would be constructed by ConnDOT under the recommended action would run in Hartford between the Park Street busway station and Sigourney Street station.

Some preliminary consideration was given as part of this project and the West Side Access Study of possible on- and off-road trail alignments that could complete the trail between Newington Junction and Bushnell Park in Downtown Hartford, and provide additional linkages to other planned trail corridors in the region. The concepts presented in the West Side Access Study are currently not programmed for advancement. Should these concepts be advanced into design further coordination will continue. ConnDOT will encourage Hartford, West Hartford, Newington and CRCOG (separately from the West Side Access Study) to complete multi-use trail connections beyond the busway corridor between Newington Junction and Park Street and between Sigourney Street and Union Station.

ES.2.3.4 Busway Crossings

Along the busway route, there are a number of at-grade roadway intersections that will require traffic control. (Other controlled locations are points of entry/exit for busway buses, called "intermediate access points"). In addition, there are a number of locations where the busway corridor is already grade-separated from cross streets, or a new grade separation is proposed. There are three areas where the grade of the crossing would change as a result of the project: Fairview Cemetery, East Street/Allen Street/Saint Clair Avenue, and Flatbush Avenue. Most at-grade crossings would contain traffic signals to control the crossings and prevent accidents between cross-street vehicles and busway vehicles. Section 2.3.4 of the Final EIS outlines the affected crossings in greater detail.

The City of New Britain has requested that the intersection of Stanley Street and Dwight Street be signalized, and that the signal should be coordinated with the Stanley Street intersection of the busway corridor. An at-grade busway crossing of the Fairview Cemetery access road will be located where an underpass under the abandoned rail line currently connects the two sides of the cemetery.

ES.2.3.5 Interaction with Rail Operations

ConnDOT and Amtrak have actively coordinated on issues concerning the railroad throughout the EIS process, and ConnDOT commits to continue actively coordinating with Amtrak throughout the design process. Where active rail is adjacent to the busway, rail gates will be provided for rail operations with absolute priority over busway and cross street traffic. Rail gates and signals will be implemented and designed in coordination with the railroads.

The segment of the busway between Newington Junction and Union Station will run directly adjacent to Amtrak railroad tracks. The distance from the edge of the busway to the center of the existing tracks is as little as three meters (ten feet). The project will have to accommodate rail maintenance access to key areas. Additionally a segment of track will have to be shifted to accommodate the busway between the Sigourney Street Station and the Armory/Legislative Office Building Station.

The roadbed for the two main tracks will be kept intact for the entire length of the project. No existing sidetracks serving freight customers will be negatively impacted. The busway facility and stations will not preclude the potential for constructing and providing connectivity with future Amtrak stations and possible commuter rail service.

ES.2.3.6 Vertical Treatment in Fairview Cemetery

A vertical treatment in Fairview Cemetery is proposed as part of the recommended action as a way to mitigate the impacts of introducing the busway into the cemetery. There will be no impact on the existing graves in the cemetery.

This treatment would lower the grade of the busway below its existing level. Since the current grade is generally elevated through the cemetery, this would create a kind of "trench" and serve to reduce the visibility of the facility. The depth the grade would be lowered varies throughout the cemetery. This depth would not be low enough to shield the buses and facility by just the terrain, so some additional walls or fences would be used to shield the facility. Figure ES-1 shows the proposed depressed cross-section through the cemetery.

Figure ES-1 Busway Through Cemetery Below Existing Grade

ES.2.3.7 Grade Separation at East Street and Allen Street

The East Street/Allen Street/Saint Clair Avenue intersection in New Britain has a substandard configuration and is slated for reconstruction. If the busway were constructed at grade through this area, it would create two at-grade crossings in a short distance: an at-grade busway crossing of extended Allen Street, plus a five-way intersection between the busway, East Street and Saint Clair Avenue. To address these shortcomings, the busway will be constructed on an elevated viaduct over these two intersection areas. The structure would be designed in a manner to afford adequate vertical height clearances on East Street and Allen Street.

ES.2.3.8 Grade Separation at Flatbush Avenue

The recommended action would grade-separate both the busway and Station Option G3 over Flatbush Avenue, with Amtrak remaining at its current at-grade crossing with Flatbush. The busway will be elevated on a viaduct over Flatbush Avenue. The station will be located on the north side of Flatbush Avenue. The elevated structure would be designed in a manner to afford adequate vertical height clearances on Flatbush Avenue. An at-grade crossing of Flatbush Avenue was considered during the Draft EIS process and eliminated from further consideration because of anticipated traffic problems and pedestrian safety issues.

ES.2.3.9 Busway/Station Drainage

Along the roadway itself and in the station areas, existing pervious surfaces will be paved over with impervious materials, which will require stormwater be collected, treated and discharged as appropriate. The methods used to handle stormwater will vary significantly along the corridor depending on adjacent land use, adjacent watercourses and the availability of local stormwater management systems. The design phase will include future coordination and permitting with the appropriate agencies, specifically the US Army Corps of Engineers, Connecticut Department of Environmental Protection and local municipal staffs.

ES.2.3.10 Intermediate Access Points

There are a number of "intermediate access points" that will allow local collector bus routes to circulate in neighborhoods beyond the busway, increasing the reach of the system. Intermediate access points are located either at signalized at-grade crossings or else at busway stations, and are highlighted in Section 2.3.10 of the Final EIS.

ES.2.3.11 Intelligent Transportation Systems

ITS will be employed throughout the busway facility to provide passengers with maximum levels of safety, efficiency, comfort, and information. Sensors will be able to track bus locations to ensure that buses approaching grade crossings receive preference at busway traffic signals. Variable message signs at stations will enable waiting passengers to know the estimated arrival time for their next bus. ITS components are also being considered to provide an additional level of safety to waiting patrons at the stations. A central facility (location to be determined) would manage the ITS resources.

ES.2.4 Station Options

Through the Final EIS process, a group of recommended station options have been developed as part of the recommended action. The selection of these options for the recommended action has taken into account the public input received during the Draft EIS comment period. Each of these station options are described in greater detail in the Final EIS in Section 2.4. ***It is important to note that the design of the busway stations has been advanced only enough to assess environmental impacts. Detailed station designs will be developed and reviewed with all stakeholders in local communities during the project's design phase.***

While all stations will have sheltered platforms, each station will have a different level of amenities depending on the anticipated usage, adjoining land use and neighborhood context. Some stations, notably those that are expected to have a relatively high ridership, would be expected to have a climate-controlled building with restrooms, water fountains and a waiting area. Associated private retail (such as a donut shop or a newsstand to serve passengers and the general public) is possible at these stations, if private businesses and developers express interest to participate.

It is a priority that the proposed busway facility is safe for those passengers on the buses, those passengers waiting for the buses and those passengers walking from one location to another. Every attempt has been made to provide safe space in the station areas and platforms that would minimize opportunities for criminal activity. During the design phase, this issue will be addressed in greater detail, including a review of station visibility, lighting, landscaping and possible installation of security cameras.

Downtown New Britain Station Option A1--Downtown New Britain is a traditional downtown area containing civic offices and some retail and institutional properties. The Downtown New Britain Station would be constructed on the former Greenfield's supermarket site, on the east

side of Main Street between Route 72 and Columbus Blvd. It is expected that the site would serve as a multi-modal center that serves downtown New Britain, bringing not only the busway service, but also interstate coach bus service, taxis, and local buses together in one place. This would improve the traffic operations on Bank Street/West Main Street in New Britain's downtown, since the existing interstate coaches loading/unloading and the local bus stops occurring on Bank Street/West Main Street would be relocated to the new station. The Multi-Use trail begins at this station, connecting to the station's platforms and the sidewalk on Columbus Boulevard.

The station is not proposed to have an attached parking facility, because there is plentiful parking available in two lightly used municipal parking structures within a block of the proposed station. Station design may include providing sheltered above-grade walkways to carry passengers directly from one of these parking structures to the station.

East Main Street Station Option B1--The East Main Street area on the east side of New Britain is a neighborhood with a mixture of older residences and industrial properties. The station would be constructed along the southern edge of a vacant industrial property and on the northern edge of the National Guard Armory. This station would have an access driveway from East Main Street for local bus access. Pedestrian access would be provided from Yale Street and East Main Street. This station would have no parking provided or station building.

East Street Station Option C1—Modified--This station is located off East Street just north of Saint Clair Avenue between Cornerstone Condominiums and Essex Place, a multi-story apartment building. This station would provide access from East Street to accommodate kiss-and-ride drop-offs/pick-ups and pedestrian entry. Buses could enter and exit the busway at this location as well. Park and Ride parking would also be provided. A station building will be provided. It is assumed that approximately 40 parking spaces could be provided for busway passengers.

Cedar Street Station Option D1—This station would constructed behind the Stop and Shop supermarket located east of Fenn Road and north of Cedar Street. An access road would be developed by a combination with the Stop & Shop southerly drive for access to Fenn Road at a stop sign. Improvements to pedestrian travel in the area on Fenn Road and Route 175 (sidewalks, crosswalks, etc.) would be provided for CCSU students if they choose to walk to the station. The station would include a parking area to serve park and ride commuters; it is assumed that approximately 100 parking spaces could be provided for busway passengers. Access to the station and parking area for buses and cars would be developed along Fenn Road.

Newington Junction Station Option E1--The recommended station option would be located north and west of the Amtrak Corridor, east of the Willard Avenue overpass, and across Willard Avenue from West Hill Road. From this station northward, the corridor for the busway would run alongside Amtrak's active New Haven – Springfield line. In addition, the southern segment of the multi-use trail would also terminate at this point due to constrained right-of-way. This station would serve local passengers with a station building. It is assumed that approximately 32 parking spaces could be provided for busway passengers.

Elmwood Station Option F1--This station would be sited along New Park Avenue between the New Britain Avenue bridge and the Trout Brook bridge. This station would have most of its amenities (drop-off area, building, main entryway, etc.) on the northeast corner of New Park Avenue and New Britain Avenue, on the site of an existing car wash and a lube shop. Limited parking would be provided at this location only for kiss and ride users and potential occupants of the station building. It is assumed that only an estimated 25 parking spaces could be provided, as there are space limitations and concerns about exacerbating traffic congestion. The Amtrak bridge over Trout Brook would require reconstruction on its west side to accommodate the busway station. Aesthetic treatments of the bridge, station amenities and details of lighting design, sidewalk treatments and landscaping will be developed during the design phases of the project.

Flatbush Station Option G3-Modified--Flatbush Station Option G3 from the Draft EIS was selected and modified to improve on the station operations as well as fitting into the context of the neighborhood. The modifications avoid acquisition of a gas station on the northeast corner of New Park Avenue and Flatbush Avenue, provide better on-site circulation, provide covered drop-off areas for local bus circulation, and improve the street image from both New Park Avenue and Flatbush Avenue. In addition, the auto parts store would remain in place and only the donut shop (which could be relocated on-site in conjunction with the station) and a portion of the parking for the former Heublein site would need to be acquired.

The busway will overpass Flatbush Avenue to avoid traffic conflicts but the existing Amtrak rail crossing of Flatbush Avenue would remain at-grade. The above-grade platforms would be just north of the elevated overpass of Flatbush Avenue. Park and ride facilities would be provided as well as a drop off area for passenger cars. . It is assumed that approximately 136 parking spaces could be provided for busway passengers. The parking area would also serve the needs of any development in conjunction with the station. Pedestrian access to the station would be provided from the sidewalks on both New Park Avenue and Flatbush Avenue. A station building will be provided underneath the overhead platforms.

New Park Avenue Station (Kane Street Station) –Option H2--The New Park Avenue Station (Kane Street Station) is located in the Parkville neighborhood of Hartford, near I-84's overpass of New Park Avenue. A Stop and Shop supermarket abuts the corridor north of I-84, across New Park Avenue from Kane Street. An IMAX movie theater was recently opened immediately south of I-84 on New Park Avenue.

The recommended station is a modification of Option H1 as presented in the Draft EIS. The platform layout has been changed from an offset configuration to an opposite configuration, as requested by local stakeholder, and the northbound platform has more visibility as it is not located behind the Stop and Shop. A new parking area has been added between the I-84 viaducts; it is assumed that over 100 parking spaces could be provided for busway passengers. Another major component of this station is the redevelopment of enhanced wetland/parkland between Kane Brook, New Park Avenue, the Stop & Shop parking lot and the busway station. Sidewalk connections between the station and existing sidewalks along New Park Avenue are

proposed. Local bus drop-offs would occur on a bus pull-off just off of the Stop & Shop driveway. A station building, which is visible from both Kane Street and New Park Avenue, is now proposed at this location.

Park Street Station Option I4 (Hybrid of I1-I2-I3)--The Park Street Station would be located at Park Street, close to the heart of Parkville, a densely populated, ethnically diverse Hartford neighborhood. The recommended station has been modified as a hybrid of the three stations evaluated in the Draft EIS. The platform configuration would be of the "opposite" configuration. Two Francis Avenue businesses would be relocated for the construction of the station. A third Francis Avenue business would have some of its property acquired; it would either need excess property to be purchased so the business could be reconfigured on the same site, or else it would be relocated to a different site. One property on Park Street would be relocated.

The station area would have passenger car drop-off with limited kiss and ride parking; no parking spaces would provided for busway passengers. Local feeder bus drop-offs and pickups would occur on Park Street. A pedestrian overpass of Park Street will be provided with access down to Park Street on both sides as well as a connection to Real Art Ways. A station building is proposed that will fit into the neighborhood environment with the ability to contain future joint development. Connections to the Parkville Industrial Corridor would be provided by improved sidewalks under the new busway bridge, connecting to the existing sidewalks under the remaining Amtrak bridge, which then connects to a sidewalk on Bartholomew Street. The station area would be designed such that a future pedestrian overpass connection to Bartholomew Street could be constructed. Also as part of this project, the streetscape (proposed as part of the TCSP project) would be constructed on Park Street from the I-84 overpass to the Sisson Avenue/New Park Avenue intersection.

Sigourney Street Station Option J2--This area is on the periphery of downtown Hartford in the Asylum Hill neighborhood. After discussion with officials at Aetna, it was decided that the location of the station shown in the Draft EIS would be moved to the opposite side of Sigourney Street at the location of the existing Aetna parking garage. Aetna has indicated their willingness to partner with ConnDOT to develop a station on the site of the existing garage as they anticipate demolishing this garage in the future and reconstructing it in conjunction with the busway.

Because Aetna has more recently expressed concerns about the implementation of their overall parking plan (which would include rebuilding the existing parking garage in time for the opening of the busway), an interim station concept (Option J2-A) has been developed that is independent of the existing parking garage. In order to avoid impacting the garage, it was decided that the interim station would not have bus pull-off lanes, which is not expected to be a problem in the short term as the service plan has all buses, including express buses, stopping at this station. It is assumed that no parking would be provided for busway passengers. Further coordination with Aetna will be actively engaged during the design phase of this project.

The ultimate station concept (Option J2-B) will have three levels. The lower level is the location of the busway and platforms. The second level has a pedestrian connection under Sigourney Street to the multi-use trail connection to the Park Street Station, and Aetna's proposed

Hawthorn Street parking garage. The third level has the "station building" part of the garage, which has a street front on Sigourney Street. Internal connecting walkways would be provided overhead to the busway with stairs (or escalators) and elevators down to the platforms and the pedestrian connections on the lower two levels. Additionally there are connections into the garage for Aetna employees and a potential connection over the tracks (under I-84) to the state office complex on Capitol Avenue. The three levels would be open to each other, providing an open feeling to the station area. Again, it is assumed that no parking would be provided for busway passengers.

Should the details of the long-term station concept become finalized it would undergo a separate Federal and state environmental review.

Armory/Legislative Office Building Station Option K1--This station would serve government offices in the Armory and Legislative Office Building, Broad Street offices, and the Hartford Courant and provide a gateway into Bushnell Park. A station would be provided near the Legislative Office Building parking ramp with an offset platform arrangement. No parking or kiss-and-ride facilities would be provided since this station would primarily serve as a destination location. A covered walkway would carry people using the station over the active Amtrak tracks to the parking structure, where additional climate-controlled connections are provided to the Legislative Office Building and Capitol complex. Additionally, an access will be provided the Broad Street overpass with covered stairs down to the station site as well as a pedestrian ramp. It is assumed that no new parking would be provided for busway passengers.

Union Station Option L1—This station will be a terminus for the dedicated busway service before buses circulate through downtown. In addition, future planned busways could feed into Union Station as well. The busway would pass over Asylum Street on the existing bridge structure and provide a busway platform on both sides of Asylum Street with a pedestrian walkway over Asylum Street. The platform on the south side of Asylum Street would include a pedestrian connection down to Asylum Street. The north platform would use the existing rail platform at Union Station and also provide direct pedestrian access to Asylum Street. Additionally, existing pedestrian connections down to the Union Station building may be used as well. The busway would continue northward through the rest of the station, and a ramp would be constructed that would enable buses to drop down to street level near the intersection of Myrtle, Church and Spruce Streets so they may circulate throughout downtown Hartford. It is assumed that no new parking would be provided for busway passengers, as Union Station is already served by parking.

ES.2.5 Transit-Oriented Development And Station-Area Planning

The project offers potential for changes in nearby neighborhoods resulting from Transit Oriented Development (TOD). Also called "Transit-Focused Development," this concept proposes higher concentrations of development near stations, increasing numbers of residents and employees within walking distance of stations (generally less than a half mile). Improved pedestrian amenities and reduced availability of free parking would increase the incentive to walk to

stations and use transit. In addition, TOD may enhance neighborhood revitalization efforts and property values.

The four communities near the busway have all indicated a willingness to offer special incentives (such as higher zoning densities) to encourage TOD near stations. ConnDOT is committed to continuing working with the four communities as well as the regional planning agencies (Capitol Region Council of Governments and Central Connecticut Regional Planning Agency) to encourage redevelopment and new development that benefits the busway and the communities at large.

ES.2.6 Bus Types And Fleet Fueling Characteristics

The public has expressed a great deal of interest in what types of buses would be used on the busway, and what type of fuel they would use. One of the benefits the busway has is that the existing fleet of buses would be available for immediate use. ConnDOT has committed to examine alternative fuel types and to purchase buses that use proven technology, are not cost prohibitive and are practical. New technology buses will reduce or eliminate on-road emissions from busway vehicles. Possible new technology buses under consideration include "clean" diesel, electric buses, and hybrid electric-diesel buses or other new fuels that may develop.

ES.2.7 Proposed Operations

ES.2.7.1 Types of Service

Four types of service have been proposed for the busway:

Express Bus Service: Express buses would originate in outlying towns and make limited stops on the busway, avoiding congestion on Interstate 84. In the example of an "inbound" trip, express buses would use regional expressways (such as Route 72) and exit to the Downtown New Britain station to allow transfers to local services. Express routes then would skip intermediate busway stops until downtown Hartford, where they would exit and circulate locally to provide convenient drop-off points close to passengers' destinations.

Shuttle Bus Service: Like a subway, this service would operate from end to end on the busway, stop at all busway stations, then, potentially, circulate through the two downtowns. The dedicated busway would be much faster than today's routes, which follow congested local streets.

Neighborhood Collector Bus Service: Collector buses would circulate on local streets within a community, then access the busway somewhere along its length. Those routes would then use the busway to get to the destination, whether that is downtown Hartford, New Britain, or an intermediate area. After exiting the busway, the collector service would circulate again near the destination to get passengers close to where they want to go. The circulation at both ends of the route would offer many passengers a "one-seat trip" with no transfers, since many origins and destinations would be served.

Feeder Bus Service: This service would connect residential areas, points of interest, or other primary locations with the nearest busway station. In this case, the feeder bus would not actually use the busway itself, but would take passengers to the busway stations to transfer to busway services.

ES.2.7.2 Hours of Operation

For the purposes of the EIS analyses, it was assumed that the busway would operate seven days a week, between the hours of 6:00 AM and 12:00 Midnight. This would increase the availability of transit services compared to today. These hours may be further modified as future needs dictate.

ES.2.7.3 Service Frequencies

Service frequencies vary by station. During peak hours of demand (roughly 7:00 AM - 9:00 AM and 4:30 PM - 6:30 PM), service headways are anticipated to average every two to five minutes, ranging between 12 and 28 buses per hour. If a passenger wishes to access a specific neighborhood circulator route, the frequencies will be two buses per hour during the peak hour. Shuttle routes will serve each station four times per hour during peak hour. During off-peak hours, service frequencies will be scaled back to meet lower demand, ranging between 9 and 19 buses per hour.

Feeder route services will serve selected stations with a peak period frequency of one to four buses per hour during the peak hour. Most feeder route services will remain at the same frequency during the off-peak hours, although a few routes may be scaled back in frequency as demand dictates.

ES.2.7.4 Bus Speeds

Busway speeds, though more time-competitive than existing bus travel, will be dictated by surrounding land uses and the design limitations of the facility. In areas that are more densely populated, have curves, or contain at-grade crossings, speeds would be limited to 35 mph. This 35-mph limit will also be observed through stations for express buses that are passing through. Along selected straight segments of the corridor with no crossings or nearby residences, speeds would be as high as 50 mph. Bus drivers will require special training before using the busway.

ES.2.7.5 Bus Fares

At the time of opening, bus fares on bus routes using the busway will be the same as the overall system-wide fares in place at the time.

ES.2.7.6 Emergency Vehicle Access

Emergency vehicles would be allowed to enter the busway if an emergency on the busway or any adjoining area required it. In addition, during the design process, local fire officials will be contacted and fire hydrants will be located along the busway to meet fire protection needs.

ES.2.7.7 Operational Plan

The operational plan for the recommended action was derived from the service assumed in the Major Investment Study (MIS), then refined by reviewing interim ridership projections, improving mobility impacts and reducing unproductive routes. A determination was made about the needs for express service, reverse commuting, and local circulators using intermediate access. The proposed new service design for express, collector and feeder services differs from the MIS design. Refer to section 2.7.7 of the Final EIS for more information. The bus services may be modified before implementation as a more detailed service design process is undertaken in cooperation with the local communities and the service providers.

One of the benefits of the New Britain – Hartford Busway is that routes to Downtown Hartford would circulate throughout downtown, providing more direct service for downtown origins and destinations. A Downtown Circulator Study is ongoing by the City of Hartford and the Greater Hartford Transit District, to determine the most effective way to circulate passengers through the downtown area.

ES.2.8 Costs

ES.2.8.1 Capital Costs

The current total estimated cost of the New Britain/Hartford Busway is $145 million, in year 2001 dollars, or $160 million in "escalated" dollars to reflect construction through the year 2004. The busway roadway alignment is estimated cost $42.3 million in year 2001 dollars. In addition to construction costs, there are costs associated with the purchase/relocation of existing buildings or land. Right of way acquisition is estimated to cost $12 million in year 2001 dollars. The stations are estimated to cost $28.6 million in 2001 dollars and the multi-use trail is expected to cost 3.4 million. These costs and other costs to construct the facility are summarized and described in Section 2.8 of the Final EIS.

ES.2.8.2 Operating Costs

Operating costs for the proposed service design were developed for both opening year (2004) and future year (2020) in current year dollars. Current operating costs for those existing services in the corridor are approximately $6.5 million annually. When the Busway opens in 2004, operating costs are expected to rise to $12.8 million dollars. Future year operating expenses would be expected to increase to $16.5 million. The increase in operating cost is expected because of the increased number of routes serving the Busway and increased hours of service.

ES.2.8.3 FTA New Starts

All projects seeking Federal discretionary New Starts funding must obtain Federal Transit Administration (FTA) approval before entering into preliminary and final design. The Transportation Efficiency Act for the 21st Century (TEA-21) identifies specific criteria that the FTA must consider in its approval to advance fixed guideway projects through the New Starts development process. Specifically, there are two areas in which candidates for New Starts funding are evaluated: Project Justification and Local Financial Commitment.

FTA rates each New Starts project candidate as "Highly Recommended", "Recommended" or "Not Recommended". FTA's evaluations and ratings process is important as they help to identify those projects which are most worthy of Federal investment. As directed by TEA-21, FTA publishes these ratings in the US Department of Transportation's *Annual Report on New Starts*. In the 2001 edition of that report, the Busway project received a "Recommended" rating. This project will continue to be rated as it proceeds through the project development process.

ES.3.0 NATURAL AND PHYSICAL ENVIRONMENT

Chapter 3.0 of the Final EIS examines the environmental consequences of the recommended action for the New Britain – Hartford Busway project, which are summarized here. There are a number of issues that have not changed in scale or location of impact since the Draft EIS. The reader should refer back to the Draft EIS for more information on those environmental impacts.

Table ES.3-1 outlines the general environmental impacts associated with the recommended action.

ES.3.1 Noise

The Draft EIS analyzed noise impacts at a number of locations along the corridor. Based upon input from neighbors, four neighborhoods (Cottage Place in New Britain, Cornerstone Condominiums in New Britain, Willard Avenue in Newington, and Francis Avenue in Hartford) were reassessed for their noise impacts. Based on this reassessment, it was determined that noise barriers would be reasonable at these four locations. Barriers would abate new noise generated by the project at the two locations in New Britain. They would abate existing high levels of noise (from Amtrak operations) along with the new noise generated by the project at the Newington and Hartford locations. A detailed discussion of anticipated noise levels, the project's effects, and the effect of providing abatement is found in Sections 3.1 and 4.1.

ES.3.2 Socioeconomics and Land Use

This project is in conformity with local, regional, and state plans. Land uses will change in the vicinity of stations, as industrial and commercial properties would be acquired. Furthermore, the project has the potential to create opportunities for TOD near stations.

Table ES.3-1
Summarization of Environmental Impacts Associated with Recommended Action

Alignment/Station Location	Noise	Air Quality	Land Use Changes		Environ. Justice Concerns?	Est. Worst-Case Wetlands Acres Impacted (Includes Multi-Use Trail)	Surface Water Impacts	Floodplain Encroachment (Acres)	Wildlife Impacts	Threatened/Endangered Species	Hazardous / Contaminated Materials Risk	Farmland Impact	Visual Impacts		Bicycles and Pedestrians		Acres of Right of Way Acquired (Amtrak for Alignment, Non-Amtrak for Stations)	Effect on Section 106 Cultural Resources	Section 4(f) Impacts	Construction Cost (millions) not including Right-of-Way, Design, Bus Stock, Misc.
	Residential Areas Needing Mitigation	Intersections Exceeding Standards	Residential Impacts	Business Impacts									on Cottage Place and Fairview Cemetery	New Busway Overpasses / Ramps	Feasible Multi-Use Path?	New At-Grade Busway Crossings?				
Recommended Action: Busway on ConnDOT/Amtrak Property, Multi-Use Trail	4	0	Amtrak Property Only		No	0.345	minor	0.14	minor	None	High	negl.	Yes	see below	2 segments	8	19.0	None, with Mitigation	None	$45.7
Station A1: Downtown New Britain Station	See Value for Alignment Above	See Value for Alignment Above	0	0	No	0	minor	0	None	None	Medium	None	N/A	Route 72 EB Ramp	Yes	N/A	3.7	None	None	$7.4
Station B1: East Main Street Station			0	0	No	0	minor	0	None	None	High	None	Yes	No	Yes	N/A	1.0	None	None	$0.8
Station C1: East Street Station			0	0	No	0.005	minor	0	None	None	Medium	None	N/A	East St. Overpass	Yes	N/A	2.0	None	None	$1.2
Station D1: Cedar Street Station			0	0	No	0	minor	0	None	None	High	None	N/A	No	Yes	N/A	4.2	None	None	$1.2
Station E1: Newington Junction Station			0	6	No	0	minor	0	None	None	High	None	N/A	No	Yes	N/A	1.5	None, with Mitigation	None	$1.6
Station F1: Elmwood Station			0	2	No	0	minor	0	None	None	High	None	N/A	No	No	N/A	1.0	None	None	$1.4
Station G3: Flatbush Station: North of Flatbush Ave.			0	1	No	0	minor	0	None	None	High	None	N/A	Flatbush Overpass	No	N/A	1.7	None	None	$6.3
Station H2: New Park Ave. Station			0	0	No	0	minor	0	None	None	High	None	N/A	No	No	N/A	2.2	None	None	$3.1
Station I4: Park St. Station			0	4	No	0	minor	0	None	None	High	None	N/A	No	Yes	N/A	1.7	None	None	$2.1
Station J2: Sigourney St. Station			0	0	No	0	minor	0	None	None	Medium	None	N/A	No	Yes	N/A	0.0	None	None	$1.7
Station K1: Armory/ Legislative Office Bldg. Station			0	0	No	0	minor	0	None	None	Medium	None	N/A	No	No	N/A	0.0	None	None	$1.0
Station L1: Union Station			0	0	No	0	minor	0	None	None	Medium	None	N/A	No	No	N/A	0.0	None	None	$0.8
Totals for Recommended Action	4	0	0	13	No	0.350	minor	0.14	minor	None	Med-High	negl.	Yes	Yes	2 segments	8	38.0	None, with Mitigation	None	$74.3

Because the project corridor follows active and inactive rail corridors that have been in use for over a century, the project would not have the widespread negative socioeconomic effects or negative land use changes expected with a new facility on a new corridor alignment. Negative land use effects would be limited to where right of way would be acquired. No residential properties are expected to be acquired for the project. An estimated 11 properties with 12 active businesses would potentially be affected by the project.

The recommended action will affect a residential neighborhood on the east side of New Britain. Houses on Cottage Place and Wilson Street between East Main Street and Smalley Street back onto the proposed busway corridor, and the corridor bisects Fairview Cemetery. The properties on the two blocks historically had the barrier of a railroad between them, and the cemetery (which was constructed subsequent to the railroad line) was similarly affected.

The more pronounced land use effects of the project would convert existing land uses at proposed station locations into the stations themselves. A complete listing of station locations is found in Section 3.2 of the Final EIS.

The project is not anticipated to create a disproportionate negative impact on minority or low-income populations, and would actually benefit these communities through improved access to jobs, education, services, etc.

Transit Oriented Development (TOD): In addition to land use impacts created directly by the project, there is also the potential for changes in nearby neighborhoods resulting from TOD. Also called "Transit-Focused Development," this concept proposes higher concentrations of development near stations, increasing numbers of residents and employees within walking distance of stations (generally less than a half mile).

One area that has potential for changes in land use is the open space in Newington near the busway corridor and CCSU. Another location with possible plans for land use changes is the 22.3 hectare (55-acre) Charter Oak Terrace site in Hartford, near the West Hartford border. The former ITT Cannon industrial site is located next to the East Main Street station in New Britain. The previous layout of this station impacted a portion of the ITT site's parking area; this impact has been eliminated. It is expected that the presence of a busway station next to the site would greatly increase its redevelopment marketability, since employees to a new industrial tenant would have convenient transit access. In addition, TOD may enhance neighborhood revitalization efforts and property values.

Socioeconomic Impacts: The socioeconomic effects of the project are expected to be favorable, as the busway improves accessibility for people in the region, and potentially serves as an economic catalyst for community revitalization. The only negative impacts that are anticipated are those impacts from relocations of businesses. The project will not require any residential relocations. ConnDOT will work with businesses to fairly compensate owners for property and to assist in relocation. However, it should be recognized that even with assistance, businesses could choose not to re-open in a new location, and even if they do relocate, employees may not choose to commute to the new selected location.

Over time, changes in property values for properties close to the New Britain – Hartford Busway will occur independently of the project as a result of inflation, demographic trends, regional market changes, individual homeowners' renovations, etc. Therefore, it would be extremely difficult to quantify the changes associated with only construction of the busway itself. Those portions of the corridor that abut Amtrak already are presumably affected by its presence as well.

ES.3.3 Wetlands

Exact levels of impact on wetlands cannot be fully determined until a formal field delineation of wetlands has been conducted during project design. Wetlands impacts were considered under two conditions. An earth retention scenario would be considered a "best-case" scenario to minimize encroachment into wetlands, and no earth retention would be considered a "worst-case" scenario. If earth retention is not possible, it is estimated that a total of 0.015 hectares (0.03 acres) would be affected for the roadway alignment itself, and an additional 0.33 hectares (0.82 acres) would be impacted by the addition of the multi-use pathway. The only station area creating wetland impacts would be at East Street (Station C1), which is estimated to impact an additional 0.005 hectares (0.01 acres). A very small portion of the bus access falls within the wetland. Therefore, the total estimated wetland impact with no earth retention would be 0.35 hectares (0.86 acres).

ES.3.4 Surface Waters

The corridor crosses ten surface waters. All structures over water bodies are culverts with the exception of Trout Brook. Structures will need to be replaced or have some form of remediation completed to them. Replacement of structures would likely be in-kind replacements pending a hydraulic study to determine the adequacy of the existing opening. No direct permanent impacts to surface waters are anticipated. No long-term impacts are anticipated to hydrology, water quality, biotic communities, or any other stream function. The anticipated actions at crossing structures are discussed in greater detail in Section 3.4 of the Final EIS.

Impacts on the natural resources surrounding the Kane Brook channel have been greatly reduced since the Draft EIS by altering the concept design of the New Park Avenue (Kane Street) station.

ES.3.5 Floodplains

Impacts within the 100-year flood boundary would occur from construction of the busway in areas where the rail line is currently below the 100-year flood elevation. This occurs primarily along Piper Brook (Newington) and Bass Brook (Newington and New Britain). The dedicated busway corridor and the station facilities would be constructed to rest above the 100-year flood elevation, to ensure public safety.

The acreage of the busway facility encroaching within the 100-year floodplain would be limited to a small parcel of land approximately equal to 0.06 hectares (0.14 acres), which would be filled within New Britain close to the Newington town line. Impacts on floodplains at Kane Brook

anticipated in the Draft EIS will now be avoided with the revisions made to this station. Another floodplain that will be crossed but not affected by the project is at the Amtrak bridge spanning Trout Brook in Elmwood.

There are no locations north of Newington Junction where Amtrak or the busway corridor is known to be located below the elevation of the 100-year floodplain. Therefore, it is not expected that the project would create a flooding problem for Amtrak.

ES.3.6 Natural Resources/Fish And Wildlife Habitat

The project would not greatly reduce the amount of natural habitat in the urbanized study area. The rail corridors are generally rock-gravel berm structures that do not provide wildlife habitat. Station sites are, without exception, all previously disturbed or developed lands, and while some stations border on wetlands, they do not represent high quality habitat because of disturbance.

Since the release of the Draft EIS, ConnDOT has made substantial changes to the New Park Avenue (Kane Street) Station H2. An area originally proposed for parking has now been left available for ecological restoration or other greenspace usage. This change will benefit the water resources, wildlife, and wildlife habitat around Kane Brook. Aquatic habitats would not be negatively affected by the project since no culverts/bridges are planned to be extended. The project is not expected to impede wildlife movements.

ES.3.7 Hazardous/Contaminated Risk Sites

Potential construction impacts include the disturbance of hazardous or contaminated materials. Through both record searches and visual inspection, potential environmental risk sites were documented within approximately 250 feet of the rail corridors for the Draft EIS analysis. The rail corridors themselves have a high risk for encountering significant contamination. However, the primary suspect land uses are at or near possible station locations, where property would need to be acquired. The potential risks of encountering hazardous or contaminated materials are summarized in Section 3.7 of the Final EIS.

In the four communities, there are numerous record listings of suspect sites within 250 feet of the corridors. All station areas are expected to have a medium or high risk for hazardous/contaminated materials. All sites will have full investigation of hazardous/contaminated materials during the design process, with greater testing and scrutiny given to the highest risk sites.

ES.3.8 Visual and Aesthetic Impact

One of the guiding principles that has steered the architectural efforts so far is the need to provide "Context Sensitive Solutions" (formerly "Context Sensitive Design") of the busway stations and facilities, to ensure that they are in harmony with the surrounding area. The busway corridor itself is a disturbed area, comprising an inactive rail line from downtown New Britain to Newington Junction, and an active Amtrak rail line between Newington Junction and Union

Station in Hartford. Much of the busway corridor abuts commercial or industrial properties, with scattered pockets of residential development.

While the context of the corridor would change from railroad tracks to pavement with buses, the overall visual change is expected to be neutral or even slightly positive in many areas, given the visual improvements (landscaping, barriers, etc.) that the busway would bring. Reconstruction of bridges will change resources that some people may view negatively, other people may view them neutrally or positively. Conversion of some Amtrak right of way to busway use is expected to have a generally neutral or beneficial impact on the visual landscape, particularly in the area of Hartford dominated by the Interstate 84 viaduct and large parking areas.

In residential pockets, the busway may be perceived by some as an intrusion to neighbors (particularly in the Cottage Place area of New Britain and the Chapman Street area of Newington) though it could also provide some benefits to residential and commercial neighbors by cleaning up poorly maintained areas.

Another location that will likely be negatively affected by the busway is Fairview Cemetery, which currently has the abandoned rail line serving as a green space in the middle of the cemetery. Lowering the grade and visual screening in the cemetery is proposed to address these concerns. New overpasses at East Street and Flatbush Avenue will introduce new elements to the visual environment that may be negatively received by neighbors. Visual enhancements will be considered to address these impacts.

Proposed stations would create the most noticeable change to the visual environment, by changing the land uses that exist on the station sites today. Depending upon what land use is being replaced, the visual impacts of stations on the landscape could be perceived as beneficial, neutral, or negative. Stations themselves are expected to be aesthetically pleasing, with architect-designed buildings and shelters, landscaping, and attractive signage. All stakeholders have had an active role in defining the locations, amenities, and style associated with each station, and this will continue into the design phase. Several stations have changed substantially since the release of the Draft EIS, and therefore, the renderings from the Draft EIS may no longer be representative of the concepts proposed.

The multi-use trail would add a new landscaped amenity to the neighborhoods within which it would pass, at least in the areas where the trail would be routed alongside the busway. From the standpoint of the limited residences that abut the busway and Fairview Cemetery, it could be viewed either as a community resource, or as an intrusion, bringing trail users close to their properties.

The reader should refer to Section 3.8 of the Final EIS for more evaluation of visual effects from the roadway, stations, and multi-use pathway.

ES.3.9 Bicycle and Pedestrian Travel

The multi-use trail will greatly improve pedestrian and bicycle access through the area.

One of the goals of the project is to increase the viability of alternative modes of travel, including bicycles and pedestrians. All stations will be designed to maximize accessibility and safety for pedestrian and bicyclist transit users by providing bicycle racks; bicycle lockers will be considered at busway stations during the design phase of the project. All busway areas will be fully ADA-accessible.

Grade separations at some busway stations will enhance some local pedestrian across busy roadways above grade, increasing safety. Crosswalks will also be improved in the immediate vicinity of some stations.

A minor negative impact of the project on bicycles and pedestrians is that the project would create a new low-volume roadway that crosses some local streets at-grade. At-grade crossings of the busway would be controlled with traffic control signals, just like on other streets, except that these would only be activated for cross traffic to stop (vehicles, pedestrians and bicycles) when a bus is coming along the busway. Existing at-grade crossings of Amtrak would continue to have warning equipment such as crossbucks, safety gates, lights and bells.

ES.3.10 Right-of-Way Acquisition and Relocations

A Conceptual Stage Relocation Survey has been performed to evaluate the availability of replacement properties for those properties requiring relocation. The survey is found in Appendix A of the Final EIS. Relocation services would be offered in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970 and Chapter 135 of the State of Connecticut General Statutes. Mitigation of right of way and relocation impacts is discussed in Section 4.13 of the Final EIS.

The New Britain – Hartford Busway project will have limited right of way acquisition impacts to private property. ConnDOT owns the abandoned rail right of way between Newington Junction and Downtown New Britain. Most of the property that will need to be acquired from an outside source would be purchased from Amtrak. (The project will not require acquisition of property from any other railroads). The only locations where ConnDOT would have to acquire property (land or buildings or both) would be in the vicinity of busway stations.

All affected properties are either commercial or industrial in nature; no residential property (either land or buildings) will need to be acquired for the project. An estimated 11 properties with 12 active businesses would potentially be affected by the project. An estimated total of 7.7 hectares (19.0 acres) of right of way will be needed for stations, and 12.5 hectares (30.8 acres) will be needed from Amtrak. The Multi-Use trail is expected to be able to fit within ConnDOT right of way or the Amtrak property, and therefore, does not require additional right of way of its own. It should be noted that changes in the design phase could alter all these estimates.

An estimate of $12.0 million has been determined for all of the required right-of-way. It is not known at this time if Amtrak property will be purchased directly from Amtrak, or if other forms

of ownership, such as easements, would be employed. Further negotiations will take place during the design/build phase of the project.

ES.3.11 Traffic Impacts

Traffic impacts were discussed in greater detail in Chapter 3 of the Draft EIS.

In response to several comments that were received on the project, additional traffic analysis was performed at three intersections along Fenn Road in Newington to determine if the busway would have an negative effect on traffic operations in the area. The Level of Service (LOS) at each of the Fenn Road intersections will not be appreciably affected by the busway compared to a No-Build scenario; a limited volume of new traffic is anticipated to be generated by the project that would use these intersections. Any traffic increase would be offset by the reduction of traffic by people using the busway services. A queue analysis was also completed, with the finding that there are queues of traffic that can develop that would back up to and possibly beyond adjacent intersections. As with the LOS analysis, the queues are not substantially different between the Build and No-Build scenarios.

The busway will create a new at-grade crossing next to the existing Amtrak crossing on Hamilton Street. Concerns have been expressed about queue buildup on Hamilton Street affecting the busway crossing or the busway crossing affecting the other intersections. The new crossing is anticipated to operate at a LOS A because of the low volume of buses and the use of intelligent transportation system (ITS) technology for bus detection. It is not anticipated that the interaction of the new busway at-grade crossing of Hamilton Street will not create additional queues because of the minimal delay anticipated at the crossing (approximately 7 seconds of average delay per vehicle).

ES.4.0 MITIGATION/PROJECT COMMITMENTS

Chapter 4.0 of the Final EIS outlines the mitigation measures and project commitments that are proposed for the project. Mitigation and commitments are summarized here.

ES.4.1 Mitigation of Impacts From Noise

Noise impacts of the project were evaluated during the Draft EIS process and the analysis was refined as described in Section 3.1 of this Final EIS document. Impacts were determined based upon Federal Transit Administration (FTA) guidance and procedures.

Based upon the analyses that were performed, mitigation is considered prudent at several residential areas along the project corridor. Table ES.4-1 lists the areas where mitigation would be considered and the number of impacted receptors (dwelling units) that would benefit from such mitigation:

Table ES.4-1
Locations of Noise Mitigation

Location	City/Town	Number of Dwelling Units Abated by Mitigation
Cottage Place Neighborhood	New Britain	15
Cornerstone Condominiums	New Britain	20
Chapman Street Neighborhood	Newington	7
Francis Street Neighborhood	Hartford	24

Mitigation for these areas is being considered to abate the noise generated from the project (New Britain locations) and also to abate both Amtrak noise and project noise (Newington and Hartford locations). Abatement may be provided by noise walls that are constructed at a height and length adequate to provide mitigation.

ES.4.2 Mitigation of Impacts on Air Quality

All estimated CO concentrations are less than the National Ambient Air Quality Standards (NAAQS) for all project alternatives. No negative air quality impacts are expected due to implementation of the proposed New Britain – Hartford Busway. Therefore, the project conforms to the State Implementation Plan (SIP). Regional air quality is expected to benefit from reductions in VMT associated with construction of a mass transit facility. Therefore, no formal mitigation measures are required for potential air quality impacts of project operation.

About 30 new buses will be needed for opening day. New technology buses will reduce or eliminate on-road emissions from busway vehicles. Possible new technology buses under consideration include "clean" diesel, electric buses, and hybrid electric-diesel buses or other new fuels that may develop.

No final decisions have been made about the specific fuel technology that will be used, as technology is changing rapidly. However, alternative fuel types will be examined. Buses will be purchased that use proven technology, are not cost prohibitive and are practical. ConnDOT has recently purchased two hybrid electric buses as a demonstration project for testing in anticipation of the bus purchase for the busway services. ConnDOT is also testing low-sulfur diesel fuel and bio-diesel fuel for testing emissions reductions.

ES.4.3 Mitigation of Impacts on Socioeconomics And Land Use

Because the project corridor follows active and inactive rail corridors that have been in use for over a century, the project would not have the widespread negative socioeconomic effects or negative land use changes expected with a new facility on a new corridor alignment. No residential properties are expected to be acquired for the project. Negative land use changes would be limited where right of way would be acquired. Beneficial land use effects could occur in the vicinity of the stations, where TOD opportunities are present.

For those properties that need to be acquired, relocation services would be offered to all displaced persons (owners and tenants) and businesses without regard to race, color or national origin in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970 and Chapter 135 of the State of Connecticut General Statutes. In cases where a partial property acquisition is required, or where a property is bisected, leaving an owner with an unusable portion of property, the state will monetarily compensate property owners for any land required or left uneconomically usable.

Amtrak right of way will be a substantial portion of the property needed for acquisition on this project. ConnDOT has been coordinating with Amtrak's Real Estate Development Department and this coordination will continue.

ES.4.4 Mitigation of Impacts on Demographics And Environmental Justice Populations

An evaluation was performed of the effect of the project on different demographic groups, particularly minority and low income, to ensure that the project will support Executive Order 12898 (President Clinton's order on Environmental Justice) and Title VI of the Civil Rights Act of 1964. The project is not anticipated to create disproportionately high and negative impacts on minority or low-income populations. Instead, the project is anticipated to create net benefits for environmental justice populations. Demand for public transit services is higher in minority and low-income areas and the project will increase mobility for transit-dependent populations, who often cannot afford a car, and often are members of low income or minority groups. Shorter trip durations, increased hours of service, improved comfort and convenience will benefit these populations.

Another benefit of the project is that busway stations and other improvements will be tangible investments in low-income or minority neighborhoods. These investments can in turn encourage TOD investments to help rebuild these communities.

By working at the neighborhood level, ConnDOT has endeavored to reach out to all stakeholder groups, especially low income and minority populations, during the EIS process.

ES.4.5 Mitigation of Impacts on Wetlands

Mitigation of impacts on wetlands will be in compliance with any applicable state and federal statutes and orders. Permits for wetland impacts and mitigation will be required from the US Army Corps of Engineers (ACOE) and the Connecticut DEP Inland Water Resources Division. The exact area of impacts upon wetlands will be definitively determined during the design phase of the project. Construction impacts and long-term impacts related to increased runoff, erosion, and sedimentation would be mitigated through the drainage design and the project's stormwater pollution prevention plan, which will incorporate Best Management Practices (BMPs) both during and post-construction.

ES.4.6 Mitigation of Impacts on Surface Waters

Impacts on surface waters are possible at locations where culverts are to be extended or bridge piers/abutments over streams require reinforcement for scour protection. These impacts will be determined during the design phase. It is not anticipated that any bridge piers will physically need to be moved. Coordination with DEP and ACOE will take place during design to determine exact impacts, necessary mitigation, and permit needs. ConnDOT will also consider some measures for improving surface water quality outlined by the Natural Resources Conservation Service (NRCS).

ES.4.7 Mitigation of Impacts on Floodplains

Mitigation of impacts on floodplains will be in compliance with any applicable state and federal statutes and orders. ConnDOT will apply for and receive certification for floodplain impacts as required by the Connecticut DEP Inland Water Resources Division. Flood-proofing measures for existing structures may also be pursued if appropriate. The project will not create floodplain impacts on Amtrak, as no portion of Amtrak within the study area is within the 100-year floodplain.

ES.4.8 Mitigation of Impacts on Groundwater

The project will have no effect on public or private potable groundwater supplies. The entire study area is underlain by stratified drift aquifer, which assists in maintaining surface stream flows during dry periods. The reduction in pervious surface from construction of the busway and facilities would result in a minor decrease in recharge (through infiltration) of the aquifer. Mitigation of this decreased infiltration to groundwater may be possible by maximizing retention and infiltration in the project's drainage design.

ES.4.9 Mitigation of Impacts on Fish And Wildlife

No substantial impacts are likely to occur to natural resources, fish and wildlife as a result of the disturbed nature of the project corridor. It is anticipated that retaining walls will prevent the need to extend culverts. Therefore, no formal mitigation measures are proposed. However, DEP has noted in comments that possible fisheries habitat enhancements can be made to locations where culverts are replaced, repaired, or modified. ConnDOT will consult with DEP's Inland Fisheries Division in this regard.

ES.4.10 Mitigation of Impacts on Hazardous/Contaminated Risk Sites

Preliminary assessment of the corridor indicates that the potential exists for encountering hazardous waste or contaminated materials during construction. For the EIS phase, this assessment was localized at station areas, since the rest of the corridor was limited to the railroad rights of way. Further investigation will be undertaken during the design phase both at station areas and along the railroad corridor itself to determine actual levels of any potential contamination. A plan will be produced for addressing Hazardous/Contaminated Materials issues

during the design phase. ConnDOT will comply with all applicable state and federal regulations regarding hazardous waste or contamination issues.

ES.4.11 Mitigation of Impacts on Visual And Aesthetic Resources

In general, landscaping and station amenities, which take into account public input that was received during the study, will be included in the design to make the busway and its facilities attractive additions to communities throughout the study corridor. Stakeholders, including citizens, businesses, municipalities, and others will be provided the opportunity to offer further input during the design phase to ensure that the project offers a context-sensitive solution. ConnDOT will work actively with citizens, neighborhood groups, businesses and municipalities during the design phase to mitigate the negative effects of the project. A landscaping plan will be formulated for the project during the design phase.

The most sensitive areas warranting substantial visual mitigation would be found where residential areas or cemeteries abut the busway. In addition, it would be desirable to have the busway blend into existing commercial areas. Minimization of negative visual effects of the project in sensitive areas will continue to build off of such measures suggested so far. In some residential areas, noise barriers will be provided, and ConnDOT will work with neighbors to install noise barriers that have visual treatments, such as textured surfaces, landscaping, etc. to soften their appearance. ConnDOT will pay particular attention to bridge design and work with local communities to obtain their input.

ES.4.12 Mitigation of Impacts on Bicycle And Pedestrian Travel

Based upon widespread public support for the concept, a Multi-Use pathway will now be constructed as part of this project.

All stations will offer amenities and layouts that encourage alternative modes. Bicycle racks would be provided at all stations. Members of the project communities have suggested consideration of providing of bicycle lockers at stations and bicycle racks on buses. ConnDOT commits to work with stakeholders during the design phase to determine if lockers are reasonable and practical. ConnDOT is presently preparing to test bike racks on their new buses in the Stamford Division, and will consider future implementation of bus racks if the trial usage in Stamford is successful.

Pedestrian improvements are proposed that ease access of pedestrians in the immediate vicinity of stations. All new at-grade crossings that are created by the project will have appropriate traffic control provided to ensure safe crossings by all modes, including pedestrians and bicycles.

ES.4.13 Mitigation of Impacts From Right-of-Way Acquisition And Relocations

Amtrak will be the primary landowner affected by the project. For other affected properties, relocation services would be offered to all displaced persons (owners and tenants) and businesses without regard to race, color or national origin in accordance with the Federal Uniform

Relocation Assistance and Real Properties Acquisition Policies Act of 1970 and Chapter 135 of the State of Connecticut General Statutes. In cases where a partial property acquisition is required, or where a property is bisected, leaving an owner with an unusable portion of property, the state will monetarily compensate land owners for any land required or left uneconomically usable.

ES.4.14 Mitigation of Impacts on Amtrak

ConnDOT and Amtrak have actively coordinated on issues concerning the railroad throughout the EIS process, and ConnDOT will continue actively coordinating with Amtrak throughout the design process. Detailed description of Amtrak has raised many separate concerns about the project that need to be addressed to ensure that Amtrak service is not disrupted. Where active rail is adjacent to the busway, rail gates will be provided for rail operations with absolute priority over busway and cross street traffic. Rail gates and signals will be implemented and designed in coordination with Amtrak. Appropriate signal preemptions will be used to prevent queuing on the railroad and busway. Special signage will also be employed as needed.

The roadbed for the two main tracks will be kept intact for the entire length of the project, and the design will not preclude double-tracking Amtrak between Newington Junction and Union Station. The busway also will not preclude future provision of electrical catenary or railroad stations along Amtrak's corridor. The project will be designed to ensure it accommodates Amtrak maintenance access to key areas.

ConnDOT will work with Amtrak regarding the timing of construction. Amtrak has noted the potential need to perform some construction at night. ConnDOT and Amtrak will determine if and where this is necessary.

Other concerns related to Amtrak and other railroads are highlighted in Section 4.14 of the Final EIS.

ES.4.15 Mitigation of Impacts From Construction

Construction impacts as a whole are anticipated to be short term and temporary in nature, and often differ greatly from the long-term permanent impacts of the project described previously in this chapter. Mitigation of the following construction impacts are anticipated, and are addressed in Section 4.15 of the Final EIS:

- Construction Impacts from Noise and Vibration
- Construction Impacts on Air Quality
- Construction Erosion/Sedimentation Impacts on Water Quality
- Construction Impacts on Traffic Flow and Property Access
- Construction Impacts on Utilities
- Construction Impacts on Emergency Services
- Construction Impacts from Disposal of Excess Materials
- Construction Impacts on Visual Quality/Aesthetics

- Construction Impacts on Hazardous Materials
- Construction Impacts on Amtrak

ES.4.16 Project Commitments

Throughout the Final EIS, ConnDOT has made extensive commitments related to design and construction of the New Britain – Hartford Busway. In Section 4.16 of the Final EIS is an extensive summary list of the project team's (ConnDOT, its consultants and contractors, and FTA) commitments on this project, along with references to where more elaboration on these commitments can be found

ES.4.17 Permits

At the current concept level of the busway, the following permits (listed in Table ES.4-2) are anticipated to be needed for the project. Alterations to the busway concept during the design phase could require other permits, or perhaps avoid the need for some of the permits listed below.

Table ES.4-2
Permits Anticipated to be Needed Prior to Construction

Permit Type	Statutory Authority	Issuing Agency
Clean Water Act of 1972: Section 404 (Impact on Waters [wetlands] of the U.S.)	33 USC 1251 et. seq.	US Army Corps of Engineers
Clean Water Act of 1972: Section 401 (Water Quality Certification)	33 USC 401	Connecticut DEP
Connecticut Inland Wetland and Watercourses Act	CGS 22a-36 through 22A-45	Connecticut DEP
Flood Management Certification	CGS 25-68(b-h)	Connecticut DEP
Stream Channel Encroachment	CGS 22a-342	Connecticut DEP
Water Diversion	CGS 22a-372(e)	Connecticut DEP
National Pollution Discharge Elimination System (NPDES)	CGS 22a-430b	Connecticut DEP

ES.5.0 FINAL SECTION 4(F)/6(F) & SECTION 106 EVALUATION

Chapter 5 of the Final EIS discusses the impacts of the project on Section 4(f), Section 6(f), and Section 106 resources. The discussion below summarizes that section of the Final EIS.

ES.5.1 Introduction

The Draft and Final EIS documents have assessed impacts that are regulated under:

Section 4(f) of the Department of Transportation Act of 1966 (49 USC 303): Section 4(f) sites include public parks, recreation lands, wildlife and waterfowl refuges, and historic sites.

Section 6(f) of the Land and Water Conservation Act of 1965 (16 USC 4601): Section 6(f) sites include outdoor recreation areas that were acquired or developed with funds from the Land and Water Conservation Fund (LAWCON).

Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800): Section 106 governs cultural resources (archaeological and historic resources) that are or may be eligible for the National Register of Historic Places.

ES.5.2 Section 106 Evaluation

As a part of the Section 106 coordination for this project, the State Historic Preservation Office (SHPO) was provided with detailed information about the proposed project and the historic and archaeological resources found within the Area of Potential Effect (APE). The SHPO determined that the proposed project would have "no effect" on any resources in the corridor governed by Section 106, contingent upon several mitigative actions:

- SHPO will have the opportunity to review and comment upon preliminary design plans with respect to the relocation and rehabilitation of the small Newington Junction Railroad Building.

- ConnDOT will provide photographic and narrative documentation of the Newington Junction Railroad Building, Amtrak bridge over Trout Brook and Amtrak Culvert near the I-84 Sisson Avenue Interchange.

- ConnDOT consider pre-construction archaeological investigations, including remote sensing studies, in Fairview Cemetery, because of the lowering of the grade through the cemetery.

ConnDOT has coordinated with SHPO with regards to changes in station concepts since the release of the Draft EIS. In a letter dated September 27, 2001, SHPO has confirmed that the station refinements would have no effect on the state's cultural heritage. Future coordination with SHPO will be ongoing, and will continue into project design. All coordination letters from SHPO are found in Section 5.2.3.

ES.5.3 Final Section 4(f)/6(f) Evaluation

There are no recreational resources that border or would otherwise be affected by the busway corridor. The only properties that are regulated under Section 4(f) are the resources described in the Section 106 evaluation. Additionally, Bushnell Park is a Section 6(f) property.

SHPO has determined that there would be no effect on historic resources in the study area, contingent upon the conditions described in Section ES.5.2 above. The Department of the Interior has determined that there are no prudent and feasible alternatives to the project and concur with SHPO's determination of No Effect, contingent upon mitigation measures.

From a Section 4(f) or Section 6(f) perspective, the recommended action will have no direct impact on Bushnell Park. In fact, the project may have a beneficial effect by improving access to the park for transit users.

ES.6 PROJECT COORDINATION AND PUBLIC INVOLVEMENT

Public involvement has been an extensive effort on this project. Chapter 6 of the Final EIS describes this effort in detail, and includes all comments that were received during the Draft EIS comment period, as well as the response to the comments. The following discussion summarizes the public involvement effort.

ES.6.1 Public Involvement Process Since Release of Draft EIS

The project had an extensive public involvement component leading up to the Draft EIS release, involving an Advisory Committee, town and city staffs, and neighborhood groups. The public has been receiving information on the project through a web site, newsletters, a toll-free hotline, email mailings, print ads, and news releases. Since the release of the Draft EIS, there has been a 56-day comment period to comment on the Draft EIS, from March 20, 2001 through May 18, 2001. Two public open house meetings were held (April 3, 2001 in Newington and on April 4, 2001 in West Hartford) to provide information on the project. Two public hearings were held on April 24, 2001 in New Britain and again on April 26, 2001 in Hartford, to take public and private testimony from interested parties. The public hearings were preceded by an open-house session, where plan sheets for the project were on display, and a video was provided for the public to watch.

ES.6.2 Advisory Committee

An Advisory Committee (AC) has been actively involved with this project. The purpose of the AC is to provide regular input for the project, serve as liaisons to the larger community and region on the project, and ensure that agency and municipal concerns were addressed. The AC includes 24 groups that represent different stakeholders at the local, regional, state and federal levels. All AC meetings have been open to the public.

ES.6.3 Final EIS Distribution List

The Final EIS includes an extensive distribution list. The Final EIS may be viewed at ConnDOT's headquarters at 2800 Berlin Turnpike, Newington, CT, and at FTA Regional Headquarters in Cambridge, MA. Copies are also available for viewing at the Connecticut State Library, Town/City Clerk Offices, the public libraries in the four affected communities, and the offices of the Capitol Region Council of Governments and the Central Connecticut Regional Planning Agency. All addresses for these viewing locations can be found in the Final EIS under their respective listings.

ES.6.4 Comments Received on Project

A substantial number of comments were received during the Draft EIS comment period from federal agencies, state agencies, regional agencies, cities/town, businesses, and citizen groups. Section 6.4 of the Final EIS breaks down the composition of comments received.

During the Draft EIS comment period, written letters were received from federal agencies, state agencies, regional agencies, cities/towns, businesses, and citizen groups. Sixteen citizens provided comments in written letter form, as a drawing, or on written comment sheets. Twenty-three citizens provided comments electronically in email form. In addition, 14 citizens provided comments electronically using the electronic comment form provided on the project web site.

At public information meetings, questionnaires were provided to gauge citizen usage of busway stations, and to gain input on likes and dislikes. These questionnaires were also available in electronic form from the project web site. ConnDOT received a total of 14 written questionnaires, and 8 electronic questionnaires. The web-based questionnaires were anonymous.

At both public hearings, spoken testimony was taken in front of the audience as well as privately-recorded testimony in a separate room. At the April 24, 2001 public hearing in New Britain, public testimony was received from 10 persons. Privately recorded testimony was received from two persons. At the April 26, 2001 public hearing in Hartford, public testimony was received from nine persons. Privately recorded testimony was received from two persons.

A diversity of comments was received from the public.

- Generally, the project had more support than opposition. All public agencies showed support for the project.

- Those persons opposing the project generally gave two reasons, either a preference for LRT instead of BRT facility, or else they thought the busway was not prudent use of funds.

- Other people that were opposed to the project are a localized group along Cottage Place in New Britain. These people objected to the impact of using the abandoned rail corridor, which has been unused for over 25 years and which runs behind private houses. Concerns that were raised include noise, visual, air, childrens' safety, etc.

Other major points that were raised frequently by the public:

- Neighborhood groups and private citizens have many opinions on how the busway should look regarding architectural treatments, views from local streets, bridge design, landscaping, site design, etc. ConnDOT will continue to enable all stakeholders to provide input into the design phase of the project.

- Widespread support for including a multi-use trail as part of the project resulted in the current plan to include the trail along portions of the corridor, where feasible.

- Many individuals commented on the need for improved buses on the busway that use alternative fuels to improve regional air quality. ConnDOT is planning purchases of alternative fuel vehicles for trial use, and is investigating new technologies.

- A comment raised by many people was the need to accommodate bicyclists and pedestrians, to encourage these persons to use the busway. The needs of these modes will be addressed during the design phase.

- Many agencies and individuals noted the need to encourage Transit Oriented Development (TOD) and implement Station Area Planning in the vicinity of stations, to bolster the ridership for the busway, and to provide economic development near stations.

- A number of various comments were raised about the appearance of buses, station names and marketing the busway.

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Chapter 1
Purpose and Need for Project

The New Britain – Hartford Busway project will address three core needs identified in the Draft EIS:

- Reduction in Peak Hour Congestion on Interstate 84 (I-84) and Parallel Arterials.
- Increased Opportunities for Alternative Modes
- Expanded Interregional Transit Service

Chapter 1 of the Draft Environmental Impact Statement (EIS) devoted a substantial effort to defining the purpose and need for the project, and the reader should refer back to that section for more information. The purpose and need for the project are summarized below.

1.1 OVERVIEW OF PROCESS TO DATE

The Hartford West Major Investment Study (MIS) process began in 1996 and was completed in 1999. The MIS recommended a hybrid package of improvements, including the New Britain – Hartford Busway as its principal action.

The Draft EIS process for the New Britian – Hartford Busway was initiated in late 1999. The purpose of the Draft EIS was to assess the anticipated environmental impacts of the project as required under the National Environmental Policy Act (NEPA) and the Connecticut Environmental Policy Act (CEPA). As the Draft EIS process progressed, public input was solicited at numerous meetings with individual groups and the general public. Based upon public input, a variety of alignment and station options were considered. Three alignment options and 21 station options (at 12 locations) were ultimately included in the Draft EIS.

The Draft EIS was officially released to the public on March 20, 2001. A 56-day comment period was provided (ending May 18, 2001) for the public and agencies to review the Draft EIS document and provide comments that would be officially entered into the public record. See Section 6.1 for more information on the meetings and hearings that were held, and the ways that the public comments were facilitated.

Once the comment period ended, work was initiated on responding to all the comments received (found in Chapter 6) and composing this Final EIS, which identifies ConnDOT's recommended action.

The Final EIS will be distributed to all Federal, State, and local agencies, private organizations, as well as members of the public who provided substantive comments on the Draft EIS or who requested a copy. The distribution will allow a 30-day review period before FTA can issue a Record of Decision (ROD) that justifies the reasons for selecting the recommended action. The ROD will also summarize the mitigation commitments required for the project to avoid significant environmental impact.

After the ROD has been issued, project design, property acquisition and construction efforts can commence. The public will be an active participant in the project design phase.

It is anticipated that the New Britain – Hartford Busway will be open to the public and fully operational in 2004.

1.2 PURPOSE AND NEED

1.2.1 Reduction in Peak Hour Congestion on I-84 and Parallel Arterials.

The Hartford West Major MIS process clearly showed that adding travel lanes to I-84 would not be reasonable because of cost, environmental impact, and public opposition. Therefore, a multi-modal transit solution was proposed to remove single occupancy vehicles from I-84. A range of transit options was evaluated in the MIS. These included different types of transit services, such as Light Rail Transit (LRT), commuter rail, and busways, also called Bus Rapid Transit (BRT). In addition, these transit services were evaluated in several possible corridors, including the median of I-84, along Farmington Avenue between Hartford and Farmington, and in the Amtrak/abandoned rail corridor between Hartford and New Britain.

The New Britain – Hartford Busway was selected as the most cost-effective and service-effective option analyzed in the MIS. Of all the transit options that were evaluated, the New Britain – Hartford Busway had the highest projected new transit ridership levels. In addition, it had the greatest effect on reducing Vehicle Miles Traveled (VMT) of all transit options, a 5.2% reduction in VMT in the year 2020 PM Peak hour.

The New Britain – Hartford Busway will encourage motorists to switch to a transit mode, and therefore address roadway congestion on I-84 and parallel arterials. In addition, the project offers the opportunity to encourage Transit Oriented Development (TOD) near the busway. By providing an impetus for development in close-in urban areas that are well-served by transit, the project could further reduce the overall vehicle miles traveled in the region, and reduce the travel demand on I-84.

1.2.2 Increased Opportunities for Alternative Modes

Transit ridership increases that are anticipated will counteract recent decreases. Ridership is expected to increase (as shown in Table 1.2-1) because the new busway system addresses many of the deficiencies of the existing transit system. The busway will provide improved transit amenities, with attractive, secure, convenient stations that are a notable improvement from existing on-street bus stops.

Services will be attractive both to existing transit users, and new users that have a discretionary choice whether to use transit or drive a car. New bus routes and services are proposed to capitalize on the busway's exclusive, congestion-free right-of-way. In addition, improved existing services will increase transit's attractiveness. The hours of service, frequency of service, dependability of service, and trip duration will all be greatly improved. Table 1.2-1 lists the anticipated ridership changes within the busway corridor (described in greater detail in the Draft EIS). As the table shows, ridership would double between 1997 and 2020 (from 16,800 riders per day to 33,500 riders per day) with construction of the busway. In contrast, the No-Build scenario shows a decline in passengers.

Table 1.2-1
Forecast Daily Bus Boardings Under Recommended Action

		2004		2020	
Type of Routes	**1997 Actual**	**No-Build**	**Build**	**No-Build**	**Build**
Existing Routes Diverting to Busway/ New Busway Routes	1,600	1,600	19,000	1,600	22,300
Local Hartford Feeder Routes	14,600	14,500	7,500	11,400	8,800
Local New Britain Feeder Routes	600	600	700	700	900
New Feeder Routes	0	0	1,300	0	1,500
Total	**16,800**	**16,700**	**28,500**	**13,700**	**33,500**

The project will serve a more dispersed area efficiently, and provide improved "reach" for transit dependent persons to access jobs, education, healthcare, etc. Another way that the project will increase opportunities for alternative modes is the provision of a new multi-modal center in downtown New Britain and improved access to the existing multi-modal center in Hartford's Union Station. Transit users will have greatly improved intermodal access to Amtrak services in Union Station.

Other alternative modes that will be improved by the project are bicycle and pedestrian modes. A wide range of bicycle and pedestrian amenities and improvements will be provided at and near all busway stations to ensure that pedestrians and bicyclists can take full advantage of the busway. In addition, a multi-use path will be included with the project between the downtown New Britain Station and Newington Junction Station, where space is available for such a path. Consideration has also been given to off-corridor extensions of the multi-use path north of

Newington Junction that could be pursued by local communities. ConnDOT will encourage such efforts.

1.2.3 Expanded Interregional Transit Service

The busway will increase transit's regional reach by providing an exclusive, direct, express facility. An improved regional transit system of express bus routes will offer a competitive option versus driving between regional locations. Regional services will bypass congestion and improve their dependability, flexibility and attractiveness to commuters.

Enhanced regional express bus routes are proposed to serve Bristol, Cheshire, Southington and Meriden with express service to and from downtown Hartford. In addition, a new regional service is proposed from Waterbury to Hartford. All regional express buses will use expressways that do not experience congestion, and enter the busway in downtown New Britain off of Route 72, before using the busway to bypass I-84 congestion and reach downtown Hartford. As regional express passengers can transfer to local busway services in New Britain, the project will greatly increase the number of destinations that those passengers can reach easily.

1.2.4 Other Benefits of the Project

The project will offer many additional ancillary benefits beyond the purpose and need for the project. Some of the benefits include:

- Reducing traffic diversion through local neighborhoods
- Improving corridor aesthetics
- Improving corridor security and maintenance
- Enhancing neighborhood continuity, connectivity and identity with busway stations
- Easing demand for parking in downtown Hartford
- Reducing regional air pollutant emissions from mobile sources
- Encouraging sustainable development and redevelopment of urban and suburban core neighborhoods through TOD
- Improved emergency access for fire and police to the corridor and to Amtrak

Chapter 2
Recommended Action

During the DEIS process, several different alignment alternatives were developed for the southern most piece of the alignment. In addition, at many of the station locations throughout the entire proposed busway, several station options were developed. As a result of this effort and the subsequent agency and public review process, the following is the recommended action.

2.1 NEW BRITAIN – HARTFORD BUSWAY RECOMMENDED ACTION: GENERAL DESCRIPTION

The facility will be a dedicated Bus Rapid Transit facility (busway) in a 15.1-kilometer (9.4-mile) corridor between downtown New Britain and downtown Hartford, along with any associated improvements to the transit and transportation system that are necessary to make the busway possible. The recommended corridor follows an abandoned rail line from New Britain to Newington Junction. North of Newington Junction, the corridor runs within active Amtrak rights-of-way. A total of up to 12 transit stations (including Union Station in downtown Hartford) would serve the users of this busway. Buses using this corridor would have more competitive travel times when compared with automobiles, since they would bypass congestion on arterial streets and I-84. The facility would permit bus access at intermediate points, so circulator bus routes could readily serve surrounding neighborhoods and then traverse the busway, thus providing a one-seat trip. In addition, the busway will include express, shuttle, circulator and separate feeder bus service. A multi-use trail will be constructed adjacent to the busway from downtown New Britain to the Newington Junction Station and between Park Street and Sigourney Street in Hartford.

Starting from the south and heading north, the recommended busway alignment would begin with a bus-only off-ramp from eastbound Route 72 that would allow buses to directly access a station in downtown New Britain on Columbus Avenue (the former "Greenfields" supermarket). From there, the busway would continue east and north following an abandoned rail line, crossing over Route 9, and crossing Stanley Street at grade. The busway would offer a station near East Main Street, with an at-grade crossing of East Main Street. From there, the busway would continue north, cross Smalley Street at-grade, pass through Fairview Cemetery in a slightly depressed section, and cross under Route 9.

Continuing past Saint Mary's Cemetery, the busway would overpass both East Street and Allen Street, and provide a station just north of Allen Street. The route would continue north, crossing under Route 9 again. From north of Route 9, the route would cross under Route 175 (Cedar Street) to the Cedar Street Station east of Fenn Road. From there, it would continue to Newington Junction, which is the end of the abandoned rail right-of-way section.

From Newington Junction to the north, the busway would follow the active Amtrak right-of-way. It would pass under the Willard Avenue bridge, with a station in that area (Newington Junction station). The alignment would continue north into the Elmwood section of West Hartford, and overpass both New Britain Avenue and Trout Brook with a station provided north of New Britain Avenue. Continuing northward, the alignment would cross Oakwood Avenue at-grade. A station would be provided in the vicinity of Flatbush Avenue, with the busway overpassing Flatbush Avenue.

The alignment would then cross under I-84, with the proposed New Park Avenue station next to the Stop and Shop supermarket immediately north of I-84 (across from Kane Street). The alignment then would cross Hamilton Street at-grade, and cross over Park Street, with a station at Park Street.

The busway would follow the west side of Amtrak's alignment, passing under the Sisson Avenue interchange, crossing over Capitol Avenue, and under Laurel and Sigourney Streets. In this area, the project would shift Amtrak's existing single track to the east to accommodate the busway. (This track relocation would not preclude Amtrak from adding a second track in the future). The Sigourney Street station would be located between Laurel and Sigourney Streets. The alignment would then cross Flower Street at-grade, pass under Broad Street, and provide a station behind the Legislative Office Building (LOB) parking garage. The alignment would share Amtrak's raised retaining wall above the side of Bushnell Park, pass over Asylum Street, and then come into Union Station on the upper level. From there, the route would ramp down to the intersection of Myrtle, Church and Spruce Streets such that the buses could circulate in downtown Hartford. The design of the alignment in this area would also permit any future busway extensions to radiate out from Union Station.

In early stages of the Draft EIS public involvement process, the public and City of New Britain officials requested that alternative alignments be evaluated through the east side of New Britain to avoid impacts to this residential neighborhood and Fairview Cemetery. As a result, the Draft EIS evaluated three alignment options, which varied on the southern end of the corridor:

- Alignment Option 1 (the Recommended Action), as described above.

- Alignment Option 2, "Route 9 Bypass." This alignment would not have permitted express buses to stop at a station in Downtown New Britain, but would rather continue their routes along Route 9 for several miles in mixed traffic, bypassing New Britain altogether. Exclusive bus-only off- and on-ramps would have been constructed south of Fenn Road in Newington to re-connect to the rail corridors. The exclusive busway would then begin at the Cedar Street station, and contain only nine stations.

- Alignment Option 3, "Exclusive Busway in Route 9 Median." This alignment would have contained the downtown New Britain Station, but rather than continuing through New Britain's East Side, the busway would have run as an exclusive facility in the Route 9 median for about 1.8 kilometers (1.1 miles). It would have bypassed the east side of New Britain and Fairview Cemetery, before re-connecting to the rail corridor north of East Street. This alignment would have contained 11 stations because there would be no station at East Main Street in New Britain.

Rationale for Selecting the Recommended Action's Alignment: After reviewing the impacts associated with the three alignment options and considering public comment, Alignment Option 1 was selected as the Recommended Action over Alignment Options 2 and 3. Alignment Option 1 was selected for a variety of reasons. First and foremost, it provides a downtown New Britain station, which was desired by numerous interested parties.

As noted before, the City of New Britain originally made the request that several alignment options be investigated as ways to minimize impacts on the east side of New Britain. The City was an active participant in evaluating the pros and cons of all three alignment options. The City of New Britain has offered its support for Option 1, contingent on a number of additional conditions.

Compared to Option 2, Option 1 provides a higher level of service to New Britain, which would have been greatly diminished in Option 2's bypass of New Britain, and its three fewer stations. Option 1 avoids the need for local buses destined for the busway to navigate through local New Britain streets as would be the case in Option 2. As Option 1 would construct a multi-modal center in downtown New Britain, it would improve the situation on Bank Street, where interstate coach buses have to pick up passengers on the street, creating congestion and disorderly conditions. Option 1 also offers redevelopment potential to enhance downtown New Britain. Finally, Option 1 would provide a dedicated bus right-of-way within New Britain, whereas Option 2 would require buses to be routed in mixed traffic on Route 9.

Option 1 was also selected over Option 3 for a number of reasons. Option 3 offered a dedicated busway and a multi-modal downtown New Britain Station like Option 1. However, Option 1 would offer an additional station on the east side of New Britain not included with Option 3, and would offer potential redevelopment opportunities at a vacant industrial site next to that station. Option 1 would also be much more cost effective than Option 3, which would require significant reconstruction of Route 9 median, which contains bedrock.

2.2 GUIDING PRINCIPLES OF THE NEW BRITAIN –HARTFORD BUSWAY

A substantial amount of public input has been received on this project. Certain issues have been raised by the public frequently, and these issues are addressed in "Guiding Principles" listed below.

2.2.1 Station Accessibility Under Americans with Disabilities Act

One frequent public comment is the need for the busway facility to accommodate persons with disabilities as required by the Americans with Disabilities Act (ADA) of 1992. All stations will meet the needs of mobility-impaired individuals. The design process will give this issue further consideration, and the public will have the opportunity to provide further input on this subject.

Several stations on the New Britain – Hartford Busway will have facilities that are above grade, below grade, or at multiple levels. At all such stations, ramps and/or elevators will be provided to accommodate mobility-impaired individuals. Ramps will be designed with grades, curves, and widths that can be navigated by a wheelchair. Doorways will be wide enough to provide wheelchair access. Elevators will ensure that all areas within busway stations are accessible to disabled individuals. Amenities within station areas such as telephones, water fountains, etc. will be provided that can accommodate disabled persons. Where parking is provided, accessible spaces will be included for disabled persons with permits. Accessible spaces will be sited as close as reasonably possible to platform areas.

Buses will be used that can accommodate persons with disabilities. Raised platforms and buses that "kneel" or can accept wheelchairs will improve accessibility in the spirit of ADA.

Other specific accommodations will be incorporated as needed to ensure ADA-mandated accessibility during the design phase of this project.

2.2.2 Facility Security and "Defensible Space"

Another frequent comment that has been raised has been the issue of protecting the busway and its facilities from vandalism, and ensuring a secure environment for passengers. One factor that will determine the success of the busway and its ability to attract riders will be the willingness of passengers to use the facility. Passengers, particularly those with automobiles (who have a discretionary choice of transportation mode) will only use the busway if they feel secure within the system's facilities.

During the design phase, project designers will solicit further input on this issue. "Defensible Space" concepts, also known as Crime Prevention Through Environmental Design (CPTED) will be pursued in project design to help passengers feel secure when they approach stations, leave stations, and wait within stations. In particular, the following CPTED design issues/features, to the extent possible and practicable, will be included in each station or stop:

- Appropriate lighting (see section 2.2.5)
- Intelligent Transportation Systems linkage to facility security (see section 2.3.11)
- Design and use of materials that are easily maintained and vandal-resistant (see section 2.2.8)
- Sufficient trash receptacles to keep sites clean
- Facility design that provides the community with a sense of "ownership" (see section 2.2.3)
- Design that provides sightlines to and within as much of the facility as possible

- Windows or mirrors to both the station and the roadway or adjacent parking areas to improve visibility to areas that can not otherwise be open
- Design that provides visual clues to locations of entrances and exits of the facility as well as restricted and maintenance areas
- Structures, amenities and landscaping located in a manner that minimizes the ability of people to hide from view
- Clear signage and maps that help direct passengers (see section 2.2.6)
- Site amenities (such as seats, platforms, etc.) to encourage short term passenger use but discourage loitering
- Continuity of the pedestrian environment from the station to the street and parking areas and well-defined pedestrian paths in parking lots
- Bicycle racks in high-traffic, high visibility areas of the station

For facility security and prevention of vandalism, the following additional features will also be used as possible in each station or stop:

- Design that offers multiple entrances and exits to stations, parking lots, and other public areas
- Facility surveillance systems

It has not been decided at this time if the facilities will be publicly or privately operated. ConnDOT and the operator will work with communities to encourage joint uses of busway stations to increase pedestrian traffic and visibility for customers and employees.

Security patrols could also prevent unauthorized entry of non-busway pedestrian traffic. The details of providing security will need to be worked out with state and local law enforcement agencies.

2.2.3 Station Architecture and Context Sensitive Solutions

One of the guiding principles that has steered the architectural efforts so far is the need to provide "Context Sensitive Solutions" (formerly "Context Sensitive Design") of the busway stations and facilities. In other words, the busway should be appropriately designed to blend into the context of the surrounding community, rather than "stick out" from the existing landscape. ConnDOT and FHWA signed an agreement on June 15, 1999 to conduct a pilot training program for Context Sensitive Design. As one of five national pilot states (along with Maryland, Kentucky, Utah, and Minnesota), ConnDOT's goals for this training are to encourage innovation in highway design, construction and maintenance, and foster the use of timely, meaningful public involvement with careful consideration to the human and natural environment.

From the beginning of this project, ConnDOT has been committed to ensuring that the busway would contain attractive facilities that would harmonize with the surrounding neighborhoods. Stations need to be attractive if ridership goals are to be met. The public has offered a great deal of input (during public meetings and on the project web site) into how stations should look and how they should fit into their community.

The Draft EIS process offered the public a wide variety of opportunities to comment on the appearance of stations. An architectural team was involved in the Draft EIS process to offer a comprehensive public involvement process that included public review of architectural concepts. Through public meetings, the project web site, and the Draft EIS document, the public was shown architectural concepts, including several "themes" for station architecture. The "traditional" theme received the greatest public support.

Once station locations and layout options became more definite, the architect created conceptual renderings that showed how the station might look. These conceptual renderings were only a starting point, and may or may not reflect the ultimate appearance of the facilities. As the design process takes place on this project, ConnDOT will provide the communities, agencies, and the general public with opportunities to provide input into the appearance and amenities at stations and along the roadway itself. Based upon the input received to date, project designers will be able to take the community's concerns into account.

The public will be empowered during the design phase to provide additional input into station architecture and design. The public involvement effort during the initial portions of the design phase (through 30% design) is currently scoped include the following elements:

- Public Information Meetings to inform the public of the design progress and learn about the impact it has on adjacent property along the busway route. Three meetings are anticipated at this time. The first meeting will seek input on the busway from the public, the second will provide information on the progress of the project, and the third will present the preliminary design. Court reporters will make accurate records of meetings.

- Newspaper advertisements will publicize meetings.

- Written notice will be used to publicize meetings for people on mailing lists.

- A project website will continue the public outreach efforts from the EIS phase. It will include general project information (description, limits, schedule, costs, work status) as well as a discussion forum.

- A Technical Advisory Committee will meet (estimated three times.)

The public involvement effort will continue through the full design-build process, into the construction phase of the project.

Elements of context sensitive solutions that will be incorporated into the design of the stations to the extent possible and practicable are:

- Scale – the scale of the stations will be similar or smaller than the adjacent buildings and structures in the surrounding areas.

- Siting – the stations will be sited as much as possible in the same relationship to the street as other buildings near it.

- Landscaping – each station will have landscaping that blends with that of the surrounding area and will include the use of street trees.

- Color – The colors used at the stations will blend with the surrounding neighborhoods. This does not imply that the color will be exactly the same; colors may be different but compatible with surrounding areas so as to increase the visibility of the stations.

- Material – the material of the stations will be compatible with the material of the structures in the surrounding neighborhoods.

Although ConnDOT and its design consultants intend to develop the busway amenities to be sensitive to the neighborhood and regional context, a more comprehensive analysis in the form of a Context Sensitive Design Report will be prepared to achieve the best results. This report will catalog local amenities, study vernacular trends, and compile images that describe the local neighborhood fabric. This report will serve as a template to guide the aesthetic design of busway amenities, including stations, bridge structures, screen walls, landscaping, and visible utilities.

While it is desirable to provide continuity among busway facilities to help establish an identity to the system, the design of stations will also strive for context-sensitive solutions that relates to the specific neighborhood. Local input will be crucial to ensure that these two goals are met.

2.2.4 Busway and Station Landscaping

Provision of landscaping is an important element in achieving the goals of attracting customers, providing a secure environment, and achieving context-sensitive design. Landscaping is proposed throughout the corridor, to help beautify the busway, mitigate visual impact on local neighborhoods, improve the appearance of the busway through Fairview Cemetery, etc.

During the design phase of the project, a landscaping plan will be formulated at all busway facilities. As the design process takes place on this project, ConnDOT will make a commitment to provide the communities, agencies, and the general public with opportunities to provide input into the landscaping plan. The plan will take into account where vegetation is to be removed, where visual impacts will be created, and where existing areas would benefit from added landscaping.

For the landscaping around stations and stops, the focus will be on the use of shade trees with high branching habits and low shrubs. These types of plant materials will not create screens or barriers high enough to provide hiding places. There will also be an emphasis on plant material that has at least three seasons of interest, has low maintenance requirements, is able to flourish in harsh conditions, and does not create a mess with seeds or fruits.

The portion of the corridor south of Newington Junction would be constructed along an abandoned rail line, which contains vegetation that has naturally colonized the area ("volunteer" species). An effort will be made to preserve the mature trees in this area, except those that are considered invasive and undesirable. Existing vegetation will be augmented with new plantings of trees and shrubs capable of thriving in the challenging conditions of these areas.

Landscaping considerations are not only limited to the plantings at busway facilities, but also include such items as use of pavement textures, wall treatments, fences, and placement of signs and site fixtures. Paving materials will be selected for not only their attractiveness, but also for their durability, traction, ease of maintenance, resistance to vandalism, and initial cost of installation. More details on these other elements can be found in section 2.2.5, section 2.2.6, and section 2.2.7.

2.2.5 Facility Lighting

An important consideration for the busway is how lighting will be provided. It is proposed that facility lighting will be limited to station areas, including platform areas, walkways, parking areas and community connection points, where pedestrian security is of paramount importance. The busway roadway will not be lit beyond station areas.

Design of lighting will consider such issues as energy consumption, minimization of unnecessary glare off-site, security concerns, fixture aesthetics, and fixture maintenance, among others. Lighting will be designed to an appropriate scale depending upon its purpose. In general, multiple light sources will be used to create better overall illumination with fewer shadows. Warm lights will be used to create a more inviting atmosphere. Pedestrian walkways will be lit by fixtures that are placed to serve smaller spaces. They will be located so as to not create glare in pedestrians' eyes as they move through the area. Lighting for parking areas will be placed higher to cover a larger space, but will still rely on multiple fixtures rather than a few large, very high, bright fixtures. Lighting inside stations and waiting areas will be subdued, so that it will be possible to see out to the surrounding areas, yet still have adequate lighting within. Decisions on lighting will be made during the design phase with public input.

2.2.6 Signage

Facility signage will serve several important functions. At the gateway or entrance to a station area, it will provide an identity to the facility, which is especially important for visitors that may not be familiar with the area. In addition, signs within the facility are important to augment the design clues in the architecture itself and to help direct passengers to where they need to go, and discourage trespassing in unauthorized areas. Variable message signs will be used with the ITS system (section 2.3.11) to provide information to passengers on the status of approaching buses. Informational signs will also be needed along the busway itself to provide guidance to bus drivers about approaching geometric limitations, etc.

Placement of signs within the busway facility will be determined during the design phase, with input from the public. In general, however, signs will be placed at and before decision points, to

make the choice of where to go easier. Signs, other than the ITS system, will emphasize graphic, readily understood messages, rather than rely on written messages.

2.2.7 Station Amenities

Many different station amenities will be needed to provide passenger accessibility, comfort, security, and convenience, and these are described in greater detail in Section 2.4 under each station. Some preliminary decisions have been made regarding what will be placed at each station, but the public has provided input during the Draft EIS comment period, and this input will continue during the design phase, where site amenities will be ultimately determined. At a minimum, however, it is anticipated that each station would include the following:

Outside the stations:

- Pedestrian (or bus user) drop off/pick up
- Gateway signage
- Pedestrian and bicycle access meeting ADA requirements
- Bus System Maps/Schedules
- Informational Kiosks
- Bicycle racks
- Pay phones
- Emergency phones
- Trash receptacles

Within Station Buildings

- Pay phone
- Trash receptacles
- Clocks

On Busway Station Platforms:

- Raised platforms for entering/exiting buses
- Shelters over platforms
- Benches or seats
- Variable message signs
- Clocks
- Emergency phones

Some stations may also include some of the following amenities:

Outside the stations:

- Public Art

- Vending Machines/Newspaper Boxes
- On site parking
- Elevators/ramps for access
- Stairs for access
- Bicycle Lockers

Within Station Buildings

- Public Art
- Climate-controlled waiting areas (with seats and windows)
- Possible retail joint-use development
- Restrooms
- Maintenance areas
- Water fountain

2.2.8 Facility Maintenance

One concern that has been raised by the public during public meetings and the public comment period is the need for appropriate maintenance of busway facilities. It is recognized that the condition of the facilities is an important factor in providing a secure, comfortable, convenient transit experience, and passengers will not want to use the busway if it is not well maintained. It is not known at this time whether busway facilities will be publicly or privately maintained, but a commitment will be made to ensure that proper maintenance takes place.

ConnDOT, through the mechanism of its choosing, will be responsible for maintenance of busway facilities. Local communities would maintain the multi-use trail.

2.2.9 Construction Methods

In order to expedite busway construction, ConnDOT intends to use a design-build construction process (also called "total cost basis") as required by Connecticut Public Act 01-105, Section 5. Design-build means that project design and construction take place on a simultaneous schedule, with the same contractor team bidding to both design and construct the facility. Under a design-build process, the construction is staged such that one phase of the project is designed, then constructed before or simultaneously with design on other phases of the project. This saves time over the traditional design-bid-build process, where the project is fully designed, and then bids go out separately for construction.

Several comments have been received expressing opposition to the design-build process with the claim that design-build will reduce the opportunity for public input into project design. While the design-build process will expedite the overall completion of construction, the process will not in any way impede the ability of the public to review designs and provide input. It would take the same length of time to design a portion of the facility whether done under design-build or design-bid-build. The public involvement effort would be the same in either case. What may differ is the timing of public input, as design-build could involve more frequent input from the

community for smaller pieces of the project. ConnDOT commits to providing ample opportunity for public input into the busway design, regardless of the construction process that is followed.

Additionally, the construction must take into consideration the operations of any roadways that are currently in the area, as well as maintain Amtrak operations throughout construction. Refer to Section 2.3.5, which discusses the project's interaction with rail operations.

2.3 BUSWAY FEATURES

The New Britain – Hartford Busway has many features that fit together to create a functional BRT facility. The following is a discussion of each of these elements with the exception of the stations, which are discussed in Section 2.4.

2.3.1 Roadway Facility

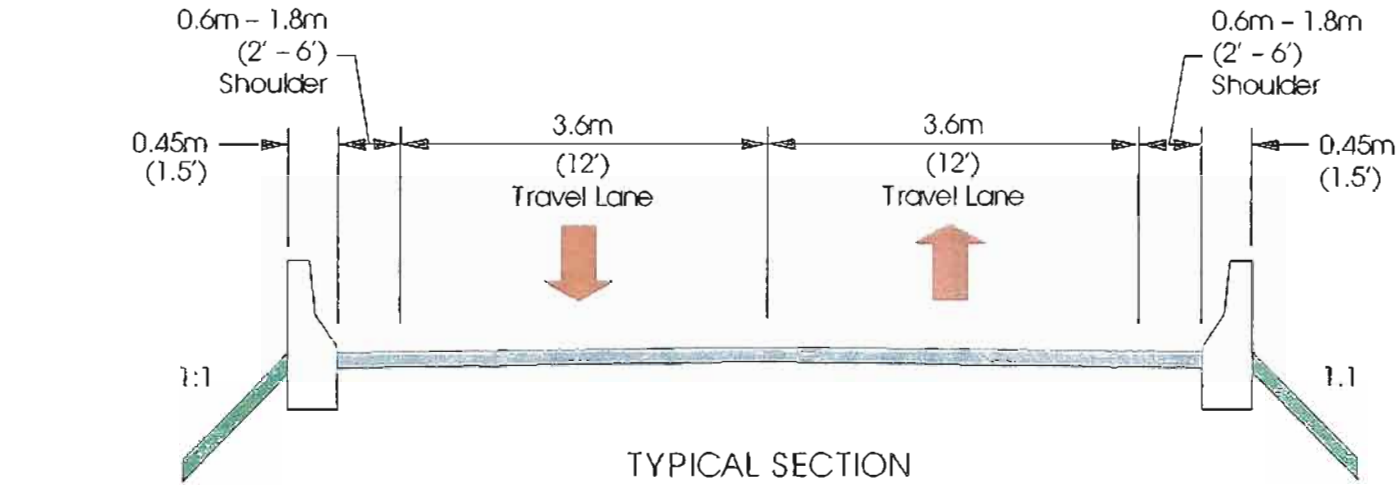
The roadway surface itself would pave over portions of the abandoned and active railroad rights-of-way. This dedicated roadway would be exclusively reserved for buses, and would be two lanes wide (one lane in each direction). However, at stations, additional lanes would be provided to allow non-stop buses to bypass stopped buses that are picking up passengers. The two-lane roadway would be protected on each side by "Jersey" barriers and fences to keep unauthorized vehicles and people off the roadway. Typical cross-sections used throughout the busway are shown on Figures 2.3-1 through 2.3-3. Additional consideration has been given to those areas where the busway is directly adjacent to the backyard of private homes. In those areas where noise walls are deemed necessary, the type and size will be determined during the design process. Where noise walls are not deemed necessary, fencing to provide visual separation between the busway and adjoining properties may be used. Additionally, where the busway is adjacent to Amtrak, a 1.8 meter (six-foot) high fence will be installed on top of the barrier.

2.3.2 Bridge and Culvert Reconstruction

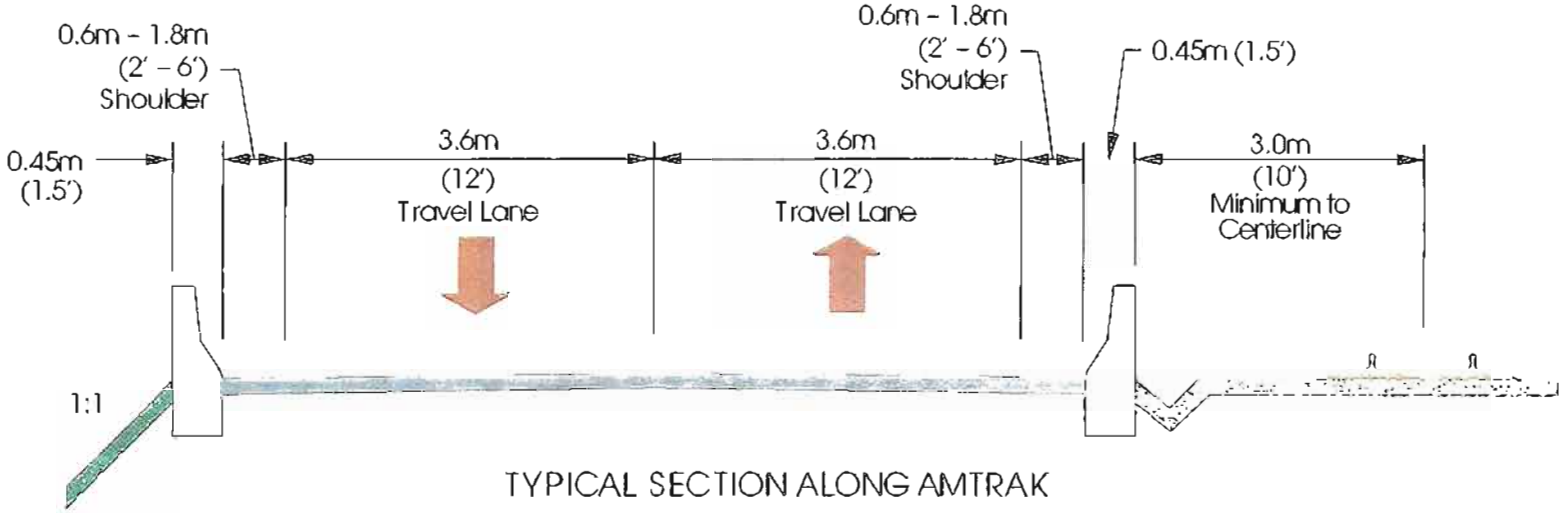
While existing structures would be used in their current form wherever possible, several locations will require modification. This includes reconstruction or replacement of railroad bridges and culverts to serve the busway. The design of each structure will be considered individually and will be designed to meet the requirements of the busway, but to the extent possible, to fit within the context of the neighborhood and station area. All bridges over roadways will be designed to meet minimum height requirements for truck clearances (as the site warrants). The most prominent bridge structures that will require alterations are as follows:

- Bridge over Route 9 in New Britain: This structure would have a new deck installed to accommodate a wider busway and multi-use trail. The existing bridge's substructure is adequate to accommodate the associated wider new deck with standard highway loadings.

- Bridge over connecting roadway in Fairview Cemetery: Because the busway will be slightly depressed in the Cemetery, the need for this bridge will be eliminated, as it will become an at-grade intersection.



TYPICAL SECTION

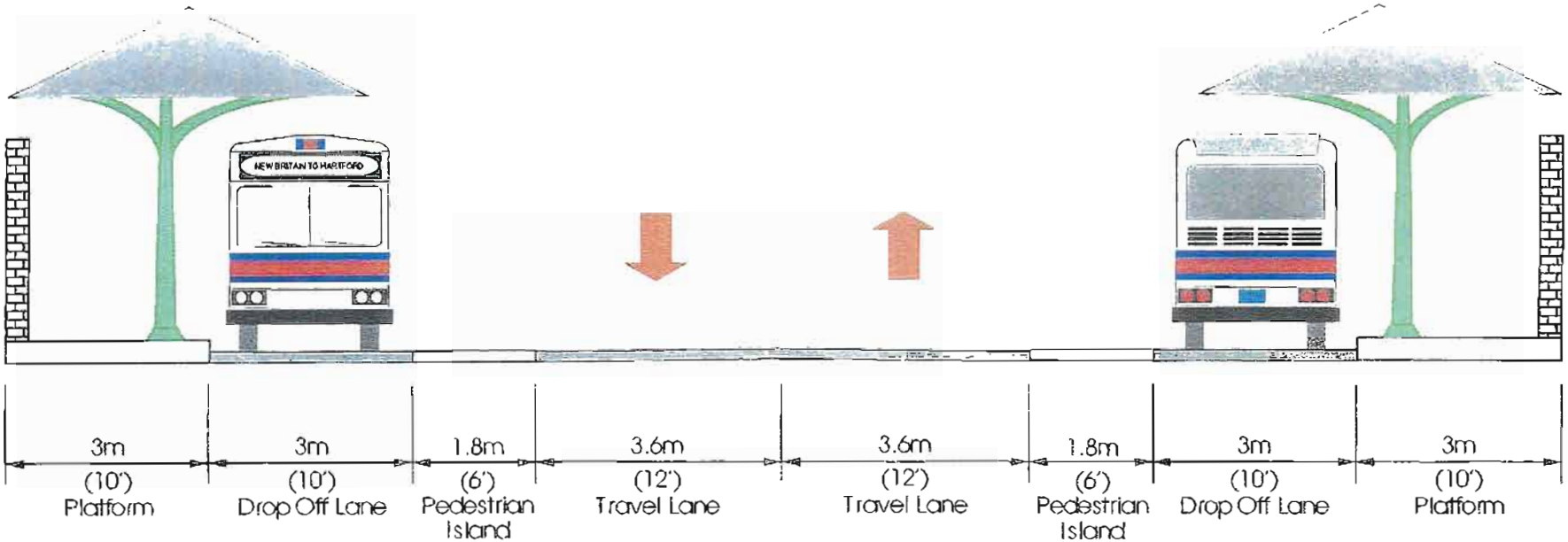


TYPICAL SECTION ALONG AMTRAK

TYPICAL SECTIONS

NEW BRITAIN – HARTFORD BUSWAY
Environmental Impact Statement (EIS)

FIGURE 2.3-1

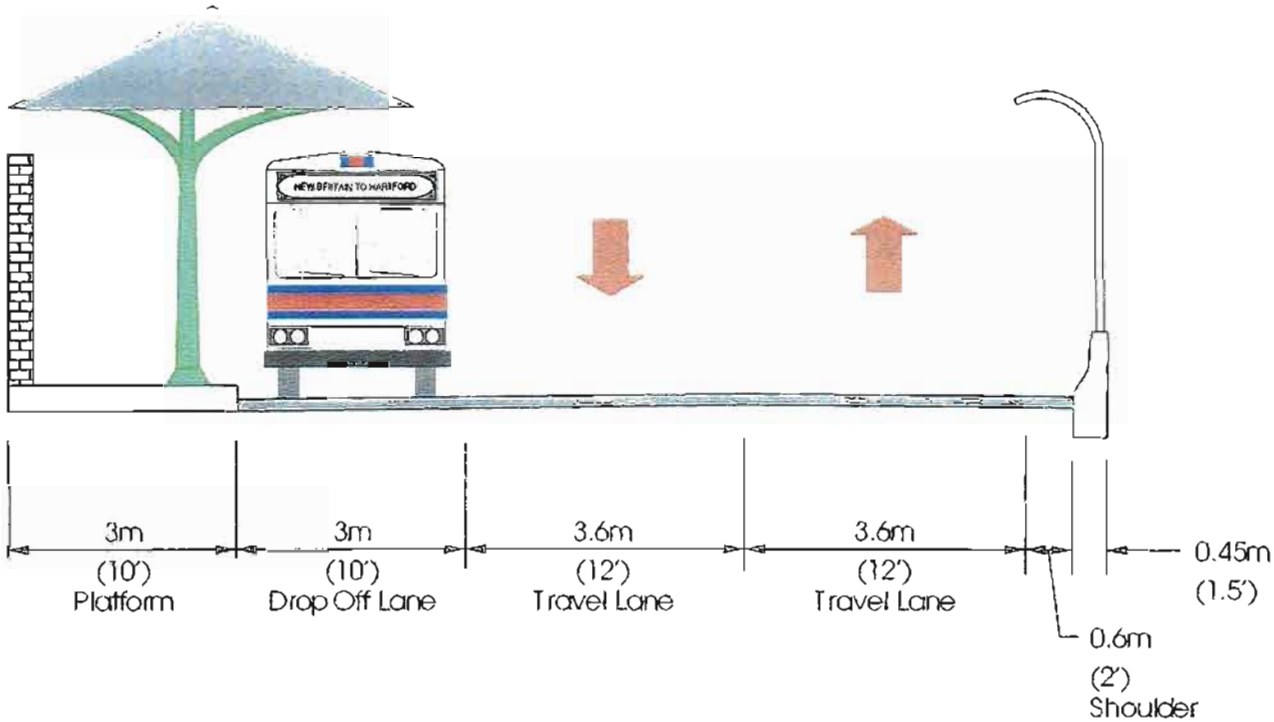


TYPICAL SECTION – OPPOSITE STATION

TYPICAL SECTIONS

NEW BRITAIN – HARTFORD BUSWAY
Environmental Impact Statement (EIS)

FIGURE 2.3-2



TYPICAL SECTION – OFFSET STATION

TYPICAL SECTIONS

NEW BRITAIN – HARTFORD BUSWAY
Environmental Impact Statement (EIS)

FIGURE 2.3-3

- Bridge over New Britain Avenue in West Hartford: The portion of the structure that serves the existing two tracks would be retained. The western most abandoned section would be removed and a new wider span would be provided for the busway lanes. Additionally the bridge abutments would be moved back to provide better sightlines and wider walkways under the new portion of the bridge.

- Bridge over Trout Brook in West Hartford: This four arch bridge would require minor widening on the western side of the fourth (concrete) arch. As requested by the State Historic Preservation Office (SHPO), this bridge will have state level documentation completed as part of the cultural resource mitigation (refer to Section 5.2.3).

- Bridge over Park Street in Hartford: The portion of the structure that serves the existing two tracks would be retained. The western most abandoned section would be removed and a new wider span would be provided for the busway lanes and pedestrian crossing. Additionally the bridge abutments would be moved back to provide better sightlines and wider walkways under the new portion of the bridge.

- Bridge over Capitol Avenue in Hartford: The existing bridge presently accommodates significantly more width than either Amtrak or the busway would require. The entire structure (both Amtrak and busway areas) has significant existing deterioration. It is anticipated the both the Amtrak and busway portions of the bridge will have to be replaced. The abutments should also be moved back to provide standard roadway lanes as well as adequate sidewalk widths.

- Bridge over the old Park River alignment: It is anticipated that the busway portion of this bridge/culvert structure (which predates the relocation of the Park River to an underground conduit) would be removed and replaced with fill. The Amtrak portion would remain intact. As requested by SHPO, this structure will have state level historic documentation completed as part of the cultural resource mitigation. (Refer to Section 5.2.3).

- Bridge over Capitol Avenue On-Ramp to Westbound I-84 in Hartford: The portion of the structure that serves the existing tracks and the portion needed for future double tracking would be retained. The western most abandoned section would be removed and a new wider span would be provided for the busway lanes.

- Bridge over Asylum Street in Hartford: Two separate structures overpass Asylum Street. The half serving Amtrak would remain intact. The half serving the proposed busway would require total replacement to accommodate the busway.

- Upper Deck of Union Station in Hartford: It is anticipated that the existing substructure and girders could accommodate a new deck supporting standard highway loading so that the only construction would be to add a new deck to this section and minor widening on the Asylum Street end to accommodate the platforms.

- Bridge over Church Street in Hartford: It is anticipated that this bridge would be totally replaced on the busway side. The Amtrak portion would remain the same.

In addition Table 2.3-1 highlights the identified culverts/pipes that would require study and possible replacement as part of this effort. Each will require a separate study to determine if the existing size is appropriate and if replacement or repair is required. Additionally proper permitting requirements will need to be met prior to construction.

Section 4.17 lists the permits that are anticipated to be needed for the project.

Table 2.3-1
Location of Cross Culverts/Pipes

Watercourse Crossing	Location of Crossing	Method of Crossing
Piper Brook	Between Saint Mary's Cemetery and Route 9 Southbound	Culvert
Bass Brook	Between East Street and Route 9 Southbound connecting wetlands areas 8 and 9	Culvert
Unnamed small tributary of Piper Brook #1	Between Cedar Street and merge of Amtrak and abandoned rail corridor	Culvert
Unnamed small tributary of Piper Brook #2	Between merge of Amtrak and abandoned rail corridor and Willard Avenue Bridge	Culvert/Pipe
Unnamed small tributary of Piper Brook #3	Between merge of Amtrak and abandoned rail corridor and Willard Avenue Bridge	Culvert/Pipe
Unnamed small tributary of Piper Brook #4	Between merge of Amtrak and abandoned rail corridor and Willard Avenue Bridge	Culvert/Pipe
Unnamed small tributary of Piper Brook	At Newington Junction Station	Underground conduit not field located
Jacobs Brook	North of Newington Junction Station	Culvert/Pipe
Kane Brook	Under I-84 viaduct overpassing busway corridor	Culvert

2.3.3 Multi-Use Trail

Originally, a multi-use pathway was considered in Draft EIS to be a separate project, with the busway design not precluding implementation of the path. Numerous comments indicated a need for the multi-use path to be incorporated into the busway.

ConnDOT is committed to constructing a Multi-Use Pathway between Downtown New Britain and Newington Junction and between Park Street and Sigourney Street in Hartford. (See Figure A, inside back cover of document). The trail will begin at its south end in downtown New Britain and parallel the busway over the Route 9 to the East Main Street Station. It would continue north, passing at grade at East Main and Smalley Street, through Fairview Cemetery,

then exit the ROW onto East Street at the Route 9 underpass. The trail would then split onto the two sides of East Street with a five-foot bike lane and a five-foot sidewalk. The section continues to just north of Saint Clair Avenue, where it returns to the busway corridor, onwards north to Newington Junction.

The other trail segment that would be constructed by ConnDOT under the recommended action would run in Hartford between the Park Street busway station and Sigourney Street station.

The usable width of the multi-use trail will generally be ten feet wide. An additional two feet of pavement will be added between this ten-foot area and the barrier separating the busway and the multi-use trail resulting in 12 feet of pavement from the barrier to the edge of the trail.

Between Newington Junction and Park Street, and between Sigourney Street and Union Station, space constraints preclude providing a Multi-Use Pathway in much of the busway corridor. However, some preliminary consideration was given as part of this project and the West Side Access Study of possible ways to complete the trail between Newington Junction and Bushnell Park in Downtown Hartford, and provide additional linkages to other planned trail corridors in the region. Figure A shows the proposed South Branch Park River Multi-Use Trail and areas where gaps would have to be filled in by local and regional agencies to complete the Multi-Use trail to downtown Hartford. The concepts presented in the West Side Access Study are currently not programmed for advancement. Should these concepts be advanced into design, further coordination would continue.

ConnDOT will encourage Hartford, West Hartford, Newington and CRCOG (separately from the West Side Access Study) to complete multi-use trail connections beyond the busway corridor between Newington Junction and Park Street and between Sigourney Street and Union Station.

2.3.4 Busway Crossings

Along the busway route, there are numerous locations where the busway crosses another right-of-way. These include existing overpasses, underpasses and at-grade crossings. Table 2.3-2 itemizes existing and future roadway crossing conditions of the busway, from south to north. Text in **bold** indicates three areas where the method of crossing would change as a result of the project. The rationales for changing the grade in these three areas (Fairview Cemetery, East Street/Allen Street/Saint Clair Avenue, and Flatbush Avenue) are discussed below in greater detail in Sections 2.3.6 through 2.3.8. For those crossings that are not either an overpass or underpass, traffic control is required for safe operations as well as priority treatment for the bus service (at-grade crossings).

South of Newington Junction, where there are no active rail lines, the busway at-grade crossings will be controlled by traffic signals. These signals would be designed such that bus detection upstream and downstream of the crossing would result in a priority call to the controller, thereby providing a green traffic signal for the bus, when possible. Pedestrian call buttons would also be provided as well as pedestrian crosswalks. Signs would be provided to alert motorists not to enter the busway.

Table 2.3-2
Busway Crossings of Other Roadways

Busway Corridor Crossing of roadways (from north to south):	Currently		Recommended Action	
	Rail Corridors Cross Roadway with:	Traffic Control	Busway Crosses Roadway with:	Traffic Control
Truman Overpass, New Britain	Underpass	--	Underpass	--
Entry to City Building Supply, New Britain	At-Grade	Stop Sign	At-Grade	Railroad: Gate Traffic: Signals
Route 9, New Britain	Overpass	--	Overpass	--
Stanley Street, New Britain	At-Grade	N/A (inactive rail)	At-Grade [1]	Traffic Signals[1]
East Main Street, New Britain	At-Grade	N/A (inactive rail)	At-Grade	Traffic Signals
Smalley Street, New Britain	At-Grade	N/A (inactive rail)	At-Grade	Traffic Signals
Fairview Cemetery Access Road, New Britain	**Overpass**	**--**	**At-Grade**	**Stop Sign**
Route 9, New Britain	Underpass	--	Underpass	--
East Street	**At-Grade**	**N/A (inactive rail)**	**Overpass**	**--**
Allen Street (to be extended)	**At-Grade**	**N/A (inactive rail)**		
Saint Clair Avenue	**At-Grade**	**N/A (inactive rail)**		
Route 9, New Britain/ Newington Border	Underpass	--	Underpass	--
Route 175 (Cedar Street), Newington	Underpass	--	Underpass	--
Willard Avenue, Newington	Underpass	--	Underpass	--
New Britain Avenue, West Hartford	Overpass	--	Overpass	--
Oakwood Avenue, West Hartford	At-Grade	Railroad gates	At-Grade	Railroad: Gates Traffic: Signals
Flatbush Avenue, West Hartford/Hartford Border	**At-Grade**	**Railroad gates**	**Overpass[2]**	**--[2]**
Interstate 84, Hartford	Underpass	--	Underpass	--
Hamilton Street, Hartford	At-Grade	Railroad gates	At-Grade	Railroad: Gates Traffic: Signals
Park Street, Hartford	Overpass	--	Overpass	--
I-84 Sisson Ave. Interchange Ramps, Hartford	Underpass	--	Underpass	--
Capitol Avenue, Hartford	Overpass	--	Overpass	--
Laurel Street, Hartford	Underpass	--	Underpass	--
Sigourney Street, Hartford	Underpass	--	Underpass	--
Flower Street, Hartford	At-Grade	Railroad gates	At-Grade	Railroad: Gates Traffic: Signals
Interstate 84, Hartford	Underpass	--	Underpass	--
Broad Street, Hartford	Underpass	--	Underpass	
Interstate 84, EB Capitol Ave Off-Ramp, Hartford	Underpass	--	Underpass	--
Interstate 84, WB Capitol Ave On-Ramp, Hartford	Overpass	--	Overpass	--
Asylum Street, Hartford	Overpass	--	Overpass	--
Church Street, Hartford	Overpass	--	Overpass	--

[1]Would include a new signalized, coordinated intersection of Stanley Street and Dwight Street
[2]Amtrak would remain in an at-grade crossing at Flatbush Avenue, controlled by railroad gates.

Where active rail is adjacent to the busway (north of Cedar Street to Union Station), the latest in railroad crossing control technology will be used in conjunction with rail gates to provide absolute priority for rail operations over the busway and cross street traffic. The busway itself would be controlled by a traffic signal having signal preference over the cross street traffic, similar to operations in the southern portion.

The City of New Britain has requested that the intersection of Stanley Street and Dwight Street be signalized, and that the signal should be coordinated with the Stanley Street intersection of the busway corridor. The reason is that the two intersections are in close proximity to each other. ConnDOT has committed to pursuing this improvement at Dwight Street to ensure safe operations.

The busway crossing of the Fairview Cemetery access road will be located where an underpass under the abandoned rail line currently connects the two sides of the cemetery. With lowering of the grade, this underpass would become an at-grade crossing. In this scenario, stop signs would control the very low volume of traffic crossing between the two sides of the cemetery, while buses would not stop.

Security patrols would prevent unauthorized entry of non-busway traffic. The details of providing security will need to be worked out with state and local law enforcement agencies.

2.3.5 Interaction with Rail Operations

ConnDOT and Amtrak have actively coordinated on issues concerning the railroad throughout the EIS process, and ConnDOT commits to continue actively coordinating with Amtrak throughout the design process. Amtrak has raised many separate concerns about the project that need to be mitigated to ensure that Amtrak service is not disrupted. Section 4.14 discusses these issues in greater detail.

Where active rail is adjacent to the busway, rail gates will be provided for rail operations with absolute priority over busway and cross street traffic. Rail gates and signals will be implemented and designed in coordination with the railroads. Appropriate signal preemptions will be used to prevent queuing on the railroad and busway. Special signage will also be employed as needed.

The segment of the busway between Newington Junction and Union Station will run directly adjacent to Amtrak railroad tracks. Given the tight right-of-way in some areas, the distance from the edge of the busway to the center of the existing tracks is as little as three meters (ten feet). This was highlighted back in Figure 2.3-1. Areas where busway components get this close to Amtrak are generally near stations or bridges. Where the busway is adjacent to the track, typical highway safety barriers will be provided to prevent buses from entering onto the rail tracks. Because of this separation between the busway and Amtrak, access to the tracks for rail maintenance access will be provided. Additionally a segment of track will have to be shifted to accommodate the busway between the Sigourney Street Station and the Armory/Legislative Office Building Station. Given the close operations between the busway and Amtrak, detection

warning systems should be considered as part of the ITS system that will be developed as part of the BRT system.

The roadbed for the two main tracks will be kept intact for the entire length of the project. No existing sidetracks serving freight customers will be negatively impacted. The busway facility and stations will not preclude the potential for constructing and providing connectivity with future Amtrak stations and possible commuter rail service.

Connecticut Southern freight rail service (a subsidiary of Rail America) also operates along the Amtrak line. In addition, Guilford Rail has an active low-volume track in front of the Downtown New Britain Station. ConnDOT has coordinated with both of these railroads and will continue to do so through the design process. The busway is not expected to create any impact on Guilford Rail operations, as there will not be any new rail crossings of this line.

2.3.6 Vertical Treatment in Fairview Cemetery

The existing abandoned rail line bisects Fairview Cemetery on the east side of New Britain. The original railroad bed was constructed on an elevated berm through the cemetery, with a substandard underpass conveying pedestrians and vehicles between the two sides of the berm. While freight trains used this corridor years ago, it has been abandoned for over 25 years, and volunteer trees have grown along the sides of the abandoned right-of-way. A vertical treatment in Fairview Cemetery is proposed as part of the recommended action as a way to mitigate the impacts of introducing the busway into the cemetery. There will be no impact on the existing graves in the cemetery.

This treatment would lower the grade of the busway below its existing level. Since the current grade is generally elevated through the cemetery, this would create a kind of "trench" and serve to reduce the visibility of the facility. The depth the grade would be lowered varies throughout the cemetery. This depth would not be low enough to shield the buses and facility by just the terrain, so some additional walls or fences would be used to shield the facility. Figure 2.3-4 shows the proposed depressed cross-section through the cemetery. This design may necessitate additional considerations for conveying runoff away from the facility, such as pumping.

Figure 2.3-4 Busway Through Cemetery Below Existing Grade

2.3.7 Grade Separation at East Street and Allen Street

The East Street/Allen Street/Saint Clair Avenue intersection in New Britain has a substandard configuration and is slated for reconstruction in the near future, with Allen Street realigned to tee into East Street. The alignment of the recommended action passes through this area along the abandoned rail right of way.

If the busway were constructed at grade through this area, it would create two at-grade crossings in a short distance: an at-grade busway crossing of extended Allen Street, plus a five-way intersection between the busway, East Street and Saint Clair Avenue. This would create more friction between the busway and the intersecting roadways.

To address these shortcomings, the busway will be constructed on an elevated viaduct over these two intersection areas. Figure A inside the back of the document shows the estimated limits of the elevated busway segment. The structure would be designed in a manner to afford adequate vertical height clearances on East Street and Allen Street.

As noted previously, the multi-use trail would diverge from the busway in this area, and would not be located on the overpass. After crossing through Fairview Cemetery, the trail would use East Street near the Route 9 underpass. The trail would split onto the two sides of East Street with a five-foot bike lane and a five-foot sidewalk. The trail would continue to Lester Street, where it returns to the busway corridor.

2.3.8 Grade Separation at Flatbush Avenue

Flatbush Avenue is a four-lane roadway with comparatively high traffic volumes between New Park Avenue and the Interstate 84 interchange ramps. With construction of the busway, Flatbush Avenue is expected to have roughly 1,800 vehicles crossing the busway corridor during the peak hour in the year 2020. If an at-grade busway crossing were constructed, its signalization would have a negative effect on the busy intersection of New Park Avenue and Flatbush Avenue immediately to the west. An at-grade crossing of Flatbush Avenue was considered during the Draft EIS process and eliminated from further consideration because of anticipated traffic problems and pedestrian safety issues.

The recommended action would grade-separate both the busway and Station Option G3-Modified over Flatbush Avenue, with Amtrak remaining at its current at-grade crossing with Flatbush. The busway will be elevated on a viaduct over Flatbush Avenue, with the approximate limits of this structure shown on Figure A. The station will be located on the north side of Flatbush Avenue. The elevated structure would be designed in a manner to afford adequate vertical height clearances on Flatbush Avenue. Section 2.4.7 discusses what would be constructed on the lower level (at grade) of Station Option G3-modified.

2.3.9 Busway/Station Drainage

Along the roadway itself and in the station areas, existing pervious surfaces will be paved over with impervious materials, which will require stormwater be collected, treated and discharged as appropriate. The methods used to handle stormwater will vary significantly along the corridor depending on adjacent land use, adjacent watercourses and the availability of local stormwater management systems. Design of the drainage system for the busway and station areas will be completed as part of the design process. This effort will require future coordination and permitting with the appropriate agencies, specifically the US Army Corps of Engineers, Connecticut Department of Environmental Protection and local municipal staffs. Special detail

will need to be considered where the busway is parallel to Amtrak such that ponding on either facility does not occur.

2.3.10 Intermediate Access Points

There are a number of "intermediate access points" that will allow local collector bus routes to circulate in neighborhoods beyond the busway, increasing the reach of the system. The following intermediate access points are located either at signalized at-grade crossings (discussed above in Section 2.3.4) or else at busway stations:

- Entry/Exit from the Downtown New Britain Station
- Entry/Exit from East Street (Route 175) to the busway, New Britain
- Entry/Exit from Cedar Street Station (off Fenn Road) to busway, Newington
- Entry/Exit from Newington Junction Station to busway, Newington
- Oakwood Avenue at-grade crossing, West Hartford
- Flower Street, at-grade crossing, Hartford
- Myrtle/Church/Spruce Streets north of Union Station

2.3.11 Intelligent Transportation Systems

ITS will be employed throughout the busway facility to provide passengers with maximum levels of safety, efficiency, comfort, and information. Sensors will be able to track bus locations to ensure that buses approaching grade-crossings receive preference at busway traffic signals. Furthermore, the ITS system will be able to monitor if buses start to experience back-ups throughout the system, and make adjustments to address the problem. Variable message signs at stations will enable waiting passengers to know the estimated arrival time for their next bus. ITS components are also being considered to provide an additional level of safety to waiting patrons at the stations. A detection warning system will be considered as part of the development of the ITS systems. A central facility (location to be determined) would manage the ITS resources.

2.4 STATION OPTIONS

Through the Final EIS process, a group of recommended station options have been developed as part of the recommended action. The selection of these options for the recommended action has taken into account the public input received during the Draft EIS comment period. The descriptions that follow describe the stations, and the rationale for selecting the station option as part of the recommended action. Figure A (inside the back cover of this document) provides a fold-out map, showing the locations of stations, that can be kept visible while reading this document.

The public has been afforded numerous opportunities to comment on the concepts for stations. Public meetings were held as the Draft EIS was under production, and formal comments were taken at meetings and hearings during the Draft EIS review process. The public was offered addition forums to comment and learn about the project, via a website, toll-free hotline, videos, etc. Section 6.0 outlines the public involvement process, which will continue through design.

It is important to note that the design of the busway stations has been advanced only enough to assess the environmental impacts of the proposed project. Based on the guiding principles (Section 2.2) and the discussion of each station that follows, detailed station designs will be developed and reviewed with all stakeholders in local communities during the project's design phase.

While all stations will have sheltered platforms, each station will have a different level of amenities depending on the anticipated usage, adjoining land use and neighborhood context. Some stations, notably those that are expected to have a relatively high ridership, would be expected to have a climate-controlled building with restrooms, water fountains and a waiting area. Associated private retail (such as a donut shop or a newsstand to serve passengers and the general public) is possible at these stations, if private businesses and developers express interest to participate. It is important to note that any representation in this document of station buildings is intended to provide only an example of what a building could look like. Any station building proposed will be detailed during the design process and will be subject to review by the public and local municipalities during that time.

It is anticipated that each station will have signage/gateway treatments to identify the station as well as appropriate lighting and landscaping. With the exception of three stations in Hartford, each station has an area for local feeder buses to pick-up and drop-off passengers as well as for cars to pick-up/drop-off ("kiss and ride"). For passengers that wish to drive themselves to stations, six stations will have park and ride lots provided. Each station area has been reviewed for pedestrian accessibility between stations and the existing network of sidewalks. Where appropriate, new sidewalks have been proposed to provide this connectivity to important pedestrian generators.

Each station that is adjacent to Amtrak (between Newington Junction and Union Station) will need a special structural wall constructed between the tracks and any area where passengers would be. These walls would be constructed to protect the pedestrians from the wind generated by a passing train and any debris that might be kicked up by the train. Once the structural elements have been addressed, walls will be designed to fit within the visual context of the station and to deter vandalism.

It is a priority that the proposed busway facility is safe for those passengers on the buses, those passengers waiting for the buses and those passengers walking from one location to another. Every attempt has been made to provide safe space in the station areas and platforms that would minimize opportunities for criminal activity. During the design phase, this issue will be addressed in greater detail, including a review of station visibility, lighting, landscaping and possible installation of security cameras.

During the public involvement process, there was considerable discussion about other station amenities. Section 2.2.7 discussed those amenities that might be included at each of the stations. Decisions about which amenities will be included at each station will be made during the design process and will be subject to public input.

A discussion of each of the recommended station options is presented in the following sections.

2.4.1 Downtown New Britain Station Option A1

Downtown New Britain is a traditional downtown area containing civic offices and some retail and institutional properties. The Downtown New Britain Station (Figure 2.4-1) would be constructed on the former Greenfield's supermarket site, on the east side of Main Street between Route 72 and Columbus Blvd. It is expected that the site would serve as a multi-modal center that serves downtown New Britain, bringing not only the busway service, but also interstate coach bus service, taxis, and local buses together in one place. This would improve the traffic operations on Bank Street/West Main Street in New Britain's downtown, since the existing interstate coaches loading/unloading and the local bus stops occurring on Bank Street/West Main Street would be relocated to the new station. The Multi-Use trail begins at this station, connecting to the station's platforms and the sidewalk on Columbus Boulevard.

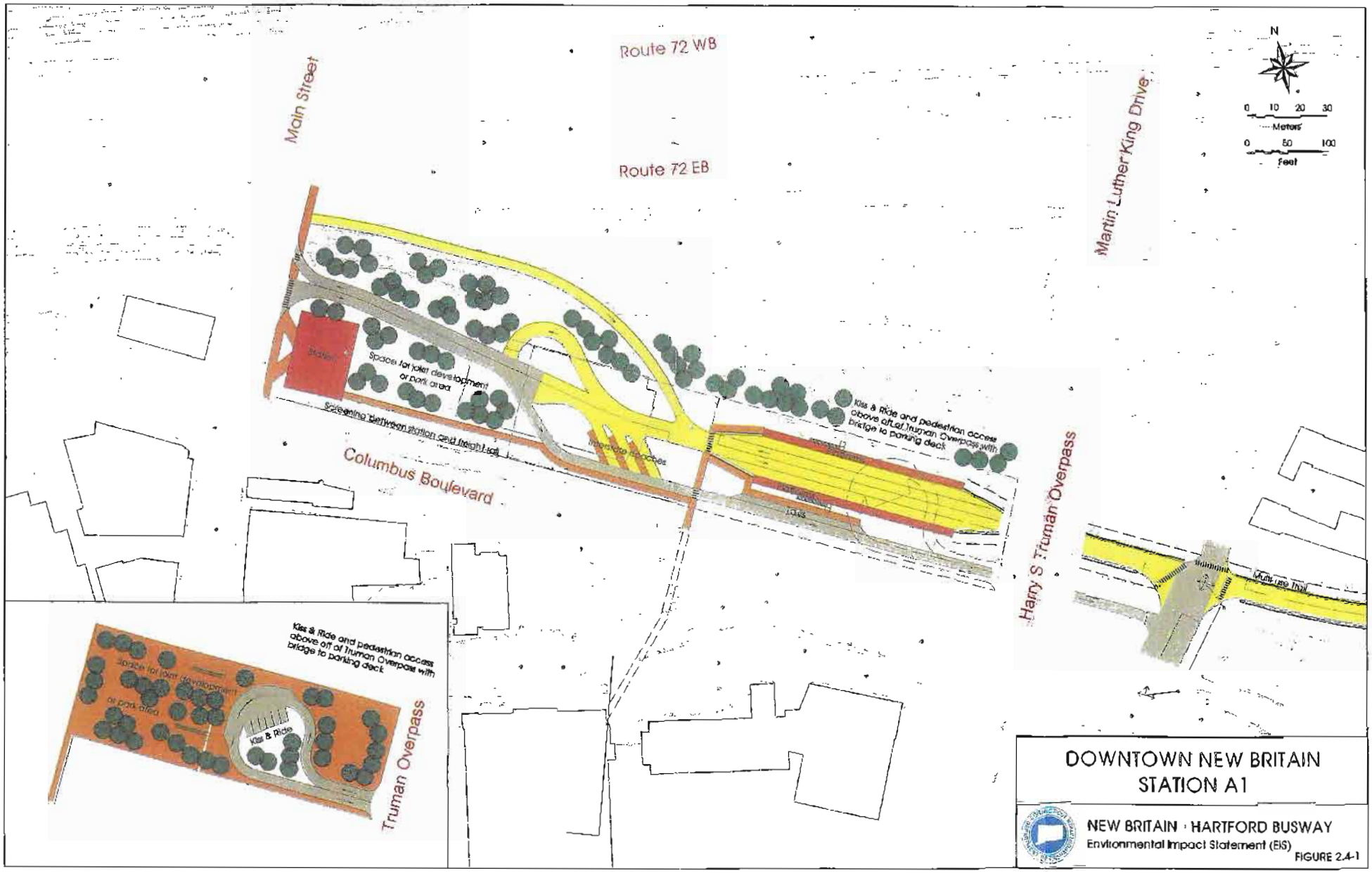
The station is not proposed to have an attached parking facility, because there is plentiful parking available in two lightly used municipal parking structures within a block of the proposed station. Station design may include providing sheltered above-grade walkways to carry passengers directly from one of these parking structures to the station.

The station building is proposed to front Main Street providing a visual connection with the other properties to the south and across Route 72 to the north. In addition, a second-story deck is proposed to front the Harry Truman Overpass (Martin Luther King, Jr. Drive) permitting kiss-and-ride passenger drop-offs. Vertical circulation (stairs, escalators/elevators) would connect people from this level to the main station below. In addition, this would serve as protection from the weather for the platforms below.

The station would be the gateway into the New Britain – Hartford Busway for buses coming from regional areas beyond the study area towns. Eastbound regional express buses from outlying areas such as Bristol and Waterbury would exit eastbound Route 72, utilizing a dedicated bus-only off-ramp to access the station, and drop off or pick up passengers in Downtown New Britain before continuing towards Hartford. Westbound express buses exiting the station would make two right turns to access Route 72 westbound.

Additional components of this station include:

- Replacement of the existing wall/screening between the Greenfield's site and the existing freight rail tracks with more aesthetically pleasing features.
- Additional space is available on ground level for joint/co-development as well as the ability to jointly/co-develop above the entire station area.
- Access provided to Columbus Blvd. at the City Building Supply access road.
- Multi-use trail connects to station platforms and sidewalk on Columbus Blvd.
- Site landscaping will be completed for the entire site.



DOWNTOWN NEW BRITAIN STATION A1

NEW BRITAIN · HARTFORD BUSWAY
Environmental Impact Statement (EIS)

FIGURE 2.4-1

- Crosswalks within the station area will be developed using alternative pavement treatments such as pavement stamping if an asphalt surface is used or different pavement colors/texture if concrete is used.
- Site lighting to be provided as appropriate and in coordination with the City of New Britain
- Station architecture will be developed in conjunction with City of New Britain.
- Bicycle facilities will be designed into the station
- Local signage will be provided to provide direction to the station
- Other amenities anticipated for this site include: public phones, emergency phones, vending machines/newspaper boxes, informational kiosks, bus system maps/schedules, seating, public art, waste receptacles, and clocks.

Rationale for Selection: This was the only location for a station considered in Downtown New Britain. Alignment Option 2 would have bypassed the area. Among parties supporting busway concept, there was generally universal support for providing a downtown station as an anchor for the busway and providing opportunities for enhancing and redeveloping downtown New Britain. As noted previously in Section 2.1 above, the City of New Britain supported Alignment Option 1, which would use the rail corridors and include a station in Downtown New Britain.

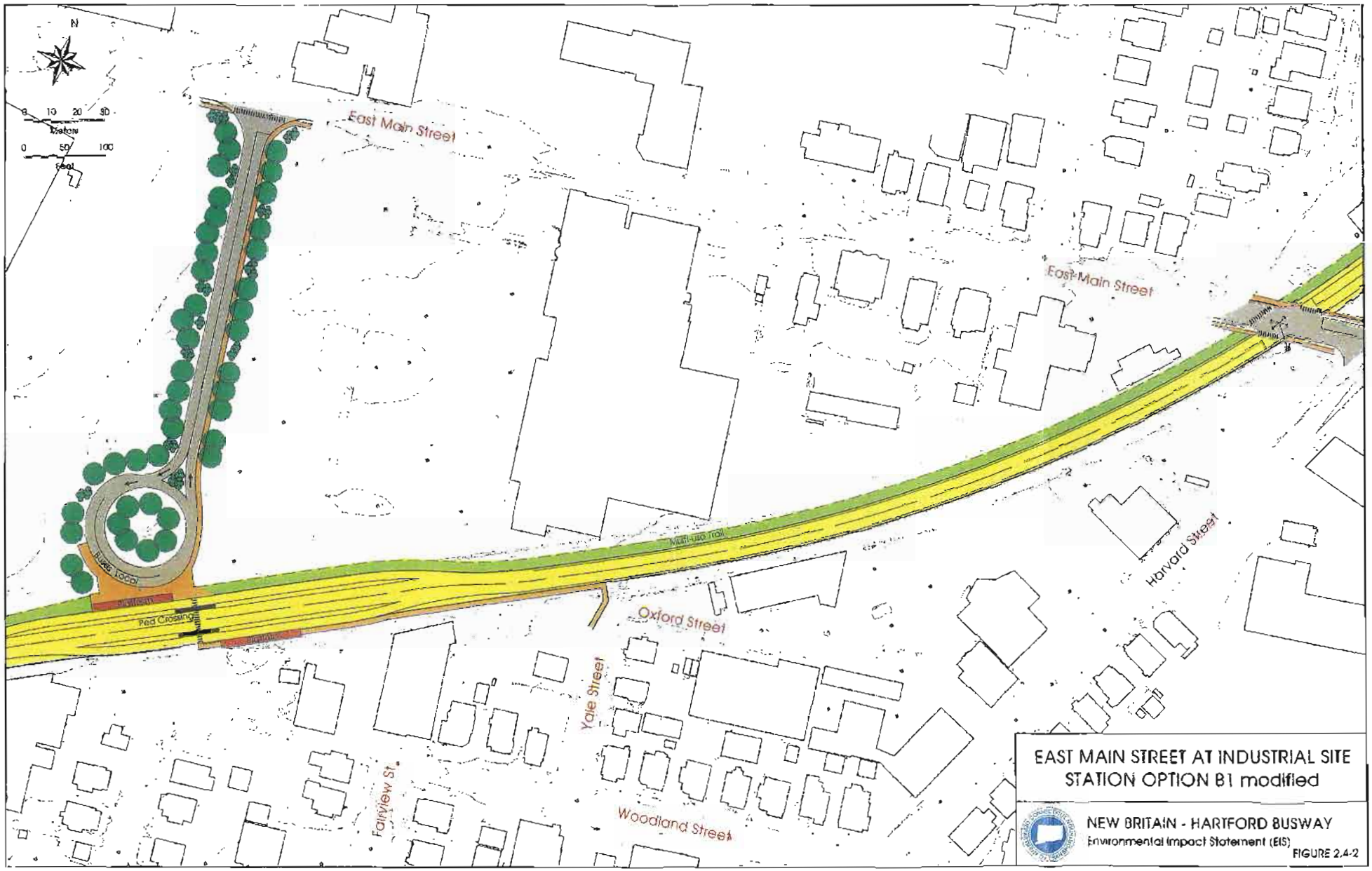
2.4.2 East Main Street Station Option B1

The East Main Street area on the east side of New Britain is a neighborhood with a mixture of older residences and industrial properties. The station (Figure 2.4-2) would be constructed along the southern edge of a vacant industrial property and on the northern edge of the National Guard Armory. This station would have an access driveway from East Main Street for local bus access. Pedestrian access would be provided from Yale Street and East Main Street. This station would have no parking provided or station building.

Additional components of this station include

- Bicycle amenities will be provided.
- Landscaping and site lighting to be provided and coordinated with City of New Britain
- Multi-use trail to connect station to Stanley Street and East Main Street at Cottage Place/Wilson Street
- Station architecture will be developed in conjunction with City of New Britain.
- Signage at the East Main Street access will be provided to help identify station location.
- Crosswalks within the station area will be developed using alternative pavement treatments such as pavement stamping if an asphalt surface is used or different pavement colors/texture if concrete is used.
- Other amenities anticipated for this site include: public phones, emergency phones, vending machines/newspaper boxes, informational kiosks, bus system maps/schedules, seating, public art, waste receptacles, and clocks.

Rationale for Selection: An additional station at the intersection of East Main Street and Wilson Street, Option B2, was considered in the Draft EIS. The City of New Britain showed support for the Recommended Action over the other option, which would be in close proximity to the



EAST MAIN STREET AT INDUSTRIAL SITE
STATION OPTION B1 modified

NEW BRITAIN - HARTFORD BUSWAY
Environmental Impact Statement (EIS)

FIGURE 2.4-2

2.4.4 Cedar Street Station Option D1

The Cedar Street (Route 175) area contains the Route 9 interchange with Fenn Road and Cedar Street (Route 175). Several vacant or underutilized industrial properties line the busway corridor in this area. In addition, CCSU is located directly across Route 9 from the Cedar Street area. A shopping center containing a Stop and Shop supermarket and a number of smaller stores is found north of Route 175 on Fenn Road. Because the Cedar Street station site is integral with these adjoining commercial uses, every effort has been made not to interfere or detract from any commercial activities (traffic access, deliveries, etc.) and would seek to enhance them if reasonable.

It should be noted that CCSU has indicated long-term goals to develop an East Campus on property it owns south of Route 175 and east of Route 9. However, there are no immediate plans to provide a station in that area because of the uncertainty of CCSU's ability in the short term to develop the area. Therefore, at this time, the Cedar Street and East Street Stations are now proposed to serve CCSU. If CCSU is able to overcome the challenges of developing its land in the future, it is possible that a new CCSU busway station south of Route 175 could then be constructed. In such a scenario, the Cedar Street station would be re-evaluated for its ridership potential at that time, and would be retained or redeveloped as appropriate.

The recommended station option (Figure 2.4-4) would construct a station behind the Stop and Shop supermarket located east of Fenn Road and north of Cedar Street. An access road would be developed by a combination with the Stop & Shop southerly drive for access to Fenn Road at a stop sign. Improvements to pedestrian travel in the area on Fenn Road and Route 175 (sidewalks, crosswalks, etc.) would be provided for CCSU students if they choose to walk to the station. The station would include a parking area to serve park and ride commuters. Access to the station and parking area for buses and cars would be developed along Fenn Road. It is assumed that approximately 100 parking spaces could be provided for busway passengers.

Additional features associated with this station include:

- Bicycle facilities will be designed into the station
- Landscaping and site lighting to be provided and coordinated with Town of Newington
- Station architecture will be developed in conjunction with Town of Newington.
- Signage at the Fenn Road access will be provided to help identify station location.
- Crosswalks within the station area will be developed using alternative pavement treatments such as pavement stamping if an asphalt surface is used or different pavement colors/texture if concrete is used.
- Other amenities anticipated for this site include: public phones, emergency phones, vending machines/newspaper boxes, informational kiosks, bus system maps/schedules, seating, public art, waste receptacles, and clocks.

During the review of the Draft EIS, several comments were raised regarding the operations at Fenn Road and Cedar Street as well as the overall operation of Fenn Road through Ella Grasso

Boulevard. Additional traffic studies have been completed and are discussed in Section 3.9 of the Final EIS.

Rationale for Selection: This is the only location considered for a station in the Draft EIS. The Draft EIS also considered Station Option D2 on the same site, which would have had a substantially greater amount of parking, because it would have been the first station on the busway in conjunction with a bypass of Downtown New Britain. The selected option has smaller scale parking, which is appropriate given that the downtown New Britain Station was selected as the busway's southern "gateway." The station location is the best available site given the uncertain development plans for the area. CCSU already provides a shuttle service to the Stop and Shop for its students, so this location would be an extension of that service.

2.4.5 Newington Junction Station Option E1

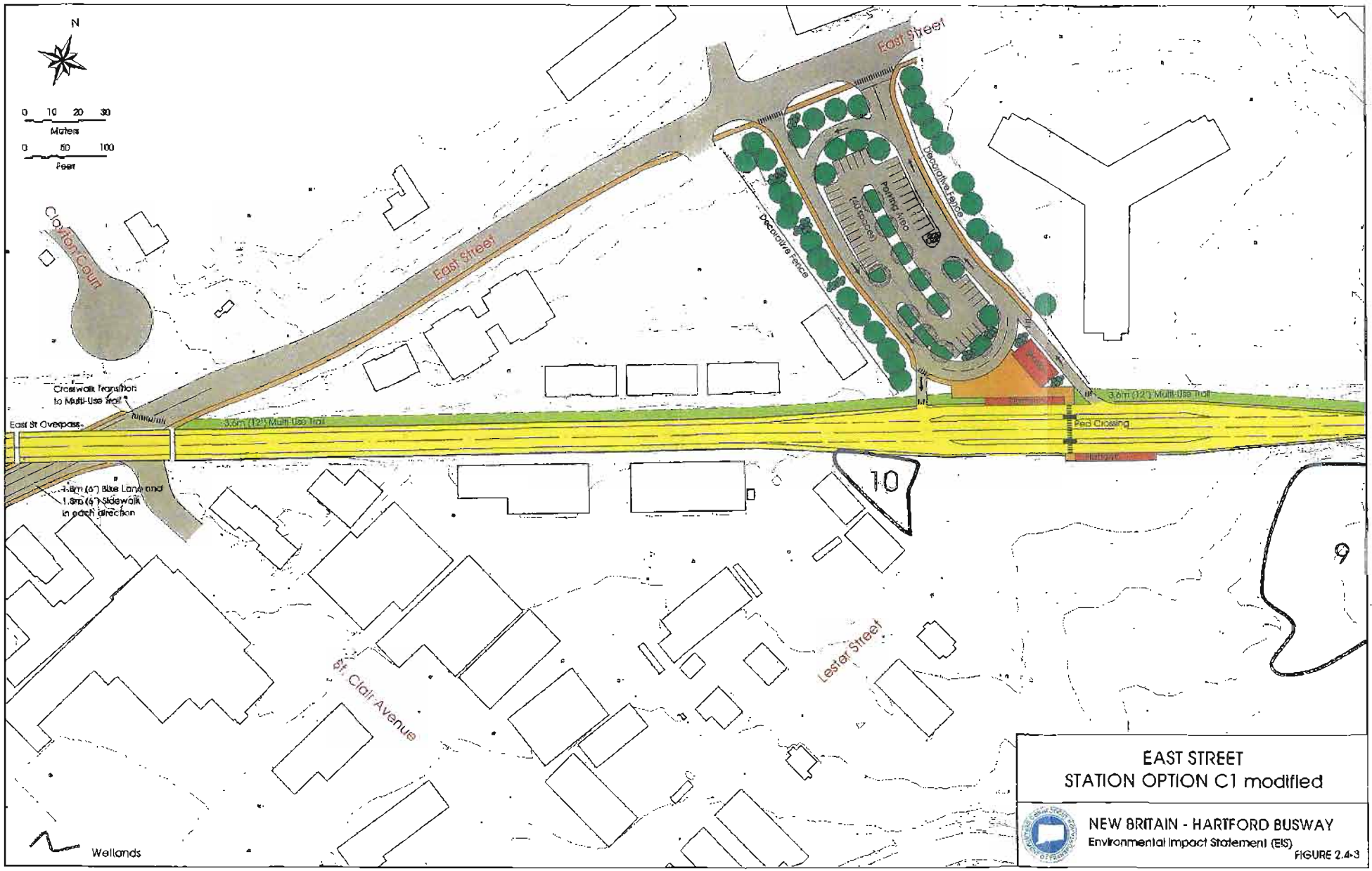
The Newington Junction area contains a small local retail area, with some multi-family housing nearby. Willard Avenue and West Hill Road are local collector roadways serving this area.

The recommended station option (Figure 2.4-5) would be located north and west of the Amtrak Corridor, east of the Willard Avenue overpass, and across Willard Avenue from West Hill Road. From this station northward, the corridor for the busway would run alongside Amtrak's active New Haven – Springfield line. In addition, the multi-use trail associated with construction of this project would also terminate at this point due to constrained right-of-way. (See Section 2.3.3 for information on the potential for extending the trail beyond this point).

This station would serve local passengers, includes a station building and a limited amount of parking. While several light-industrial buildings now occupying the site would need to be removed, an old railroad work building west of the tracks would be moved, rehabilitated and reused as part of the station. Intermediate access would be provided for local circulator buses. It is assumed that approximately 32 parking spaces could be provided for busway passengers.

Additional features associated with this station include:

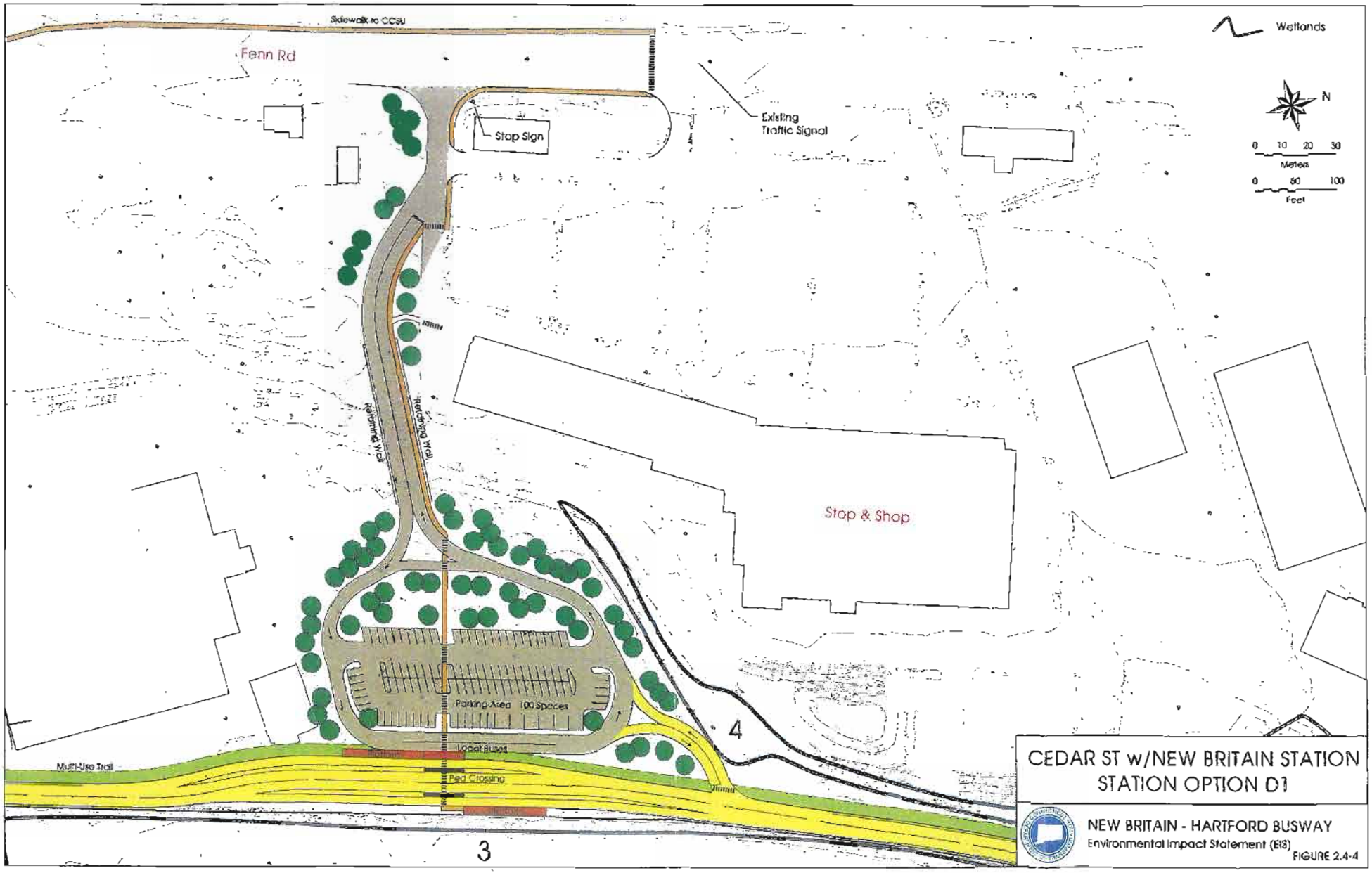
- Landscaping and site lighting to be provided and coordinated with Town of Newington
- The design of this station will be coordinated with the State Historic Preservation Office (SHPO) as noted in Section 5.
- The station would be separated from Amtrak operations by a protective barrier. Aesthetics will be considered as part of the design of the barrier to insure that it fits into the context and functionality of the station.
- Additional consideration of the treatment (walls/fences and landscaping) to the south of Willard Avenue will be developed
- Station architecture will be developed in conjunction with Town of Newington.
- Signage at the Willard Ave. access will be provided to help identify station location.
- Bicycle facilities will be designed into the station



EAST STREET
STATION OPTION C1 modified

NEW BRITAIN - HARTFORD BUSWAY
Environmental Impact Statement (EIS)

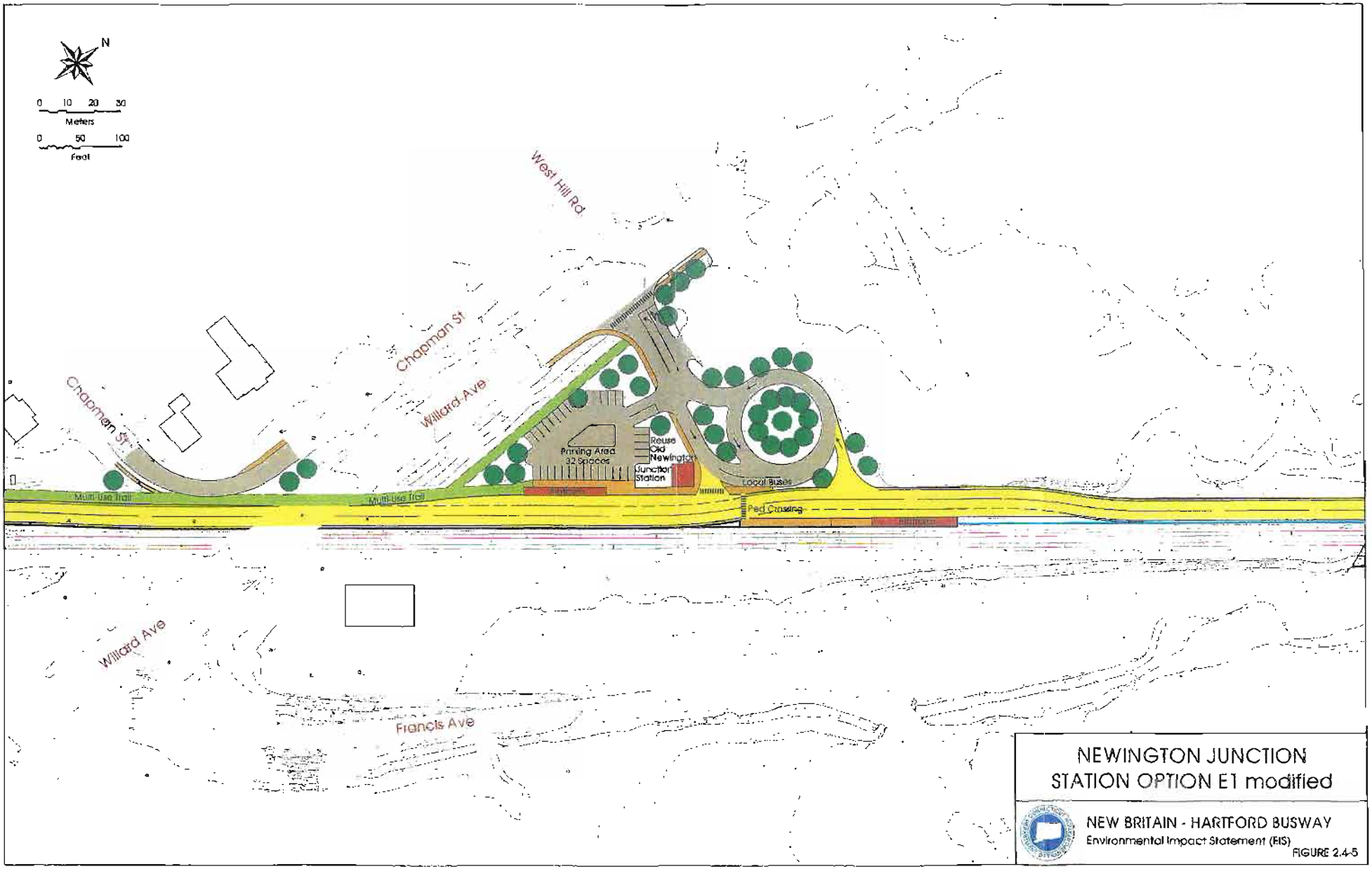
FIGURE 2.4-3



CEDAR ST w/NEW BRITAIN STATION
STATION OPTION D1

NEW BRITAIN - HARTFORD BUSWAY
Environmental Impact Statement (EIS)

FIGURE 2.4-4



NEWINGTON JUNCTION
STATION OPTION E1 modified

NEW BRITAIN - HARTFORD BUSWAY
Environmental Impact Statement (EIS)

FIGURE 2.4-5

- Crosswalks within the station area will be developed using alternative pavement treatments such as pavement stamping if an asphalt surface is used or different pavement colors/texture if concrete is used.
- Other amenities anticipated for this site include: public phones, emergency phones, vending machines/newspaper boxes, informational kiosks, bus system maps/schedules, seating, public art, waste receptacles, and clocks.

Rationale for Selection: This was the only location studied in the Draft EIS because of limitations elsewhere in the vicinity. It offers proximity to higher density residential areas with limited impact, which will be mitigated.

2.4.6 Elmwood Station Option F1

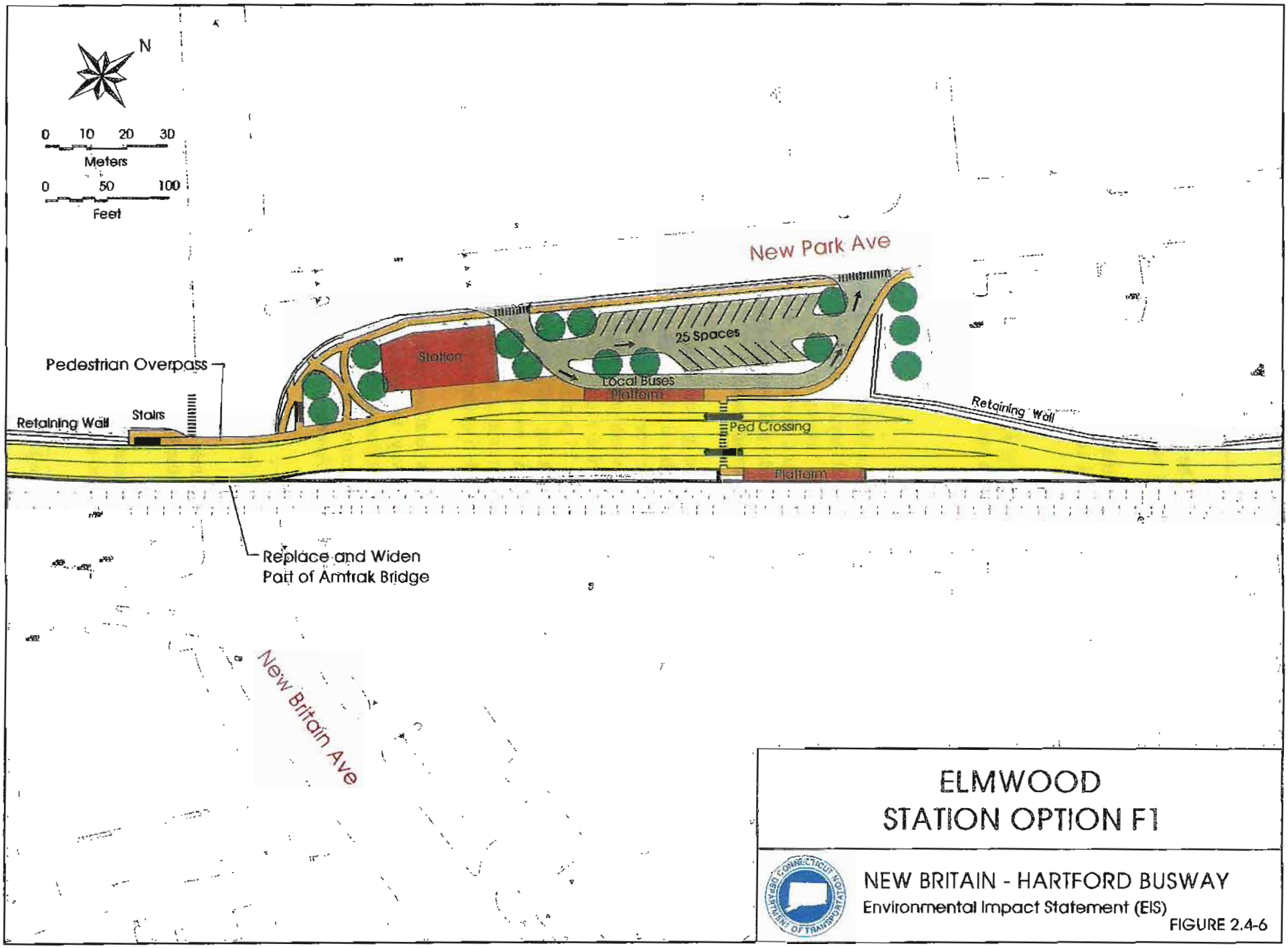
The Elmwood section of West Hartford west of the busway is a diverse established older village center containing storefront retail shops, a library, community center, houses of worship, and offices along New Britain Avenue west of the busway corridor. Heading east and north from the center of Elmwood, New Britain Avenue and New Park Avenue (respectively) have strip commercial developments. There are residential neighborhoods nearby, as well as some industrial properties to the south along the railroad tracks.

This station (Figure 2.4-6) would be sited along New Park Avenue between the New Britain Avenue bridge and the Trout Brook bridge. This station would have most of its amenities (drop-off area, building, main entryway, etc.) on the northeast corner of New Park Avenue and New Britain Avenue, on the site of an existing car wash and a lube shop. Limited parking would be provided at this location only for kiss and ride users and potential occupants of the station building. It is assumed that only an estimated 25 parking spaces could be provided, as there are space limitations and concerns about exacerbating traffic congestion. The Amtrak bridge over Trout Brook would require reconstruction on its west side to accommodate the busway station. Aesthetic treatments of the bridge, station amenities and details of lighting design, sidewalk treatments and landscaping will be developed during the design phases of the project.

This station design would include opportunities to allow pedestrian access from the south side of New Britain Avenue to the station, via a stairway, to minimize the need for pedestrians to cross this busy street. Additionally pedestrian connections to the proposed Trout Brook multi-use trail would be provided. Crossing of New Park Avenue is also of concern with consideration given to installation of a traffic signal at the New Park Avenue intersection with a local access drive just south of Trout Brook.

Additional features associated with this station include:

- The station would be separated from Amtrak operations by a protective barrier. Aesthetics will be considered as part of the design of the barrier to insure that it fits into the context and functionality of the station.
- Bicycle facilities will be designed into the station
- Landscaping and site lighting to be provided and coordinated with Town of West Hartford



ELMWOOD STATION OPTION F1

NEW BRITAIN - HARTFORD BUSWAY
Environmental Impact Statement (EIS)

FIGURE 2.4-6

- Station architecture will be developed in conjunction with Town of West Hartford.
- Crosswalks within the station area will be developed using alternative pavement treatments such as pavement stamping if an asphalt surface is used or different pavement colors/texture if concrete is used.
- Other amenities anticipated for this site include: public phones, emergency phones, vending machines/newspaper boxes, informational kiosks, bus system maps/schedules, seating, public art, waste receptacles, and clocks.

Rationale for Selection: This was the only practicable location evaluated in the Draft EIS. The station's central location and high level of amenity is appropriate for a local urban center such as Elmwood.

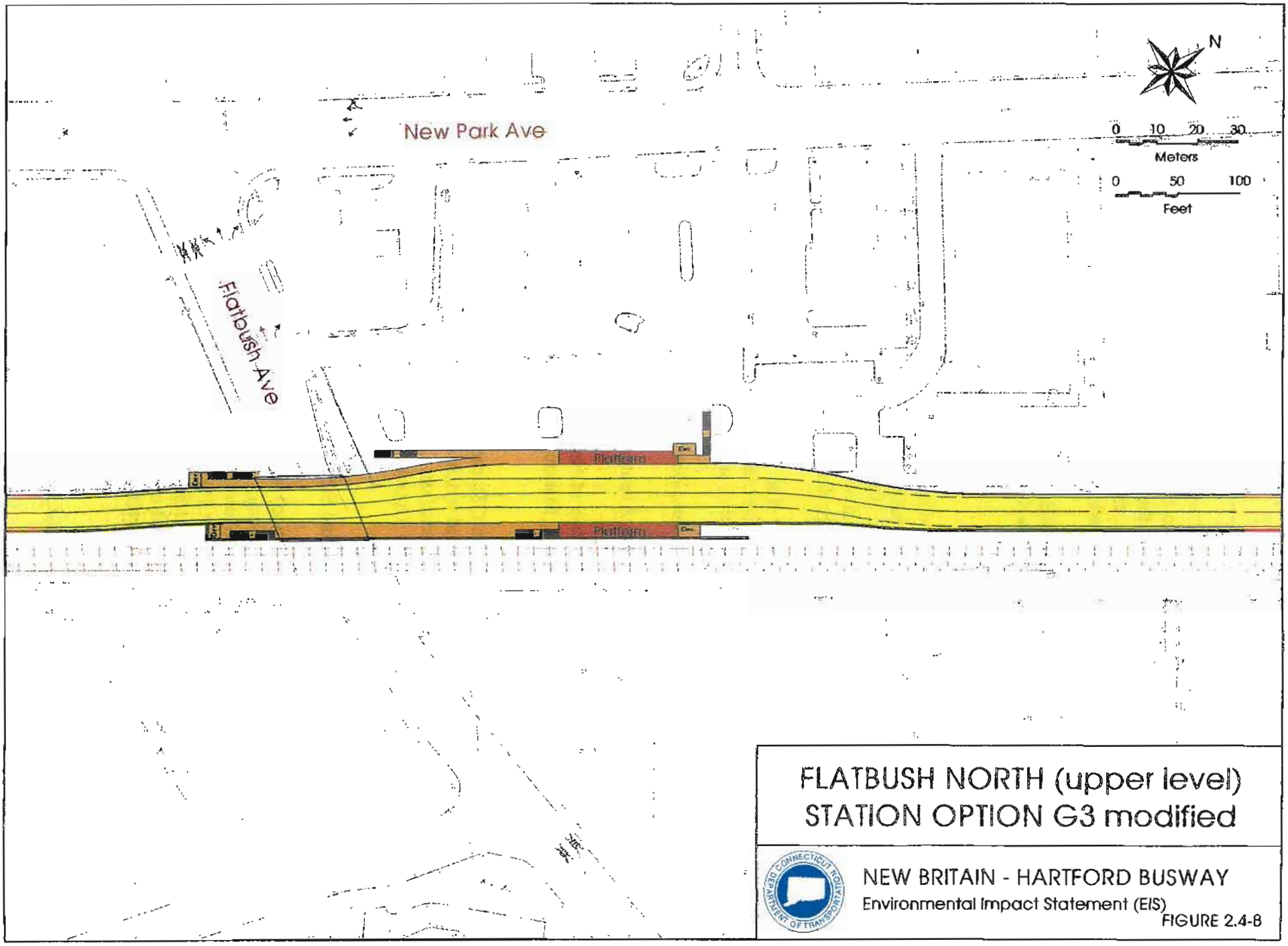
2.4.7 Flatbush Station Option G3-Modified

Flatbush Station Option G3 from the Draft EIS was selected and modified to improve on the station operations as well as fitting into the context of the neighborhood (Figures 2.4-7 and 2.4-8). Flatbush Avenue is an arterial roadway that crosses the corridor at-grade near the border between Hartford and West Hartford. The nearby Charter Oak Terrace and Rice Heights housing projects were recently demolished and now sit vacant waiting for redevelopment slated to include a Job Corps Center. New Park Avenue is also nearby, and contains a mixture of retail and industrial properties. The busway will overpass Flatbush Avenue to avoid traffic conflicts but the existing Amtrak rail crossing of Flatbush Avenue would remain at-grade.

The proposed busway in the vicinity of the station would begin to rise south of Flatbush Avenue, overpass Flatbush Avenue and stay elevated north of Flatbush Avenue until the platform area is fully developed before returning to an at-grade condition north of the station. The platform area therefore would be entirely above grade, just north of the elevated overpass of Flatbush Avenue. The station has been modified since the Draft EIS to avoid acquisition of a gas station on the northeast corner of New Park Avenue and Flatbush Avenue, provide better on-site circulation, provide covered drop-off areas for local bus circulation, and improve the street image from both New Park Avenue and Flatbush Avenue. In addition, the auto parts store would remain in place and only the donut shop (which could be relocated on-site in conjunction with the station) and a portion of the parking for the former Heublein site would need to be acquired.

A driveway from New Park Avenue located directly across from Foley Street provides the access to this station area. Local buses would enter from the driveway, circulate through the parking lot and drop riders off underneath the elevated station. In addition, a right turn only entrance from Flatbush Avenue for buses only is provided. It is assumed that approximately 136 parking spaces could be provided for busway passengers as well as a drop off area for passenger cars. The parking area would also serve the needs of any development in conjunction with the station.

Pedestrian access to the station would be provided from the sidewalks on both New Park Avenue and Flatbush Avenue. Access up to platforms would be provided with stairs and elevators and/or ramps in compliance with ADA regulations. In addition to platform access, pedestrian walkways



FLATBUSH NORTH (upper level)
STATION OPTION G3 modified

NEW BRITAIN - HARTFORD BUSWAY
Environmental Impact Statement (EIS)

FIGURE 2.4-8

over Flatbush Avenue will be provided with access down to street level on both sides. This will provide good pedestrian connectivity to the Capitol Community College and Charter Oak/Rice Heights redevelopment sites located to the east of the station. Of the three options considered in the Draft EIS, this location provides the shortest walking distance for the West Hartford residential neighborhood across New Park Avenue and north of Flatbush Avenue.

A station building will be provided underneath the overhead platforms adjacent to Flatbush Avenue. In addition, an outbuilding could be provided for co-development.

Additional station features include:

- Bicycle facilities will be designed into the station.
- Landscaping and site lighting will be provided and coordinated with Town of West Hartford and City of Hartford. Landscaping along Flatbush Avenue and New Park Avenue will be emphasized with new sidewalks.
- The station architecture and bridge details will be developed in conjunction with Town of West Hartford/City of Hartford.
- Other amenities anticipated for this site include: public phones, emergency phones, vending machines/newspaper boxes, informational kiosks, bus system maps/schedules, seating, public art, waste receptacles, and clocks.

Rationale for Selection: The Draft EIS considered three options for this station:

- Option G1, Station across New Park Avenue from Home Depot Store (between Flatbush and Oakwood Avenues
- Option G2, Station on southeast corner of New Park Avenue and Flatbush Avenue
- Option G3 (Recommended Action), Station on northeast corner of New Park Avenue and Flatbush Avenue.

Under the recommended action (Option G3), the only property that would be totally acquired is the donut shop, (which could be replaced within the station site or in the outbuilding as a Transit Oriented Development measure). In contrast, Option G2 would have required acquisition and relocation of an automobile dealership. Option G1 was determined to be a location that was too isolated.

2.4.8 New Park Avenue Station (Kane Street Station) –Option H2

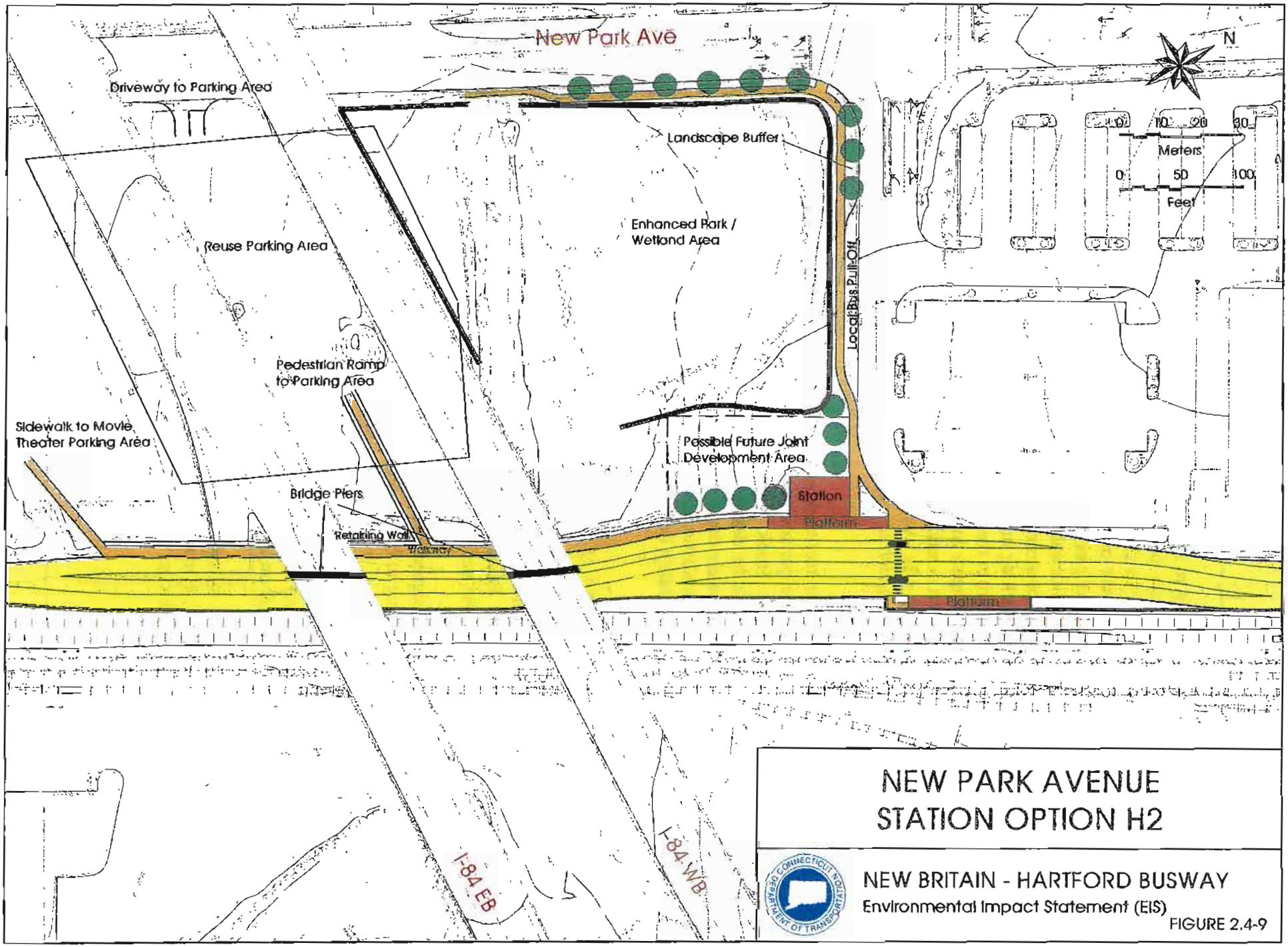
The New Park Station (Kane Street Station) is located in the Parkville neighborhood of Hartford, near I-84's overpass of New Park Avenue. A Stop and Shop supermarket abuts the corridor north of I-84, across New Park Avenue from Kane Street. An IMAX movie theater was recently opened immediately south of I-84 on New Park Avenue. There are also industrial and residential areas nearby. The station area also is adjacent to Kane Brook. Because this station site is integral with these adjoining commercial uses, every effort has been made not to interfere or detract from any commercial activities (traffic access, deliveries, etc.) and would seek to enhance them if reasonable.

The recommended station (Figure 2.4-9) is a modification of Option H1 as presented in the Draft EIS. The platform layout has been changed from an offset configuration to an opposite configuration, as requested by local stakeholders. The change requires that one of the busway lanes be constructed to the west of the I-84 bridge piers. In order to develop the lane and associated sidewalk west of the piers, the Kane Brook culvert would need to be extended and retaining walls constructed. Sidewalk connections between the station and existing sidewalks along New Park Avenue are proposed. In addition, a walkway would be provided to allow busway users to access the parking area (now sited under I-84) and the movie theater, roughly 400 meters (about 1300 feet) from the station. It is assumed that over 100 parking spaces could be provided for busway passengers in the space below I-84. Vehicle (car, delivery truck, and bus) access to the site has been considered in the design, including delivery truck access to the Stop & Shop. Local bus drop-offs would occur on a bus pull-off just off of the Stop & Shop driveway. A station building, which is visible from both Kane Street and New Park Avenue, is now proposed at this location.

In response to several public comments expressing a critical need for greenspace and ecological restoration in the area, another major component of this station is the redevelopment of enhanced wetland/parkland between Kane Brook, New Park Avenue, the Stop & Shop parking lot and the busway station. This area would be designed to possibly restore the floodplain by fill removal, utilization of the area for stormwater detention through the creation of wet and/or dry basins and restoration of the area with naturalistic, low maintenance landscaping. The landscaping would also be designed to provide visibility between the station area, the Stop & Shop and the parking area.

Additional station features include:

- The station would be separated from Amtrak operations by a protective barrier. Aesthetics will be considered as part of the design of the barrier to insure that it fits into the context and functionality of the station. Because of grade considerations, the station area will be located below the Amtrak tracks. As such the protective barrier will include a retaining wall as part of the lower portion.
- Bicycle facilities will be designed into the station.
- Landscaping and site lighting to be provided and coordinated with the City of Hartford and Parkville Neighborhood.
- Station Architecture will be developed in conjunction with the City of Hartford and the Parkville neighborhood.
- Crosswalks within the station area will be developed using alternative pavement treatments such as pavement stamping if an asphalt surface is used or different pavement colors/texture if concrete is used.
- Other amenities anticipated for this site include: public phones, emergency phones, vending machines/newspaper boxes, informational kiosks, bus system maps/schedules, seating, public art, waste receptacles, and clocks.


New Park Ave
Driveway to Parking Area
Landscape Buffer
Enhanced Park / Wetland Area
Reuse Parking Area
Pedestrian Ramp to Parking Area
Sidewalk to Movie Theater Parking Area
Bridge Piers
Retaining Wall
Walkway
Possible Future Joint Development Area
Station
Platform
Platform
Local Bus Pull-Off
N
0 10 20 30
Meters
0 50 100
Feet
I-84 EB
I-84 WB
NEW PARK AVENUE
STATION OPTION H2
CONNECTICUT DEPARTMENT OF TRANSPORTATION
NEW BRITAIN - HARTFORD BUSWAY
Environmental Impact Statement (EIS)
FIGURE 2.4-9

Rationale for Selection: Only one station option was evaluated at this location in the Draft EIS. It was revised as described above to addresses many of the shortcomings of the previous design evaluated in Draft EIS, as commented by Parkville and Hartford.

2.4.9 Park Street Station Option I4 (Hybrid of I1-I2-I3)

The Park Street Station would be located at Park Street, close to the heart of Parkville, a densely populated, ethnically diverse Hartford neighborhood. The New Park Avenue/Park Street/Sisson Avenue intersection is two blocks away, and contains restaurants, smaller stores, a community center, churches, and other community features. Real Art Ways is an arts organization that is located immediately west of the busway corridor and north of Park Street; housed in a former warehouse, it offers film and visual arts programs to the region. Industrial properties are found east of Amtrak on Bartholomew Avenue, and west of Amtrak on Francis Avenue. The neighborhood has been working to encourage reuse or redevelopment of unused or underused industrial buildings.

Three station options were developed in conjunction with the neighborhood and its ongoing Transportation and Community and System Preservation (TCSP) process, which is looking at integrating the land-use planning and transportation elements of Parkville. The following goals were identified through the busways public involvement process:

- Provide safe, defensible space in the station areas and platforms;
- Minimize the number of businesses affected and/or relocated;
- Create a station that is easily accessible to busway passengers;
- Minimize the size of the Park Street overpass;
- Provide connection to the Parkville Industrial Corridor on Bartholomew Street; and
- Integrate the station into the fabric of Park Street

During the development of the Draft EIS and the associated public involvement process, the Parkville neighborhood took an extremely active role in the development of this station. The results of this spirited process is recognition that no one station alternative can address all of these goals to the satisfaction of all the stakeholders. Therefore, three station options were developed for the Draft EIS, each emphasizing one or more of the identified goals.

The result of this effort is the following recommended station (Figure 2.4-10) that is deemed to best address the overall goals of the station.

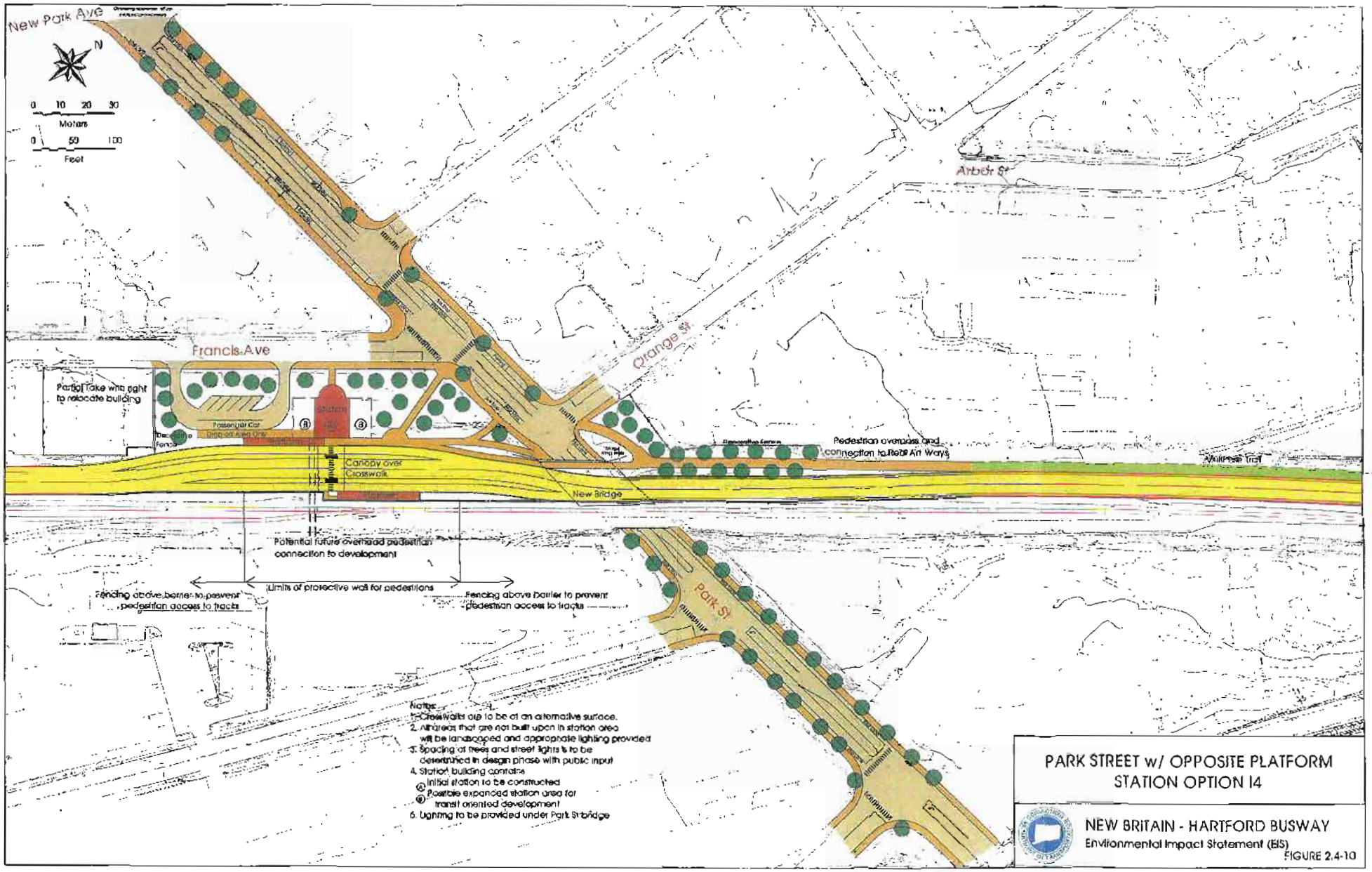
The recommended station would be located south of Park Street. The platform configuration would be of the "opposite" configuration. Two Francis Avenue businesses would be relocated for the construction of the station. A third Francis Avenue business would have some of its property acquired; it would either need excess property to be purchased so the business could be reconfigured on the same site, or else it would be relocated to a different site. One property on Park Street would be relocated.

The station area would have passenger car drop-off with limited kiss and ride parking; no parking spaces would provided for busway passengers. Local feeder bus drop-offs and pickups would occur on Park Street. A pedestrian overpass of Park Street will be provided with access down to Park Street on both sides as well as a connection to Real Art Ways. Landscaping and lighting would be designed to provide the greatest visibility to the station area and the connecting walkways. A station building is proposed that will fit into the neighborhood environment with the ability to contain future joint development. Connections to the Parkville Industrial Corridor would be provided by improved sidewalks under the new busway bridge, connecting to the existing sidewalks under the remaining Amtrak bridge, which then connects to a sidewalk on Bartholomew Street. The station area would be designed such that a future pedestrian overpass connection to Bartholomew Street could be constructed. Also as part of this project, the streetscape (proposed as part of the TCSP project) would be constructed on Park Street from the I-84 overpass to the Sisson Avenue/New Park Avenue intersection.

Additional features of this station include:

- Landscaping improvements along Park Street, Francis Street, busway corridor, and station area to be coordinated with the City of Hartford and the Parkville neighborhood.
- Lighting would be provided in the station area as well as along Park Street. Additional consideration will be given to the lighting under the Busway/Amtrak bridge.
- The station would be separated from Amtrak operations by a protective barrier. Aesthetics will be considered as part of the design of the barrier to insure that it fits into the context and functionality of the station.
- Decorative fencing will be provided between the station area and the oil distribution property on Francis Avenue. It will also be provided behind the residential properties on Orange Street between Park Street and Real Art Ways.
- Bicycle facilities will be designed into the station.
- Station architecture and bridge design will be developed in conjunction with the City of Hartford and the Parkville neighborhood
- Crosswalks within the station area will be developed using alternative pavement treatments such as pavement stamping if an asphalt surface is used or different pavement colors/texture if concrete is used.
- Other amenities anticipated for this site include: public phones, emergency phones, vending machines/newspaper boxes, informational kiosks, bus system maps/schedules, seating, public art, waste receptacles, and clocks.

Rationale for Selection: As noted previously, three Station Options (I1, I2 and I3) were all considered in the Draft EIS. All three stations were on the same site as the Recommended Action (with the main portion of the station located south of Park Street and varying amenities north of Park Street). The primary difference between the three options was the site configuration, platform configuration, and right of way impacts upon local businesses, and all three were viewed by the neighborhood, city, and affected businesses as having shortcomings in terms of their impacts and operations.



PARK STREET w/ OPPOSITE PLATFORM STATION OPTION 14

NEW BRITAIN - HARTFORD BUSWAY
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FIGURE 2.4-10

The recommended action, Option I4, is a hybrid of the three stations evaluated in the Draft EIS, on the same site, with additional improvements as described above. It addresses many of the shortcomings of the three Draft EIS options, as commented by Parkville and Hartford.

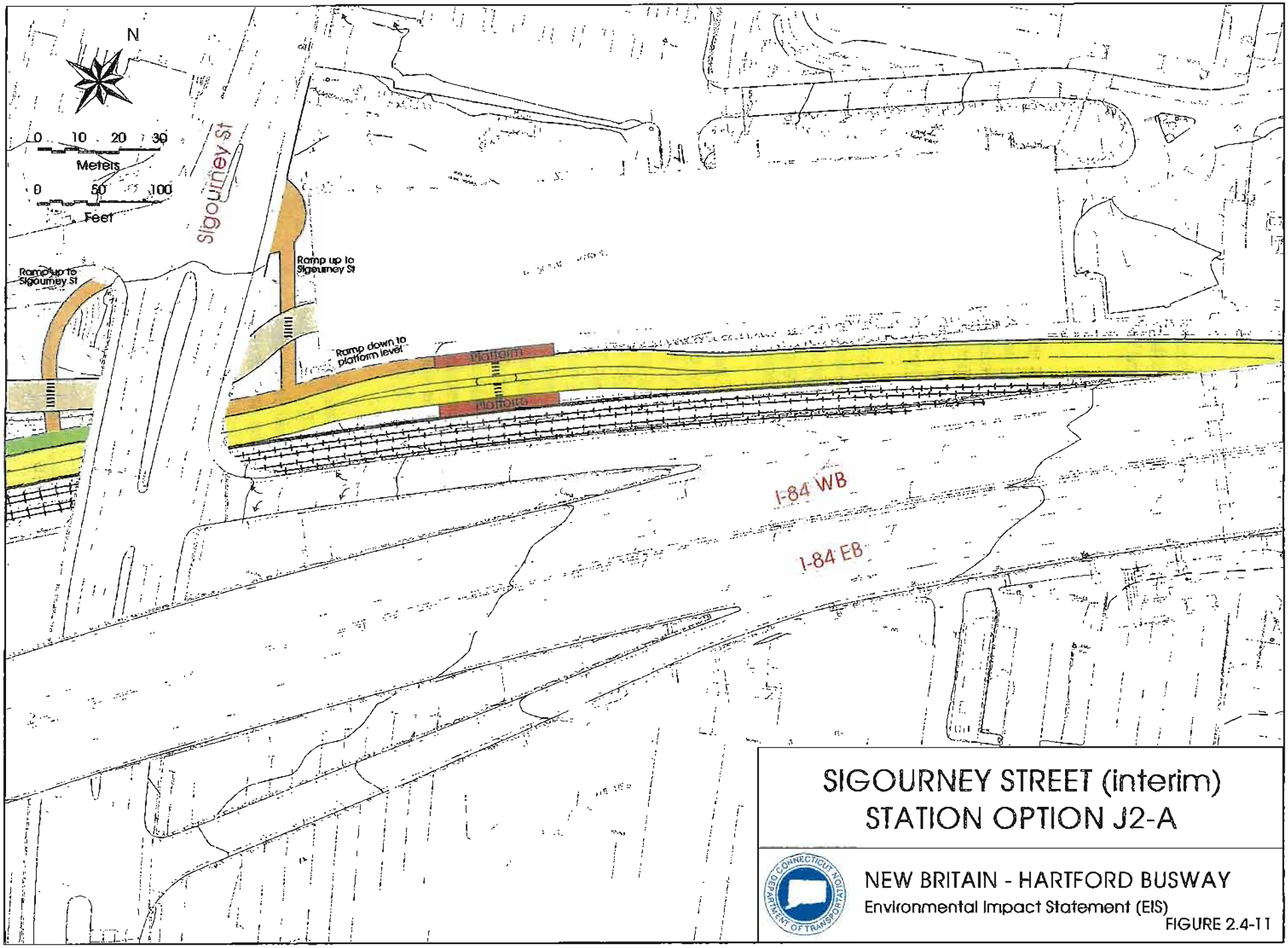
2.4.10 Sigourney Street Station Option J2

This area is on the periphery of downtown Hartford in the Asylum Hill neighborhood. This station is within walking distance of the Aetna corporate headquarters, a state office building at 25 Sigourney Street and the Hastings International Conference Center as well as Hartford High School. I-84 passes over Sigourney Street on a viaduct and Sigourney Street is also on a structure below I-84 and above the Amtrak tracks. Large parking lots for Aetna are found at the surface below I-84, and a parking garage for Aetna employees is also found near this location.

After initial discussions with officials at Aetna, it was decided that the location of the station shown in the Draft EIS would be moved to the opposite side of Sigourney Street at the location of the existing Aetna parking garage. Aetna indicated their willingness to partner with ConnDOT to develop a station on the site of the existing garage as they anticipate demolishing this garage in the future and reconstructing it in conjunction with the busway.

Because Aetna has more recently expressed concerns about the implementation of their overall parking plan (which would include rebuilding the existing parking garage in time for the opening of the busway), an interim station concept (Option J2-A) has been developed and is shown on Figure 2.4-11. This station is independent of the existing parking garage and will be constructed along the existing railroad right-of-way. In order to avoid impacting the garage, it was decided that the interim station would not have bus pull-off lanes. The service design presented later in this chapter had assumed that all express and local buses would stop at this station, so no change in the service of the busway is anticipated. However, not providing pull-off lanes may restrict future flexibility of extending express service until the station could be constructed as fully proposed. In the interim concept, an at-grade busway crossing will be provided with sidewalk connections up to Sigourney Street. Additional landscaping, signage, and lighting will be provided on Sigourney Street where the sidewalk connections would be made to alert people to the location of this interim station. The public will be able to access this station via a newly constructed pedestrian ramp from Sigourney Street. It is assumed that no parking would be provided for busway passengers.

Option J2-B, the long-term station concept (after Aetna has reconstructed their parking garage) has three levels (Figures 2.4-12, 2.4-13, and 2.4-14). The lower level is the location of the busway itself as well as the platforms. The second level has a pedestrian connection under Sigourney Street to the multi-use trail connection to the Park Street Station, and Aetna's proposed Hawthorn Street parking garage. At this level would be the lowest level of the garage with the existing vehicle entrance into the garage maintained. The third level has the "station building" part of the garage, with a street entrance from Sigourney Street. In the long-term station concept, internal connecting walkways would be provided overhead to the busway with stairs (or escalators) and elevators down to the platforms and the pedestrian connections on the lower two levels. Additionally there are connections into the garage for Aetna employees and a

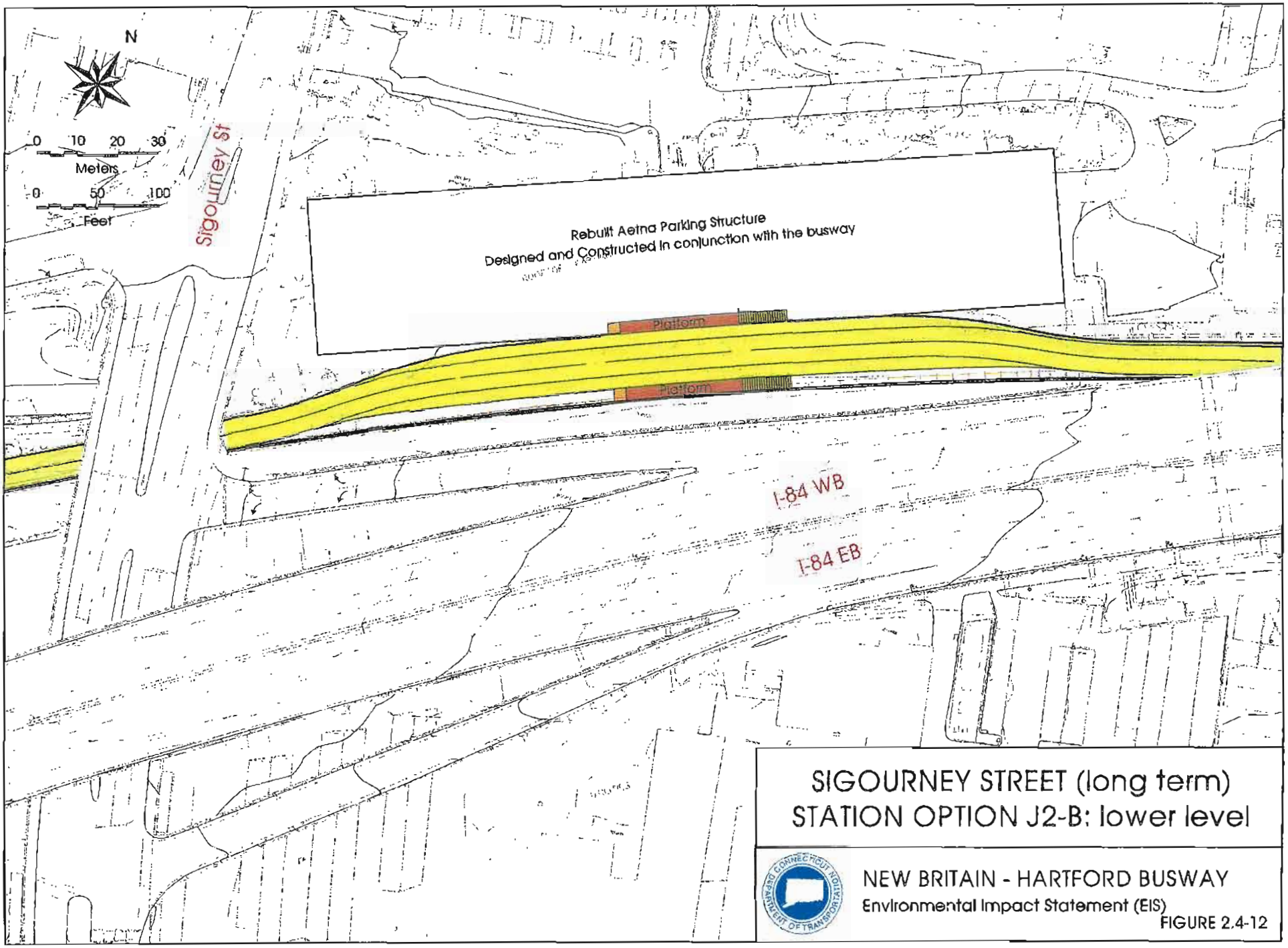


SIGOURNEY STREET (interim) STATION OPTION J2-A

NEW BRITAIN - HARTFORD BUSWAY

Environmental Impact Statement (EIS)

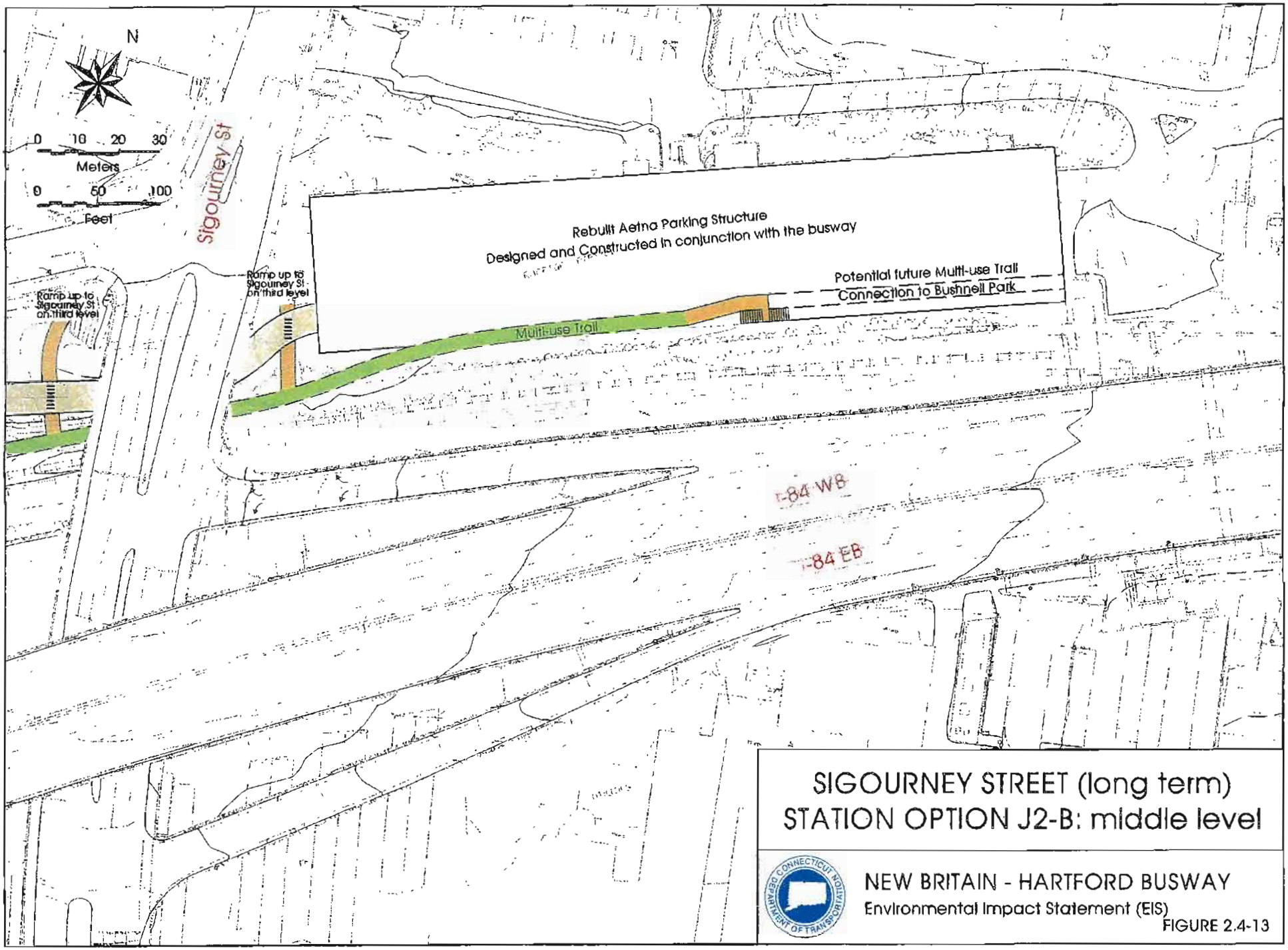
FIGURE 2.4-11



SIGOURNEY STREET (long term)
STATION OPTION J2-B: lower level

NEW BRITAIN - HARTFORD BUSWAY
Environmental Impact Statement (EIS)

FIGURE 2.4-12



SIGOURNEY STREET (long term)
STATION OPTION J2-B: middle level

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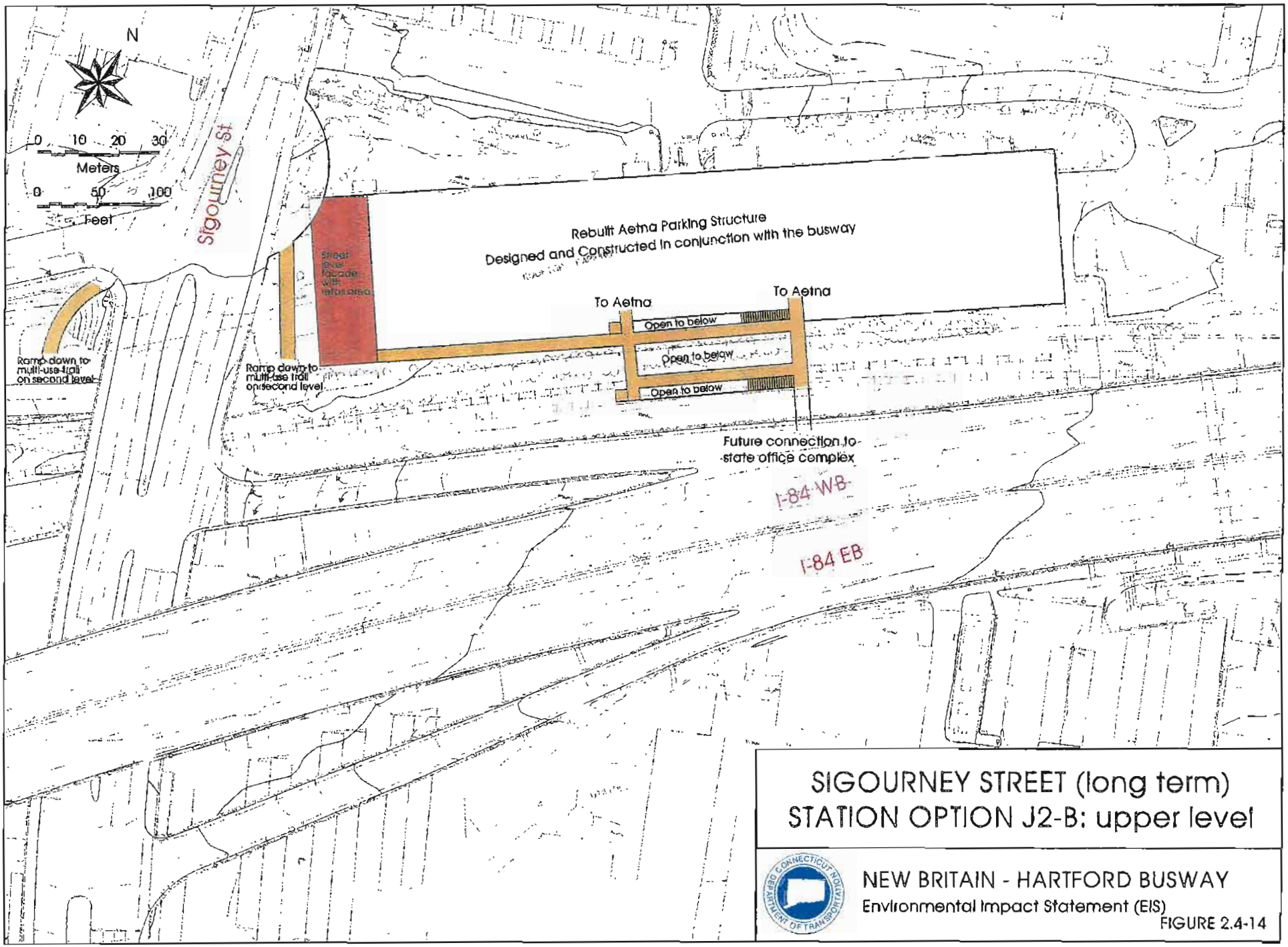
Environmental Impact Statement (EIS)

FIGURE 2.4-13



SIGOURNEY STREET (long term)
STATION OPTION J2-B: upper level

NEW BRITAIN - HARTFORD BUSWAY
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FIGURE 2.4-14

potential connection over the tracks (under I-84) to the state office complex on Capitol Avenue. The three levels would be open to each other, providing an open feeling to the station area. It is assumed that no parking would be provided for busway passengers. Should the details of the long-term station concept become finalized it would undergo a separate federal and state environmental review.

Additional station features include:

- The station would be separated from Amtrak operations by a protective barrier. Aesthetics will be considered as part of the design of the barrier to insure that it fits into the context and functionality of the station.
- Bicycle facilities will be designed into the station.
- Landscaping and site lighting to be provided and coordinated with Aetna, the City of Hartford and the Asylum Hill Neighborhood.
- Station architecture will be developed in conjunction with the City of Hartford and the Asylum Hill neighborhood.
- Crosswalks within the station area will be developed using alternative pavement treatments such as pavement stamping if an asphalt surface is used or different pavement colors/texture if concrete is used.
- For the long-term station concept, other amenities anticipated for this site include: public phones, emergency phones, vending machines/newspaper boxes, informational kiosks, bus system maps/schedules, seating, public art, waste receptacles, and clocks. Some of these amenities may or may not be provided for the interim concept, depending on space limitations.

Rationale for Selection: The Draft EIS contained only one station option (Option J1), which would have been located a block west of Aetna on a property now used as a surface parking lot. That site was considered undesirable by local citizens, as it was isolated from the neighborhood and would not have served Aetna employees (one primary group of users) very well. It would also have removed existing parking, and it conflicted with Aetna's ultimate plans (revealed subsequent to release of the Draft EIS) to build a parking structure on this site.

The Recommended Action (Station J2-A) would serve area residents (Asylum Hill Problem Solving Revitalization Association) and the Aetna complex more effectively with the busway station adjacent to Aetna's existing parking structure. In regards to a long-term station improvement (Station J2-B), Aetna is investigating the possibility of expediting their plans to rebuild this parking structure to accommodate busway implementation. Included in these plans would be the construction a second parking structure on the previously considered site west of Sigourney. Further coordination with Aetna as well as Federal and state agencies and will be necessary during the next phase of this project.

2.4.11 Armory/Legislative Office Building Station Option K1

This station would serve government offices in the Armory and Legislative Office Building, as well as locations on Broad Street. Additional nearby properties include the Hartford Courant and

other state offices. A station at this location would also provide a gateway into Bushnell Park. A station (Figure 2.4-15) would be provided near the Legislative Office Building parking ramp with an offset platform arrangement. No parking or kiss-and-ride facilities would be provided since this station would primarily serve as a destination location. A covered walkway would carry people using the station over the active Amtrak tracks to the parking structure, where additional climate-controlled connections are provided to the Legislative Office Building and Capitol complex. Additionally, an access will be provided the Broad Street overpass with covered stairs down to the station site as well as a pedestrian ramp. Prominent signage and the other features on Broad Street will alert the public to the location of the station.

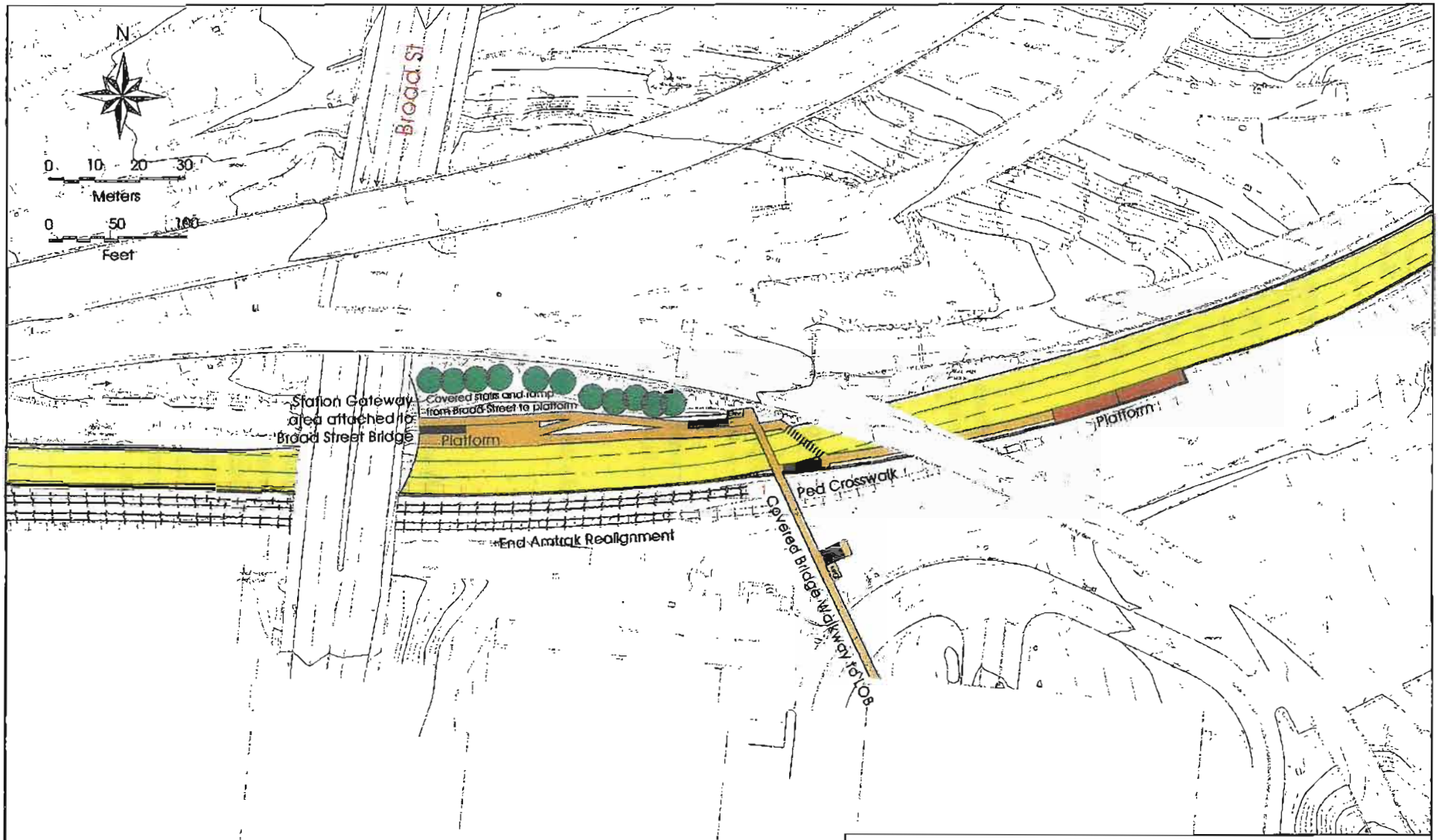
Other station features include:

- The station would be separated from Amtrak operations by a protective barrier. Aesthetics will be considered as part of the design of the barrier to insure that it fits into the context and functionality of the station.
- Bicycle facilities will be designed into the station.
- Landscaping and site lighting to be provided and coordinated with the City of Hartford and the Asylum Hill Neighborhood.
- Station architecture will be developed in conjunction with the City of Hartford and the Asylum Hill, neighborhood.
- Crosswalks within the station area will be developed using alternative pavement treatments such as pavement stamping if an asphalt surface is used or different pavement colors/texture if concrete is used.
- Other amenities anticipated for this site include: public phones, emergency phones, vending machines/newspaper boxes, informational kiosks, bus system maps/schedules, seating, public art, waste receptacles, and clocks.

Rationale for Selection: This is the only practicable design and location evaluated in the Draft EIS.

2.4.12 Union Station Option L1

Union Station would serve as a terminus for the dedicated busway service before buses circulate through downtown. In addition, future planned busways could feed into Union Station as well. The busway would pass over Asylum Street on the existing bridge structure and provide a busway platform on both sides of Asylum Street with a pedestrian walkway over Asylum Street (Figure 2.4-16). The platform on the south side of Asylum Street would include a pedestrian connection down to Asylum Street. The north platform would use the existing rail platform at Union Station and also provide direct pedestrian access to Asylum Street. Additionally, existing pedestrian connections down to the Union Station building may be used as well. The busway would continue northward through the rest of the station, and a ramp would be constructed that would enable buses to drop down to street level near the intersection of Myrtle, Church and Spruce Streets so they may circulate throughout downtown Hartford. It is assumed that no new parking would be provided for busway passengers, as Union Station is already served by parking.

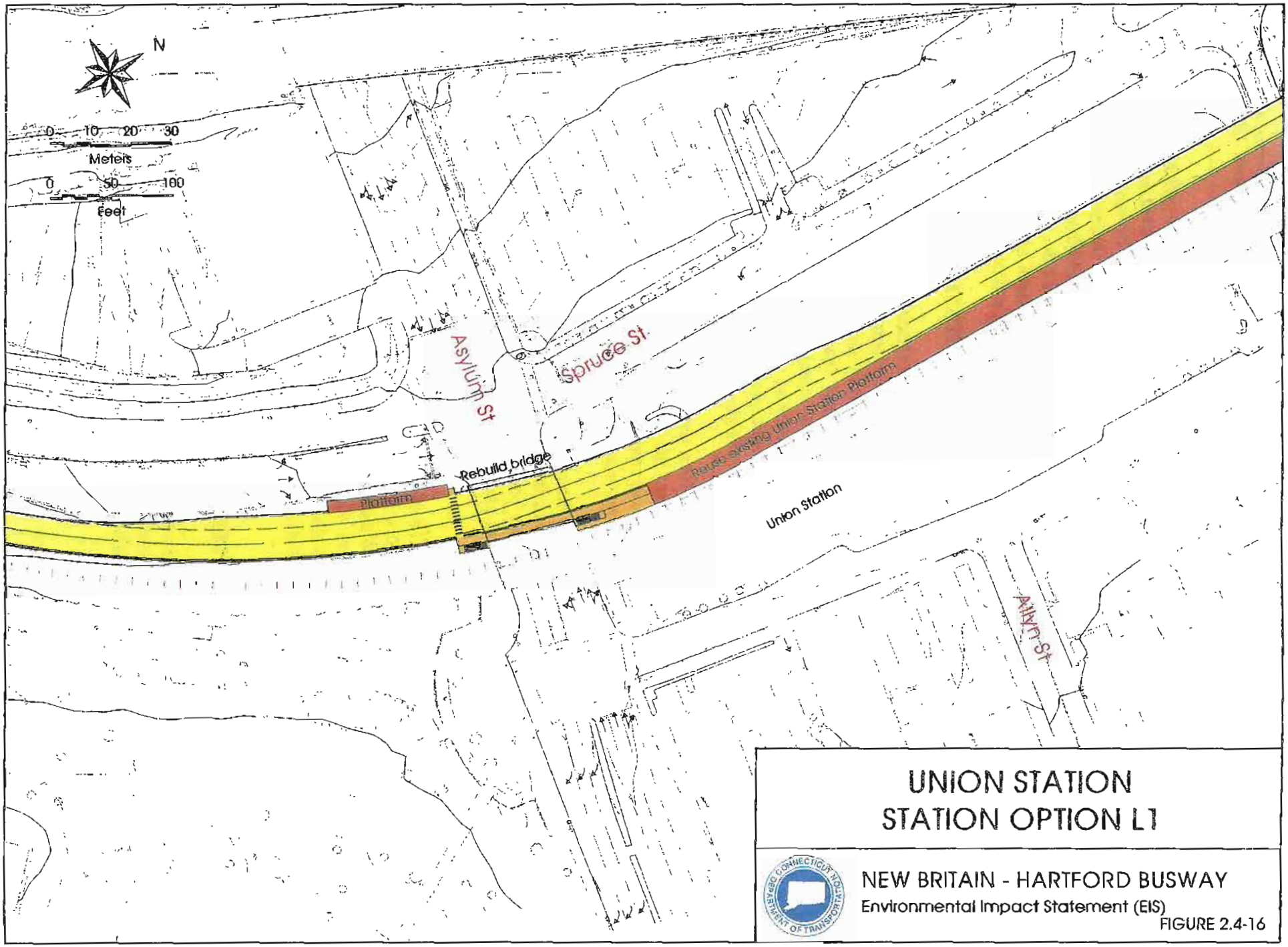


LEGISLATIVE OFFICE BUILDING STATION OPTION K1

NEW BRITAIN - HARTFORD BUSWAY

Environmental Impact Statement (EIS)

FIGURE 2.4-15



UNION STATION
STATION OPTION L1

NEW BRITAIN - HARTFORD BUSWAY
Environmental Impact Statement (EIS)

FIGURE 2.4-16

Rationale for Selection: This is the only practicable design and location evaluated in the Draft EIS. This location provides more direct access to where riders would want to be served without requiring them to walk through Union Station to get to the street. However, access to Union Station is provided if the rider desires to use the facility. The station over Asylum Street provides visibility to people in the downtown core and provides additional exposure for Union Station. A busway station further to the north would further shield the station from visibility to potential users. Consideration was given in preliminary planning to an at-grade busway intersection with Asylum Street, but this was rejected for traffic concerns.

2.5 TRANSIT-ORIENTED DEVELOPMENT AND STATION-AREA PLANNING

The project offers potential for changes in nearby neighborhoods resulting from Transit Oriented Development (TOD). Also called "Transit-Focused Development," this concept proposes higher concentrations of development near stations, increasing numbers of residents and employees within walking distance of stations (generally less than a half mile). At these higher concentrations, mixed land uses would serve daily needs by walking between uses, making transit more convenient. Improved pedestrian amenities and reduced availability of free parking would increase the incentive to walk to stations and use transit. In addition, TOD may enhance neighborhood revitalization efforts and property values.

It is difficult to predict exactly what TOD efforts would occur in nearby communities, although it is possible that higher density land uses near the busway and stations would be encouraged by the four cities/towns. All modeling assumptions of transit ridership were made without considering higher densities under TOD, since any changes would be speculative.

TOD and transit go hand in hand—while the presence of a transit station provides an impetus for TOD to occur nearby, the TOD increases the viability of the station and transit system. But ConnDOT cannot formally influence the planning choices made near stations; rather, the four municipalities need to make zoning and planning decisions that capitalize on the opportunities the transit facility provides.

The four communities near the busway have all indicated a willingness to offer special incentives (such as higher zoning densities) to encourage TOD near stations. ConnDOT is committed to continuing working with the four communities as well as the regional planning agencies (Capitol Region Council of Governments and Central Connecticut Regional Planning Agency) to encourage redevelopment and new development that benefits the busway and the communities at large. ConnDOT will participate in station-area planning efforts that the four communities and regional planning agencies undertake.

2.6 BUS TYPES AND FLEET FUELING CHARACTERISTICS

The public has expressed a great deal of interest in what types of buses would be used on the busway, and what type of fuel they would use. One of the benefits the busway has is that the existing fleet of buses would be available for immediate use. However, some new buses will

likely be purchased for opening day and as ridership increases and older buses come due for replacement, additional new buses will be needed .

New technology buses will reduce or eliminate on-road emissions from busway vehicles. Possible new technology buses under consideration include "clean" diesel, electric buses, and hybrid electric-diesel buses or other new fuels that may develop.

No final decisions have been made about the specific fuel technology that will be used, as technology is changing rapidly. However, ConnDOT has committed to examine alternative fuel types and to purchase buses that use proven technology, are not cost prohibitive and are practical. ConnDOT has recently purchased two hybrid electric buses as a demonstration project for testing in anticipation of the bus purchase for the busway services. ConnDOT is also testing low-sulfur diesel fuel and bio-diesel fuel for testing emissions reductions.

Various styles of new buses are also being considered at this time but no final decisions have been made. Additionally, ConnDOT is presently preparing to test bike racks on their new buses in the Stamford Division.

2.7 PROPOSED OPERATIONS

The characteristics associated with the proposed operation plan include, types of services, hours of operation, service frequencies, bus speeds, and fares.

2.7.1 Operational Characteristics

2.7.1.1 Types of Service

Four types of service have been proposed for the busway:

Express Bus Service: Express buses would originate in outlying towns and make limited stops on the busway, avoiding congestion on Interstate 84. In the example of an "inbound" trip, express buses would use regional expressways (such as Route 72) and exit to the Downtown New Britain station to allow transfers to local services. Express routes then would skip intermediate busway stops until downtown Hartford, where they would exit and circulate locally to provide convenient drop-off points close to passengers' destinations.

Shuttle Bus Service: Like a subway, this service would operate from end to end on the busway, stop at all busway stations, then, potentially, circulate through the two downtowns. The dedicated busway would be much faster than today's routes, which follow congested local streets.

Neighborhood Collector Bus Service: Collector buses would circulate on local streets within a community, then access the busway somewhere along its length. Those routes would then use the busway to get to the destination, whether that is downtown Hartford, New Britain, or an intermediate area. After exiting the busway, the collector service would circulate again near the

destination to get passengers close to where they want to go. The circulation at both ends of the route would offer many passengers a "one-seat trip" with no transfers, since many origins and destinations would be served.

Feeder Bus Service: This service would connect residential areas, points of interest, or other primary locations with the nearest busway station. In this case, the feeder bus would not actually use the busway itself, but would take passengers to the busway stations to transfer to busway services.

2.7.1.2 Hours of Operation

For the purposes of the EIS analyses, it was assumed that the busway would operate seven days a week, between the hours of 6:00 AM and 12:00 Midnight. This would increase the availability of transit services compared to today. These hours may be further modified as future needs dictate.

2.7.1.3 Service Frequencies

Service frequencies vary by station. During peak hours of demand (roughly 7:00 AM - 9:00 AM and 4:30 PM - 6:30 PM), service headways are anticipated to average every two to five minutes, ranging between 12 and 28 buses per hour. If a passenger wishes to access a specific neighborhood circulator route, the frequencies will be two buses per hour during the peak hour. Shuttle routes will serve each station four times per hour during peak hour. During off-peak hours, service frequencies will be scaled back to meet lower demand, ranging between 9 and 19 buses per hour.

Feeder route services will serve selected stations with a peak period frequency of one to four buses per hour during the peak hour. Most feeder route services will remain at the same frequency during the off-peak hours, although a few routes may be scaled back in frequency as demand dictates.

2.7.1.4 Bus Speeds

The busway will enable buses to avoid congestion on local streets, regional arterials and I-84. Therefore, average speeds will increase, and bus transit will be more competitive versus automobile travel. Busway speeds will be dictated by surrounding land uses and the design limitations of the facility. In areas that are more densely populated, have curves, or contain at-grade crossings, speeds would be limited to 35 mph. This 35-mph limit will also be observed through stations for express buses that are passing through. Along selected straight segments of the corridor with no crossings or nearby residences, speeds would be as high as 50 mph. Bus drivers will require special training before using the busway.

2.7.1.5 Bus Fares

Bus fares on bus routes using the busway will be the same as the overall system-wide fares in place at the time. The fares listed below reflect projected fares as they relate to current ConnDOT policy:

Local, Shuttle and Feeder services:

- All trips on local, shuttle and feeder routes serving the busway: $1.00
- Local service between all points in the communities of New Britain, Berlin, Newington, Hartford and West Hartford with one free transfer to a local route: $1.00

Express Services:

Express service fares range from $1.80 to $3.45 and all express services include one free transfer to local service.

- From Kensington via New Meriden Express: $1.80
- From Bristol: $2.35
- From Southington: $2.35
- From Meriden: $2.35
- From Cheshire: $2.90
- From Waterbury: $2.90 (forecast for new service)

2.7.1.6 Emergency Vehicle Access

Emergency vehicles would be allowed to enter the busway if an emergency on the busway or any adjoining area required it. In addition, during the design process, local fire officials will be contacted and fire hydrants will be located along the busway to meet fire protection needs.

2.7.2 Operational Plan

2.7.2.1 Recommended Action Route Operations

The operational plan for the recommended action was derived from the service assumed in the Major Investment Study (MIS), then refined by reviewing interim ridership projections, improving mobility impacts and reducing unproductive routes. A determination was made about the needs for express service, reverse commuting, and local circulators using intermediate access. The proposed new service design for express, collector and feeder services differs from the MIS design in several important ways:

Express Service: Besides existing express service from Bristol and Cheshire/Southington, for the purposes of the EIS analysis, new services were added from Meriden and Waterbury. Express services are proposed to operate non-stop between New Britain and Sigourney Street. Express bus passengers destined for locations between New Britain and Sigourney Street would

get a free transfer to the busway shuttle or a local bus in New Britain. Passengers boarding in downtown New Britain will have direct access to express services.

Neighborhood Collector Services: Local bus services in New Britain have been revised to reflect recommendations of the Statewide Bus System Study and refinement of ridership counts and forecasts. Two New Britain routes were substantially reworked to one route to provide better access to employment in New Britain and to respond to forecasts of poor performance. A new busway route proposed to enter the busway at Cedar Street modifies an existing route. Two proposed routes shifted their busway access from Elmwood to Flatbush Stations, providing more direct service to retail and employment opportunities on New Park Avenue.

Feeder Services: New feeder services are proposed to improve the linkage between the busway, CCSU and the Westfarms Mall. Cross-town feeder services from Newington to New Britain, West Hartford and Farmington that were forecast as poor performers in the MIS have been dropped. One existing route was extended to a loop serving south Newington.

Table 2.7-1 summarizes the services assumed in the operational plans.

Table 2.7-1
Operational Services for Recommended Action

Route #	Existing/ New/Elim.	Service Type	Points Served	Notes
X1	Existing	Express	Park and Ride in Bristol; Downtown New Britain; Downtown Hartford	Rerouted from I-84 to busway; stop at Sigourney
X2	Existing	Express	Park and Rides in Cheshire and Southington; downtown New Britain, downtown Hartford	Rerouted from I-84 to busway
X3	New	Express	Downtown Waterbury, Park and Ride in east Waterbury, downtown New Britain, downtown Hartford	
X4	Replace Existing	Express	Downtown Meriden, Kensington, Downtown New Britain, Downtown Hartford	Replaces underperforming I-91 route, uses Route 71 (Chamberlin Highway)
Shuttle	New	Shuttle	All 12 Busway Stations, downtown Hartford circulation	Western terminus is downtown New Britain station.
BU	Existing	Collector	Burritt Street, busway stations to downtown Hartford	
PL	Existing	Collector	Plainville, New Britain, busway stations to downtown Hartford	Improve access to New Britain General Hospital
FA	Existing	Collector	Northwest New Britain, busway stations to downtown Hartford	
BK	Existing	Collector	Berlin, Kensington, Southern New Britain, busway stations to downtown Hartford	Unproductive loops eliminated
OK	Existing	Collect'r	Northeast New Britain, busway from Cedar Street through downtown Hartford	Unproductive loops eliminated

Route #	Existing/ New/Elim.	Service Type	Points Served	Notes
New E. NB	New	Collector	East New Britain, busway stations from East Street through Downtown Hartford	Replaces two underperforming routes (South and East Streets)
New P Ltd.	New	Collector/ Express	New Britain, downtown Newington, Main Street, Elmwood, New Park, Flatbush Ave, Downtown Hartford	Revision of existing P service to improve speeds. Existing P will be shortened to run between Newington and Hartford.
New Q Ltd.	New	Collector	UConn Medical Center, Westfarms Mall, Elmwood, Downtown Hartford	Variation of existing Q service
AR	Existing	Feeder	Arch Street	Modified to reflect X4 route above; non-productive segments removed
ST	Existing	Feeder	Stanley Street, Westfarms Mall, CCSU, downtown New Britain	Eliminated/changed loops to "request only."
CO	Existing	Feeder	Tunxis Community College, Plainville, downtown New Britain	Minor shortening
CCSU	New	Feeder	CCSU Campus, Cedar Street Station, Stanley and Wells	10 minute loop, 15 minute headways
MALL	New	Feeder	Cedar Street Station, Westfarms Mall, Corbins Corner	
ELM	New	Feeder	Downtown West Hartford, Elmwood	15 minute peak headways, hourly headways off peak
OAK	New	Feeder	Flatbush Station, New Park Ave., Oakwood Ave., Farmington Avenue, Downtown West Hartford	
W2	Existing	Feeder	VA Hospital, Willard Avenue (Newington Junction)	Extended from VA Hospital to busway, new loop added
Q2/Q3	Existing	Feeder	Elmwood Station, Westfarms Mall	
Q4	Existing	Feeder	New Park Avenue, Flatbush Avenue Station	BJ's/Home Depot complex served
K4/K5	Existing	Feeder	Parkville, West Hartford, Hartford, Westfarms Mall	15 minute headways during daytime
W1	Eliminated	N/A	New Park Avenue, Flatbush, Oakwood, Capitol Avenue	Served better by new routes
K3	Eliminated	N/A	New Park Avenue, Park Street	Served better by new routes

The services described above may be modified before implementation as a more detailed service design process is undertaken in cooperation with the local communities and the service providers.

2.7.2.2 Downtown Hartford Circulation

One of the benefits of the New Britain – Hartford Busway is that routes to Downtown Hartford would circulate throughout downtown, providing more direct service for downtown origins and destinations. A Downtown Circulator Study is ongoing by the City of Hartford and the Greater Hartford Transit District, to determine the most effective way to circulate passengers through the

downtown area. While the results of this study have not been released to date, several basic assumptions were made about how busway service would circulate in downtown Hartford:

- All busway services would stop at Sigourney Street.
- Flower Street could be used as an intermediate access point for downtown circulation, or buses could continue through the Armory/Legislative Office Building and Union Station stations.
- North of Union Station, the busway would drop down to an access point near the intersection of Myrtle, Church and Spruce Streets, where buses would then circulate.
- Downtown circulators would follow a loop that would access most major downtown origins and destinations.

2.7.2.3 Bus Requirement and Bus Maintenance Facilities

In order to implement the proposed operation plan outlined, an additional 28 buses will need to be purchased. Interviews with the existing bus operators in the service area indicate that no new maintenance or bus storage facilities would be required to accommodate these new buses, although minor modifications to the current facilities may be required.

2.8 COST ESTIMATES

2.8.1 Estimated Capital Costs

Two types of cost estimates were developed for this EIS, construction and operating. For ease of understanding and direct comparison with the Draft EIS, all costs are reflected in year 2001 dollars in Table 2.8-1. In addition, Table 2.8-2 is provided to reflect total "escalated" costs related to the duration of construction, which should be completed in 2004. Both tables summarize the costs associated with construction, right of way, and equipment for the busway, which are described in greater detail in the following sections.

Table 2.8-1
Estimated Costs of Constructing Busway Associated With Recommended Action, Year 2001 Dollars

Line Item		Cost in Year 2001 Dollars, Millions
	Busway Roadway Alignment	**$ 42.3**
Stations	Station A1, Downtown New Britain	$ 7.4
	Station B1, East Main Street	$ 0.8
	Station C1-Modified, East Street	$ 1.2
	Station D1, Cedar Street	$ 1.2
	Station E1, Newington Junction	$ 1.6
	Station F1, Elmwood	$ 1.4
	Station G3 – Modified, Flatbush Avenue	$ 6.3
	Station H2, New Park Avenue (Kane St.)	$ 3.1
	Station I4, Park Street	$ 2.1
	Station J2, Sigourney Street	$ 1.7
	Station K1, Legislative Office Building / Armory	$ 1.0
	Station L1, Union Station	$ 0.8
	Subtotal for all Stations	**$28.6**
	Miscellaneous Items	**$14.8**
	Multi-use Trail	**$3.4**
	Design and Inspection	**$8.5**
	Right of Way Acquisition (Both Amtrak and non-Amtrak Property)	**$12.0**
	New Buses	**$11.2**
	Contingencies (20%)	**$24.2**
	TOTAL ESTIMATED CAPITAL COST	**$145.0**

Table 2.8-2
Estimated Costs of Constructing Busway Associated With Recommended Action, "Escalated Dollars"

Line Item		Cost in "Escalated" Dollars, Millions
	Professional Services	$12.9
	Land Acquisition	$12.5
	Total Construction	$92.9
	Vehicles (28 Buses)	$12.3
	Contingencies	$29.4
	TOTAL "ESCALATED" ESTIMATED CAPITAL COST	**$160.0**

2.8.1.1 Estimated Construction Costs

The cost to construct the busway itself includes major items such as pavement, barriers, bridges, drainage features and traffic control at busway crossings. The estimated construction cost of the busway roadway and stations for the Recommended Action in escalated dollars is approximately $92.9 million. Total costs are summarized in Tables 2.8-1 and 2.8-2.

2.8.1.2 Estimated Right-of-way Costs

In addition to construction costs, there are costs associated with the purchase/relocation of existing buildings or land. There are two major components of right-of-way for this project, the Amtrak right-of-way adjacent to the tracks and any properties required to build the stations. An estimate of $12.5 million in escalated dollars has been determined for all of the required right-of-way.

2.8.1.3 Equipment Purchase

Additional buses are required to operate the proposed service plan. A total of 28 new buses are anticipated for the opening year service at an estimated cost of approximately $12.3 million in escalated dollars.

2.8.1.4 Estimated Total Capital Costs

In the development of the estimated total capital costs for the Busway, all the costs are tallied (e.g., Professional Services, Construction, Right-of-Way, etc.) and a contingency factor is added. The current estimate, in year of expenditure dollars, is $160 million as shown in Table 2.8-2.

The capital cost of the Recommended Action (based upon the MIS cost estimates) is included in the most recent ConnDOT Statewide Transportation Improvement Program (STIP). It is also included in the financially constrained long-range plans (LRP) for both of the regions it is part of, CCRPA and CRCOG. The budget allocations in the STIP and LRPs will need to be adjusted based upon this current estimate.

The activities on this project to date have been funded using a combination of federal funds from the Federal Highway Administration's (FHWA) National Highway System (NHS) program and State funds from the Connecticut Special Transportation Fund (STF). The STF provides funding for capital improvements, and operating and maintenance costs of the State's surface transportation system. As identified in the STIP and LRPs, the design and construction of the project will be funded through various federal programs including the FHWA's NHS and Congestion Mitigation and Air Quality (CMAQ) funds, FTA's New Starts and Formula funds with the State match coming from the STF. It is anticipated that with the combination of these funds the recommended action could be constructed. If one of the funding sources were not available, the project would need to be reevaluated specifically with regard to schedule and funding sources. Table 2.8-3 is a summary of the proposed capital financing plan:

Table 2.8-3
Anticipated Funding Sources for Recommended Action, "Escalated Dollars"

Funding Source	Cost in "Escalated" Dollars, Millions
New Starts – FTA	$79.4
Section 5307 Formulary – FTA	$9.8
Section 5309 Bus Discretionary – FTA	$13.2
National Highway System (NHS) – FHWA	$12.8
Congestion Management Air Quality (CMAQ) – FHWA	$12.8
Surface Transportation Fund (STF) – Local Share	$32.0
TOTAL FUNDING SOURCES	**$160.0**

2.8.2 Operating Costs

Operating costs for the proposed service design were developed for both opening year (2004) and future year (2020) in current year dollars. Current operating costs for those existing services in the corridor are approximately $6.5 million annually. When the Busway opens in 2004, operating costs are expected to rise to $12.8 million dollars. Future year operating expenses would be expected to increase to $16.5 million. The increase in operating cost is expected because of the increased number of routes serving the Busway and increased hours of service.

The additional $6.3 million dollars of operating costs in the opening year and future years will be paid through a combination for fare box recovery (estimated at approximately 27%) as well as increased funding from the Connecticut STF. The majority of the existing bus operations are presently funded through the STF. The STF was established in 1984 with funding of $362.9 million growing to $858.2 million in 1998. The STF collects the majority of its revenue through motor fuel taxes and various license and registration fees. Approximately 7% of these funds go to support bus operations in the State.

2.8.3 FTA New Starts

All projects seeking Federal discretionary New Starts funding must obtain FTA approval before entering into preliminary and final design. The Transportation Efficiency Act for the 21st Century (TEA-21) identifies specific criteria that the FTA must consider in its approval to advance fixed guideway projects through the New Starts development process. Specifically, there are two areas in which candidates for New Starts funding are evaluated: Project Justification and Local Financial Commitment.

FTA rates each New Starts project candidate as "Highly Recommended", "Recommended" or "Not Recommended". These overall project ratings are based on ratings assigned by FTA to each of the above Project Justification and Local Financial Commitment measures. FTA's evaluations and ratings process is important as they help to identify those projects which are most worthy of Federal investment. Project ratings are considered by FTA in the development of its annual budget, and by Congress in its annual appropriations deliberations. As directed by

TEA-21, FTA publishes these ratings in the US Department of Transportation's *Annual Report on New Starts*. In the 2001 edition of that report, the Busway project received a "Recommended" rating. This project will continue to be rated as it proceeds through the project development process.

Chapter 3

Environmental Consequences of Recommended Action

The purpose of this chapter is to examine the environmental consequences of the recommended action for the New Britain – Hartford Busway project. There are a number of issues that have not changed in scale or location of impact since the Draft EIS. The reader should refer back to the Draft EIS for more information on impacts upon the following areas, which are incorporated into this Final EIS by reference:

- Air Quality
- Demographics and Environmental Justice Populations
- Groundwater
- Threatened and Endangered Species
- Coastal Barriers; Coastal Zones; Wild and Scenic Rivers
- Scenic Roads
- Farmland: Prime, Unique, and Statewide Importance
- Utilities
- Energy
- Construction Impacts
- Secondary and Cumulative Impacts
- The Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity
- Irreversible and Irretrievable Commitment of Resources

3.1 NOISE

Noise is excessive or unwanted sound. Sound intensity is measured in decibels, and an "A-weighted" scale simulates the response of the average human ear. Thus, noise levels in this study are expressed as dBA, or "A-weighted" decibels. Refer to Section 4.1 of the Draft EIS for more information on how noise levels are measured and calculated and the terminology used.

FTA has established noise level criteria to identify the magnitude of impact on noise sensitive sites. As described in FTA's *Transit Noise and Vibration Impact Assessment* (1995), a transit project will

either create "no impact," "impact," or "severe impact" on a nearby noise receptor. The determination of level of impact is based upon existing (pre-construction) noise levels, the type of land use that is affected, and the increase in noise levels associated with the project. According to FTA, a project would be considered to create:

- **No impact** if the introduction of the project would result in an insignificant increase in the number of people highly annoyed by the new noise

- **Impact** (but not a severe impact) if the change is the cumulative noise level is noticeable to most people, but may not be sufficient to cause strong, negative reactions from the community. In the "impact" range, other project-specific factors must be considered to determine the magnitude of the impact and the need for mitigation, such as the predicted level of increase over existing noise levels and the numbers of noise-sensitive land uses affected.

- **Severe Impact** would occur where a significant percentage of people would be highly annoyed by the new noise. Areas with noise impacts in the "severe" range would be the most likely candidates for mitigation.

As described in the Draft EIS, existing noise levels throughout the busway corridor were measured with noise monitoring equipment. Table 4.1-1 in the Draft EIS shows the measured levels.

Noise impacts were initially screened at residential areas and other sensitive locations throughout the corridor as described in the Draft EIS. The Draft EIS analysis used FHWA's Traffic Noise Model (TNM) to predict noise levels. The noise analysis indicated that mitigation was warranted at several locations. Based upon public comments and FTA input, at several locations, the noise analysis was reevaluated and refined, focusing on the Federal Transit Administration's guidelines and procedures at four locations. Figures 3.1-1, 3.1-2, and 3.1-3 show noise barrier locations that were evaluated for the Final EIS:

- Cottage Place Neighborhood, New Britain
- Cornerstone Condominiums, New Britain
- Chapman Street Neighborhood, Newington
- Francis Street Neighborhood, Hartford

Table 3.1-1 indicates the results of the reevaluation of the noise modeling:

Table 3.1-1
Results of Noise Modeling Reevaluation at Four Locations

Location	Dwelling Units Abated	Noise (L_{dn}) from Project	Total Noise Exposure (including trains[1])		15-Foot-High Barrier Length (feet)	Noise Barrier Attenuation (dBA)
			L_{dn}	L_{eq}		
Cottage Place	15	51	51	52	800	15
Cornerstone Condos	20	58	58	60	850	13
Chapman St.	7	49	71	71	1100	12
Francis Street	24	53	71	71	1100/650[2]	12

[1]Chapman Street and Francis Street are adjacent to active Amtrak Line
[2]Two barriers are needed for Francis Avenue (north and south of Hamilton Street)

3.1.1 Cottage Place Neighborhood

Cottage Place is a residential neighborhood, located in the City of New Britain. Residents have voiced concerns about transit noise from the project. The corridor is currently an abandoned rail line that abuts the rear of a block-long length of residential properties, and the project would introduce a new source of noise into this setting. The Draft EIS noise analysis indicated that mitigation was warranted in the form of a noise barrier. Based solely on the FTA's criteria for assessing noise impacts, a noise barrier would not be obligatory, as the increase in noise levels relative to the existing noise levels would not justify a barrier. However, ConnDOT has determined that providing a noise barrier in this location between residences and the busway would be a prudent action for several reasons:

- The neighbors along Cottage Place have been strongly vocal in their concern about the noise impacts that would be created by the project, and have concerns that these impacts are coming from a new source adjacent to their backyards. (Although the busway corridor is a former rail corridor, it has not been in active railroad use for over 25 years). Numerous comments to this effect have been received at public meetings/hearings, email comments, the project's hotline, etc.

- The neighbors, City of New Britain, and ConnDOT have all agreed that some form of permanent screening is necessary to mitigate the visual effects of the project.

- Neighbors have also been vocal in their concern that high barriers are needed to prevent children from entering the busway corridor, and the jersey-type barriers proposed for the sides of the busway would not be adequate to ensure these goals.

Since the need has been established to provide shielding of these properties for visual and safety reasons, and the initial evaluation of noise impacts at the building locations has determined that project-related noise impacts would not warranted noise abatement. However, the ConnDOT uses the outdoor area of most human activity for the determination of noise impacts. ConnDOT has therefore determined that a barrier at this location would be feasible and prudent to mitigate noise impacts of the outdoor activities for this neighborhood.

3.1.2 Cornerstone Condominiums

The Cornerstone Condominiums development is residential in land use, located in the City of New Britain. Residents have voiced concerns about transit noise from the project. The corridor is currently an abandoned rail line that abuts the complex, and the project would introduce a new source of noise into this setting. The Draft EIS noise analysis indicated that mitigation was warranted in the form of a noise barrier. In this reanalysis, a noise barrier is again warranted. The proposed noise barrier would be located between the residences and the Bus Rapid Transit project.

The noise barrier is warranted based upon the anticipated noise level increase over existing conditions. The proximity of the busway travel lanes to the condominiums and the presence of deceleration and acceleration lanes for the East Street station further makes consideration of a noise barrier in this location reasonable and prudent.

3.1.3 Willard Avenue Neighborhood

The Willard Avenue neighborhood located in the Town of Newington is a residential neighborhood that has also expressed concerns about the project and residents have requested that noise mitigation measures in the form of a barrier be provided. An active rail line carrying passenger and freight trains also impacts this neighborhood. The Draft EIS evaluation indicated that no mitigation was warranted. In this reanalysis, based on the FTA's criteria for assessing noise impacts, a noise barrier would not be obligatory, as the increase in noise levels from the project relative to the existing noise levels would not justify a barrier. However, using the same rational as Cottage Place, the ConnDOT has determined that providing a noise barrier in this location between residences and the busway would be a prudent action to mitigate the noise impacts associated with the rail traffic in the area. The potential to reduce high pre-existing noise levels from transportation sources is one of FTA's considerations for providing noise mitigation.

In addition the ConnDOT feels noise abatement would be warranted because:

- Residents of Chapman Street have been strongly vocal in their concern about the existing high levels of noise created by the existing rail corridor. The potential to reduce high pre-existing noise levels from transportation sources is one of FTA's considerations for providing noise mitigation.

- Residents have expressed additional concerns about new sources of noise from busway operations.

- The neighbors, Town of Newington and ConnDOT have all agreed that some form of permanent screening and visual improvement is necessary to mitigate the visual effects of the project.

For these reasons ConnDOT has determined that a barrier at this location would be feasible and prudent.

3.1.4 Francis Avenue Neighborhood

The Francis Avenue neighborhood located in the City of Hartford is a mixed residential and commercial neighborhood. An active rail line carrying passenger and freight trains also impacts this neighborhood. The Draft EIS evaluation indicated that no mitigation was warranted. In this reanalysis, based solely on the FTA's criteria for assessing noise impacts, a noise barrier would not be obligatory, as the increase in noise levels relative to the existing high noise levels would not justify a barrier. However, ConnDOT has determined that providing a noise barrier in this location between residences and the busway would be a prudent action for several reasons:

- Residents of Francis Avenue are exposed to high levels of noise created by the existing rail corridor. The potential to reduce high pre-existing noise levels from transportation sources is one of FTA's considerations for providing noise mitigation.

- The Parkville Neighborhood has noted the need to mitigate noise impacts through their neighborhood.

For these reasons ConnDOT has determined that a barrier at this location would be feasible and prudent.

Mitigation of noise impacts is covered in Section 4.1.

3.2 SOCIOECONOMICS AND LAND USE

The following section describes the impacts of the project on socioeconomics and land use.

3.2.1 Direct Land Use Impacts

The four communities in the study area have differing socioeconomic and land use characteristics. The existing land use characteristics of the study area were discussed in detail in section 4.3 of the Draft EIS. The project is in conformity with local, CRCOG, CCRPA, and Office of Policy and Management (OPM) plans as described in greater detail in the Draft EIS. The project is part of the Transportation Improvement Plan (TIP) and a conforming State Implementation Plan (SIP) for air quality.

Because the project corridor follows active and inactive rail corridors that have been in use for over a century, the project would not have the widespread negative socioeconomic effects or negative land use changes expected with a new facility on a new corridor alignment. Negative land use effects would be limited to where right of way would be acquired. No residential properties are expected to be acquired for the project. The impacts of acquisition and relocation of commercial properties for busway use in terms of acreage of property and compensation for takings are discussed in greater detail in section 3.10. The beneficial effects of TOD are described below in Section 3.2.2.

The primary property owner that would be affected by this project is Amtrak. It is expected that ConnDOT will formally purchase or lease from Amtrak the portions of Amtrak's right of way that is needed for busway use. The project will not remove any active Amtrak tracks, though realignment of Amtrak's track would be necessary between Laurel and Flower Streets in Hartford. This realigned track would be built without effects on existing Amtrak operations. In addition, the busway project will not inhibit possible future plans of Amtrak to put a second track in those portions of the corridor that currently contain one track or to put a high-speed rail service anticipated in 2010. Furthermore, the busway would not preclude construction of additional rail stations. ConnDOT has been coordinating actively with Amtrak on this project, and this coordination will continue. Refer to section 4.14 for more information on mitigation of impacts on Amtrak.

The right of way needed for the busway mainline itself generally would not require acquisition of any property beyond the abandoned rail line or Amtrak rail right of way. At East Main Street in New Britain, the City of New Britain Department of Public Works has recently encroached on a portion of the abandoned rail corridor to provide a parking area for its fueling station. Some of the parking would have to be removed from state property, but the fueling pumps and tanks could remain intact beyond the needed right of way.

The recommended action will affect a residential neighborhood on the east side of New Britain. Houses on Cottage Place and Wilson Street between East Main Street and Smalley Street back onto the proposed busway corridor, and the corridor bisects Fairview Cemetery. The properties on the two blocks historically had the barrier of a railroad between them, and the cemetery (which was constructed subsequent to the railroad line) was similarly affected. However, the railroad has not been in operation for a long time (roughly 25 to 30 years), so current residents and cemetery users have not perceived the abandoned rail line as a barrier to neighborhood cohesion or cemetery continuity. While the busway will be a low-volume roadway, and the existing abandoned rail line is fenced beyond cross-streets (and therefore somewhat of a physical barrier), the project will increase this effect.

The more pronounced land use effects of the project would convert existing land uses at proposed station locations into the stations themselves. The following table summarizes the changes that each station option would bring. The reader should refer back to Section 2.4 to review the station concepts under the recommended action. Table 3.2-1 summarizes the anticipated changes in land use, which have evolved at some locations since the Draft EIS.

Table 3.2-1
Land Use Changes at Station Areas Under Recommended Action

Sta-tion	Station Site Location	Land Use(s) That Would Change to a Station
A1	Downtown New Britain	Abandoned supermarket site
B1	East Main Street Station	Portion of Armory's open space (ITT Cannon redevelopment site now not affected)
C1	East Street Station	Small office building and associated storage building; open space
D1	Cedar Street Station	Undeveloped land
E1	Newington Jct. Station	Several commercial buildings; undeveloped land
F1	Elmwood Station	Car Wash/Gas Station and Lube Shop
G3	Flatbush Station	Donut Shop (which could be rebuilt on-site), parking for nearby office
H2	New Park Ave. (Kane St.) Station	Undeveloped land adjacent to supermarket
I4	Park Street Station	Plumbing supply, two auto-oriented businesses, partial taking of oil company (possible reconfiguration)
J2	Sigourney Street Station	Planned reconstruction of existing Aetna parking structure with station incorporated into structure
K1	Armory/ Legislative Office Bldg.	Railroad property/undeveloped land
L1	Union Station	Parking area (at ramp down to local street)

3.2.2 Transit Oriented Development (TOD)

In addition to land use impacts created directly by the project, there is also the potential for changes in nearby neighborhoods resulting from TOD. Also called "Transit-Focused Development," this concept proposes higher concentrations of development near stations, increasing numbers of residents and employees within walking distance of stations (generally less than a half mile). At these higher concentrations, mixed land uses would serve daily needs by walking between uses, making transit more convenient. Improved pedestrian amenities and reduced availability of free parking would increase the incentive to walk to stations and use transit. In addition, TOD may enhance neighborhood revitalization efforts and property values.

Beneficial land use effects could occur in the vicinity of the stations, where TOD opportunities are present. As noted previously, ConnDOT cannot formally influence the planning choices made near stations. The four communities near the busway have all indicated a willingness to encourage TOD near stations. ConnDOT will continue to encourage the four communities as well as the regional planning agencies (CRCOG and CCRPA) to promote redevelopment and new development that benefits the busway and the communities at large. ConnDOT will coordinate with any station-area planning efforts that the four communities and regional planning agencies undertake.

It is difficult to predict exactly what TOD efforts would occur in nearby communities, although it is possible that higher density land uses near the busway and stations would be encouraged by the four cities/towns. It is important to note that all modeling assumptions of transit ridership were made without considering higher densities under TOD, since any changes would be speculative.

One area that has potential for changes in land use is the open space in Newington near the busway corridor and CCSU. While access limitations to this location have hampered efforts to use this property, CCSU has indicated interest in developing the site in the long-term future.

Another location with possible plans for land use changes is the 22.3 hectare (55-acre) Charter Oak Terrace site in Hartford, near the West Hartford border. This property previously served as a low-income housing project. The housing has since been demolished and the site is vacant, waiting for redevelopment. The most recent plans for this area by the Hartford Housing Authority have included a mixture of office and commercial development.

The former ITT Cannon industrial site is located next to the East Main Street station in New Britain. The previous layout of this station impacted a portion of the ITT site's parking area; this impact has been eliminated. It is expected that the presence of a busway station next to the site would greatly increase its redevelopment marketability, since employees to a new industrial tenant would have convenient transit access.

3.2.3 Socioeconomic Impacts

The socioeconomic effects of the project are expected to be favorable, as the busway improves accessibility for people in the region, and potentially serves as an economic catalyst for community revitalization. The only negative impacts that are anticipated are those impacts from relocations of businesses. The project will not require any residential relocations. ConnDOT will work with businesses to fairly compensate owners for property and to assist in relocation, as noted in section 3.10. However, it should be recognized that even with assistance, businesses could choose not to re-open in a new location, and even if they do relocate, employees may not choose to commute to the new selected location.

A Conceptual Stage Relocation Survey has been performed for this project and is found in Appendix A. This survey assesses the amount and quality of available real estate that could be used for relocating the affected businesses. The survey determined that at the time it was performed (August, 2001), there was a sufficient number of commercial and industrial properties available for lease in Newington, West Hartford, and Hartford. However, there was a very limited number of commercial and industrial properties for sale in these areas.

The conceptual stage relocation survey also evaluated the ownership of businesses, and there are no known minority-owned businesses affected by the project. Therefore, there will be no disproportionate negative impact on minority (Environmental Justice) populations in this regard.

Table 3.2-2 provides an estimate of the employees that could be affected by the project, based upon estimates provided by city/town staffs. Another minor socioeconomic effect of property acquisition comes from lost tax revenues that the cities/towns will incur with the removal of affected properties from tax rolls. Lost tax revenues are also shown in Table 3.2-2.

Table 3.2-2
Potentially Affected Businesses and Estimates of Number of Employees Under Recommended Action

Station Option	Affected Businesses	Estimated Number of Employees?	Tax Revenue for Site (2000)
C1	Vacant Office Building	0	$4,676
E1	**Building #1:** Vacant Light Industrial Property for Rent Precision Tool Business Precision Tool/Machining Business	4 full time total	$7,497
	Building #2: Vacant Light Industrial Property Air Tools Service Sign Company Warehouse Distributor	4 – 5 full time total	$2,902
	Building #3: Martial Arts School (closed)	0	$1,952
F1	Car Wash/Gas Station Lube Shop	2 full time, 7 part time 5 full time	$12,000 $5,310
G3	Donut shop	3 full time, 7 part time	$10,458
I4	Used Car Lot Auto Repair Plumbing Supply Oil Distributor	3 full time 3 full time 14 full time 4 full time	$4,661 $1,861 $12,626 $2,626

One issue that has been raised by the public is the issue of changes in property values associated with an improvement such as the New Britain – Hartford Busway. Several types of impacts or benefits may accrue to property owners, residents and/or businesses in the vicinity of the project, including increased or decreased traffic and pedestrian/bicycle safety, increased accessibility for transit-dependent persons, visual effects, noise, perceived air quality effects, etc. While credible methods exist to quantify impacts and benefits (such as changes in noise), methods for accurately equating these impacts and benefits to dollar-value changes in property values are very limited.

Over time, changes in property values for properties close to the New Britain – Hartford Busway will occur independently of the project as a result of inflation, demographic trends, regional market changes, individual homeowners' renovations, etc. Therefore, it would be extremely

difficult to quantify the changes associated with only construction of the busway itself. Those portions of the corridor that abut Amtrak already are presumably affected by its presence as well.

Mitigative measures for noise and other impacts are being proposed to try to address those impacts, and, by extension, the property-value effects on those properties. Furthermore, anecdotal evidence based upon construction of a busway in Pittsburgh (Discussion with Pittsburgh Port Authority representative, October 25, 2000) has indicated that there have not been recognizable declines in property values close to the Pittsburgh busway. However, it should be cautioned that Pittsburgh is a different housing market, and this review covered a different time period for a different local economy. It is possible that improved access to transit may have a beneficial effect on property values for some locations close to busway stations.

3.3 WETLANDS

Wetlands are regulated under state and federal statutes and orders, specifically Section 404 of the Clean Water Act (as amended), Executive Order 11990 (Protection of Wetlands), and Sections 22a-36 through 22a-45a of the Connecticut General Statutes (CGS).

The locations of wetlands in the study area were initially determined during the Draft EIS process through the review of municipal and state Inland Wetland Maps and federal National Wetland Inventory (NWI) Maps. Maps produced by Williams Communications for a fiber optic installation project along the active Amtrak rail line were also consulted, as wetland delineations were recently performed for that project. Aerial photographs were also reviewed to identify potential wetland areas.

These sources were verified and supplemented by visual field observations in Spring, 2000, which identified additional wetlands not shown on the Williams mapping. Based on the secondary sources and field observations, 11 wetland areas were outlined for the purposes of assessing wetland impacts. The locations of these wetlands were shown in Section 4.6 of the Draft EIS. Wetlands that are close to station areas are also shown at a larger scale in the station concept diagrams in Chapter 2. The functions and values expressed by each wetland were summarized in the Draft EIS.

Construction of the busway roadway will be done from the roadbed itself because of the limited right-of-way available and the proximity to sensitive areas (wetlands, buildings, etc.). The station areas will be used as staging areas for this work as well as to provide access to the roadbed itself. Therefore, any impacts on wetlands are anticipated to come from the right of way needs of the project, and not from temporary impacts caused from construction equipment moving through wetland areas. Construction impacts are discussed in greater detail in Section 4.15.

Exact levels of impact on wetlands cannot be fully determined until a formal field delineation of wetlands has been conducted during project design. Wetlands impacts were considered under two conditions, assuming earth retention (examples, reinforced earth, gabion wall, retaining wall) and without earth retention. At the current level of concept design, the earth retention scenario would be considered a "best-case" scenario to minimize encroachment into wetlands,

and no earth retention would be considered a "worst-case" scenario, whereby encroachment would be greatest.

Table 3.3-1 summarizes the potential impacts to wetlands associated with the recommended action roadway alignment, the multi-use trail, and station construction, assuming worst-case scenarios (no embankment retention). In the case of earth retention, the entire busway roadway may be contained within rail beds, so it is possible that wetland impacts can be minimized or avoided, depending upon the requirements for design that are determined during the design phase. Since the rail beds have been in existence for over 100 years, it is assumed that any additional soil settlement would be minimal, meaning earth retention could be successfully employed without impacting wetlands. Installation of retaining walls into the embankments could potentially cause minor permanent impacts on wetlands during the construction period, such as incidental fill from sloughing of the existing embankment material. Impacts may be avoided or minimized through selection of low-impact construction methodology, installation of erosion and sedimentation (E&S) control measures prior to construction, and use of best management practices (BMPs).

Table 3.3-1
Estimated Worst-Case Roadway and Multi-Use Trail Wetland Impacts
(Assuming No Earth Retention)

Wetland Area	Approx. Total Area, Hectares (acres)	Roadway Impacts, Hectares (acres)	Multi-Use Trail Impacts, Hectares (acres)	Station Area Impacts (Station C1 only)	Total Impacts, Hectares (acres)
1	15 (38)	0.006 (0.01)	0.10 (0.25)	0	0.106 (0.26)
2	0.49 (1.22)	0	0.02 (0.05)	0	0.020 (0.05)
3	45 (110)	0	0	0	0
4	0.92 (2.26)	0.009 (0.02)	0.12 (0.30)	0	0.129 (0.32)
5	0.21 (0.50)	0	0	0	0
6	0.11 (0.28)	0	0.06 (0.15)	0	0.060 (0.15)
7	6 (15)	0	0	0	0
8	4 (10)	0	0.03 (0.07)	0	0.030 (0.07)
9	0.44 (1.08)	0	0	0	0
10	0.05 (0.12)	0	0	0.005 (0.01)	0.005 (0.01)
11	0.24 (0.60)	0	0	0	0
TOTALS	**72.5 (179.1)**	**0.015 (0.04)**	**0.33 (0.82)**	**0.005 (0.01)**	**0.350 (0.86)**

As table 3.3-1 shows, if earth retention is not possible, it is estimated that a total of 0.015 hectares (0.03 acres) would be affected for the roadway alignment itself, and an additional 0.33 hectares (0.82 acres) would be impacted by the addition of the multi-use pathway. The only station area creating wetland impacts would be at East Street (Station C1), which is estimated to impact an additional 0.005 hectares (0.01 acres). A very small portion of the bus access falls

within the wetland. (See Figure 2.4-3). Therefore, the total estimated wetland impact with no earth retention would be 0.35 hectares (0.86 acres).

Efforts have been made to avoid and minimize wetland impacts at stations through an iterative planning process. Since the release of the Draft EIS, wetland impacts have been reduced, and are no longer anticipated to affect wetland 11 (near Kane Brook) with the New Park Avenue (Kane Street) Station.

Some of the drainage ditches along the flat areas adjacent to the active Amtrak tracks might qualify as jurisdictional wetlands or watercourses. They could be directly filled by project construction. However, given that the busway generally affects only one (the west) side of the Amtrak right-of-way and that the ditches are sporadic and small, there is only a small possibility of impacts associated with the ditches, and any impacts would be very minor.

Indirect impacts on wetlands from the project could result from increased stormwater volumes draining off the new impervious surfaces of the busway facilities, including the buildings, access drives, and parking lots of the stations, as well as the paved busway itself. The velocity of the increased runoff could accelerate soil erosion, resulting in excess sedimentation of wetlands adjacent to the busway. The runoff would contain sediments and pollutants coming from the busway's parking lots and roadways, which, if untreated, could impair the functions and/or cause toxic effects on the plants and animals of the receiving wetland systems.

Several of the culvert/pipe crossings occur with either one or both ends in a wetland. It is anticipated that most of these culverts/pipes will be replaced. During installation of these new features, encroachments into the wetlands might be required. This amount of encroachment would be the least if earth retention were used, as the culverts/pipes would not have to be extended beyond their existing limits. Work at culverts that do not have identified wetlands associated with them would have impacts on surface waters only.

Mitigation measures for wetland impacts is described in Section 4.5

3.4 SURFACE WATERS

Surface waters affected by the project were described in detail in Section 4.5.1.2 of the Draft EIS. Impacts on surface waters are regulated applicable state and federal statutes and orders, specifically Sections 401 and 404 of the Clean Water Act (as amended), Section 10 of the Rivers and Harbors Act, and Sections 22a-36 through 22a-45a of the Connecticut General Statutes (CGS).

There would be no public surface water supplies affected by the project. The potential effects of the project on surface waters are primarily those associated with increased runoff from the impervious surfaces of the busway facilities, including the buildings, access drives, and parking lots of the stations, as well as the paved roadway itself. The velocity of the increased runoff could accelerate soil erosion, resulting in excess sedimentation of receiving waters. Runoff from the busway's parking lots and roadways would contain sediments and pollutants. If this runoff is

untreated, it could impair life functions and/or cause toxic effects on aquatic life and terrestrial wildlife. Additionally, untreated runoff could affect recreational/aesthetic enjoyment of streams, along with other stream values. These impacts could occur both during construction and post-construction.

Impacts on surface waters are possible at locations where culverts are to be extended or bridge piers/abutments over streams require reinforcement for scour protection. These impacts will be determined during the design phase. It is not anticipated that any bridge piers will physically need to be moved.

The proposed busway corridor (abandoned or active rail corridors) crosses ten surface waters. The anticipated actions at crossing structures are shown in Table 3.4-1. All structures are culverts with the exception of Trout Brook. Structures will need to be replaced or have some form of remediation completed to them. If they are replaced, it would essentially be an in-kind replacement pending a hydraulic study to determine the adequacy of the existing opening. As such, no direct permanent impacts to surface waters are anticipated.

Table 3.4-1
Anticipated Actions on Watercourses Crossed by the Busway

Water Course Crossing	Location of Crossing	Anticipated Action*
Piper Brook	Between Saint Mary's Cemetery and Route 9 Southbound	No Changes Anticipated
Bass Brook	Between East Street and Route 9 Southbound connecting wetlands areas 8 and 9	Repair/Replacement presumed at same length
Unnamed small tributary of Piper Brook	Between Cedar Street and merge of Amtrak and abandoned rail corridor	Repair/Replacement presumed at same length
Unnamed small tributary of Piper Brook	Between merge of Amtrak and abandoned rail corridor and Willard Avenue Bridge	Repair/Replacement presumed at same length
Unnamed small tributary of Piper Brook	Between merge of Amtrak and abandoned rail corridor and Willard Avenue Bridge	Repair/Replacement presumed at same length
Unnamed small tributary of Piper Brook	Between merge of Amtrak and abandoned rail corridor and Willard Avenue Bridge	Repair/Replacement presumed at same length
Unnamed small tributary of Piper Brook	At Newington Junction Station	Repair/Replacement presumed at same length
Jacobs Brook	North of Newington Junction Station	Repair/Replacement presumed at same length
Trout Brook	North of Elmwood Station	Possible scour protection at bridge
Kane Brook	Between Stop & Shop and Movie Theatre	Repair/Replacement presumed at same length

*A hydraulic study will be performed for all these structures during the design phase, at which time, it may be determined that additional action is needed. It is not expected that culverts would need to be lengthened.

No long-term impacts are anticipated to hydrology, water quality, biotic communities, or any other stream function. Impacts during the construction period would be minimized through selection of low-impact construction methodology, installation of proper E&S control measures prior to construction, and use of BMPs.

Impacts on the natural resources surrounding the Kane Brook channel have been greatly reduced since the Draft EIS by altering the concept design of the New Park Avenue (Kane Street) station.

Mitigation of impacts on surface waters is described in Section 4.6.

3.5 FLOODPLAINS

Impacts on floodplains are regulated by applicable state and federal statutes and orders, specifically Executive Order 11988 (Floodplain Management), and Sections 22a-342 through 22a-349a (Stream Channel Encroachment) and Section 25-68 (Flood Management Certification of the Connecticut General Statutes (CGS).

The locations of floodplains in the corridor have been discussed in greater detail in Section 4.5.1.3 of the Draft EIS.

Impacts within the 100-year flood boundary would occur from construction of the busway in areas where the rail line is currently below the 100-year flood elevation. This occurs primarily along Piper Brook (Newington) and Bass Brook (Newington and New Britain). The dedicated busway corridor and the station facilities would be constructed to rest above the 100-year flood elevation, to ensure public safety.

The extent of the floodplain fill in terms of volume has not yet been quantified, such that impacts on flooding cannot be assessed. The acreage of the busway facility encroaching within the 100-year floodplain would be limited to a small parcel of land approximately equal to 0.06 hectares (0.14 acres), which would be filled within New Britain close to the Newington town line.

Within Newington, although the floodplain is close to the busway corridor, no impacts are expected due to design and construction methodologies that will minimize encroachment on wetlands. This finding is limited based upon the age of the mapping (as described in Section 4.5.1.3 of the Draft EIS). As part of mitigation of floodplain impacts, ConnDOT will work with DEP's Inland Water Resources Division to obtain more definitive information on floodplain elevations.

The City of West Hartford has identified flooding problems along Jacobs Brook upstream of the busway crossing. While no encroachment into floodplains is anticipated at the crossing of Jacobs Brook, future hydraulic studies may indicate the need for additional flood capacity through the culvert.

Impacts on floodplains at Kane Brook anticipated in the Draft EIS will now be avoided with the revisions made to this station. The concept in the Draft EIS showed construction of a parking lot that would encroach on an estimated 0.11 hectares (0.27 acres) of Kane Brook's floodplain. Parking for this station will be moved instead to an existing equipment staging area owned by ConnDOT under the I-84 overpasses.

Another floodplain that will be crossed but not affected by the project is at the Amtrak bridge spanning Trout Brook in Elmwood. The deck of the Amtrak bridge over Trout Brook will be minimally widened and the existing opening for Trout Brook maintained. The only work that would be done beyond the bridge deck might be provision of scour protection for the bridge.

There are no locations north of Newington Junction where Amtrak or the busway corridor is known to be located below the elevation of the 100-year floodplain. Therefore, it is not expected that the project would create a flooding problem for Amtrak. The only locations where mitigation of floodplain impacts would be expected for the project are along the abandoned rail line, south of where Amtrak shares the corridor with the busway.

Mitigation of impacts on floodplains is described in Section 4.6.

3.6 NATURAL RESOURCES/FISH AND WILDLIFE HABITAT

The overall landscape of the railroad corridor is developed and urbanized, consisting of a mixture of commercial, industrial and residential uses. Section 4.6.1 of the Draft EIS discusses the plant and animal resources of the study area in greater detail.

Due to the urbanized context of the busway corridor, the project would not greatly reduce the amount of natural habitat in the Study Area. The rail corridors that the project would follow are generally rock-gravel berm structures that do not provide wildlife habitat. The station sites are, without exception, all previously disturbed or developed lands. Although Station C1 (East Street), Station D1 (Cedar Street), and Station H2 (New Park Avenue/Kane Street) contain or are adjacent to wetlands, and therefore have higher habitat values than the other sites, these sites have been previously disturbed, are directly adjacent to heavily developed areas, and do not, in themselves, represent high quality habitat.

Since the release of the Draft EIS, ConnDOT has made substantial changes to the New Park Avenue station (H2). An area originally proposed to serve as parking for the station has now been left available for ecological restoration or other greenspace usage. This change will be beneficial to the wetland, floodplain and surface waters associated with Kane Brook, and it would provide benefits for wildlife and wildlife habitat.

Surface waters supporting fish habitats (Piper Brook, Trout Brook, Piper Brook Pond, and Bass Brook) would not be negatively affected by the project since no culverts/bridges are planned to be extended, so there would be no effects on fish populations or communities. DEP has noted in comments that possible fisheries habitat enhancements can be made to locations where culverts are replaced, repaired, or modified. ConnDOT will consult with DEP's Inland Fisheries Division in this regard.

Any long, linear project raises the issues of forest fragmentation. The busway project would not result in forest fragmentation, because there are no large blocks of forest spanning the railroad corridor. The existing patches of contiguous forest are the red maple swamps of the Piper Brook system, which are all east of the proposed alignment.

The greatest possible negative impact to natural resources from the implementation of the busway is the restriction of wildlife movement across the rail right-of-way. The busway would be a physical barrier to wildlife, since it incorporates walls and barriers on both sides for most of its length. The extent of this impact on the distribution and abundance of wildlife is expected to be minor. In the northern corridor segments (West Hartford and Hartford), due to the intensity of development, there are no discernible habitat blocks between which wildlife may be moving. In the southern corridor segments (Newington and New Britain), the substantial habitats are the Piper Brook wetlands and vacant lands to the east of the abandoned rail corridor. There is very little remaining potential habitat west of the rail corridor, although the several tributary streams might provide some habitat and cover for wildlife movement. However, given the level of development and the already-fragmented habitats throughout the Route 9 and Fenn Road area, it is unlikely that there are any notable east-west wildlife movements at ground level. Therefore, the busway project would not be expected to impede wildlife movements.

3.7 HAZARDOUS/CONTAMINATED RISK SITES

A preliminary site investigation, entitled "Hazardous/Contaminated Risk Sites for Environmental Impact Statement" dated April 2001, was made of existing conditions along the corridor for potential contamination risks related to busway construction. This detailed report is incorporated by reference into this Final EIS. The following is a summary of the methodology and findings contained in this report.

Databases of hazardous materials site listings and and historic mapping were consulted. The corridor is generally heavily industrialized with historic land use of a similar nature. In addition, site reviews were performed in February and March 2000 to identify other suspect locations that could warrant further investigation.

Potential environmental risk sites were documented within approximately 250 feet of the rail corridor itself. This distance was chosen because of the need to construct passenger stations at several locations along the proposed busway. Construction could include excavation and dewatering, which would increase potential exposure of contamination. Table 3.7-1 shows how many sites were found in each town, recognizing that sites may be classified by more than one type.

Overall drainage patterns were reviewed to identify potential contamination plumes. In general, the corridor lies to the west and parallel to Piper Brook and the South Branch of the Park River. The overall drainage pattern of Piper Brook and the South Branch of the Park River is from southwest to northeast. Groundwater in this area of Connecticut generally follows surface drainage patterns, although local conditions may differ. Man-made alterations to topography are extensive along the corridor and cannot be used to define flow direction, but general groundwater flow direction along the corridor is from west to east. Because of the proximity of the potential environmental risk sites to the proposed project area, a medium risk for encountering contamination was noted, with the exception of the rail corridor itself.

Potential construction impacts include the disturbance of hazardous or contaminated materials. Properties within the proposed project footprint were identified for their potential to contain hazardous or contaminated materials. The evaluation of risk for these identified properties follows.

Table 3.7-1
Potential Contamination Sites Listed by Community Within 250 Feet of Corridor

Town	Type	Within 250' of Corridor	Directly Acquired by Project
New Britain	Emergency Response Notification System	1	0
	Leaking Underground Storage Tanks	2	0
	Possible Underground Storage Tanks	1	0
	RCRA Generator	7	0
	SPILLS	21	0
	Registered Underground Storage Tanks	11	0
Newington	Comprehensive Environmental Response Compensation and Liability Act	1	0
	Emergency Response Notification System	2	0
	RCRA Generator	4	0
	SPILLS	18	0
	State-listed sites incl. solid waste, contamination investigations, spill reports	2	0
	Registered Underground Storage Tanks	5	0
West Hartford	Comprehensive Environmental Response Compensation and Liability Act	1	0
	Leaking Underground Storage Tanks	5	1
	RCRA Corrective Action	1	0
	RCRA Generator	11	0
	No Longer Regulated	2	0
	SPILLS	16	0
	State-listed sites incl. solid waste, contamination investigations, spill reports	5	0
	Registered Underground Storage Tanks	19	1
Hartford	Comprehensive Environmental Response Compensation and Liability Act	1	0
	Emergency Response Notification System	2	0
	Leaking Underground Storage Tanks	3	1
	RCRA Generator	5	0
	No Longer Regulated	4	0
	SPILLS	37	5
	State-listed sites incl. solid waste, contamination investigations, spill reports	5	1
	Registered Underground Storage Tanks	12	0

The rail corridors themselves have a high risk for encountering significant contamination. Contaminants potentially associated with railroad corridors include railroad ties (wood treating chemicals), spilled or leaked liquids (oil, cleaning solvents), herbicides, transformer fluids (PCBs), fossil fuel combustion products (PAHs), asbestos, and metals such as arsenic and mercury.

In addition, 18 steel bridge overpasses were probably painted with lead-based paint prior to 1970. Any construction near these structures would likely encounter lead-containing soils and dust. Older building structures requiring demolition would necessitate lead and asbestos testing, with the appropriate remediation required.

3.7.1 Station Sites

Suspect land uses near possible station locations are described below, and potential risks of encountering hazardous or contaminated materials are summarized in Section 3.7.2. All sites will have full investigation of hazardous/contaminated materials during the design process.

Downtown New Britain Station A1: Placement of a new station at a vacant commercial grocery store site (City of New Britain property, Main Street, between Route 72 and Guilford Rail) would pose little known environmental risk. Because the site was historically a railroad depot, a moderate risk of encountering contamination exists. Several petroleum spills have been reported near the property, so construction precautions would need to be followed. In addition, construction of the busway through the adjacent lumberyard may require soil testing to determine if contamination exists.

East Main Street Station B1: A vacant industrial site off East Main Street (585 East Main Street) was formerly in use by an electroplating manufacturer. This site will require extensive investigation for contamination. In addition to the facility's listing as a former RCRA Generator, spills have been reported on-site.

East Street Station C1: This station, which has been modified since the Draft EIS, would be constructed on land west of the busway corridor, between two high-density residential areas (Essex Place apartments and Cornerstone Condominiums). The East Street Station itself would be constructed on land (1285 East Street) that has been occupied since about 1930 by a construction company and is currently vacant. The parcel has no recorded contamination, but historic use of the property to store construction materials and the historic industrial and commercial use of nearby parcels warrants further investigation.

Cedar Street Station D1: Construction of a station at Cedar Street/ Fenn Road would take place on a parcel of land (0 Fenn Road) that is adjacent to and downgradient from a parcel of land containing a state Superfund (CERCLIS) site. The state listing only applies to the subject parcel (690 Cedar Street) and does not extend over its property lines to the proposed station site. The CERCLIS site has previously undergone extensive investigation and remediation.

The parcel of land that would be acquired for the Cedar Street Station has been in residential use historically, and has been mostly undeveloped. However, there have been documented releases (associated with the CERCLIS site) on the residential parcel proposed for the station. These releases included machining oils, degreasers, paint thinners and other wastes, mixed with scrap metal piles and fill. They were released to the north of the CERCLIS site, in an area where a receiving pond was once located. Considerable construction in an area that is downgradient from the state Superfund facility would pose considerable risk.

Newington Junction Station E1: This station would incorporate several properties (150, 160 Willard Avenue) with possible contamination. The nearby service station on Willard Avenue appears on several databases of hazardous and contaminated materials that were searched for this project. Other properties that would be affected by construction include auto repair (126 Willard Avenue), printing (96 Willard Avenue), and a machine shop (267 Field Street). Buildings slated for demolition would need to be tested for lead and asbestos. Sources of debris observed on-site would require investigation.

Elmwood Station F1: The Elmwood Station at New Britain/ New Park Avenue encompasses several properties (646, 642, 634 New Park Avenue) with contamination potential including a car wash/gas station, a lube center, and a muffler repair shop, which was a former gas station.

Flatbush Avenue Station G3: This station would be located next to the site of a current a gas station at 526 New Park Avenue in West Hartford, posing contamination potential.

New Park Avenue (Kane Street) Station H2: The New Park Avenue station is located at the former Royal Typewriter site at 150 New Park Avenue, opposite its intersection with Kane Street. The Stop & Shop supermarket located next to the proposed station performed extensive investigation and remediation of oil and hazardous materials prior to its site development. Particular emphasis was given to the potential accumulation of contaminant vapors in proposed buildings on the site. Although remediation was completed for the supermarket, any new construction would require caution.

Park Street Station I4: This station would impact several locations where petroleum spills have occurred. Properties that would need to be acquired include an autobody shop (1516 Park Street), an oil business (38 Francis Avenue), and a former manufacturing facility (22 Orange Street).

Sigourney Street Station J2: The Sigourney Street Station, which has moved in location since the Draft EIS, is now proposed on land owned by Aetna (151 Farmington Avenue.) The parcel is the site of an employee parking garage and the firm's headquarters. Although no recorded contamination exists on the parcel, historic land use in the vicinity necessitates caution.

Armory/Legislative Office Building Station K1: There are no known sources of contamination behind the Legislative Office Building's Parking Garage.

Union Station L1: Construction of a facility at Union Station is not expected to encounter any unusual contamination risk. Several petroleum spills have been reported in the vicinity, but construction projects in the area are well documented.

3.7.2 Summary of Risk

Table 3.7-2 summarizes the relative risk of encountering hazardous or contaminated materials from construction of various elements of the project, and recommended follow-on actions for each risk level. Figure 4.10-1 in the Draft EIS showed a graphical representation of where sites are distributed along the entire corridor. At all locations, ConnDOT will perform soil sampling during the design phase. It is expected that the soil sampling regimen will be more comprehensive at "high risk" sites than at medium risk sites; the sampling will be overseen by ConnDOT environmental compliance staff.

Table 3.7-2
Risk of Encountering Hazardous or Contaminated Materials with Recommended Action

Roadway/ Station	Alignment/Station Location	Relative Risk
Roadway	Active/Inactive Railroad corridor from New Britain to Hartford	High
Station A1	Downtown New Britain Station	Medium
Station B1	East Main Street Station	High
Station C1	East Street Station	Medium
Station D1	Cedar Street Station	High
Station E1	Newington Junction Station	High
Station F1	Elmwood Station	High
Station G3	Flatbush Station	High
Station H2	New Park Ave. (Kane St.) Station	High
Station I4	Park Street Station	High
Station J2	Sigourney Street Station	Medium
Station K1	Armory/ Legislative Office Bldg.	Medium
Station L1	Union Station	Medium

3.8 VISUAL AND AESTHETIC IMPACT

One of the guiding principles that has steered the architectural efforts so far is the need to provide "Context Sensitive Solutions" (formerly "Context Sensitive Design") of the busway stations and facilities. In other words, the busway should blend into the context of the surrounding community, rather than "stick out" from the existing landscape. Section 2.2.3 discusses this concept in much greater detail.

During the Draft EIS process, efforts were made to engage the public in providing input into how they wanted the busway to look, and architectural renderings were included in the Draft EIS document to reflect possible design concepts. At that time, the busway proposal had been advanced only enough to assess the environmental impacts of the proposed project. Many

station details will continue to be worked out in conjunction with the local communities during the project's design phase.

The following section evaluates the visual resources that will be affected by the project. Section 4.11 discusses mitigative measures for impacts on visual quality.

3.8.1 Existing Conditions

The busway corridor is an existing disturbed area, comprising an inactive rail line from downtown New Britain to Newington Junction, and an active Amtrak rail line between Newington Junction and Union Station in Hartford. In the portion of the corridor that follows the abandoned railroad tracks between Downtown New Britain and Newington Junction, the busway crosses through a primarily industrial area that has not had railroad activity for years. Much of the busway corridor in this segment has had volunteer trees and vegetation fill in the corridor, along with trash dumping, as maintenance has not taken place.

One location worthy of note is the residential neighborhood centered on Cottage Place on the east side of New Britain, where houses' backyards abut the abandoned rail corridor. The abandoned rail line bisects Fairview Cemetery on a raised berm along virtually the entire length of the cemetery. The abandoned rail line also runs along the east edge of Saint Mary's Cemetery, though it is at a lower grade than the rest of that cemetery. Some multi-family residences (townhouses and a large apartment building) are found along the busway corridor between East Street and the Route 9 overpass. Some extensive wetland areas are found along the busway corridor north of Cedar Street.

From Newington Junction north to Capitol Avenue, much of the corridor is exclusively industrial in nature, with a few commercial areas near Newington Junction, Elmwood, and the Parkville neighborhood in Hartford. Little residential property is found in this corridor, isolated in small pockets, including the Chapman Street area in Newington, and around Francis Avenue in Hartford, which are two areas slated for noise mitigation. The busway is to be sited in the western portion of the Amtrak corridor where tracks have been removed; active Amtrak operations take place on one or two existing sets of tracks.

The corridor follows the existing Amtrak corridor from the Capitol Avenue Bridge to Union Station. There is little residential development in this portion of the corridor. The visual landscape in this area mostly consists of industrial buildings, parking lots, office buildings, Interstate 84 overhead (on a viaduct structure), and downtown private and civic offices. Bushnell Park sits below the busway corridor and Amtrak under a retaining wall, and includes the State Capitol building in its landscape. Union Station has a unique stone façade, but its platforms and structures are in varying states of repair.

3.8.2 Impacts of Roadway

<u>Southern Portion of Corridor Between Downtown New Britain and Newington Junction</u>: The busway would create both negative and beneficial visual impacts to adjoining areas. While the

busway would be perceived by some as an intrusion to adjoining residential areas, particularly in the Cottage Place area of New Britain and the Chapman Street area of Newington, it could also provide some benefits to residential and commercial neighbors by cleaning up poorly maintained areas. Along industrial property boundaries, the busway would be expected to provide a neutral or even beneficial improvement to the existing landscape, as the corridor is cleaned up and made more orderly.

Another location that will likely be negatively affected by the busway is Fairview Cemetery, which currently has the abandoned rail line serving as a green space in the middle of the cemetery. For people visiting the cemetery, introduction of a busway would be perceived as a visual intrusion over the existing condition, where the volunteer trees and shrubs provide some benefit to the cemetery and there is no visual activity. The busway will be depressed through the cemetery. Mitigation of impacts on the cemetery is discussed in greater detail in Section 4.11.

The vertical treatment in the vicinity of East and Allen Streets (described in Section 2.3.7) will create an elevated roadway in an area where no such elevated structure exists today, since the existing rail corridor crosses the area at-grade. Commercial and residential viewers in the area would likely view the elevated structure as a negative addition (or at best, a neutral one) to the landscape.

Bus passengers would get views of areas they do not typically see, and would be exposed to a variety of views that are probably perceived as both attractive and unattractive. The cemetery and residential areas would likely be perceived as aesthetically pleasing to passengers, whereas some of the abutting industrial properties would be neutral or negative in perception.

Central Portion of Corridor Between Newington Junction and Capitol Avenue Bridge in Hartford: While the context of the corridor would change from railroad tracks to pavement with buses, the overall visual change is expected to be neutral or even slightly positive, given the visual improvements (landscaping, barriers, etc.) that the busway would bring. Reconstruction of bridges such as those on New Britain Avenue and Park Street, and replacement of the Capitol Avenue bridge will change resources that some people may view negatively, other people may view them neutrally or positively.

The Flatbush Avenue vertical treatment discussed in Section 2.5.3 will introduce a new elevated structure to the landscape, while the Amtrak tracks would remain at grade. This structure would generally be located in an industrial and commercial area, though it could be visible from the Charter Oak Terrace site, which is currently vacant and waiting to be redeveloped. The structure would likely be considered as a negative, or (at best) a neutral addition to the landscape.

Bus passengers would get views of areas they do not typically see, and would be exposed to a variety of views of the railroad that probably range in perception from individual to individual, depending upon personal preference. Abutting industrial properties would probably be neutral or negative in perception.

Northern Portion from Capitol Avenue Bridge to Union Station: Conversion of some Amtrak right of way to busway use is expected to have a generally neutral or beneficial impact on the visual landscape, much of which is dominated by the Interstate 84 viaduct, along with office buildings and parking lots. Near Laurel and Sigourney Streets, the project will require a minimal shift (a few feet) of the Amtrak tracks to the east to accommodate the busway; this would have a minimal effect on properties to the east of Amtrak. Little, if any, of the busway would be visible from Bushnell Park, since Amtrak would remain in its current location between the park and the new busway atop a retaining wall. Union Station's platforms would be altered to accommodate the busway and the busway station; these alterations would not affect the main building or its interior, and would likely be perceived as a neutral effect.

Bus passengers would get views of areas they do not typically see, and would be exposed to a variety of views of the railroad that probably range in perception from individual to individual, depending upon personal preference. Abutting industrial properties, parking lots, highway overpasses, etc. would probably be neutral or negative in perception. Passenger views of Bushnell Park and the State Capitol and other downtown properties would be likely positively received.

3.8.3 Impacts of Stations

Proposed stations would create the most noticeable change to the visual environment, by changing the land uses that exist on the station sites today. Depending upon what land use is being replaced, the visual impacts of stations on the landscape could be perceived as beneficial, neutral, or negative. Stations themselves are expected to be aesthetically pleasing, with architect-designed buildings and shelters, landscaping, and attractive signage. All stakeholders have had an active role in defining the locations, amenities, and style associated with each station, and this will continue into the design phase. It should be noted that several stations have changed substantially since the release of the Draft EIS, and therefore, the renderings from the Draft EIS may no longer be representative of the concepts proposed.

Downtown New Britain Station A1: This concept would place a new station on the former Greenfield's supermarket site. The community would likely perceive the replacement of a vacant, neglected commercial building with a station as visually beneficial.

East Main Street Station B1: This concept would convert part of the New Britain Armory property to a station. This station would be located next to the vacant ITT Cannon industrial site's. Constructing a station at this location would likely be perceived as visually neutral, or perhaps even beneficial.

East Street Station C1: This concept (which has changed since the Draft EIS) would construct a station between the Cornerstone Condominiums and Essex Place apartments on East Street, with the removal of a small, nondescript office building and storage building. The perception of the appearance of the busway will vary greatly between those people who view it as an intrusive addition to a mixed, high density residential landscape, and those who view it neutrally, or even favorably, as a more orderly landscaped property that replaces the underutilized office building.

Cedar Street Station D1: This station will be constructed behind the Fenn Road Stop and Shop and next to an abandoned industrial property. While the area that the station would be constructed is relatively undeveloped open space, no one can easily view it up close today. Therefore, while some people may perceive a loss of natural space as negative, it would be tempered by the fact that it really is not highly visible today, and is located next to a neglected vacant industrial property.

Newington Junction Station E1: Since Amtrak operations are currently active alongside this station and other stations to the north, implementation of the busway is likely to be perceived as less of a substantial alteration to the landscape. This station would require the removal of several plain commercial buildings, which likely would be perceived by nearby viewers as neutral or even beneficial, in light of the improved landscaping and harmony that a station would bring. A small railroad building dating from 1894 would be relocated elsewhere on the site and incorporated into the station design. Adaptive re-use of this building would likely be perceived as a beneficial effect, as it would be cleaned up and maintained in a better state than it is today. SHPO has indicated that the project will have no effect on historic resources in this area, assuming it is allowed oversight of this building relocation as described in Section 5.2.3.

Residents of the nearby Chapman Street neighborhood have cited concerns about the visual quality of the Willard Avenue bridge and have noted a need for the busway construction to mitigate the visual effects of the roadway, station, and Willard Avenue bridge.

Elmwood Station F1: This station would replace a car wash and lube shop. The effects of this change would likely be viewed as neutral, or even beneficial, particularly to nearby residences. Landscaping would tie into streetscape beautification recently implemented in the area. The project would reconstruct the bridge over New Britain Avenue, which would likely be perceived by most people as a positive effect. The nearby bridge carrying Amtrak over Trout Brook contains an attractive historic stone arch façade on its east side, but no one is able to see that view from a public location. The busway project would instead affect the west side, a somewhat-deteriorated plain concrete face, which is of less visual appeal; this reconstruction would likely be viewed as a neutral effect.

Flatbush Station G3: This station would construct the station north of Flatbush Avenue on an elevated structure spanning over Flatbush Avenue, and necessitate the removal of parking for a nearby building. A Dunkin' Donuts restaurant would be removed, but there would be opportunities to add it back to the site as a joint development. While the parking area is probably viewed as a negative part of the landscape, an elevated station would be a pronounced change, and may be viewed as a negative addition to the landscape by nearby residences west of New Park Avenue. The station would contain landscaping and other amenities that would improve the streetscape of the area.

New Park Avenue Station H2: This concept, which has changed substantially since the Draft EIS, would construct a station adjacent to a Stop and Shop supermarket, with parking located on property owned by ConnDOT under the I-84 viaducts (vehicle staging area). Across from

Amtrak is a partially-shielded junkyard. The area currently contains disturbed open space that now contains turf grass and shrubby growth adjacent to Kane Brook. Most people likely perceive this area as favorable or neutral. There are several possible uses for this open space to be improved as a natural resource amenity; such an improvement would likely be viewed by most people as a beneficial change. Station platforms and landscaping would likely be a positive addition to the area.

Park Street Station I4: This concept was formulated as a hybrid of recommendations provided by neighborhood property-owners and TCSP representatives and has changed since the Draft EIS. This station would remove some industrial properties and commercial properties and replace them with a landscaped, attractive station that ties into the street environment along Park Street. The Amtrak Bridge over Park Street would be redesigned to accommodate the busway. The net effect of all these actions would likely be viewed as aesthetically beneficial by the neighborhood at large.

Sigourney Street Station J2: This station has changed substantially since the Draft EIS, as its location and surrounding context are different. In the short term, an interim station (J2-A) would be constructed beside an existing parking structure on Aetna's corporate campus along Sigourney Street. The interim station itself and its treatments, etc. would likely be viewed as a visually beneficial improvement compared to what is there today (rail corridor). In the longer term, the Aetna parking structure would likely be demolished and reconstructed with the busway station integrated into the lowest three floors of Aetna's parking structure. (See Section 2.4.10 for more description of the proposed station). The replacement of Aetna's parking structure with a newer Aetna parking facility would likely be a neutral effect overall. The long-term station concept (J2-B) and its landscaping, amenities, and gateway treatments would likely be viewed as a visually beneficial addition to the landscape along Sigourney Street compared to what is there today. Should the details of the long-term station concept become finalized it would undergo a separate federal and state environmental review.

Armory/Legislative Office Building Station K1: This concept would construct a station underneath the Broad Street and I-84 viaducts, in open, disturbed area used for Amtrak operations. The busway station would likely be viewed as a beneficial addition.

Union Station L1: This concept would reconstruct both an Amtrak bridge over Asylum Street and a station bay to accommodate a busway station at Union Station. In addition, a connection would be made to local streets with a ramp down to Mytrle, Church and Spruce Streets. All these actions would likely be viewed as beneficial changes, given the condition of the Asylum Street bridge, the condition of the existing Union Station bays, and the parking/roadway land usage under I-84 where the ramp would come down.

3.8.4 Multi-Use Trail

The multi-use trail would add a new landscaped amenity to the neighborhoods within which it would pass, at least in the areas where the trail would be routed alongside the busway. From the standpoint of the limited residences that abut the busway and Fairview Cemetery, it could be

and Downtown New Britain. Most of the property that will need to be acquired from an outside source would be purchased from Amtrak. The only locations where ConnDOT would have to acquire property (land or buildings or both) would be in the vicinity of busway stations.

Tables 3.10-1 and 3.10-2 summarize the right of way impacts of the project on adjoining properties. All affected properties are either commercial or industrial in nature; no residential property (either land or buildings) will need to be acquired for the project. An estimated total of 7.7 hectares (19.0 acres) of right of way will be needed for stations, and 12.5 hectares (30.8 acres) will be needed from Amtrak. (The project will not require acquisition of property from any other railroads). The Multi-Use trail is expected to be able to fit within ConnDOT right of way or the Amtrak property, and therefore, does not require additional right of way of its own. It should be noted that changes in the design phase could alter all these estimates.

Table 3.10-1
Estimated Right of Way Impacts Associated with Stations

Station	Station Site Location	Acquire Structures?	Hectares to be Acquired	Acres to be Acquired
A1	Downtown New Britain	Yes	1.5	3.7
B1	East Main Street Station	No	0.4	1.0
C1	East Street Station	Yes	0.8	2.0
D1	Cedar Street Station	Yes[1]	1.7	4.2
E1	Newington Junction Station	Yes	0.6	1.5
F1	Elmwood Station	Yes	0.4	1.0
G3	Flatbush Station	Yes	0.7	1.7
H2	New Park Ave Station	No	0.9	2.2
I4	Park Street Station	Yes	0.7	1.7
J2	Sigourney Street Station	N/A[2]	--	--
K1	Armory/ Legislative Office Bldg.	No	--	--
L1	Union Station	No	--	--
TOTALS			**7.7**	**19.0**

[1]The Multi-Use trail may necessitate demolition of a storage building. The station itself does not require the storage building to be demolished, though the entire parcel (including an office building) would still be acquired regardless.
[2]Aetna has plans to demolish an existing parking ramp and to incorporate the station into a new Parking ramp to be built upon the same site as a joint development.

Table 3.10-2
Estimated Right of Way Acquisitions Associated With Busway

Measure	Right of Way to be Acquired	
	Hectares	Acres
Non-Amtrak Right of Way Needed for Stations (Table 3.10-1)	7.7	19.0
Right of Way to Be Acquired from Amtrak	12.5	30.8
Multi-Use Trail	0.0	0.0
TOTAL RIGHT OF WAY TO BE ACQUIRED	**20.2**	**49.9**

The estimated cost of right of way is discussed in Section 2.12. It is not known at this time if Amtrak property will be purchased directly from Amtrak, or if other forms of ownership, such as easements, would be employed. Further negotiations will take place during the design/build phase of the project.

3.11 TRAFFIC IMPACTS

Traffic impacts are discussed detail in Chapter 3 of the Draft EIS. The two sections that follow supplement the analysis performed for the Draft EIS in response to concerns that were raised by the public during the Draft EIS comment period.

3.11.1 Fenn Road / Route 175 Area

In response to several comments that were received on the project, additional traffic analysis was performed at three intersections along Fenn Road in Newington to determine if the busway would have a negative effect on traffic operations in the area. Table 3.11-1 highlights the results of this analysis. The Level of Service (LOS) at each of the Fenn Road intersections will not be appreciably affected by the busway compared to a No-Build scenario; a limited volume of new traffic is anticipated to be generated by the project that would use these intersections. Any traffic increase would be offset by the reduction of traffic by people using the busway services. The following table highlights these results.

Table 3.11-1
Fenn Road Level of Service Summary

Intersection of Fenn Rd and:	A.M. Peak Hour			P.M. Peak Hour		
		Future (2020)			Future (2020)	
	Existing	No-Build	Build	Existing	No-Build	Build
Cedar Street	F	F	F	F	F	F
Stop & Shop Driveway	B	B	B	B	B	B
Ella Grasso Boulevard	C	D	D	F	F	F

A queue analysis was also completed, with the finding that there are queues of traffic that can develop that would back up to and possibly beyond adjacent intersections. As with the LOS analysis, the queues are not substantially different between the build and no-build scenarios.

3.11.2 Hamilton Avenue At-Grade Crossing

With the construction of the busway, a new at-grade crossing will be created next to the existing Amtrak crossing on Hamilton Street. While existing and future build and No-Build levels of service are acceptable at the intersections on either side of the new at-grade crossing (Hamilton Street and Grace Street, Hamilton Street and Bartholomew Street), concerns have been expressed about queue buildup on Hamilton Street affecting the busway crossing or the busway crossing affecting the other intersections. It is anticipated that the new crossing will operate at a LOS A

because of the low volume of buses and the use of intelligent transportation system (ITS) technology for bus detection. It is not anticipated that the interaction of the new busway at-grade crossing of Hamilton will not create additional queues because of the minimal delay anticipated at the crossing (approximately 7 seconds of average delay per vehicle).

Chapter 4
Mitigation/Project Commitments

This chapter outlines the mitigation that will be needed to address negative project impacts identified in the Draft EIS and in Chapter 3 of this Final EIS. Commitments to provide the mitigation are formally described as well. Overall project commitments are listed in Section 4.16.

4.1 MITIGATION OF IMPACTS FROM NOISE

Noise impacts of the project were evaluated during the Draft EIS process and the analysis was refined as described in Section 3.1 of this Final EIS document. Impacts were determined based upon Federal Transit Administration (FTA) guidance and procedures.

Based upon the analyses that were performed, mitigation is considered prudent at several residential areas along the project corridor. Table 4.1-1 lists the areas where mitigation would be considered and the number of impacted receptors (dwelling units) that would benefit from such mitigation:

Table 4.1-1
Locations of Noise Mitigation

Location	City/Town	Number of Dwelling Units Abated by Mitigation
Cottage Place Neighborhood	New Britain	15
Cornerstone Condominiums	New Britain	20
Chapman Street Neighborhood	Newington	7
Francis Street Neighborhood	Hartford	24

Mitigation for these areas is being considered to abate the noise generated from the project (New Britain locations) and also to abate both Amtrak noise and project noise (Newington and Hartford locations). Abatement may be provided by noise walls that are constructed at a height and length adequate to provide mitigation.

Active coordination will take place with residents during the design phase of the project to ensure that barriers are attractive and fit into their surroundings. Decisions will be made during the design phase about possible decorative surface finishes, landscaping, etc. on barriers (dependent on the material used for the barriers) to ensure that they are attractive additions to neighbors' visual environment.

To mitigate short-term construction noise impacts on these areas, installation of barriers in advance of busway construction will be considered if feasible and reasonable.

All buses will have appropriate muffler systems and will be properly maintained to ensure that they are as operationally quiet as they can be.

A review of local city/town noise ordinances, if they are relevant, will be made during the design phase of the project to consider if station facilities would create any noise that violates local ordinances. Besides impacts from buses themselves (which have already been addressed), noise may be generated from heating/cooling systems, loudspeakers, and other station-related features. Design considerations may be needed to ensure that noise levels generated by the stations themselves do not violate local ordinances.

Construction noise is specifically discussed in Section 4.16.1 below.

4.2 MITIGATION OF IMPACTS ON AIR QUALITY

All estimated CO concentrations are less than the National Ambient Air Quality Standards (NAAQS) for all project alternatives. No negative air quality impacts are expected due to implementation of the proposed New Britain – Hartford Busway. Therefore, the project conforms to the State Implementation Plan (SIP). Regional air quality is expected to benefit from reductions in VMT associated with construction of a mass transit facility. Therefore, no mitigation measures are required for potential air quality impacts of project operation.

The busway will not be on the State Highway System and not open to the general public. No indirect source permit will be needed for this project.

The public has expressed a great deal of interest in what types of buses would be used on the busway, and what type of fuel they would use. One of the benefits the busway has is that the existing fleet of buses would be available for immediate use. However, new buses will likely be purchased for opening day and as ridership increases and older buses come due for replacement, additional new buses will be needed.

About 30 new buses will be needed for opening day. New technology buses will reduce or eliminate on-road emissions from busway vehicles. Possible new technology buses under consideration include "clean" diesel, electric buses, and hybrid electric-diesel buses or other new fuels that may develop.

No final decisions have been made about the specific fuel technology that will be used, as technology is changing rapidly. However, alternative fuel types will be examined. Buses will be purchased that use proven technology, are not cost prohibitive and are practical. ConnDOT has recently purchased two hybrid electric buses as a demonstration project for testing in anticipation of the bus purchase for the busway services. ConnDOT is also testing low-sulfur diesel fuel and bio-diesel fuel for testing emissions reductions.

Alternative fuel vehicles would likely result in lower levels of emissions at a regional level.

4.3 MITIGATION OF IMPACTS ON SOCIOECONOMICS AND LAND USE

Because the project corridor follows active and inactive rail corridors that have been in use for over a century, the project would not have the widespread negative socioeconomic effects or negative land use changes expected with a new facility on a new corridor alignment. No residential properties are expected to be acquired for the project. Negative effects would be limited where right of way would be acquired, as was described in greater detail in Sections 3.2 and 3.8.

Beneficial land use effects could occur in the vicinity of the stations, where TOD opportunities are present. As noted previously, ConnDOT cannot formally influence the planning choices made near stations. The four communities near the busway have all indicated a willingness to offer special incentives (such as higher zoning densities) to encourage TOD near stations. ConnDOT is committed to continuing working with the four communities as well as the regional planning agencies (CRCOG and CCRPA) to encourage redevelopment and new development that benefits the busway and the communities at large. ConnDOT will encourage any station-area planning efforts that the four communities and regional planning agencies undertake.

For those properties that need to be acquired, relocation services would be offered to all displaced persons (owners and tenants) and businesses without regard to race, color or national origin in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970 and Chapter 135 of the State of Connecticut General Statutes. In cases where a partial property acquisition is required, or where a property is bisected, leaving an owner with an unusable portion of property, the state will monetarily compensate property owners for any land required or left uneconomically usable.

Amtrak right of way will be a substantial portion of the property needed for acquisition on this project. ConnDOT has been coordinating with Amtrak's Real Estate Development Department and this coordination will continue. See section 4.14 for more information.

4.4 MITIGATION OF IMPACTS ON DEMOGRAPHICS AND ENVIRONMENTAL JUSTICE POPULATIONS

An evaluation was performed of the effect of the project on different demographic groups, particularly minority and low income, to ensure that the project will support Executive Order 12898 (President Clinton's order on Environmental Justice) and Title VI of the Civil Rights Act

of 1964. As noted in the Draft EIS, the project is not anticipated to create disproportionately high and negative impacts on minority or low-income populations. Mitigation of right of way and other impacts (such as noise, air quality, etc.) is discussed in the respective sections of this EIS covering those topics.

Instead, the project is anticipated to create net benefits for environmental justice populations. Demand for public transit services is higher in minority and low income areas. As noted in the Draft EIS demographic analysis, Station Area A (in Hartford) and Station Area D (mostly in New Britain) are the portions of the study area that have a higher relative percentage of minority and low-income households within a half-mile of the proposed busway stations. The project will increase mobility for transit-dependent populations, who often cannot afford a car, and often are members of low income or minority groups. The City of Hartford has noted in its comments that nearly 40% of its residents are transit dependent. Shorter trip durations, increased hours of service, improved comfort and convenience will benefit these populations.

Another benefit of the project is that busway stations and other improvements will be tangible investments in low-income or minority neighborhoods. These investments can in turn encourage TOD investments to help rebuild these communities. As noted previously, ConnDOT is committed to continuing working with the four communities as well as the regional planning agencies (CRCOG and CCRPA) in their efforts to encourage redevelopment and new development that benefit the busway and the communities at large.

By working at the neighborhood level, ConnDOT has endeavored to reach out to all stakeholder groups, especially low income and minority populations during the EIS process. For example, advertisements for neighborhood meetings were placed in a Spanish-language newspaper as well as English-language publications. Arrangements were made for a Spanish speaker to be present to translate for non-English speakers. For one neighborhood meeting in New Britain, a database of homes within a certain distance of the busway corridor was compiled, to notify both property-owners and tenants the meeting. This effort ensured that residents that did not own their homes would not be left out of the public involvement process. ConnDOT will continue to perform outreach such as this into the design process, to ensure that all stakeholders can freely provide input on the project.

4.5 MITIGATION OF IMPACTS ON WETLANDS

Mitigation of impacts on wetlands will be in compliance with any applicable state and federal statutes and orders, specifically Section 404 of the Clean Water Act (as amended), Executive Order 11990 (Protection of Wetlands), and Sections 22a-36 through 22a-45a of the Connecticut General Statutes (CGS). Permits for wetland impacts and mitigation will be required from the US Army Corps of Engineers (ACOE) and the Connecticut DEP Inland Water Resources Division.

The exact area of impacts upon wetlands will be definitively determined during the design phase of the project. During design, ConnDOT will commit to avoid, minimize, and then mitigate wetland impacts in that order of priority. Any permanent loss of wetland functions and values

from the project would be compensated through a comprehensive wetland mitigation plan that would be formulated in cooperation with ACOE and DEP. Coordination with these agencies will take place during design to determine exact impacts, necessary mitigation, and eligibility for programmatic permits.

ConnDOT will pursue opportunities to mitigate wetland impacts from this project. The order of priority of restoration, enhancement, and creation will be considered during mitigation and will influence choice of mitigation sites. Mitigation would emphasize the replacement of the functions and values of the impacted wetlands, and would be provided within the watershed where impacts occurred if possible.

Impacts on wetlands at Kane Brook have been totally avoided since the Draft EIS by altering the concept design of the New Park Avenue (Kane Street) station.

Construction impacts and long-term impacts related to increased runoff, erosion, and sedimentation would be mitigated through the drainage design and the project's stormwater pollution prevention plan, which will incorporate Best Management Practices (BMPs) both during and post-construction.

Temporary construction impacts are discussed in Section 4.15 and will be addressed during the permitting process.

4.6 MITIGATION OF IMPACTS ON SURFACE WATERS

Mitigation of impacts on surface waters will be in compliance with any applicable state and federal statutes and orders, specifically Sections 401 and 404 of the Clean Water Act (as amended), Section 10 of the Rivers and Harbors Act, and Sections 22a-36 through 22a-45a of the Connecticut General Statutes (CGS).

Impacts on surface waters are possible at locations where culverts are to be extended or bridge piers/abutments over streams require reinforcement for scour protection. These impacts will be determined during the design phase. It is not anticipated that any bridge piers will physically need to be moved. Coordination with DEP and ACOE will take place during design to determine exact impacts, necessary mitigation, and permit needs. A stormwater pollution control plan will be submitted to DEP's Water Management Bureau. A goal of 80 percent removal of total suspended solids from stormwater discharge shall be used in designing and installing stormwater management measures. BMPs will be used both during and post-construction.

The NRCS, through the City of Hartford, has suggested several means for improving water quality and ecological values of the area near Kane Brook and the New Park Avenue (Kane Street) Station. An enhanced park/wetland area adjacent to Wetland 11 is part of the station concept now and may provide improvements as NRCS has recommended. These improvements may include a much wider vegetative buffer along Kane Brook, which would improve water quality and aesthetics, as well as offer wetland mitigation potential.

NRCS has also suggested restoring the area near Kane Brook with naturalistic, low maintenance landscaping such as red stem dogwood (*Cornus sericia*), silky dogwood (*Cornus amomum*), highbush blueberry (*Vaccinium corymbosum*), and american cranberry (*Vaccinium macrocarpon*), or to utilize the area for stormwater detention or floodplain restoration. These other enhancements of natural resource values will be considered in the design phase as appropriate.

4.7 MITIGATION OF IMPACTS ON FLOODPLAINS

Mitigation of impacts on floodplains will be in compliance with any applicable state and federal statutes and orders, specifically Executive Order 11988 (Floodplain Management), and Sections 22a-342 through 22a-349a (Stream Channel Encroachment) and Section 25-68 (Flood Management Certification) of the CGS. ConnDOT will apply for and receive certification for floodplain impacts as required by the Connecticut DEP Inland Water Resources Division.

According to DEP, areas under the jurisdiction of the Greater Hartford Flood Control Commission are regulated to a stricter standard than other floodplain areas. DEP requires that all fill placed below Elevation 54.0 Metropolitan District Commission (MDC) datum or 51.92 feet (NGVD) in such areas needs to be directly compensated for flood storage loss. A compensatory flood storage plan will be formulated during final design. Flood-proofing measures for existing structures may also be pursued if appropriate.

Amtrak has noted in its comments that there might be a negative flooding impact upon Amtrak tracks if the adjoining busway corridor is elevated in floodplain areas. However, there are no locations north of Newington Junction where Amtrak or the busway corridor is known to be located below the elevation of the 100-year floodplain. Therefore, it is not expected that the project would create a flooding problem for Amtrak. Any mitigation of floodplain impacts expected for the project would be located along the inactive rail corridor south of Newington Junction. Coordination with Amtrak will continue.

4.8 MITIGATION OF IMPACTS ON GROUNDWATER

The project will have no effect on public or private potable groundwater supplies. The entire study area is underlain by stratified drift aquifer, which assists in maintaining surface stream flows during dry periods. The reduction in pervious surface from construction of the busway and facilities would result in a minor decrease in recharge (through infiltration) of the aquifer.

Mitigation of this decreased infiltration to groundwater may be possible by maximizing retention and infiltration in the project's drainage design. Use of pervious surfaces at stations will be considered during final design. These measures will be evaluated during final design and implemented where feasible and reasonable.

4.9 MITIGATION OF IMPACTS ON FISH AND WILDLIFE

No substantial impacts are likely to occur to natural resources, fish and wildlife as a result of the disturbed nature of the project corridor. It is anticipated that retaining walls will prevent the need to extend culverts. Therefore, no formal mitigation measures are proposed. However, DEP has noted in comments that possible fisheries habitat enhancements can be made to locations where culverts are replaced, repaired, or modified. ConnDOT will consult with DEP's Inland Fisheries Division in this regard as well as the US Fish and Wildlife Service.

4.10 MITIGATION OF IMPACTS ON HAZARDOUS/CONTAMINATED RISK SITES

Preliminary assessment of the corridor indicates that the potential exists for encountering hazardous waste or contaminated materials during construction. For the EIS phase, this assessment was localized at station areas, since the rest of the corridor was limited to the railroad rights of way. ConnDOT will perform further investigation during the design phase both at station areas and along the railroad corridor itself to determine actual levels of any potential contamination. ConnDOT will comply with all applicable state and federal regulations regarding hazardous waste or contamination issues.

Excavation will be minimized to the extent feasible, and ConnDOT Environmental Compliance standards will be followed. Mitigation measures could include avoidance of contaminated areas, removal of contaminated materials, and remediation. ConnDOT will produce a plan for addressing Hazardous/Contaminated Materials issues during the design phase, which will be reviewed during construction. All applicable state and federal regulations would be followed to address proper handling and disposal of any contaminated materials. All contractors' construction crews will be provided with health and safety training according to Occupational Safety and Health Administration (OSHA) requirements

The Connecticut DEP has noted the presence of the closed West Hartford landfill/transfer station in Elmwood, located to the east of Amtrak. DEP notes that this site should not cause problems because it is located on the opposite side of Amtrak. However, ConnDOT will pay extra attention to the presence of the site during the design and construction phases to avoid any disturbance, incursions, or excavation into the landfill.

The Connecticut Department of Public Health (DPH) has noted that lead from paint or soils can pose risks from building demolition. ConnDOT will test paint on existing structures during the design phase of the project, and will plan for demolition using lead-safe work practices if necessary. Classification and disposal of lead-based paint or lead-containing paint waste generated during any activities will comply with the Resource Conservation and Recovery Act (RCRA) and DEP's standards (Toxicity Characteristic Leaching Procedure, testing, reporting, and record-keeping requirements by contractors). Workers potentially exposed to these materials will be trained according to OSHA requirements. The Newington Junction station building that would be relocated on site is assumed to have lead-based or lead-containing paint due to its age. ConnDOT will coordinate with DPH regarding proper treatment of this structure, which would not be demolished.

Asbestos abatement will be performed as necessary in accordance with all applicable federal, state, and local regulations. DPH and DEP have noted that any disturbance or demolition of facilities containing asbestos will be subject to National Emissions Standards for Hazardous Air Pollutants (NESHAP). Prior to disturbance, commercial, industrial or public buildings will be inspected for asbestos-containing materials, and removed according to NESHAP provisions. EPA will be notified 10 working days prior to demolition of such buildings. (At the current concept level, no residential properties are anticipated to be demolished as part of the project; buildings with five or more residential units would have identical NESHAP requirements.)

4.11 MITIGATION OF IMPACTS ON VISUAL AND AESTHETIC RESOURCES

One of the guiding principles that has steered the architectural efforts so far is the need to provide "Context Sensitive Solutions" for the busway stations and facilities. In other words, the busway should be appropriately designed to blend into the context of the surrounding community, rather than "stick out" from the existing landscape. ConnDOT will continue to work towards a busway that would contain attractive facilities harmonizing with the surrounding neighborhoods.

In general, landscaping and station amenities, which take into account public input that was received during the study, will be included in the design to make the busway and its facilities attractive additions to communities throughout the study corridor. Stakeholders, including citizens, businesses, municipalities, and others will be provided the opportunity to offer further input during the design phase to ensure that the project offers a context-sensitive solution.

In non-sensitive places such as industrial areas or open space areas that are not near stations, the busway will appear like a roadway with highway-style "Jersey" barriers, and little in the way of visual improvement would be provided. At station areas, the busway would be designed to provide an attractive, welcoming, secure place for passengers.

The most sensitive areas warranting substantial visual mitigation would be found where residential areas or cemeteries abut the busway. In addition, it would be desirable to have the busway blend into existing commercial areas. Some neighborhood groups, such as in Parkville, have been instrumental in providing input on how they would like busway stations to complement their neighborhood streetscape. ConnDOT will continue to work with stakeholders to obtain input into the visual appearance of all busway features throughout the design phase. While it is desirable to provide continuity among busway facilities to help establish an identity to the system, the design of stations and other features will also strive for context-sensitive solutions that relate to the specific neighborhood. Local input will be crucial to ensure that these two goals are met.

Minimization of negative visual effects of the project in sensitive areas will continue to build off of such measures suggested so far. ConnDOT will work actively with the Fairview Cemetery Board during the design phase to mitigate the negative effects of the project on the cemetery. In Fairview Cemetery, ConnDOT's recommended action calls for lowering the grade of the busway

and providing additional visual screening. Barriers will have visual treatments, such as textured surfaces, landscaping, etc. to soften their appearance. Efforts will be taken during the design and construction phases to retain as many non-invasive mature trees as possible within the busway/cemetery interface. While the busway would be less intrusive to Saint Mary's Cemetery (since it would not bisect that cemetery), similar measures will be taken to mitigate effects at that location.

ConnDOT will take a similar approach in residential areas that border the busway. ConnDOT will work actively with citizens, neighborhood groups, businesses and municipalities during the design phase to mitigate the negative effects of the project. In some residential areas, noise barriers will be provided, and ConnDOT will work with neighbors to install noise barriers that have visual treatments, such as textured surfaces, landscaping, etc. to soften their appearance.

Although ConnDOT and its design consultants intend to develop the busway amenities to be sensitive to the neighborhood and regional context, a more comprehensive analysis in the form of a Context Sensitive Design Report will be prepared to achieve the best results. This report will catalog local amenities, study vernacular trends, and compile images that describe the local neighborhood fabric. This report will serve as a template to guide the aesthetic design of busway amenities, including stations, bridge structures, screen walls, landscaping, and visible utilities.

Bridge structures are recognized as important visual elements of the busway corridor. The treatment of bridges will be important in assuring context sensitive solutions, and mitigating negative visual effects. Bridge treatments will be of critical importance in areas that do not have a bridge structure in place today (e.g., East Street/Allen Street area in New Britain and the Flatbush Avenue overpass). ConnDOT will pay particular attention to bridge design and work with local communities to obtain their input.

4.12 MITIGATION OF IMPACTS ON BICYCLE AND PEDESTRIAN TRAVEL

During the Draft EIS phase of the project, the potential for the busway corridor to accommodate a Multi-Use pathway was considered as a separate project. Based upon widespread public support for the concept, a Multi-Use pathway will now be constructed as part of this project. The multi-use pathway would be constructed between downtown New Britain and Newington Junction, mostly within busway right-of-way. Another segment would be constructed between Park Street and Sigourney Street. Between Newington Junction and Park Street and between Sigourney Street and Union Station, consideration has been given to other routes that the multi-use pathway could follow off of the busway alignment, which could be constructed by the local communities. These routes are described in Section 2.3.3

All stations will offer amenities and layouts that encourage these alternative modes. Bicycle racks would be provided at all stations. Members of the project communities have suggested consideration of providing of bicycle lockers at stations and bicycle racks on buses. ConnDOT commits to work with stakeholders during the design phase to determine if lockers are reasonable and practical. ConnDOT is presently preparing to test bike racks on their new buses

in the Stamford Division, and will consider future implementation of bus racks if the trial usage in Stamford is successful.

ConnDOT commits to making pedestrian improvements that ease access of pedestrians in the immediate vicinity of stations. The station concepts shown in Chapter 2 illustrate the pedestrian and bicycle improvements that will be made. Crosswalk improvements, sidewalk improvements, and lighting improvements (particularly under bridge overpasses) have all been proposed. ConnDOT will also encourage efforts of local communities to make pedestrian improvements beyond the vicinity of busway stations.

All new at-grade crossings that are created by the project will have appropriate traffic control provided to ensure safe crossings by all modes, including pedestrians and bicycles.

4.13 MITIGATION OF IMPACTS FROM RIGHT-OF-WAY ACQUISITION AND RELOCATIONS

An estimated 12 businesses would be affected by the project in 11 properties, as inventoried in Section 3.2.3. Amtrak will be the primary landowner affected by the project. Mitigation of impacts on Amtrak is described in Section 4.14 below.

Relocation services would be offered to all displaced persons (owners and tenants) and businesses without regard to race, color or national origin in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970 and Chapter 135 of the State of Connecticut General Statutes. In cases where a partial property acquisition is required, or where a property is bisected, leaving an owner with an unusable portion of property, the state will monetarily compensate land owners for any land required or left uneconomically usable.

4.14 MITIGATION OF IMPACTS ON AMTRAK

ConnDOT and Amtrak have actively coordinated on issues concerning the railroad throughout the EIS process, and ConnDOT commits to continue actively coordinating with Amtrak throughout the design process. Amtrak has raised many separate concerns about the project that need to be addressed to ensure that Amtrak service is not disrupted. Connecticut Southern freight rail service (a subsidiary of Rail America) also operates along the Amtrak line. In addition, Guilford Rail has an active low-volume track in front of the Downtown New Britain Station. ConnDOT has coordinated with both of these railroads and will continue to do so through the design process. The busway is not expected to create any impact on Guilford Rail operations as there will not be any new rail crossings of this line.

Where active rail is adjacent to the busway, rail gates will be provided for rail operations with absolute priority over busway and cross street traffic. Rail gates and signals will be implemented and designed in coordination with Amtrak. Appropriate signal preemptions will be used to prevent queuing on the railroad and busway. Special signage will also be employed as needed.

Amtrak currently has active passenger rail and freight rail operations between Newington Junction and Union Station in Hartford, and a substantial portion of the property needed for the project will be acquired from Amtrak's right of way. The roadbed for the two main tracks will be kept intact for the entire length of the project. No existing sidetracks serving freight customers will be negatively impacted. ConnDOT commits to designing the busway, in coordination with the railroad, in a manner that will not preclude Amtrak from double-tracking the entire length of the corridor between Newington Junction and Union Station. In addition, ConnDOT commits to designing the busway in a manner that will not preclude the potential for future provision of electrical catenary or rail stations.

The project will be designed to ensure it accommodates Amtrak maintenance access to key areas. ConnDOT will coordinate with Amtrak to ensure the design meets Amtrak's maintenance needs and to ensure that authorized rail personnel may access the busway as needed to access portions of the rail.

A segment of track will have to be shifted to accommodate the busway between the Sigourney Street Station and the Armory/Legislative Office Building Station. ConnDOT will coordinate with Amtrak to accomplish this work without disruption of service and to ensure that the design of the new track will meet Amtrak standards for speeds and curvature.

Amtrak has raised the concern about the potential for the busway overpass of Flatbush Avenue to have restricted sight lines. ConnDOT will review this issue with Amtrak during design.

ConnDOT will work with Amtrak regarding the timing of construction. Amtrak has noted the potential need to perform some construction at night. ConnDOT and Amtrak will determine if and where this is necessary.

Potential floodplain impacts are not expected to affect Amtrak as discussed in Section 4.7.

ConnDOT will work with Amtrak during design to ensure that the design of stations contains appropriate barriers. Barrier design will be critical in ensuring separation of busway vehicles from the train corridor and vice versa. Barrier design will also minimize opportunities for unauthorized trespass on railroad properties.

The Connecticut Transportation Strategy Board is investigating the potential for providing commuter rail service between New Haven and Springfield. The Newington Junction station could potentially serve as a joint station between the busway and potential commuter rail service. ConnDOT will collaborate with Amtrak to ensure that station design is compatible with adding potential commuter rail service in the future.

4.15 MITIGATION OF IMPACTS FROM CONSTRUCTION

Construction impacts as a whole are anticipated to be short term and temporary in nature, and often differ greatly from the long-term permanent impacts of the project described previously in

this chapter. Description of construction impacts is found in Chapter 3. The following sections outline the efforts that will be taken to mitigate the impacts of construction.

4.15.1 Mitigation of Construction Impacts from Noise and Vibration

4.15.1.1 Construction Noise Mitigation

While residential development along the busway is limited to several concentrated areas, there will be noise impacts during and after construction. Several residential areas are being considered for mitigation to abate post-construction noise. However, temporary construction noise can create short term localized impacts that may warrant consideration of mitigation measures.

FTA has established guidelines regarding when impacts from construction noise may warrant special consideration for mitigation. Table 4.16-1 outlines FTA's guidelines, which cover impacts over different periods of time. Exceeding these levels may warrant consideration of construction noise mitigation measures. As per FTA guidance, ConnDOT will determine during the project's design phase if the two noisiest pieces of equipment operating concurrently would create impacts on nearby receivers that exceed the 1-Hour L_{eq} levels in the second and third column of Table 4.16-1.

Table 4.15-1
FTA Guidelines for Mitigating Impacts of Construction Noise

Land Use	1-Hour L_{eq} (dBA)		8-Hour L_{eq} (dBA)		30-day Average L_{dn} (dBA)
	Day	Night	Day	Night	
Residential	90	80	80	70	75*
Commercial	100	100	85	85	N/A
Industrial	100	100	90	90	N/A

*In urban areas with very high ambient noise levels (L_{dn} > 65 dBA), L_{dn} from construction operations should not exceed existing ambient + 10 dBA
Source: Adapted from *Transit Noise and Vibration Impact Assessment*, FTA, April, 1995.

4.15.1.2 Construction Vibrations

Some vibrations would be expected during construction from the use of heavy equipment. According to FTA guidance in *Transit Noise and Vibration Impact Assessment* (1995), vibrations from construction could be perceived by people, and, less likely, could damage old, fragile structures. Vibration velocity levels are measured in units of vibration decibels (VdB) or in inches per second (in/sec). FTA has assigned vibration damage threshold criteria of 0.20 in/sec (approximately 100 VdB) for fragile buildings, or 0.12 in/sec (approximately 95 VdB) for extremely fragile historic buildings. ConnDOT will calculate, during the design phase, if vibration impacts on sensitive structures are possible, given the equipment expected to be needed for construction and the distances of sensitive structures. It would not be expected that measurements would be made.

The construction activities that typically generate the most severe vibrations are blasting and impact pile driving. Property owners may be compensated for any actual damage after construction if it can be determined that the damage was caused by the construction activity itself.

4.15.1.3 Measures for Reducing Construction-Activity Noise and Vibration

FTA has provided a number of suggested noise and vibration control approaches in its *Transit Noise and Vibration Impact Assessment* (1995) document that may reduce construction-activity related noise and vibration. ConnDOT will work with its contractors during the design and construction phases to incorporate as many of FTA's approaches (shown in *italics*) as possible:

Design Considerations and Project Layout:

- *Construct proposed noise barriers between noisy activities and noise-sensitive receivers in advance of busway construction if feasible and reasonable.* ConnDOT may consider this technique, if feasible and reasonable, to mitigate short-term construction noise impacts on the areas that will receive permanent noise abatement (described above in Section 4.1).

- *Re-route truck traffic away from residential streets, if possible. Select streets with fewest homes, if no alternatives are available.* ConnDOT may require its contractors to give this issue consideration during construction planning as is feasible and reasonable.

- *Site and operate earth-moving equipment on the construction lot as far away from noise- and vibration-sensitive sites as possible.* ConnDOT may require contractors to give priority to this consideration where feasible and reasonable.

- *Construct walled enclosures around especially noisy activities or clusters of noisy equipment. For example, shields can be used around pavement breakers, and loaded vinyl curtains can be draped under elevated structures.* ConnDOT may give consideration to the potential for temporary mitigation measures such as this during the design phase. If practicable, ConnDOT may require contractors to implement these measures where feasible and reasonable.

Sequence of Operations:

- *Combine noisy operations to occur in the same time period. The total noise level produced will not be significantly greater than the level produced if the operations were performed separately.* ConnDOT and its contractors may give this issue consideration during construction planning as is feasible and reasonable.

- *Phase demolition, earth-moving and ground-impacting operations so as not to occur in the same time period. Unlike noise, the total vibration level produced could be significantly less when each vibration source operates separately.* ConnDOT and its contractors may give this issue consideration during construction planning as is feasible and reasonable.

- *Avoid nighttime activities. Sensitivity to noise and vibration is higher during the nighttime hours in residential neighborhoods.* Much of the corridor is commercial or industrial in nature. ConnDOT will consider restricting use of construction equipment, especially in residential areas, to certain hours depending upon location. ConnDOT and its contractors may give this issue consideration during construction planning as is feasible and reasonable.

Alternative Construction Methods:

- *Avoid impact pile driving where possible in noise-sensitive areas. Drilled piles or the use of a sonic or vibratory pile driver are quieter alternatives and causes lower vibration levels (with some exceptions) where the geological conditions permit their use.* ConnDOT and its contractors may give this issue consideration during construction planning as is feasible and reasonable.

- *Use specially quieted equipment, such as quieted and enclosed air compressors and mufflers on all engines.* ConnDOT will require its contractors to ensure that at a minimum, all machinery is equipped with the proper mufflers, and that machinery is well maintained. ConnDOT may require its contractors to consider use of specially quieted equipment where feasible and reasonable.

- *Select quieter demolition methods where possible. For example, sawing bridge decks into sections that can be loaded onto trucks results in lower cumulative noise levels and vibration levels than impact demolition by pavement breakers. Million generates lower vibration levels than exacavation using clam shell or chisel drops.* ConnDOT and its contractors may give this issue consideration during construction planning as is feasible and reasonable.

- *Avoid vibratory rollers and packers near sensitive areas.* ConnDOT and its contractors may give this issue consideration during construction planning as is feasible and reasonable.

4.15.2 Mitigation of Construction Impacts on Air Quality

ConnDOT will adhere to the requirements in Section 22a-174-18(a)(5) of the Regulations of Connecticut State Agencies (RCSA), which prohibits excessive idling of construction equipment. ConnDOT does coordinate with DEP concerning air quality issues and abatement relative to construction activities, and may consider requiring contractors to provide emissions reductions similar to the requirements made for contract D of the New Haven Harbor Crossing project. Those requirements include such measures as retrofitting non-road diesel construction vehicles, using clean fuels, monthly oversight of equipment used, establishing truck-staging zones, producing a diesel emissions mitigation plan in locations of close proximity to sensitive receptors, and a dust control plan. ConnDOT will also adhere to any relevant requirements found in the Clean Air Act Amendments of 1990.

Roadway traffic disruption due to lane closures, detours, and construction vehicles accessing the site can cause congestion, which could increase motor vehicle exhaust emissions. Appropriate

project team's (ConnDOT, its consultants and contractors, and FTA) commitments on this project, along with references to where more elaboration on these commitments can be found. Where the term "stakeholders" is mentioned below, this includes the wide variety of interested parties on this project, such as local citizens, town/city staffs, business interests, community groups, regional planning agencies, state regulatory agencies, federal regulatory agencies, and any other such parties. Commitments that follow have been broken into three groups: General Project-Wide Commitments, Station Commitments, and Other Commitments at Specific Locations.

General Project-Wide Commitments:

The project team will:

1. Actively engage stakeholders in providing input on the design of the busway during the design process. An extra effort will be made to reach out to minority and low-income populations to ensure that the project's public involvement meets the spirit of Executive Order 12898 and Title VI of the Civil Rights Act of 1964. Future commitments to meet with stakeholders are mentioned throughout the Final EIS, especially throughout Section 6.4.
2. Encourage efforts by the four communities and the region to extend the multi-use trail system beyond the busway study area. (Section 1.1.2).
3. Design all busway facilities in compliance with the ADA, and stakeholders will have an opportunity to provide input on this issue during the design process. (Section 2.2.1)
4. Incorporate a wide variety of "Defensible Space" measures into the design of the project (Section 2.2.2.) Stakeholders will have opportunities for input on this issue during design.
5. Work with local and state law enforcement agencies during the design phase to ensure proper security is provided at facilities. (Section 2.2.2)
6. Work with stakeholders to provide context-sensitive solutions for the project during the design phase that provide continuity among busway facilities to help establish an identity to the system while also relating to the specific neighborhood. A comprehensive analysis in the form of a Context Sensitive Design Report will be prepared to achieve the best results. This report will catalog local amenities, study vernacular trends, and compile images that describe the local neighborhood fabric. This report will serve as a template to guide the aesthetic design of busway amenities, including stations, bridge structures, screen walls, landscaping, and visible utilities. (Section 2.2.3, 4.11)
7. ConnDOT will work with local communities regarding bridge design features. (Sections 2.2.3, 4.11)
8. Formulate a landscaping plan for all busway facilities during the design phase of the project. ConnDOT will make a commitment to provide stakeholders with opportunities to provide input into the landscaping plan. (Section 2.2.4)
9. In design, preserve as many mature trees as is reasonable and feasible (except for invasive or undesirable species) for the portion of the corridor on the abandoned rail line. Existing vegetation will be augmented where reasonable and feasible. (Section 2.2.4)
10. Make decisions on lighting (pedestrian facilities, parking, station areas, etc.) during the design phase with input from stakeholders. (Section 2.2.5)

11. Determine placement of fixed and variable signs within the busway facility during the design phase, with input from stakeholders. Signs, other than the ITS system, will emphasize graphic, readily understood messages, rather than rely on written messages. (Section 2.2.6)
12. Be responsible for the maintenance of busway facilities, through the mechanism of its choosing. (Section 2.2.8)
13. Use a "design build" process for busway construction. ConnDOT commits to ensure that stakeholders are provided a full opportunity to provide input on the design of the busway during the design process. (Section 2.2.9)
14. Examine bridges throughout the corridor during the design phase to ensure their adequacy for this project. (Section 2.3.2)
15. Construct a multi-use trail between Downtown New Britain and Newington Junction and between Park Street and Sigourney Street as part of this project. (Sections 2.3.3, 4.12)
16. Encourage Hartford, West Hartford, Newington and CRCOG to complete multi-use trail connections beyond the busway corridor between Newington Junction and Park Street and between Sigourney Street and Union Station. (Section 2.3.3)
17. Actively coordinate with Amtrak, Connecticut Southern railroad, and Guilford Rail throughout the design process. (Sections 2.3.5, 4.14)
18. Design walls at stations next to Amtrak to protect pedestrians from the wind generated by a passing train and any debris that might be kicked up by the train. Visual features of walls will include stakeholder input. (Section 2.4)
19. Incorporate all features of stations as described in greater detail in the descriptions in Sections 2.4.1 through 2.4.12 into station designs during the design process as is reasonable and feasible. Stakeholder input will be solicited actively for all stations during the design process. Specific commitments at each station are described under "Station Commitments" below.
20. Continue working with the four communities as well as the regional planning agencies (CRCOG and CCRPA) in their efforts to encourage TOD, redevelopment and new development that benefits the busway and the communities at large. The team will work with any station-area planning efforts that the four communities and regional planning agencies undertake. (Section 2.5, 4.3)
21. Examine alternative bus fuel types and purchase buses that use proven technology, are not cost prohibitive and are practical. (Section 2.6 and 4.2)
22. Consider various styles of new buses. (Section 2.6).
23. Commit to the enhanced bus schedule outlined in Sections 2.7.1.2 and 2.7.1.3 and continue to refine it through the process.
24. Consider busway service that at this stage of planning is initially expected to operate seven days a week, between the hours of 6:00 AM and 12:00 Midnight. These hours may be further modified during the design phase or as future needs dictate. (Section 2.7.1.2)
25. Require any bus drivers using the busway facility to be specifically trained for use of the busway beforehand. (Section 2.7.1.4)
26. Price bus fares for busway service at the same price as the overall system-wide fares in place at the time of the opening of busway operations. (Section 2.7.1.5)
27. Permit emergency vehicles to enter the busway if an emergency on the busway or any adjoining area required it. In addition, during the design process, the team will contact local

fire officials and fire hydrants will be located along the busway to meet the fire protection needs. (Section 2.7.1.6)

28. Continue to coordinate with the Downtown Hartford Circulation Study that is still underway (Section 2.7.2.2)
29. Provide noise mitigation in the form of noise barriers at four locations: Cottage Place, Cornerstone Condominiums, Willard Avenue area, Francis Avenue, as described in greater detail in Section 4.1. The team will actively coordinate with residents during the design phase of the project to ensure that barriers are attractive and fit into their surroundings. In the case of the property at 225 Smalley Street, ConnDOT will work with the owner to determine ways to mitigate the effects of noise/privacy loss at his property, which likely would not be able to accommodate a noise wall because of sight line limitations at the Smalley Street intersection. (Section 6.4.7, response to citizen comments).
30. Provide decorative surface treatments and/or landscaping where reasonable and feasible to soften the appearance of noise barriers in residential areas. (Section 4.1; Section 6.4.7, response to citizen comments).
31. Consider installation of noise barriers at the four mitigation locations cited above in advance of busway construction if feasible and reasonable. (Sections 4.1, 4.15.1)
32. Review local city/town noise ordinances, if they are relevant, during the design phase of the project and consider if regular busway operations would create any noise that violates local ordinances. Design considerations may be needed to ensure that noise levels generated by the stations themselves do not violate local ordinances. (Section 4.1)
33. Offer relocation services would be to all displaced persons (owners and tenants) and businesses without regard to race, color or national origin in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970 and Chapter 135 of the State of Connecticut General Statutes. In cases where a partial property acquisition is required, or where a property is bisected, leaving an owner with an unusable portion of property, the state will monetarily compensate property owners for any land required or left uneconomically usable. (Sections 4.3, 4.13)
34. Mitigate impacts on wetlands as described in greater detail in Section 4.5, with the priority of avoiding, minimizing, and then mitigating wetland impacts in that order of priority. A comprehensive wetland mitigation plan that would be formulated in cooperation with ACOE and DEP. Mitigation would emphasize the replacement of the functions and values of the impacted wetlands, and would be provided within the watershed where impacts occurred if possible.
35. Coordinate with DEP and ACOE during design to determine exact impacts, necessary mitigation, and permit needs on surface waters (Section 4.6)
36. Produce a stormwater pollution control plan, to be submitted to DEP's Water Management Bureau. A goal of 80 percent removal of total suspended solids from stormwater discharge shall be used in designing and installing stormwater management measures. BMPs will be used both during and construction and as part of design. (Section 4.6)
37. Mitigate impacts upon floodplains as described in Section 4.7. The team will evaluate drainage issues during design, and incorporate Best Management Practices.
38. Evaluate the potential for use of pervious surfaces (which allow natural downward drainage, e.g., unpaved or vegetated surfaces) at stations during the design phase to improve groundwater infiltration. The team will consider designing station areas with pervious

surfaces where feasible and reasonable. (Section 4.8, 6.4.4 [responses to City of Hartford/NRCS comments])

39. Consult with DEP's Inland Fisheries Division and the US Fish and Wildlife Service during design to determine if fisheries habitat enhancements can be made to locations where culverts are replaced, repaired, or modified. (Section 4.9)
40. Mitigate hazardous/contaminated materials as described in Section 4.10.
41. Provide bicycle racks at all busway stations (Section 4.12).
42. Work with stakeholders during the design phase to determine if bicycle lockers at stations are reasonable and practical. ConnDOT is presently preparing to test bike racks on their new buses in the Stamford Division and will consider future implementation of bus racks if the trial usage in Stamford is successful. (Section 4.12)
43. Make pedestrian improvements that ease access of pedestrians in the immediate vicinity of stations as shown on station concepts shown in Chapter 2. ConnDOT will also push for local communities to make pedestrian improvements beyond the vicinity of busway stations. (Section 4.12, Section 6.4.6 [responses to Parkville Revitalization Association comments])
44. Provide appropriate traffic control at all new at-grade crossings that are created by the project to ensure safe crossings by all modes, including pedestrians and bicycles. (Section 4.12)
45. Follow all of the commitments in mitigation for Amtrak as listed in Section 4.14. These commitments include design requirements, signal design, maintenance concerns, etc.
46. Follow all of the commitments to mitigate construction impacts as listed in Section 4.15. These commitments cover noise, air quality, water quality, traffic flow, property access, utilities, emergency services, visual quality, excess materials, and hazardous materials.
47. Encourage the Connecticut Department of Community and Economic Development and OPM to be involved in any station area planning/TOD efforts. ConnDOT will encourage those state agencies and others to find ways to generate financial support for TOD initiatives. (Section 6.4.3, responses to CRCOG, Section 6.4.6, responses to Parkville Revitalization Association comments).
48. Coordinate with the City of New Britain during the design phase regarding design of all the following within the city: bridges/abutments, station locations/designs, noise remediation efforts, the busway roadway, busway barriers, decorative elements (Section 6.4.4, responses to City of New Britain comments).
49. Determine electronic infrastructure needs for the busway during the design phase. If there is a need for new electronic infrastructure to be installed, ConnDOT would leave excess room available for possible private use if reasonable and feasible. (Section 6.4.6, response to Parkville Revitalization Association comments).
50. Work with stakeholders and the design team to ensure that bike-friendly stairs, if appropriate, are offered at station. (Section 6.4.6, response to Parkville Revitalization Association comments).
51. Make decisions during the design phase about the use of "wrap" ads on buses using the busway. (Section 6.4.6, response to Parkville Revitalization Association comments).
52. Coordinate with nearby stakeholders during the design phase to determine if pay phones should be provided at stations. All stations will have emergency call boxes. (Section 6.4.6, response to Parkville Revitalization Association comments).
53. Offer the Parkville Revitalization Association and Real Art Ways opportunities during the design phase and beyond to find ways to provide public art at busway facilities that will

enhance the busway experience while being resistant to vandalism. (Section 6.4.6, responses to Parkville Revitalization Association comments).

54. Consider "sustainable parking principles" at stations during the design phase to minimize the need for new parking area, and implement them where feasible and practicable. (Section 6.4.6, responses to Parkville Revitalization Association comments).
55. Coordinate with affected stakeholders during the design process to ensure that covered walkways associated with the busway do not become problem areas for loitering, vandalism, or maintenance. (Section 6.4.6, responses to Parkville Revitalization Association comments).
56. Make decisions on station names, the name of the busway system, and marketing issues during the design phase, with an emphasis on providing a positive image for the system. (Section 6.4.6, responses to All Aboard and Parkville Revitalization Association comments).
57. Keep the busway corridor dedicated for transit use, and will not alter the corridor in the future to serve as a regular state roadway open to general traffic. (Section 6.4.7, response to citizen comments).
58. Initiate contact with the travel department of the VA Connecticut Health Center in Newington during the design phase to strategize how employees, patients and visitors can be better served by the busway. (Section 6.4.8, response to citizen email comments).

Station Commitments:

The project team will consider, during the design phase, the provision of a wide variety of station amenities at each station location, with extensive stakeholder input (Section 2.2.7). At all stations, all amenities and features will be provided as outlined in the concept drawing and station descriptions for each station (Sections 2.4.1 through 2.4.12) unless changes are determined to be necessary during the design phase. Stakeholder input will be solicited.

Some additional specific commitments for stations that the project team will make:

Cedar Street Station D1:

59. Consider constructing a station on CCSU property (south of Route 175 and east of Route 9) in the future if CCSU is able to develop the site as an East Campus extension. Additionally, under that scenario, The team will re-evaluate the Cedar Street station for its ridership potential at that time, and the Cedar Street Station would be retained or redeveloped as appropriate. (Section 2.4.4)

Newington Junction Station E1

60. Determine during the design phase how to move, rehabilitate, and re-use an old railroad work building west of the tracks at the Newington Junction station. The SHPO will be provided oversight of this effort during the design phase (Sections 2.4.5, 5.2.3)
61. Provide signage and other elements to increase this station's visibility from Willard Avenue (Section 6.4.7, response to citizen comments).

Elmwood Station F1

62. Work with the Town of West Hartford in its effort to encourage joint development/co-development at the Elmwood station building. (Section 6.4.7, Citizen letter/comment sheet responses).

New Park Avenue (Kane Street) Station H2

63. Consider use of pervious materials for areas that are not already paved. (Section 6.4.4, responses to City of Hartford/NRCS comments)
64. Design the station to not preclude provision of a future connection to the proposed extension of Bartholomew Avenue under the Westside Access project. (Section 6.4.6, response to Parkville Revitalization Association comments)

Park Street Station I4

65. Encourage efforts on the part of Parkville and the City of Hartford to find redevelopment opportunities for the 17-35 Bartholomew Street site, which is across Amtrak from the station. (Section 6.4.6, responses to Parkville Revitalization Association comments).
66. Take into consideration the need for adequate drainage under the reconstructed Park Street overpass. (Section 6.4.6, responses to Parkville Revitalization Association comments).
67. Require the bridge designer to leave adequate width for the reconstructed portion of the Park Street bridge to accommodate bicycle lanes underneath. (Section 6.4.6, responses to Parkville Revitalization Association comments).
68. Continue to coordinate with Sack Oil during the design phase regarding right of way impacts from the Park Street station. The layout currently being proposed is conceptual. ConnDOT acknowledges the impacts upon this business that the construction of the Park Street Station will create; however, at this time, the actual design of the station has not been definitively determined, and the exact extent of impacts cannot be quantified. A Property Agent will be assigned to Sack Oil once the rights of way process has commenced. This agent will discuss in detail any and all compensation they may be eligible for under the Uniform Relocation Assistance and Real Property Acquisition Policies Act. The agent will determine the possibility for purchasing excess property to reconfigure the site to allow Sack Oil to remain at their current location. (Section 6.4.6, responses to Parkville Revitalization Association comments).

Armory/LOB Station K1

69. Investigate possible improvements to this station layout during the design phase of the project. (Section 6.4.4, responses to City of Hartford).

Other Commitments at Specific Locations:

The project team will:

70. Signalize the intersection of Stanley Street and Dwight Street in New Britain, and the signal will be coordinated with the Stanley Street intersection of the busway corridor. (Section 2.3.4)
71. Lower the grade of the busway through Fairview Cemetery (Section 2.3.6). Consideration will be given to sight lines at the newly-created at-grade intersection connecting the two sides of the cemetery. The team will work actively with the Fairview Cemetery Board during the design phase to mitigate the negative effects of the project on the cemetery, including lowering the grade of the busway and providing additional visual screening. Barriers will have visual treatments, such as textured surfaces, landscaping, etc. to soften their appearance. Efforts will be taken during the design and construction phases to retain as many non-invasive mature trees as possible within the busway/cemetery interface. Similar measures will be taken in Saint Mary's Cemetery. (Section 4.11)
72. Grade-separate the area of the busway over East Street and Allen Street (Section 2.3.7)
73. Grade-separate the area of the busway over Flatbush Avenue (Section 2.3.8)
74. Provide photographic and narrative documentation to SHPO of the Amtrak bridge over Trout Brook and Amtrak Culvert near the I-84 Sisson Avenue Interchange. (Section 5.2.3)
75. Assess during the design phase the need for pre-construction archaeological investigations, including remote sensing studies, in Fairview Cemetery to ensure the absence of unmarked graves within the construction area. No impacts to graves are anticipated. However, if it is determined that remote sensing is needed, the project team will pursue these investigations. (Section 5.2.3)

4.17 PERMITS NEEDED FOR THE PROJECT

At the current concept level of the busway, the following permits (listed in Table 4.17-1) are anticipated to be needed for the project. Alterations to the busway concept during the design phase could require other permits, or perhaps avoid the need for some of the permits listed below.

Table 4.17-1
Permits Anticipated to be Needed Prior to Construction

Permit Type	Statutory Authority	Issuing Agency
Clean Water Act of 1972: Section 404 (Impact on Waters [wetlands] of the U.S.)	33 USC 1251 et. seq.	US Army Corps of Engineers
Clean Water Act of 1972: Section 401 (Water Quality Certification)	33 USC 401	Connecticut DEP
Connecticut Inland Wetland and Watercourses Act	CGS 22a-36 through 22A-45	Connecticut DEP
Flood Management Certification	CGS 25-68(b-h)	Connecticut DEP
Stream Channel Encroachment	CGS 22a-342	Connecticut DEP
Water Diversion	CGS 22a-372(e)	Connecticut DEP
National Pollution Discharge Elimination System (NPDES)	CGS 22a-430b	Connecticut DEP

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Chapter 5

Final Section 4(f)/6(f) & Section 106 Evaluation

5.1 INTRODUCTION

As described in detail in the Draft EIS, the purpose of this section of the EIS is to analyze if there are any adverse impacts from the New Britain – Hartford Busway project on sites that are regulated by:

Section 4(f) of the Department of Transportation Act of 1966 (49 USC 303): Section 4(f) sites include public parks, recreation lands, wildlife and waterfowl refuges, and historic sites.

Section 6(f) of the Land and Water Conservation Act of 1965 (16 USC 4601): Section 6(f) sites include outdoor recreation areas that were acquired or developed with funds from the Land and Water Conservation Fund (LAWCON).

Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800): Section 106 governs cultural resources (archaeological and historic resources) that are or may be eligible for the National Register of Historic Places.

As a part of the Section 106 coordination for this project, the State Historic Preservation Office (SHPO) was provided with detailed information about the proposed project and the historic and archaeological resources found within the Area of Potential Effect (APE). The SHPO determined that the proposed project would have "no effect" on any resources in the corridor governed by Section 106, with conditions, as described in this chapter. Future coordination will be ongoing.

5.2 FINAL SECTION 106 EVALUATION

5.2.1 Existing Resources

The Draft EIS process, included a field and data review of the cultural resources, both archaeological and historic, in the APE for this project. Refer to the Draft EIS for more information. Resources in the corridor were assessed and coordination took place with

SHPO. Table 5.2-1 summarizes the historic resources found in the APE, which were discussed in greater detail in the Draft EIS.

Table 5.2-1
Historic Resources Within The Area of Potential Effect

Resource	City/Town	SHPO Determination of Effect*	Required Mitigation*
Newington Jct. Multiple Resource Area: • Newington Jct. North Historic District • Newington Jct. South Historic District • Newington Jct. West Historic District • Newington Junction Railroad Depot	Newington	None, with conditions	SHPO will review and comment on preliminary design plans for station with regards to small station building that would be relocated/refurbished on site
Frog Hollow Historic District	Hartford	None	--
State Armory	Hartford	None	--
Bushnell Park	Hartford	None	--
Union Station	Hartford	None	--
Amtrak Corridor: Newington Jct. to Hartford	Newington W.Hartford Hartford	None, with conditions	Besides Newington Jct. requirement above, photo-documentation/narrative documentation of Trout Brook Bridge and Stone Culvert under I-84 Sisson Avenue Ramp
New Britain Spur Line from Newington Jct. to New Britain	New Britain, Newington	None	--

*Based on letter from SHPO dated 9/7/2000

5.2.2 Section 106 Impacts on Cultural Resources

The project will enhance an existing transportation corridor (abandoned rail corridor and unused portions of an active Amtrak rail corridor) by reintroducing an active passenger transportation function with the busway. SHPO has indicated that the recommended action will have "no effect" on historic resources within the APE, subject to the conditions described in Section 5.2.3.

5.2.3 Measures to Minimize Harm/Agency Coordination

A coordination meeting took place with SHPO staff on August 25, 2000, and SHPO subsequently determined in a letter dated September 7, 2000 that there would be no effect upon the state's cultural heritage, contingent on the following stipulations:

- SHPO will have the opportunity to review and comment upon preliminary design plans with respect to the relocation and rehabilitation of the small Newington Junction Railroad Building. At the Newington Junction station location, an existing small Amtrak railroad building dating from about the 1890s will be relocated

elsewhere on the site to accommodate the station layout. This building has been actively used over time, but has shown some alteration and deterioration. After it is moved, the building would be refurbished and incorporated into the Newington Junction station. The relocation will be coordinated with the SHPO and the Town of Newington.

- ConnDOT will provide photographic and narrative documentation of the Amtrak bridge over Trout Brook and Amtrak Culvert near the I-84 Sisson Avenue Interchange. The Trout Brook bridge has four separate spans, with a well-preserved stone arch on the east side. The project will only affect the west side of the structure, which has a much more recent poured concrete arch, dating from about World War I. The culvert near the I-84 Sisson Avenue interchange (which predates the relocation of the Park River to an underground conduit) would be removed and replaced with fill. The Amtrak portion would remain intact. Photographs and text on these resources that were generated during the EIS process are found in Appendix B.

SHPO has also subsequently requested in a letter dated January 23, 2001:

- ConnDOT consider pre-construction archaeological investigations, including remote sensing studies, in Fairview Cemetery, because of the lowering of the grade through the cemetery. The existing rail line, which bisects the cemetery, was constructed on an elevated berm. SHPO has requested archaeological investigation to ensure the absence of unmarked graves. It is not anticipated that the project should affect unmarked graves, because the freight railroad usage predates the development of the cemetery. However, should the need for remote sensing and archaeological investigation be determined, these methods will be considered as necessary during the design phase of the project.

ConnDOT has coordinated with SHPO with regards to changes in station concepts since release of the Draft EIS. In a letter dated September 27, 2001, SHPO has confirmed that the station refinements would have no effect on the state's cultural heritage. Future coordination with SHPO will be ongoing, and will continue into project design. SHPO has been an agency on the Advisory Committee for this project, along with all affected communities and other stakeholders.

Figures 5.2-1 through 5.2-3 on the following pages show the three SHPO correspondence letters from this project.

- New Britain Vision Transportation Committee
- Parkville (Hartford) Neighborhood Revitalization Zone (on Advisory Committee)
- Parkville Transportation and Community and System Preservation (TCSP)
- Private Individuals [as requests are made]
- Real Art Ways
- West Hartford Vision

6.4 COMMENTS RECEIVED ON PROJECT

A substantial number of public comments were received during the comment period. Table 6.4-1 is a breakdown of comments received. It should be noted that some people commented in more than one forum, for example, they provided a written letter as well as testimony at a hearing. All separate comments are counted individually, so a person may have been counted several times.

Table 6.4-1
Numbers of Pieces of Correspondence Received By Medium During Comment Period

Comment Medium	Final EIS Section	Public Agency/ Government	Private Citizen/ Organization /Business	TOTALS
Federal Agency Letters	6.4.1	5	--	5
State Agency Letters	6.4.2	4	--	4
Regional Agency Letters	6.4.3	1	--	1
City/Town Letters	6.4.4	3	--	3
Business Letters	6.4.5	--	3	3
Citizen Group Letters	6.4.6	--	4	4
Written Citizen Letters/Drawing	6.4.7	--	6	6
Written Citizen Comment Sheets: 4/3/01 Meeting in Newington	6.4.7	--	1	1
Written Citizen Comment Sheets: 4/4/01 Meeting in West Hartford	6.4.7	--	5	5
Written Citizen Comment Sheets: 4/24/01 Hearing in New Britain	6.4.7	--	3	3
Written Citizen Comment Sheets: 4/26/01 Hearing in Hartford	6.4.7	--	--	--
Emailed Comments	6.4.8	--	23	23
Comments off of Web Site Comment Form	6.4.8	--	14	14
Written Questionnaires at Hearings/Meetings	6.4.9	--	14	14
Questionnaires from Web Site	6.4.9	--	8	8
Public Testimony at 4/24/01 Hearing in New Britain	6.4.10	3	7	10
Private Testimony at 4/24/01 Hearing in New Britain	6.4.10	--	2	2
Public Testimony at 4/26/01 Hearing in Hartford	6.4.11	2	7	9
Private Testimony at 4/26/01 Hearing in Hartford	6.4.11	1	1	2
TOTALS		19	98	117

During the Draft EIS comment period, written letters were received from federal agencies, state agencies, regional agencies, cities/towns, businesses, and citizen groups. Sixteen citizens provided comments in written letter form, as a drawing, or on written comment sheets. Twenty-three citizens provided comments electronically in email form. In addition, 14 citizens provided comments electronically using the electronic comment form provided on the project web site.

At public information meetings, questionnaires were provided to gauge citizen usage of busway stations, and to gain input on likes and dislikes. These questionnaires were also available in electronic form from the project web site. ConnDOT received a total of 14 written questionnaires, and 8 electronic questionnaires. The web-based questionnaires were anonymous.

Two public hearings were held on the project: April 24, 2001 (New Britain) and on April 26, 2001 (Hartford). At both of these hearings, spoken testimony was taken in front of the audience as well as privately-recorded testimony in a separate room. At the April 24, 2001 public hearing in New Britain, public testimony was received from 10 persons. Privately recorded testimony was received from two persons. At the April 26, 2001 public hearing in Hartford, public testimony was received from nine persons. Privately recorded testimony was received from two persons.

A diversity of comments was received from the public.

- Generally, the project had more support than opposition. Forty discrete comments from citizens were made with outward support for the project, compared to 23 who showed opposition to the project. (All others were indeterminate). All public agencies showed support for the project, particularly resource agencies such as US Environmental Protection Agency and Connecticut Department of Environmental Protection and municipalities and neighborhood groups.

- Of those persons that opposed the project, there generally were two reasons. Persons that wanted to see LRT provided instead of a BRT facility gave the highest number of comments in opposition. Some persons thought the busway was not prudent use of funds.

- Other people that were opposed to the project are a localized group along Cottage Place in New Britain. These people objected to the impact of using the abandoned rail corridor, which has been unused for over 25 years and which runs behind private houses. Concerns that were raised include noise, visual, air, childrens' safety, etc.

Other major points that were raised frequently by the public:

- Neighborhood groups and private citizens have many opinions on how the busway should look regarding architectural treatments, views from local streets, bridge design, landscaping, site design, etc. As described in Chapter 2, a number of modifications have already been made to busway stations to address these concerns. ConnDOT will continue to enable all stakeholders to provide input into the design phase of the project.

- Widespread input was received about providing a multi-use trail as part of the project, rather than simply accommodating a future trail in a separate project. As a result, ConnDOT is now committing to construct the trail along with the busway between Downtown New Britain and Newington Junction and between Park Street and Sigourney Street. While space constraints preclude providing the trail elsewhere along the corridor, ConnDOT will work with municipalities to find ways to extend the trail off-corridor to downtown Hartford.

- Many individuals commented on the need for improved buses on the busway that use alternative fuels to improve regional air quality. ConnDOT is planning purchases of alternative fuel vehicles for trial use, and is investigating new technologies.

- A comment raised by many people was the need to accommodate bicyclists and pedestrians, to encourage these persons to use the busway. Commenters noted the need for bicycle racks at busway stations, and some persons advocated providing bike lockers at stations and bike racks on buses. A number of commenters stated that pedestrian improvements were needed at various distances from stations, to encourage pedestrian access to stations. ConnDOT will provide bike racks at all stations and will consider provision of bike lockers during design. Where needed, pedestrian improvements will be made in the immediate vicinity of stations.

- Many agencies and individuals noted the need to encourage Transit Oriented Development (TOD) and implement Station Area Planning in the vicinity of stations, to bolster the ridership for the busway, and to provide economic development near stations. ConnDOT will work with local communities to encourage TOD efforts.

- A number of various comments were raised about the appearance of buses, station names and marketing the busway. ConnDOT will make decisions on these issues during the design phase.

The following sections contain comments that were received on the project in various forms. The pages are set up so that the reader can read the comments on the left side of the page and read the corresponding responses on the right side of the page. Attachments to comments that are not specifically related to the New Britain – Hartford Busway Draft EIS are shown two on a page, with no formal responses.

6.4.1 Federal Agency Comments

- Amtrak
- US Environmental Protection Agency
- US Army Corps of Engineers
- US Department of the Interior

National Railroad Passenger Corporation, 30th and Market Streets, Philadelphia, PA 19104

JUN 12 2001

RECEIVED
JUN 14 2001
ENVIRONMENTAL PLANNING DIVISION

Mr. Edgar T. Hurle
Director of Environmental Planning
Connecticut Department of Transportation
2800 Berlin Turnpike
P.O. Box 317546
Newington, CT 06131-7546

Subject: New Britain, Newington, West Hartford and Hartford, CT
New Britain, Hartford Busway
Draft Environmental Impact Statement

Dear Mr Hurle:

Attached are our comments on the subject statement received with your letter dated March 15, 2001.

If you have any questions concerning this matter, please contact Mr. Michael McGraw, Senior Project Engineer, I&C Projects, at (215) 349-1220.

Sincerely,

James S. Richter, P. E.
Chief Engineer - Structures

Attachment

cc: Michael McGraw

Responses to Comments:

No response is necessary on this page.

06/14/01 13:24 ☎880 594 3026 CT DOT RE 2 ☎003/004

Amtrak

DESIGN REVIEW COMMENTS

JOB NAME:	New Britain – Hartford Busway	SHEET NO.	1 OF 2
	DSN:	SUBMITTAL:	Draft Environmental Impact Statement
SUBMITTED BY:	CTDOT	DISCIPLINE:	ALL
REVIEWED BY:	AMTRAK	DATE:	5/31/01

ITEM NO.	DWG. CAL. SPEC. SK.	COMMENTS
1	p. ES-26	Right of Way – Amtrak is a private landowner. How can statement be made that impact is limited?
2	p. ES-27	Construction Impacts – There is a potential impact on rail operations.
3	p. ES-29	Costs – Amtrak did not furnish cost estimates for force account work. It is not known how the total project costs were developed.
4	p. 2-5, Figure 2.2-1	Minimum 6' high fence should be provided on top of concrete barrier that separates the railroad and busway. Concrete barrier should be minimum 42" height as recommended by AASHTO.
5	p. 2-40, Sec 2.4.7	Flatbush Station – Elevated busway must be constructed so that sight lines at railroad/highway grade crossing are not degraded.
6	p. 2-70, Sec 2.7	Union Station – Repairs to existing steel structure may be required.
7	p. 2-70, Sec 2.8	Roadbed for two main tracks must be provided for the entire length of project. No existing sidetracks serving freight customers are to be negatively impacted. Access for maintenance must be provided the entire length of project.
8	p. 2-81, Sec 2.12.1	Estimated Costs – Do these estimates include costs for railroad protection services, relocation of signal and communication facilities and any track or roadbed construction that may be required?
9	p. 3-20, Sec 3-3	Certain construction may need to be performed at night, if there is to be an impact on rail operations.

Busway.com

Responses to Comments:

1. ConnDOT acknowledges that a substantial portion of property needed for the project will be acquired from Amtrak. The intended meaning of the sentence was that since all of the busway alignment follows inactive or active railroad corridor, few residential, commercial, or industrial properties will be needed relative to the length of the project.

2. Concur. This section is highlighting the environmental effects of construction. Section 4.14 of this Final EIS addresses construction impacts on Amtrak.

3. Costs are included for relocation of Amtrak's equipment, new at-grade rail crossings, track relocation, and flag people.

4. Concur.

5. The bridge designer will actively work with Amtrak staff during the design phase to review this issue.

6. Concur. All bridges serving busway traffic will be evaluated for their sufficiency during the design phase and may require repairs as noted.

7. As page 2-70 of the Draft EIS noted, the project will accommodate maintenance access at key areas. It is possible that there may be localized areas (particularly in tight spaces such as near busway stations) where direct access to the rail is not possible, and Amtrak staff may need to enter the rail from a short distance away. All the other points in the comment have been incorporated into the Final EIS.

8. Yes.

9. The section cited is discussing post-construction effects on rail operations. The point raised in the comment has been noted in Section 4.14 of this Final EIS that addresses construction impacts on Amtrak.

08/14/01 13:26 ☎860 594 3028 CT DOT RE 2 ☎004/004

10	p. 4-46, Sec 4.5.2.3	There might be a negative impact on the adjacent tracks if the existing Amtrak right of way is to be raised for the busway in the floodplain areas. This may require that the tracks also be raised in those areas.
11	General	Amtrak's Real Estate Development Department should be involved in any meeting where property issues are part of the agenda.
12	p. ES-1	The word "exclusive" in the first two paragraphs is somewhat misleading in that Amtrak owns a portion of the busway and will continue to use it. Amtrak maintenance people will, on occasion, use the busway for access to the track and other facilities. Perhaps "private right of way" would be more appropriate.
13	p. ES-10	Option 1 – The so-called unused portion of the active Amtrak right of way is still used by maintenance of way personnel. It is not unused.
14	p. ES-14	The track to be shifted must meet Amtrak standards for speeds and curvature.
15	p. 3-20	An additional impact on rail operation is that maintenance will become more difficult if the busway is constructed.
16	p. 5-9	Some of the above items will affect Amtrak operations. Saying that there will be no effect on this resource seems misleading.

Busway.com

Responses to Comments:

10 Concur. This issue has been added to Section 4.14 in this Final EIS.

11. Concur. Amtrak's Real Estate Development Department has been involved with the process to date and will be invited to any meeting where property issues directly affect Amtrak property.

12. The intention of the word "exclusive" is to succinctly indicate that no vehicles may use the busway for transportation purposes other than authorized buses, in other words, that it is not open to general traffic. ConnDOT acknowledges that Amtrak could need access for Amtrak purposes. The wording has been kept the same to keep the idea simple for lay readers.

13. Concur. The term "unused" was intended to describe portions of the right of way where tracks did exist in the past but do not exist today. This terminology has been changed for this Final EIS.

14. Concur. Active coordination will take place with Amtrak during design to ensure that the realignment of track meets Amtrak's standards.

15. Concur. This concept has been added to Section 4.14.

16. The section of the Draft EIS that is cited discussed cultural resources. SHPO's determination of "no effect" means that the project will have no effect on the historic integrity of the Amtrak corridor as a historic resource, contingent upon providing mitigation in the form of: 1) photo documentation of several resources; 2) SHPO oversight of the use of the Newington Junction railroad building. The sentence is not intended to imply that the project will not have any effect on Amtrak operations as a whole.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

OFFICE OF THE
REGIONAL ADMINISTRATOR

May 15, 2001

Edgar T. Hurle
Director of Environmental Planning
Connecticut Department of Transportation
2800 Berlin Turnpike
P.O. Box 317546
Newington, CT 06131-7546

Re: New Britain-Hartford Busway Draft Environmental Impact Statement, New Britain-Hartford, Connecticut (EPA ERP Number FTA-B59001-CT)

Dear Mr. Hurle:

The Environmental Protection Agency-New England Region (EPA) has reviewed the Federal Highway Administration's (FHWA)/Connecticut Department of Transportation's (CTDOT) Draft Environmental Impact Statement (DEIS) for the construction of a transit busway between New Britain and Hartford, Connecticut. We submit the following comments in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act.

According to the DEIS, the proposed project is intended to address congestion on Interstate 84 and other parallel arterial roadways while also expanding alternative modes of transportation and interregional transit opportunities. The 9.4 mile busway would travel through the towns/cities of New Britain, Newington, West Hartford and Hartford along active and inactive rail corridors. The corridor would be open only to bus traffic and would include up to twelve busway stations featuring sheltered platforms and other amenities that would vary by location. Alternatives to the proposed project studied in the EIS include the No-Build Alternative, and Transportation Systems Management/Travel Demand Management (TSM/TDM). As you know, EPA participated in several advisory committee meetings during the development of the project where we expressed support for the busway concept as long as environmental and community issues could be addressed through project design and mitigation measures.

The current project is a testimony to the hard work of the FHWA/CTDOT project team to actively involve the public and other interested stakeholders in the busway design. The project is refreshing example of a transit project that will benefit local communities and the regional transportation network through reductions in automobile dependency and vehicle miles traveled (VMT). Both of these outcomes will clearly benefit air quality in the region. As with any project that reduces VMT, this project should result in a decrease in ozone precursor emissions.

Responses to Comments:

No response is necessary on this page.

-2-

The DEIS explains that nine critical intersections were analyzed for carbon monoxide, and all were shown to remain well below the National Ambient Air Quality Standard (NAAQS) with the implementation of this project. Furthermore, the proposed busway is included in the Statewide Transportation Improvement Program (STIP) that was recently found to conform by the Federal Highway Administration. All of these are positive outcomes.

According to the DEIS, the project will feature a number of measures to ensure that it is successful. These include making sure that:

- the busway is time-competitive with automobile travel in the corridor;
- buses are not subject to traffic congestion as they will run on an exclusive right of way;
- the system contains clean, safe, secure, and well-lighted station facilities;
- bus headways are kept around a few minutes, therefore keeping wait time to a minimum;
- Intelligent Transportation Systems (ITS) are employed to keep travelers consistently informed of the status of the next bus or other pertinent travel information.

We agree that these factors are critical to the success of the system and encourage CTDOT to pursue an active publicity campaign based on a detailed marketing plan. If the plan aggressively promotes the benefits of the busway, the project has the potential to become a model that the rest of New England and other areas of the country can follow to achieve their transit and air quality goals. 1

Along with our support come several suggestions for measures we believe can and should be pursued to improve the long-term environmental benefits of the project. First, we believe that it will be critical for FHWA/CTDOT to continue the extensive public outreach and education process set in motion during the development of the DEIS. Not only should this process continue throughout the balance of the environmental review process, it should extend through the construction and operation phases of the busway. We specifically encourage CTDOT to keep the communities aware of construction progress and specifically alert neighborhoods as to when they will be impacted by construction activity. This process should also include early communication/notification with the communities where there is the potential of encountering hazardous or contaminated material. To that end, CTDOT should consider enhancing standard CTDOT Environmental Compliance standards by working with the Connecticut Department of Public Health (CTDPH) and local health departments in the development of contaminant exposure mitigation procedures and the community communication strategy. A successful outreach and communications program will allow for community input that can help keep operation of the busway in line with the needs of the commuting public in an environmentally sensitive manner. 2 3

Our second recommendation deals with bus fuels and emissions. Concerns about the potential linkage between diesel emissions and asthma rates were a common theme we heard during project meetings from Environmental Justice communities in Hartford. As you are no doubt

Responses to Comments:

1. ConnDOT looks to pursue aggressive marketing as the project progresses. At appropriate times during the design and construction of the busway there will be opportunities for marketing the busway. The busway marketing efforts could include: the development of a unique BRT system logo; a unique bus paint scheme for the shuttle buses; targeted marketing of existing and new express routes; targeted marketing in communities where new or revised feeders and circulators are in place; targeted marketing at employment locations as well as other key generators such as CCSU, Westfarms Mall, New Britain Hospital, etc.

2. The public will be an active participant during both the design and construction processes. During operation of the busway, the public will be provided opportunities to comment on service and routings.

3. ConnDOT's program management consultant will provide public information services to all communities and interested parties through press releases and other mass media methods concerning construction activities and the possibility of encountering contaminated and/or hazardous materials. One of the program management consultant's tasks will be to work with the Connecticut DPH and local health departments to review ConnDOT's Environmental Compliance standards and if necessary develop a contaminant exposure mitigation protocol and communicate this protocol to the communities. During the Design-Build process, the communities will be given every opportunity to provide input.

aware, the City of Hartford has declared an asthma emergency. The DEIS indicates that CTDOT will deploy their existing diesel buses on the busway and explains that alternative fuel vehicles will be considered when new vehicles are purchased in the future. EPA strongly advocates the purchase of alternative fuel buses as new buses are purchased and the fleet is replaced. In the meantime, however, any diesel vehicles used on the busway, especially older ones, will emit relatively high levels of air pollution. Many of these emissions can be controlled with cost-effective retrofit pollution control equipment, and we believe this type of action should be part of the proposed project as it would clearly benefit the region. Retrofit control equipment includes either oxidation catalysts or particulate filters installed on the exhaust of the diesel engine. The equipment is designed to reduce particulate matter and hydrocarbon and carbon monoxide emissions. Funding for the retrofit control devices can occur as part of the STIP process which includes the Congestion Mitigation and Air Quality (CMAQ) Program. 4

The uncongested nature of the busway travel corridor is likely to attract a number of private buses. Because it is highly unlikely that any of these private buses operate on alternative fuels or feature emission retrofits we suggest that the CTDOT develop a strategy that provides economic and/or access incentives for buses with these pollution controls. Taking these actions would demonstrate a commitment to the region and the impacted environmental justice communities to minimize the emission impacts from the busway. Moreover, a successful program would not only directly benefit the adjacent busway corridor communities, but in turn would benefit the state at large when the buses operate beyond the limits of the busway. The FEIS should describe the details of any incentive program, or other measures that may make sense, and an analysis of the capital costs and air quality benefits of retrofits/alternative fuels when compared to the benefit of using the busway corridor. 5

EPA appreciates the discussion of bicycle and pedestrian travel (multi-use path) within the DEIS. We encourage CTDOT and FHWA to continue to make serious efforts to incorporate a multi-use pathway into the project now, during the project design phase, while interest in the busway is at a high level, rather than at a later date after final decisions are made that definitively allocate space within the busway right-of-way. At a minimum, the busway should be designed in a manner that does not prohibit future construction of a multi-use path. 6

In addition to our recommendation that more specific information be provided about outreach/communication, air quality controls and the multi-use pathway, we also believe the FEIS should more fully describe how storm water from project related impervious surfaces will be managed to prevent impacts to natural resources or already overburdened storm water infrastructure along the corridor. 7

EPA compliments CTDOT's and FHWA's efforts to develop a project that recognizes that transportation solutions must focus on increased reliance on transit measures to help reduce VMT's and to protect hard fought gains in regional air quality. We believe that a successful and environmentally acceptable busway can be developed, and that the potential for success increases substantially if CTDOT continues to work closely with all of the communities along the corridor.

Responses to Comments:

4. The public has expressed a great deal of interest in what types of buses would be used on the busway, and what type of fuel they would use. New technology buses will reduce or eliminate on-road emissions from busway vehicles. Possible new technology buses under consideration include "clean" diesel, electric buses, and hybrid electric-diesel buses or other new fuels that may develop. No final decisions have been made about the specific fuel technology that will be used, as technology is changing rapidly. However, ConnDOT has committed to examine alternative fuel types and to purchase buses that use proven technology, are not cost prohibitive and are practical.

Fully two-thirds of the current bus fleet is scheduled for replacement by the time the busway opens, and so should have the latest reasonably available control technologies. ConnDOT has recently purchased two hybrid electric buses as a demonstration project for testing in anticipation of the bus purchase for the busway services. ConnDOT is also testing low-sulfur diesel fuel and bio-diesel fuel for testing emissions reductions.

5. At this time no decision has been made regarding private operators. Once a decision has been made, this idea can be considered.

6. Based upon widespread public support for the concept, ConnDOT has decided that a multi-use pathway will be constructed as part of this project. ConnDOT is committed to constructing a Multi-Use Pathway between Downtown New Britain and Newington Junction and between Park Street and Sigourney Street in Hartford. (See Figure A, inside back cover of document). These routes are described in Section 2.3.3. Between Newington Junction and Park Street, and between Sigourney Street and Union Station, space constraints preclude providing a multi-use pathway in much of the busway corridor. However, some preliminary consideration is being given as part of this project and the Westside Access Project to possible on- and off-road trail alignments that could complete the trail and provide additional linkages to other planned trail corridors in the region. ConnDOT will encourage Hartford, West Hartford, Newington and CRCOG in completing multi-use trail connections beyond the busway corridor between Newington Junction and Park Street and between Sigourney Street and Union Station.

7. See Section 2.3.9.

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MAY. 24 '01 01:43PM US ARMY ENGR RDC DIV P.2

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO ATTENTION OF

May 22, 2001

Engineering/Planning Division
Evaluation Branch

Mr. Edgar T. Hurle, Director of Environmental Planning
Connecticut Department of Transportation
2800 Berlin Turnpike
P.O. Box 317546
Newington, Connecticut 06131-7546

Dear Mr. Hurle:

This office has reviewed the Draft Environmental Impact Statement (EIS) and Section 4(f) Evaluation "New Britain-Hartford Busway, New Britain, Newington, West Hartford, and Hartford, CT", dated March 2001, and we are providing comments as outlined below.

1. It would be helpful to include photographs of the existing sites for the proposed bus stations and a representative photograph of the right-of-way for the proposed busway. Although the text describes these areas very well, photographs would add even more value to the description.

2. We did not see specific notations in the text of the following environmental statutes and Executive Orders and the proposed project's compliance with them: the Endangered Species Act, Executive Order 11990 (Protection of Wetlands), Executive Order 11988 (Floodplain Management), the Clean Water Act §404, as amended, and the Farmland Protection Policy Act. 1

3. With respect to our review of project impacts pursuant to Section 404 of the Clean Water Act, the Corps of Engineers, in coordination with the federal resource agencies, has made a preliminary determination that the project, as currently proposed, could potentially be eligible for review under the Corps of Engineers Programmatic General Permit, State of Connecticut (GP-41). This preliminary determination is based on the information as currently presented in the Draft EIS regarding the scope and nature of wetlands/water resources impacts expected to result from the proposed project. The Corps acknowledges that the proposed project is subject to project design refinements, and may result in modifications to wetlands/water resources impact information that is currently presented in the Draft EIS. Once additional or new information regarding project design is available, the wetlands/water resources impact information should be reviewed and updated, as appropriate. Final project information should be submitted to the Corps of Engineers for the Section 404 permit as soon as it is available. Such additional/new information affecting wetlands/water resources should also include temporary impacts during construction, in addition to expected permanent fill impacts. 2

Responses to Comments:

1 These notations have been added to the Final EIS as requested.

2. Concur. Coordination will take place during design to determine exact impacts, necessary mitigation, and eligibility for a programmatic permit. Temporary construction impacts are discussed in Section 4.15 and will be addressed during the permitting process

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-2-

4. Section 4.11 discussed the use of Natural Resource Conservation Service (NRCS) soil maps to identify prime farmland soils within the study area, and that it is not anticipated that there will be impacts to prime or unique farmlands. However, it is our understanding that coordination with the NRCS also needs to be undertaken under the Farmland Protection Policy Act for proposed construction projects, with the preparation of a "Farmland Conversion Impact Rating Form" to ensure compliance with the Act. 3

5. Although we understand that this project is in a conceptual design phase, it would be useful for the public to see a general estimate of the amount of new impervious surfaces that will be constructed, using approximate size requirements for parking, walkways, and the length of the busway. 4

Overall, the document was well written, and presented information to the public in a clear and concise manner. Thank you for providing us the opportunity to review this document. Should you have any questions, please contact Ms. Sue Holtham of the Evaluation Branch at (978) 318-8536, or, Ms. Susan Lee of the Regulatory Division at (978) 318-8494.

Sincerely,

John R. Kennelly, P.E.
Deputy Chief, Engineering/Planning Division

Responses to Comments:

3. Coordination will take place with NRCS on this project. However, based upon initial calculations of impact, ConnDOT does not need to submit a Farmland Conversion Impact Rating form.

4. An accurate estimate of the new impervious surfaces cannot be determined at this time. During the design stage, modifications may occur due to further refinements in station layouts. Modifications will affect any acreage calculations. Any runoff impacts will be addressed and mitigated where possible as part of the busway design.

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United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

ER-01/178

JUN 18 2001

Mr. Richard H. Doyle
Regional Administrator, Region 1
Federal Transit Administration
55 Broadway, Suite 920
Cambridge, Massachusetts 02142

Dear Mr. Doyle:

This is in reply to the request for the Department of the Interior's comments on the Draft Environmental Assessment and Section 4(f) Evaluation for Construction of the New Britain-Hartford Busway, Towns/Cities of New Britain, Newington, West Hartford, and Hartford, Hartford County, Connecticut.

Concerning the Section 4(f) Evaluation, we concur that there are no prudent and feasible alternatives to the proposed project, if project alternatives are to be met. We also agree with the measures to minimize harm, as long as they are accomplished within the stipulations of the State Historic Preservation Officer's letter of September 7, 2000. 1

Our concern for various resource values have been addressed regarding the Environmental Assessment and our specific interest in cultural resources preservation is covered by the Section 4(f) Evaluation to which we have commented.

We appreciate the opportunity to provide these comments.

Sincerely,

Willie R. Taylor

Willie R. Taylor
Director, Office of Environmental
Policy and Compliance

cc:
Mr. Edgar T. Harle
Director of Environmental Planning
Connecticut Department of Transportation
2800 Berlin Turnpike
Post Office Box 317546
Newington, Connecticut 06131-7546

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JUN 21 ...
ENVIRONMENTAL PLANNING DIVISION

Responses to Comments:

1. The mitigation measures outlined in SHPO's letter of September 7, 2000 will be carried out as described in greater detail in Section 5.2.3. Documentation of historic resources is provided in Appendix B. In addition, ConnDOT has coordinated with SHPO prior to release of the Final EIS to confirm that none of the minor refinements proposed since the Draft EIS would affect cultural resources. SHPO determined that the changes would have no effect on the state's cultural heritage in a letter dated September 27, 2001. Refer to Section 5.2.3 to see all correspondence received from SHPO during the EIS process.

6.4.2 State of Connecticut Agency Comments

- **Central Connecticut State University**
- **Department of Environmental Protection**
- **Department of Public Health**
- **Office of Policy and Management**

[Note-- Three letters from State Historic Preservation Office, received outside of comment period, are shown and addressed in Section 5.2.3.]

CENTRAL
CONNECTICUT STATE UNIVERSITY

1615 Stanley Street P.O. Box 4010 New Britain, CT 06050 - 4010 www.ccsu.edu

Richard L. Judd, President Tel: (860)832-3000 Fax: (860)832-3020 E-mail: judd@ccsu.edu

RECEIVED

ENVIRONMENTAL PLANNING DIVISION

Testimony
Submitted by Richard L. Judd
President
Central Connecticut State University

At DOT Public Hearing
Re: DEIS-New Britain-Hartford Busway

Pulaski Middle School
757 Farmington Avenue
New Britain, Connecticut

April 24, 2001

As President of Central Connecticut State University I want to go on record as supporting the basic concept of the limited access busway between New Britain and Hartford. The I-84 corridor to Hartford has steadily become more congested. This congestion has put a burden on local roads and slowed travel into and out of Hartford to a considerable degree.

The busway, if properly designed and run, will, I believe, attract riders and alleviate this congestion. Further, the approximately 12,000 students who attend CCSU could be a very important source of riders on the new busway.

Therefore, if the route includes modern, clean vehicles, running on a frequent schedule, and at least matching the auto time between the two cities, with appropriately located stations, it could prove to be a welcome mass transportation alternative to the congested I-84 corridor between New Britain and Hartford.

However, I must note that I have some concern over the placement of some stations and the pressure that the time frame puts on the need for expedience versus long range planning.

The area immediately to the east of CCSU has a number of problems as well as a number of opportunities that relate to the creation of the busway. Let me name a few and express my belief in the interrelationships among these concerns.

1) One problem in this area consists of traffic congestion at the intersection of Cedar Street, Fenn Road and the Route 9 off ramp. Various studies and recommendations have been suggested over the years to address this problem but no real progress has been made to date. 1

2) Another issue presents both a problem and an opportunity, and that is the need for a plan of economic development along Route 75 in Newington all the way to East Street on the East side of our campus.

3) Closely related to this issue is the question of the development of CCSU's 150 acres of land immediately to the east of Route 9. There is little doubt in my mind that this undeveloped land offers an opportunity for economic development that could be beneficial to the University, as well as the towns of Newington and New Britain. A well thought out plan of development could provide growth to the tax base in Newington and an impetus for further economic development along East Street in New Britain.

Responses to Comments:

1 Concur. The recommended action itself will not add any additional traffic to this intersection.

The chief obstacle to economic development in this area has been the combination of the traffic congestion and the lack of access to the CCSU undeveloped land. It is important to note that the proposed busway will run right through this area following the old rail line.

Ideally, I would like to see what I call the "CCSU Station" located immediately in this area and combined with plans to open up the land to economic development along with improvements to traffic flow and Route 9 egress as well. I understand that not all these things can necessarily be done on the same schedule. Sometimes the availability of federal dollars and the exigencies of more immediate problems force us to take the more expedient route to solving a problem. While I am not happy with this approach I realize the inevitability of it from time to time. 2

However, I have been reluctant to commit my support to this overall project until some of the problems and opportunities that I point out have been addressed. I believe that progress has been made.

CROG and others have committed to supporting a study that addresses these issues. DOT has committed to funding this study. I have opposed the location of a station behind Stop & Shop on Farm Road, but the study includes the requirement that the location of a station on the CCSU land be addressed. Also, the DOT has agreed to enhance the station on East Street and will make this the primary CCSU station. This approach will offer the opportunity to get into our vacant land and should be more convenient to our students. 2

So, if the study is approved and if it includes the question of improving traffic flow in the area; Route 9 egress, Route 175 intersection congestion, access to the CCSU land, economic development potential of the land and of East Street in New Britain, then as President of CCSU I believe we will have made progress. We will be maximizing our opportunity presented by the busway to not only solve the I-84 traffic problem, but also, we will have taken steps to expand the opportunities presented by this new development to promote needed traffic improvements and launch a major new economic development initiative for New Britain, Newington and CCSU.

Responses to Comments:

2. Because of the uncertainty of development in the area, the Cedar Street and East Street Stations are now proposed to serve CCSU. If CCSU is able to overcome the challenges of developing its land south of Route 175 in the future, it is possible that a new busway station serving the area could be constructed in the future. In such a scenario, the Cedar Street station could be re-evaluated for its ridership potential and could be retained or redeveloped as appropriate. In the meantime, the current location serves an existing major generator of potential trips and jobs.

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DEP/COMMUNICATIONS 860 424 3499 P.02

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

May 18, 2001

Mr. Edgar T. Harle
Director of Environmental Planning
Connecticut Department of Transportation
2800 Berlin Turnpike
Post Office Box 317546
Newington, Connecticut 06131-7456

RE: Draft Environmental Impact Statement
New Britain - Hartford Busway
March 2001

Dear Mr. Harle:

Thank you for the opportunity to review the above-referenced document and to submit these comments. Relevant units within this department have reviewed the Draft EIS and the corridor alignment has been field reviewed in its entirety. Based upon these efforts, the following comments are offered.

The Department of Environmental Protection is highly supportive of the concept of the New Britain - Hartford busway as a mass transportation alternative to the expansion of Interstate 84 and other corridor roadways. Further, it increases the transportation alternatives available to citizens who do not own or have access to automobiles. The time savings the busway may offer to commuter express buses will increase their attractiveness as they will no longer by tied up in congestion on Interstate 84. To a lesser degree, the same benefits will apply to fixed route bus services which are able to use the busway for portions of their routing and avoid local congestion. At the same time that mobility options are enhanced for all travelers in the corridor, the busway will also operate to reduce vehicle miles traveled (VMTs), energy usage and automotive emissions generated.

The busway also offers the opportunity to foster some beneficial land use changes. Development in the area of the proposed stations, especially the southwestern terminus in downtown New Britain, is the most obvious potential example, as increased commuter traffic spawns related "transit-oriented development", to use the EIS terminology. The construction of new and attractive stations will themselves yield benefits to the neighborhood appearance at the station sites. Increased access to pools of employees may also attract businesses that are not thought of as transit-oriented development but which are dependent on a supply of labor which may be more easily reached once the busway is in operation. 1

Lastly among policy considerations, this department does support the use of alignment option 1 as the most likely choice to achieve the objectives of the project and the benefits described 2.

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Responses to Comments:

1. Concur. TOD and transit go hand in hand—the presence of a transit station provides an impetus for TOD to occur nearby while the TOD increases the viability of the station and transit system. ConnDOT cannot formally influence the planning choices made near stations so the four municipalities must make zoning and planning decisions that capitalize on the opportunities that the transit facility provides. However, ConnDOT will continue to work with the four communities as well as the regional planning agencies (CRCOG and CCRPA) to encourage redevelopment and new development that benefits the busway and the communities at large. ConnDOT will participate in any station-area planning efforts that the four communities and regional planning agencies undertake. Refer to Section 2.5 for more information.

2. The recommended action has incorporated Alignment Option 1.

above. Access to and between the centers of New Britain and Hartford will provide the greatest number of potential users with access to the busway, will maximize the travel options of those who use the busway, and will provide the greatest land use and economic benefits. 2

Reuse of an Existing Transportation Corridor

All of the busway alignment options utilize existing transportation corridors, either active or inactive rail lines or the Routes 72 and 9 highway corridors. The existing developed nature of the corridor minimizes natural resource impacts since clearing and grading work were previously performed and stream crossings are substantially in place, though some may need to be widened or altered. The result is that a 9.4 mile transportation facility can be constructed with relatively minor resource impacts. The most significant potential impacts are the possibility of encountering contaminated soils, especially during construction of the busway stations, water resource impacts to wetlands, watercourses and floodplains, though these appear to be relatively minor, and noise impacts to proximal residences, especially at Cottage Place in New Britain.

Soil Contamination

Construction of the busway stations will involve excavation and grading work, much of which is on properties either previously or currently employed for industrial or commercial uses. These, along with the busway alignment itself, are potential sites for soil contamination. The busway proper involves a lesser degree of soil disturbance and will be covered by an impervious pavement surface so it is the station sites that represent the greater potential contamination risk.

When specific station sites have been selected, DEP may be able to furnish data on some of these sites if provided with the current or former business names and the street addresses. Some of these sites may be listed either on CERCLIS or the State Inventory of Hazardous Waste Disposal Sites. Additional information may be available from our Underground Storage Tank (UST) Program or in our spills incident files. Depending on the ownership of the properties involved, it may be necessary in some cases for ConnDOT to be the certifying party for remediation liability under the State Property Transfer Program on the station sites.

Jan Czarzolka (424-3784) or MaryAnne Danyluk (424-3796) of the Permitting, Enforcement and Remediation Division of the DEP Bureau of Water Resources can be contacted regarding available information on contamination at specific identified sites. Disposal of contaminated soils which need to be removed may require authorization for special waste or hazardous waste disposal. Once the soils have been adequately characterized to determine whether they qualify as clean fill, special waste or hazardous waste, Patricia Cam of the Bureau of Waste Management can be contacted at 424-3567 to determine available disposal options and to authorize proper disposal. (Note: All phone numbers listed in these comments are in area code 860.) 3

Wetland Issues

Wetland impact areas involved with the proposal are relatively small. The Draft EIS cites 0.03 acres of wetland impact from busway construction and 0.13 acres of impact at the East Street 4

Responses to Comments:

3. Hazardous materials have been investigated in a preliminary manner in the Draft EIS and Final EIS (ConnDOT Tasks 110 and 120). More investigation will be undertaken during the design process to ensure that risks are avoided wherever possible and mitigation, as required, is done. ConnDOT will coordinate with DEP in this regard during the design process as requested.

4. Wetland impacts have been refined slightly since the Draft EIS analysis, based upon concept design refinements. The current anticipated maximum wetland impact is 0.35 hectares (0.86 acres). The order of priority of restoration, enhancement, and creation will be considered during mitigation and will influence choice of mitigation sites. ConnDOT will obtain all permits as needed and coordinate with DEP's Inland Water Resources Division in this regard.

and New Park Avenue stations cumulatively. The 0.03 acre impact of the busway, which would occur in Newington behind the Stop and Shop, may possibly be avoided or minimized through use of retaining walls.

The EIS contains a commitment for mitigation of wetland impacts. It should be noted that C.G.S. section 22a-41(4)(C) creates a priority order of restoration, enhancement and creation, respectively, in designing mitigation for wetland impacts. Due to previous flood control projects on Piper Brook and the construction of Route 9, there are numerous opportunities for restoration and enhancement within this corridor. In light of the small areas of wetland impact involved, it may be possible for ConnDOT to consider restoration and enhancement opportunities for a greater area than the 0.16 acres of potential impact without spending significantly more money. Mitigation design work and equipment mobilization for a larger restoration effort may not differ from those for project of 0.16 acres. 4

Wetland impacts will require the issuance of an Inland Wetland and Watercourses Permit from the Inland Water Resources Division of DEP. ConnDOT may wish to contact that office to discuss compensation strategies at an early stage. Steven Tenitore may be used as a contact in that regard and can be reached at 424-3876.

Floodplain Issues

The extent of floodplain involvement with the proposed busway is relatively minor. DEP floodplain concerns center on the loss of floodplain volume along the South Branch of the Park River and Kane Brook in Hartford. These locations fall under the jurisdiction of the Greater Hartford Flood Control Commission and are regulated to a stricter standard than other floodplain areas. This standard requires that all fill placed below Elevation 54.0 MDC datum (equiv. to 51.92' NGVD) needs to be directly compensated.

The EIS also notes that 0.14 acres of the busway alignment at the Newington-New Britain line fall within the 100-year floodplain and will require the placement of fill to elevate the alignment above the 100-year flood zone. As noted, the project as a whole will require certification under C.G.S. 25-68 for floodplain management. An analysis of the impact of the fill on the 0.14 acres within the floodplain will need to be done in preparation for, or as part of, the 25-68 certification. DEP can assist ConnDOT in addressing these issues before permit applications are prepared. Arthur Christian of the Inland Water Resources Division can be contacted at 424-3880 in this regard. Mr. Christian can also assist ConnDOT in determining the appropriate elevations to use for design purposes in the area of the Newington-New Britain town line where the 10' difference in Federal Emergency Management Administration FIRM map elevations occurs. While it is not unusual to see abrupt changes in flood elevations on these maps at town boundaries, a 10' differential exceeds any other situation we are aware of. 5

On a related issue, it is very possible that the bridge deck expansions of the corridor bridges could have hydraulic implications during flood events and may therefore require hydraulic analysis. This could be the case if the bridge deck expansions required changes to the piers or abutments of 6

Responses to Comments:

5. ConnDOT will coordinate with DEP's Inland Water Resources Division with regard to obtaining permits for floodplain management.

6. ConnDOT will coordinate with DEP's Inland Water Resources Division with regard to bridge and hydraulic concerns.

the bridges. Please contact Sharon Yurasevecz of the Inland Water Resources Division at 424-3861 when bridge deck requirements have been determined. 6

Fisheries Impacts

Due to the minimal changes anticipated in the 10 corridor stream crossings, and the replacement of any culverts, if necessary, with new culverts of the same length, the DEP Inland Fisheries Division does not foresee any significant impacts arising from this project. This finding is the result of a cursory review not involving any field inspection of the stream crossing sites. As the project proceeds into preliminary design, the Inland Fisheries Division would appreciate the opportunity to consult on possible habitat enhancements at crossing locations where culvert replacement or substantial repairs or modifications are planned. Donald Mysing of the Division can be contacted at 567-8998 in this regard. 7

Air Quality and Noise Issues

One matter not addressed in the EIS is whether the busway will be included in the state highway system and, as a result, whether it will require an Indirect Source Permit pursuant to section 22a-174-100 of the Regulations of Connecticut State Agencies. Obviously the busway is not intended to be a public highway, but it may meet the definition of Section 13a-14 of the General Statutes. If it is judged to be an element of the state highway system, it would also meet the physical description of the above referenced regulations. 8

Please provide information regarding the inputs used in the regional air quality analysis (i.e., VMT series, fleet inputs) and the local/ hot spot analysis (i.e., speeds, signal timing, roads within 1000 feet of the analyzed intersection). The MOBILE5b input parameters were last updated by DEP in December 1999. Please provide this data to Joseph Foutz of the DEP Air Management Bureau at 424-3088 for his review in advance of preparation of the Final EIS. 9

DEP strongly encourages the use of alternative fueled vehicles for the proposed busway. The use of alternative fuels can further reduce air emissions in the project area. On a related topic, as noted on page 4-80 of the Draft EIS, DEP and ConnDOT are working together to determine the best procedures and processes for reducing air emissions from construction equipment (via the Quinnipiac River Bridge project). Equipment, such as diesel oxidation catalysts, particulate filters or the use of alternative fueled equipment, can be effective in reducing exhaust emissions. DEP encourages ConnDOT to use construction retrofits for this project where applicable. 10

Noise from motor vehicles is exempt from the Connecticut noise control regulations (as contained in RCSA sections 22a-69-1 though 22a-69-7). However, the proposed busway station facilities are subject to State noise regulations, including such aspects as the public address system and heating and air conditioning systems. Also, all of the towns within the project areas except for Hartford have local noise control ordinances approved by DEP. Therefore, the proposed project will also be subject to meet the local noise control ordinances of Newington, West Hartford and New Britain. 11

Responses to Comments:

7. ConnDOT will coordinate with DEP's Inland Fisheries Division with regard to culvert extensions.

8. The busway will not be on the State Highway System and will not be open to the general public. No Indirect Source Permit will be needed for this project.

9. The materials for the local hot spot analysis have been sent to DEP's Air Management Bureau as requested. Regarding the mesoscale analysis, the proposed New Britain-Hartford Busway has been included in the emission calculations in the respective TIPs for CRCOG and CCRPA. FTA and FHWA have approved both TIPs as conforming to the SIP. Therefore, a separate project-level emission inventory analysis and conformity determination was not performed for the New Britain-Hartford Busway project. The mesocale analysis that was included in the Draft EIS is from the Hartford West MIS.

10. See EPA Response #4.

11 . Local noise ordinances will be reviewed during the design phase and mitigative measures would be pursued if needed.

Multi-Use Path / Bikeway

The Draft EIS discusses the possibility of establishing a multi-use path along the southern end of the busway between Newington Junction and New Britain, adjacent to the abandoned rail corridor. The EIS says this facility "could be constructed as a separate project" at a later time. We note that the path/bikeway would operate to meet many of the same underlying project objectives as the busway, such as increased opportunity for alternative modes, enhanced mobility for residents who do not own automobiles, enhancing interregional connectivity, and reducing congestion, emissions and energy use. We strongly urge ConnDOT to incorporate the bikeway, wherever possible, as an integrated element of the busway project so that the two elements may operate in tandem to achieve project goals.

On a local level, the path/bikeway could serve the local travel needs of students and staff at Central Connecticut State University. It could also be a major health asset by enhancing cycling and pedestrian safety in a corridor separated from traffic, encouring active exercise for all users, and reducing auto travel to produce cleaner air. On larger, regional level, the proposed bikeway could link up with the planned Park River Greenway in Hartford via Trout Brook in West Hartford. Both these communities have expressed support for these projects. It could also be a link in the proposed East Coast Greenway, with the potential to connect the Plainville area with Hartford. 12

The cost of retrofitting the busway to accommodate a bikeway/path would be considerably greater than undertaking the projects simultaneously. A particular case in point would be the bridge over Route 9. Adding another 'lane' for cyclists and pedestrians in the future would present a fiscal and construction challenge that could easily be avoided through pro-active design now.

In its 1999 Statewide Bicycle and Pedestrian Transportation Plan, ConnDOT stated a goal to "provide a statewide multi-use trail system which is integrated with other transportation systems; provide and maintain a safe, convenient and pleasing bicycle and pedestrian environment; encourage and support bicycle/pedestrian safety, education, and enforcement programs; and make full use of state resources in providing technical assistance to towns and municipalities relative to the development of multi-use trail facilities throughout our state." The multi-use path would certainly be consistent with the goals of the 1999 plan.

West Hartford Landfill

The Amtrak right-of-way passes immediately along the northwest side of the closed West Hartford landfill/transfer station in Elmwood, which is just north to the South Branch of the Park River. Avoidance of any impacts to the landfill should be a consideration in the planning and construction of the busway. As the busway is currently planned to run along the west side of the Amtrak right-of-way, i.e., opposite side from the landfill, such impacts should not be expected to occur. However, care is advised during the construction phase, which will be undertaken from the railbed, to avoid any disturbance, incursions into or excavation of the landfill. 13

Responses to Comments:

12. See EPA Response #6.

13. No impacts are presently foreseen; however, consideration will be made of this landfill during construction.

Observations from the Field

The option 1 alignment was field reviewed on April 25 (south of Newington Junction) and April 27 (Amtrak portion). The following items and observations are noted.

The portion of the busway alignment adjacent to the former Greenfields Super Market in downtown New Britain, site of the proposed downtown station, is adjacent to active rail line. The abandoned rail corridor which the busway will follow does not diverge from the active Guilford line until just beyond the rear of the Greenfields parking lot. The EIS does not note that this segment of the line is active or mention if that has any impacts or bearing upon the proposal. 14

Significant encroachments onto the abandoned rail right-of-way occur in two areas in New Britain. The City of New Britain Department of Public Works facility has a paved parking lot and chain link fence across the alignment at East Main Street and is making active use of the State property. Similarly, Papa's Dodge has multiple vehicles parked on the right-of-way, including on the track itself. 15

With the exceptions of street crossings and the New Britain DPW lot, one or two sets of rail are still in place along most of the abandoned right-of-way. Indeed, in areas of some former sidings, three sets of rails are contained within the alignment. This is surprising to note in view of the salvage value of the rail, which is commonly taken up at the time of abandonment.

As much as is possible, existing trees should be preserved along the right-of-way between East Main Street and Smalley Street in the backyards of the 13 homes along Cottage Place, the adjoining homes on East Main Street and the home at 225 Smalley Street, which is the closest residence to the right-of-way. If a noise barrier is constructed along the busway at Cottage Place, this will presumably be done from trackside. Though a noise barrier would require the removal of some trees which could otherwise be retained, care should be taken to avoid damage to as many trees as possible which may be outside the area needed for the noise barrier, but which would still provide visual screening and noise attenuation benefits for the Cottage Place homes. 16

Although the busway alignment bisects Fairview Cemetery and passes fairly close to some gravestones, particularly those off to the east side, the busway would not be as close to gravestones or support the frequency of traffic that East Street does. East Street traffic passes closer to the most proximal row of gravestites than does the busway and supports multiple vehicles per minute, as opposed to one every several minutes on the busway. This observation is raised in connection with a point made at the April 25 public hearing in New Britain relative to noise impacts upon the cemetery. 17

While no position is taken here regarding the two vertical treatment options in Fairview Cemetary, it is noted that the option of depressing the busway alignment would severly limit and probably totally sever the connecting road between the two cemetery parcels that presently goes under the embankment. This would probably have a greater impact upon the operation of the cemetery than would the busway at its existing elevation. 18

Responses to Comments:

14. The Guilford Rail Line, noted on page 3-20 of the Draft EIS, is active though lightly used (approximately 1 train per day). Other than the fact that the downtown New Britain Station will be designed to avoid pedestrians or buses from crossing this line, it does not require any other considerations.

15. ConnDOT is aware of these encroachments. Both the New Britain Department of Public Works fueling facility and Papa's Dodge will lose areas not in their ownership that are currently occupied by parking. The tanks at the Public Works facility are off the busway right-of-way and will not be affected.

16. Efforts will be made to retain as many mature trees as possible in these areas, assuming they are not invasive species. A barrier that shields backyards along Cottage Place is proposed. The neighbors will be offered an active role in providing input on the design of such a barrier during the design phase of the project.

17. Concur. No effects on any graves are anticipated.

18. The alignment through the cemetery will be depressed as described in Section 2.3.6; the cemetery board has indicated a preference for this design. The underpass will become a low-volume at-grade crossing of the busway. Consideration will be given to the sight lines for this crossing.

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DEP/COMMUNICATIONS 860 424 3498 P.08

New Britain - Hartford Busway 7 May 18, 2001
Draft EIS

It appears that trees along the right-of-way in St. Mary's Cemetery will need to be removed. For purposes of visual screening, these should be replaced, even, if need be, on cemetery property, with the concurrence of the cemetery. The right-of-way also supports an especially bountiful poison ivy crop adjacent to this cemetery, especially closer to Allen Street. 16

The rail corridor contains a very impressive collection of spent aerosol paint cans under the Route 9 embankment. Although rubbish has collected in numerous places on and along the right-of-way, this particular concentration deserves special mention. Citizen-undertaken maintenance efforts on the underpass walls are also in evidence at this location. 19

Another, though more difficult to explain, concentration along the right-of-way is found just north of Flatbush Avenue were 15 dead crows, all appearing of the same vintage and showing signs of impact, are found within a very short distance. This may represent a particularly favored local sunning area for crows, of whom the slower or the harder of hearing are represented here. 20

The Amtrak corridor supports heavy pedestrain usage in Hartford between the Aetna headquarters and Bushnell Park. Lesser but still significant pedestrain use extends south to Flatbush Avenue. Though Amtrak would doubtless wish to discourage such usage, it becomes more of an issue with the busway in place should both local residents and downtown employees desire to maintain their current travel patterns. 21

Although the EIS mentions only one area, from Sigourney Street to the Armory, where the Amtrak tracks will need to be moved, there are portions of the alignment in Newington and Elmwood where the distance from the end of the Amtrak ties to the fenceline (assumed to be the property line) is less than 25' and would appear not to be sufficient for two 12' busway lanes, some separating barrier from Amtrak operations, and necessary horizontal clearance for Amtrak cars and locomotives, as well as for freight shipments on this line. 22

Parking Area Drainage

The EIS does not discuss treatment of stormwater from the station areas and parking lots. Appropriate controls, designed to remove sediment and oil or grease typically found in runoff from parking and driving areas, should be included in any stormwater collection system to be installed at station sites. Non-structural measures to dissipate and treat runoff are encouraged, including infiltration using pervious paving surfaces, sheetflow from uncurbed pavement, and vegetated swales. If a stormwater collection system is installed, potential controls include gross particle separators, deep sump catch basins with oil and grease traps, and /or detention basins. DEP typically recommends that any catch basins installed in conjunction with roadway or parking lot paving should have deep sumps to trap sediments and hoods to trap oil and grease. If more than one acre of pavement drains to a common discharge point, a gross particle separator should also be included. Advanced designs for gross particle separators have been developed, such as Vortechnics, Downstream Defender and Stormceptor, that the department believes are very effective in retaining medium to coarse grained sediments as well as floatables. This last type of separator is designed to treat runoff from areas up to one acre in size, while the former two can be sized to accommodate flow from larger areas. It is recommended that the appropriate variety of this or similar type of unit with a cyclonic design be 23

Responses to Comments:

19. The busway will provide an aesthetic improvement and higher visibility to neglected areas such as these.

20. Given the urbanized, disturbed nature of the rail corridors as a whole, wildlife mortality is anticipated to be of minimal concern.

21. Pedestrian use of the busway corridor will be forbidden, as it is for Amtrak property. Efforts towards implementing the multi-use trail described in Section 2.3.3, may help address this problem. Increased presence of vehicles on the busway may help reduce the likelihood for trespassing in the area.

22. The segment of Amtrak from Sigourney Street to the Armory is the only area known to require realignment of Amtrak tracks based upon existing Amtrak right of way, which may extend beyond fencelines.

23. ConnDOT will coordinate with DEP regarding stormwater drainage collection, treatment, and permit requirements.

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DEP/COMMUNICATIONS 860 424 3498 P.09

installed in conjunction with each outfall, depending on the size of the drainage area. Provisions should be made for the periodic maintenance that will be required to ensure the continued effectiveness of these control measures. For further information regarding the design of stormwater collection systems, contact Chris Stone of the DEP Permitting, Enforcement and Remediation Division at 424-3850. 23

Permit Requirements

Permits and approvals required for the proposed facility include the following:

- An Inland Wetland and Watercourses Permit from the DEP Inland Water Resources Management Division for impacts to wetlands arising from construction of the busway, from the East Street and New Park Stations, or from culvert repairs or replacements affecting wetlands or presently unaffected portions of any watercourse. 4
- A section 25-68 floodplain management certification for fill or structures affecting the 100-year floodplain. 5
- An indirect source permit pursuant to RCSA section 22a-174-100, if the busway is determined to be an element of the State highway system. 8
- A stormwater discharge permit for runoff from a construction area in excess of 5 acres. The DEP Bureau of Water Management has issued a general permit that will cover these discharges. Registration describing the site and the construction activity must be submitted prior to the initiation of construction. A stormwater pollution control plan, including measures such as erosion and sediment controls and post-construction stormwater management, must be prepared. For sites where more than ten acres will be disturbed, which would include this project, the stormwater pollution control plan must be submitted to DEP. A goal of 80 percent removal of total suspended solids from the stormwater discharge shall be used in designing and installing stormwater management measures. For further information and to obtain the necessary registration forms, either contact Chris Stone at the number given above or call the Water Management Bureau at 424-3018. 23
- Authorization for disposal of special wastes or hazardous wastes from the DEP Bureau of Waste Management for contaminated soils or building demolition debris from sites of busway stations. As mentioned earlier, Patricia Cam of the Waste Management Bureau can be contacted at 424-3567. 3
- Relative to the demolition of buildings on proposed station sites, prior to the demolition of any commercial, industrial or public buildings, or buildings containing five or more residential units, they must be inspected for asbestos-containing materials and any such materials must be removed. The National Emissions Standards for Hazardous Air Pollutants, Subpart M also requires that Federal EPA be notified 10 working days prior to demolition of the building(s). For further information, contact EPA at (617) 918-1650. 24

Responses to Comments:

24. ConnDOT will follow EPA regulations with regards to asbestos in buildings to be demolished and NESHAP notification.

- The disposal of demolition waste should be handled in accordance with applicable solid waste statutes and regulations. Clean fill is defined in section 22a-209-1 of the Regulations of Connecticut State Agencies and includes only natural soil, rock, brick, ceramics, concrete and asphalt paving fragments. Clean fill can be used on site, or at appropriate off-site locations. Clean fill does not include uncured asphalt, demolition waste containing other than brick or rubble, contaminated demolition wastes (e.g., contaminated with oil or lead paint), tree stumps, or any kind of contaminated soils. Landclearing debris and waste other than clean fill resulting from demolition activities is considered bulky waste, also defined in section 22a-209-1 of the RCSA. Bulky waste is classified as special waste and must be disposed of at a permitted landfill or other solid waste processing facility pursuant to section 22a-208c of the Connecticut General Statutes and section 22a-209-2 of the RCSA. For further information, contact Patricia Carr at the number given above or call the Waste Engineering and Enforcement Division at 424-3366. 25

Miscellaneous EIS Commentary

The tables on page ES-4 show declining levels of service on Interstate 84 in 2020 with the busway in operation, as opposed to the 2020 no build scenario, in certain segments for the morning peak. This is shown for one segment of Interstate 84 westbound in Farmington and two eastbound segments in West Hartford. Why would the levels of service in these areas be lower with the busway than without it? 26

On page ES-7, assumedly the reference to express commuter bus service from Southbury should actually refer to Southington? 27

The executive summary and early references in section 1 list the busway as 9.4 miles in length, but it lengthens to 9.6 miles by page 1-14 and in later references. 28

Transit oriented development and busway-supportive zoning are discussed on page 2-19. It would be beneficial for the Capitol Region Council of Governments, the Central Connecticut Regional Planning Agency and, where appropriate, ConnDOT, to meet with corridor municipalities to further encourage supportive zoning and land use policies as soon as the construction of the busway is assured, so that land use developments which will support its success can be taking shape even as the busway is being constructed. 29

Text on page 2-54 describes the Sigourney Station as being built in the "opposite" platform configuration but the rendering on page 2-55 shows offset platforms. 30

Lastly, various new local bus routes are listed on pages 2-78 and 2-79 that would be instituted if the busway is built. Due to the interval of time it takes for ridership to develop on these or any new service routes, the EIS should commit to operate any new routes for a one year minimum to give the potential ridership on these routes the chance to develop. 31

Responses to Comments:

25. Demolition waste will be handled in accordance with ConnDOT policies and DEP regulations cited here. ConnDOT will coordinate with DEP on this issue.

26 These segments are running at or close to capacity and therefore the simulation models are showing conditions for build and no-build that are close together.

27. Concur. This is a typographical error.

28. The correct length is 9.4 miles.

29. See DEP Response #1.

30. Originally, the concepts for some stations had what the project team was calling "offset" platforms, which were hundreds of feet apart from each other. This design (which, for example, is still in place at the Legislative Office Building Station) was necessitated by limited right of way available, since it allowed a narrower cross-section. Public comments indicated a need for platforms closer to each other to improve both visibility between platforms and passenger security. "Opposite" platforms have a wider roadway cross-section. They are very slightly offset from each other for safety, allowing pedestrians to cross a crosswalk behind stopped buses.

It should be noted that the Sigourney Street station has changed layout and location since the preparation of the Draft EIS. Refer to Section 2.4.10 for more information.

31.As the process continues to move forward, bus routes will be adjusted until opening day. Once the opening day routes are running, an after study will be completed approximately two years after opening to comply with FTA New Start requirements.

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DEP/COMMUNICATIONS 860 424 3498 P.11

New Britain - Hartford Busway 10 May 18, 2001
Draft EIS

Thank you again for the opportunity to review this document and to have been involved on the Advisory Committee for this project. This is an exciting project and the first of its kind in Connecticut. I hope these comments are useful to ConnDOT as you proceed with this project. Feel free to call me at 424-4110 should you have any questions or wish to discuss any of these points. DEP looks forward to the Final EIS when that becomes available and wishes you well in the development of the busway.

Respectfully yours,

Frederick L. Riese

Frederick L. Riese
Senior Environmental Analyst

Responses to Comments:

No response is necessary on this page.

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STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

April 30, 2001

RECEIVED
MAY 02 2001
ENVIRONMENTAL PLANNING DIVISION

Mr. Edgar T. Hurle
Director of Environmental Planning
Connecticut Department of Transportation
Environmental Planning Division
Room 2159(NB2)
PO Box 317546
Newington, CT 06131-7546

RE: Environmental Impact Comments: New Britain/ Hartford Bus-way
State Project No. 170-2009
F. A. P. No. CT-90-X328

Dear Mr. Hurle:

The following comments are offered in response to your request concerning the State Agency Project review information for New Britain-Hartford Bus-way. A review of this document reveals limited information at this stage of the project. However, it is noted that the project will include acquisition and demolition of existing facilities. As such, a plan must be in place to address lead-based paint and asbestos since these materials may be encountered during demolition or excavation activities.

The following summarizes the Department's position with regard to lead and asbestos:

A. Lead-Based Paint Issues

It does not appear that construction, demolition or other activities that are associated with this project are subject to the Department of Public Health (DPH), Childhood Lead Poisoning Prevention and Control Regulations (§§19a-111-1 through 19a-111-11). However, there are other issues that must be addressed related to lead-based paint. Among these issues are the following:

- Testing of paint on the existing structures should be performed by a lead inspector or lead inspector/risk assessor certified by the DPH.
- Planned demolition activities should be performed using lead-safe work practices.
- If lead-based paint or lead containing paint is identified on any of the structures after a complete lead inspection, the classification and disposal of waste generated during any activities must comply with the Resource Conservation Recovery Act (RCRA) and Connecticut Department of Environmental Protection standards (e.g. Toxicity Characteristic Leaching Procedure [TCLP] testing, and reporting and record keeping requirements by contractors). 1

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Responses to Comments:

1. ConnDOT will address the issue of lead-based paint, lead-containing paint, or lead-contaminated soil as per ConnDOT policy, DPH regulations, and OSHA and RCRA requirements. Health and safety training will be required for construction crews as necessary.

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RE: New Britain-Hartford Bus-way
Page 2

- Additionally, if lead-based paint, lead containing paint, or lead contaminated soil is identified, workers must be trained (as a minimum) according to the Occupational Safety and Health Administration (OSHA) lead standard (29 CFR 1926.62). Because other contaminants may also be present on the site, additional health and safety training may be required (e.g., hazardous waste and/or asbestos). 1

Additional inquiries on the subject of lead paint can be directed to Alan Buzzetti, Supervising Environmental Sanitarian, Coordinator of the Lead Environmental Management Unit, at 860-509-7299.

B. Asbestos

Please be advised that any construction activity resulting in the disturbance/demolition of any existing facility that is associated with this project would be subject to the provisions of asbestos National Emissions Standards for Hazardous Air Pollutants (40 CFR Part 61). As such, an inspection to determine the presence of asbestos prior to the commencement of the demolition activity should be conducted. The asbestos inspection must be conducted by an Inspector or a Management Planner licensed by the DPH. Asbestos abatement that involves more than three (3) linear feet or more than three (3) square feet of asbestos-containing material must be performed by an asbestos abatement contractor licensed by the DPH. Asbestos abatement must be performed in accordance with all applicable federal, state and local regulations. 2

Additional inquiries on the subject of asbestos abatement can be directed to Ron Skoonro, Supervising Environmental Sanitarian, Coordinator of the Indoor Air Program at 860-509-7367.

Sincerely,

Thomas H. Furgalski, MPA, RS
Director
Division of Environmental Health

THF/mo
c: J. Smith, Office of Policy and Management

Responses to Comments:

2. ConnDOT will address the issue of asbestos as noted, and perform abatement as required per federal, state and local regulations.

STATE OF CONNECTICUT
OFFICE OF POLICY AND MANAGEMENT

www.opm.state.ct.us

May 18, 2001

To: Edgar T. Hinde, Director of Environmental Planning
Department of Transportation

From: Daniel D. Morley, Planning Specialist
Office of Policy and Management

Subject: Draft Environmental Impact Statement (DEIS)
New Britain-Hartford Busway (New Britain, Newington, West Hartford, Hartford)
State Project No. 170-2009

In accordance with CEPA regulations, this office has reviewed the subject Draft Environmental Impact Statement (DEIS) for consistency with the Conservation and Development Policies Plan for Connecticut 1998-2003 (C&D Plan). One of the policies of the C&D Plan is to "improve the relationship of transportation and land use decisions with a particular emphasis on directing new industrial, commercial, and residential development to transit accessible locations." The C&D Plan supports investments in this project corridor that foster integrated development around busway stations and employ site design features that accommodate safe and convenient access to transit by foot or bicycle. OPM evaluates all relevant aspects of the C&D Plan such as policies, strategies, guidelines, and the Locational Guide Map in determining a project's consistency. Please provide a written response to the following comments:

1) The Transportation Strategy Board (TSB) issued a report in January 2001 that identified several projects, programs, studies, and initiatives that were deemed to have strategic importance to the state's transportation and economic future. These recommendations were largely incorporated into H.B. 6985. An initial appropriation of $50 million is included in this bill to serve as a "down payment" on the TSB recommendations. In addition to support for the New Britain – Hartford Busway, a portion of the appropriation would fund "a study of the infrastructure costs and operating characteristics of rail commuter services from New Haven to Springfield, including Bradley International Airport."

   The three alternative alignments for the New Britain – Hartford busway all utilize the active Amtrak corridor north of Newington Junction. The DEIS states that "(t)he area slated for the busway is the western portion of the Amtrak corridor where tracks have been removed; active Amtrak operations take place on one or two existing sets of tracks." The DEIS also states on page 4-23 that "the busway project will not inhibit possible future plans of Amtrak to put a second track in those portions of the corridor that currently contain one track or high-speed rail service anticipated in 2010." Furthermore, page 5-3 states that "(t)he busway project will not preclude the ability for Amtrak to double-track or electrify their tracks in the future."

Responses to Comments:

No response is necessary on this page.

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-2-

While these statements unequivocally conclude that construction of the busway will not impede Amtrak's ability to upgrade its existing rail passenger service in the future, please provide additional background describing what, if any, impacts to busway and rail freight operations can be expected from the possible addition of a second track and catenaries in this corridor. 1

2) The DEIS acknowledges on page 3-5 that future ridership estimates do not take into account the potentially favorable secondary impacts associated with the busway project, such as transit-oriented development around the busway stations. While this provides a conservative estimate of future ridership, I must stress the need for your agency to be vigilant in its continuing efforts to thoroughly assess, coordinate, and pursue, where practicable, all opportunities for supportive land use and transit-oriented design, in order to fully leverage the effectiveness of the busway investment. ConnDOT should ensure that applicable elements derived from the Transportation and Community and System Preservation (TCSP) process for the Parkville and Elmwood neighborhoods are used to assist other neighborhoods within the busway corridor. 2

It should also be noted that the DEIS does not speculate on potential gains in ridership if/when other corridor connections recommended in CRCOG's Regional Transit Strategy are implemented. Although the downtown circulator system is the integral component to the success of future rapid transit in the region, the integration of the New Britain – Hartford Busway with proposed busways in the Griffin and Manchester corridors should provide an attractive alternative for commuters to access employment, retail, and entertainment venues in both downtown and suburban locations. This may have the added benefit of relieving some of the excessive peak period demand on I-84 in the vicinity of the I-91 interchange and Connecticut River crossing. 3

3) The section on Cumulative Impacts (Section 4.18.2) states that "(t)he New Britain – Hartford Busway project is the primary action in the Major Investment Study's Hybrid Alternative Package." The Hybrid Alternative Package also recommends significant reconstruction of several interchanges along I-84 in the Hartford West corridor.

While these proposed projects are progressing independently of one another, there should be some discussion as to the extent to which recommendations emanating from the West Side Access (WSA) Study and the pending Route 4/6/9 interchange study will affect the busway project. At a minimum, ConnDOT should discuss how its public involvement program for the WSA Study is designed to reinforce the station development concepts associated with the busway, and describe how the WSA goals and objectives (as well as those of the Rte. 4/6/9 study) are mutually supportive of the New Britain – Hartford Busway project. 4

Responses to Comments:

1. Most of the rail corridor already has a second track with the exception of the segment between Park Street and Union Station. The present track is located on the inside of a four track line, thereby leaving the outside for the second track in this area. Any future catenary design will need to consider the busway as well as overhead clearance issues. The busway has provided, where possible, up to 16 feet of separation from the centerline of the closest track. Catenary tower foundations would need to be designed either on the opposite side from the busway or integral with the busway concrete barrier.

2. Refer to Response #1 to Connecticut DEP. ConnDOT will pay attention to applicable elements from the TCSP process and implement them in other neighborhoods as appropriate.

3. Concur. Ridership on the New Britain – Hartford Busway corridor would likely increase with the greater transit opportunities offered by two more busways in the Griffin and Manchester corridors. As OPM has noted, ridership estimates were intentionally conservative and, therefore, did not take other regional busway facilities into account.

4. To date the WSA study has held numerous public meetings. While the Busway and WSA studies are two separate projects, there has been discussion of both at each study's respective meetings. One of the purpose and need items in the WSA study is the need to enhance other modal opportunities. This need will be addressed with bicycle and pedestrian connections.

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-3-

4) Page 2-74 indicates that express bus service to New Britain or Hartford, originating from points west and south of the busway, would stop at the first New Britain station, access the busway, and operate as an "express" to Downtown Hartford where it would complete a circulator route.

Please discuss whether express buses would still be routed to the busway if a Downtown New Britain station were not included in the final recommended alternative. Also, please discuss whether there may be future opportunities to allow other "branded" vehicles, such as Ridesharc Corporation's Easy Street vanpools, Connecticut Limousine service, etc., the option to access the busway. These vehicles are easily identifiable from an enforcement-monitoring standpoint and driver training could easily be mandated. 5 6

Thank you for the opportunity to comment on this DHIS. Overall, this project is a bold and innovative step for ConnDOT and the Greater Hartford region toward achieving a more balanced and efficient transportation system, and all parties involved in its development are to be commended. It is my hope that, with your agency's continued outreach and sound planning, this project will become a model for the rest of the region.

Cc: John Radacsi

Responses to Comments:

5. All options studied in the Draft EIS would have routed express buses to the busway, either via the Downtown New Britain station or using a new dedicated exit ramp off Route 9 (if no Downtown New Britain station was provided). The recommended action includes the station in Downtown New Britain.

6. At this time ConnDOT is not considering use of the busway facility by vehicles other than vehicles operating ConnDOT contracted services or emergency vehicles. The busway facility is an exclusive facility with enhanced bus service. In order to maintain an efficient operation, ConnDOT must retain operating exclusivity at this time, which will allow ConnDOT sponsored services to operate without the interruptions brought about by other traffic. During detailed design ConnDOT will be considering the use of special guidance systems. Whether this system is optical, radio, or mechanical, it would be equipment that would be required on all busway vehicles and would preclude vehicles not specially equipped with the system from using the busway. ConnDOT will require that bus drivers undergo training and that all service providers have FTA compliant drug and alcohol testing programs before being permitted to use the busway, which must be considered if, at some point in the future, other non-ConnDOT vehicles are allowed on the exclusive right-of-way.

6.4.3 Regional Agency Comments

- **Capitol Region Council of Governments**

Capitol Region Council of Governments
241 Main St., Hartford, CT 06106
Phone: (860) 522-2217 FAX: (860) 724-1274

CRCOG Comments on the Draft EIS for the New Britain Busway

Approved by CRCOG Transportation Committee on May 21, 2001
Revised by Policy Board on May 23, 2001

The New Britain Busway proposal presents the Capitol Region with a special opportunity to reshape both our transportation system, and the development patterns in our region. It is a unique opportunity to dramatically alter the way we serve our access and travel needs. After decades of relying exclusively on highways to solve our transportation needs, we are proposing to build the region's first rapid transit facility.

The New Britain Busway takes on added importance due to the fact that it is the first of three busway proposals that are in active planning stages. As the first of three busway projects, it will set the template by which the succeeding projects will be planned and designed. The success of the Griffin Busway and the Manchester-East Busway will depend in large part on how successful we are in convincing the public to accept and use the New Britain Busway. To that end, it is extremely important to create a positive public image of a safe, fast, and comfortable service. We need proper attention to station design, to appropriate development around stations, to attractive and environmentally friendly buses, and to fast and frequent service. For this reason, many of the comments of the Council of Governments are focused on those aspects of the facilities and services that we feel are important to creating a positive image for the system that will interest more people in trying the service.

Acknowledge Efforts of DOT to Date

We commend the Connecticut Department of Transportation for completing the EIS in such an expeditious manner. Furthermore, we commend the Department for addressing issues in the EIS that we had previously identified as important issues requiring special consideration in the EIS. These include making transit stations a critical part of the busway facility, giving attention to transit oriented development opportunities, and providing frequent and convenient service on the busway. We feel the Department has made a determined effort to develop the busway concept in a manner that truly enhances its chances for success.

Stations

Very early in the planning process for the New Britain Busway, CRCOG argued that the transit stations are one of the keys to public acceptance of bus rapid transit. The stations need to look and function like stations on rail rapid transit system. The Ottawa BRT system is an example of a BRT system that has used good station design to help achieve a level of public acceptance that is equal to or greater than that found on the most successful LRT systems. Ottawa's investment in stations has also helped stimulate a high level of private development within walking distance of the stations. CRCOG continues to advocate for building fully enclosed stations at as many station stops as is feasible, and for making the stations attractive, easily accessible, and safe.

At the start of the EIS process CRCOG urged the Department of Transportation to incorporate busway stations that had the same functionality and level of amenities typically associated with transit stations on

Responses to Comments:

No response is necessary on this page.

light rail lines. The Department responded positively to this request and proposed a series of station plans that incorporate good station design and substantial amenities. While there is still a great deal of station planning and design work to be done in the next phase, the current cost estimates for the busway illustrate the level of investment the Department intends to commit to stations. The costs shown in the following table are based on alignment Option 1.[1]

Cost Estimate for Alignment Option 1

Low Cost (in millions)	High Cost (in millions)	Item
$6.6	$7.0	Design & inspection
$6.0	$6.0	Right of way
$17.4	*$21.3*	*Station costs*
$40.4	$40.4	Roadway costs
$11.7	$12.2	Miscellaneous items
$9.0	$9.4	Contingencies
$7.0	$7.0	New buses
$98.1	**$103.2**	TOTAL

1

We commend the Department for recognizing the importance of the station investments to the success of the busway project. We urge the Department to maintain this level of commitment as they enter the design phase, and to fully involve each respective community in the final planning and design work for each station. 2

We also commend the Department for being responsive to community concerns raised about the station layout concept identified as "offset platforms." The compromise layout that places inbound and outbound platforms almost directly opposite one another requires a wider cross section (and ROW) but is a more desirable layout where it can be accommodated in the ROW. We commend the Department for incorporating the new opposing platform concept into its plans for as many as five different stations.[2] 3

STATION AREA PLANNING & TRANSIT ORIENTED DEVELOPMENT

In response to concerns expressed about the preliminary draft document, the Department added language to the EIS to highlight the potential economic development benefits of the busway. Furthermore, the Department has supported CRCOG in our efforts to secure funding from the Transportation Strategy Board to conduct the type of local and regional planning that is needed to be successful at promoting transit oriented development around busway stations. While we feel the changes to the EIS document (from the preliminary draft) are positive, we believe the Department, the Region, and the municipalities need to make a stronger commitment to promoting transit oriented development. 4

If we are to be successful at promoting transit oriented development around busway stations, we need all three parties in this project (State of Connecticut, CRCOG, and the respective municipalities) to be active supporters of appropriate development in stations areas. The State needs to support CRCOG and the municipalities in whatever way that it can – with financial support, legislative changes, and technical

[1] Capital costs are discussed beginning on page 2-81.
[2] See page ES-13

Responses to Comments:

1. These estimates have been updated for the Final EIS as described in Section 2.8.1. One of the major reasons for increased cost is the increased commitment to the stations.

2. ConnDOT intends to maintain this commitment and to involve regional planning agencies and communities during final planning and design.

3. Station refinements have been made in response to local concerns, both leading up to the Draft EIS and subsequent to its publication. In this Final EIS, only the Newington Junction Station and Legislative Office Building Station have platforms offset from each other, primarily due to site limitations.

4. A further effort has been made in this Final EIS to affirm ConnDOT's commitment to coordinate with local and regional TOD and Station Area Planning efforts. Refer to Section 2.5.

CRCOG Comments on Draft EIS *Page 3*

support. During the design phase, ConnDOT needs to assure that they and their consultant fully address station design issues, and station area planning issues that arise in the design phase, or from related activities being undertaken by CRCOG and the municipalities. They need to maintain open lines of communication with the municipalities to assure the design plans are coordinated with any station area plans developed by the municipalities. The Design phase should, in fact, include staff and financial resources to allow DOT to participate in the station area planning activities to be conducted by CRCOG and the municipalities. ConnDOT should also incorporate into its construction plans any elements of the station area plans (such as pedestrian access & streetscaping in the area of the station) that are appropriate to include in the busway construction plans. The State can also support transit oriented development though financial incentives to developers who wish to invest in transit supportive developments within walking distance of a station. Agencies such as the Department of Community and Economic Development should consider implementing new programs for TOD in station areas similar to the special incentive programs they have created for enterprise zones or other areas in which they have wanted to encourage private development. 5

CRCOG needs to move forward with its proposed TOD study as soon as the General Assembly funds it. We need to actively encourage the four municipalities to fully participate in this project, and to actively involve the Connecticut Department of Transportation. We need to give our municipalities the resources they need to assess the potential for new development in the station areas, and to undertake the appropriate local initiatives to (including regulatory changes) to promote transit oriented development. 6

The municipalities need to make a commitment to become fully involved in the CRCOG TOD study, to develop station areas plans for each station, and to implement those plans at the conclusion of the study. Success at TOD will benefit the busway with increased ridership, and it will benefit the town with new tax revenues and a more attractive environment in the vicinity of the stations. 7

We also suggest some language changes to specific sections of the EIS document. We suggest the Department modify and strengthen the language the following sections to show greater support for TOD:

Page 4-21, paragraph 3: "Most of the study area is fully built out, with limited opportunities for redevelopment; therefore, few changes in land use are planned." This understates the potential for redevelopment of existing land uses that can be achieved if we work closely with local authorities to allow and promote transit supportive redevelopment.

Page 4-23, paragraph 2: "Some localized land use effects would be seen at station locations. However, overall, the project generally will not create a substantial land use impact on the subject communities..." This statement also underestimates the potential for redevelopment around stations, and does not recognize the positive effects this can have on the community. 8

We acknowledge the Department's support to date, and we urge the Department to continue to work with CRCOG and the four municipalities to fully integrate land use planning and station area planning into the final design process.

NEW BUSES: ALTERNATE FUEL

In the EIS the Department of Transportation recognizes the potential benefits of alternative fuel buses, but does not provide a full commitment to purchasing such buses for the start of busway service. As expressed in the EIS the Department is committed to "...investigating 'alternative fuel' vehicles and will consider using them where practical and as the fleet turns over and new vehicles are purchased." [3]

We acknowledge that the Department must consider the long timeframe required to replace the entire 200-vehicle CT Transit fleet. However, we feel that the opening of the busway presents a great 9

[3] Alternate fuel buses are discussed on page 1-16.

Responses to Comments:

5. CRCOG, CCRPA, municipal representatives and interested citizens and businesses will all have an active role in addressing station design and Station Area Planning in the design process.

6. ConnDOT will commit to involving the Department of Community and Economic Development in this process as well.

7. See Response #1 to Connecticut DEP.

8. Concur. The intent of these paragraphs was to reflect the fully built-up, urban nature of these areas and to show that the project would have a minimal adverse effect on existing land uses. The identified text has been reworded in this Final EIS to more accurately reflect the opportunities for TOD.

9. See EPA Response #4.

opportunity to introduce a new bus technology to Hartford, and to stimulate interest in and support for the busway. Since the Department expects to spend $7,000,000 to purchase of 28 new buses for the busway, we urge the Department to make these new buses alternate fuel low-floor buses.[4] We recognize that the cost of alternate fuel buses is significantly higher than regular diesel buses, and that the number of buses purchased will have to be reduced, or the level of funding increased.

A recent study by the Connecticut Academy of Sciences[5] suggests that hybrid diesel electric systems are a viable form of alternate propulsion for CT Transit buses in the near term. We concur with this conclusion and suggest the Department purchase hybrid diesel electric buses for the busway. Furthermore, we suggest that the Department consider a pilot project to test fuel cell powered buses on the busway. A test of 3-4 buses will provide some operating experience with this form of alternate propulsion system. While fuel cell technology is still evolving, it is apt to be the cleanest, most environmentally safe form of propulsion system in the future. A pilot project in Hartford would help promote this form of propulsion and generate extra interest in, and support of, the busway project. The project could even be done in conjunction with UTC's fuel cell division which is based in the Capitol Region. **9**

New Buses: New Look for New Image

One of the challenges the New Britain Busway must overcome in order to succeed is to disassociate itself with the existing bus system's image (often incorrect) of slow, noisy, dirty buses that most people choose not to ride. Because a 'busway' still involves using buses, we need to employ several different tactics to change this image. These include a good marketing campaign with an emphasis on the travel time savings of an exclusive busway, attractive and comfortable transit stations, and the alternate fuel vehicles discussed above. Another important tactic is to employ a new type of bus that offers a new, attractive, and distinct appearance. A distinctive look will help disassociate the busway from the negative image many people have of the current bus system, and would be a good marketing technique to publicize the busway system and entice new riders. **10**

Operating Subsidy

Annual transit operating costs in the corridor are expected to increase by $6.3 million (from $6.5 million to $12.8 million) with the new busway service. This will increase the required annual subsidy by $4.6 - $4.8 million depending on the fare box recovery ratio. The Department indicates that the subsidy will be paid from the State Transportation Fund.[6]

We commend the Department for agreeing to fund the operating deficit for the busway from the State Transportation Fund. We will continue to work with the Department and the State Legislation to identify ways to increase revenues for the STF and alternative methods for funding new transit services in the state.

Multi-Use Trail

As part of the EIS, the Department evaluated the possibility of building a multi-use trail in the same rail ROW as the busway. The Department concluded that there is sufficient room in the southern section of the corridor, but not the entire corridor. More importantly, the Department concluded that while there is room for a bikeway in part of the corridor, they will not construct the bikeway as part of the busway project. **11**

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[4] See page 2-81 and page 2-82.
[5] "A Study of Bus Propulsion Technologies Applicable in Connecticut," Connecticut Academy of Science and Engineering, February 23, 2001
[6] Operating costs are discussed on page 2-83.

Responses to Comments:

10. Various styles of new buses are being considered at this time, but no final decisions have been made.

11. See EPA Response #6.

The Department determined that there is sufficient space to build a multi-use trail in the New Britain Secondary Line ROW that begins at Willard St. in Newington and extends south to downtown New Britain. North of Willard Avenue the New Britain Secondary Line joins the Amtrak Line and there is not sufficient room to build a trail within the ROW.

Unfortunately, the analysis of the viability of the trail only examined the question of whether there was sufficient space in the ROW. In the southern section where there is sufficient room, the potential environmental impacts of a bikeway were not assessed. The Department did not prepare a construction cost estimate since they have concluded that the multi-use trail will not be constructed as part of the busway project. 12

We strongly urge ConnDOT to reconsider the assumption of not building the bikeway. At a minimum, a construction cost estimate should be prepared, and the potential environmental impacts assessed.[7] This extra effort would bring us closer to meeting the intent of U.S. DOT's recently adopted Policy Statement on Integrating Bicycling and Walking into Transportation Infrastructure. Construction of the trail would also serve one of the three needs identified in the study purpose and need statement, which is the "increase opportunities for alternative modes."[8] Furthermore, this trail section could be a critical step in realizing the Region's plan to connect the Farmington Canal Trail to Hartford and the Charter Oak Greenway east of Hartford. Linking these two major inter-regional trails is a regional priority. While the exact route has yet to be determined, the New Britain Busway alignment is one of the best segments identified to date. It warrants further study especially in view of the work being done as part of the Westside Access Study to identify a route through Hartford. 11

BIKE RACKS ON BUSES

CRCOG urges the Department to consider equipping the new buses for the busway with bike storage racks and equipping stations with bike parking racks. This will further increase opportunities for alternative modes, will support the U.S. DOT's Policy Statement on Integrating Bicycling and Walking into Transportation Infrastructure, and by encouraging some people to access the busway system via bicycle rather than by car, capital costs for parking construction may be saved. 13

NEW BRITAIN ALIGNMENT OPTIONS

For most of the corridor the Department only considered building the busway within existing rail right of way (ROW). However, in the City of New Britain neighborhood concerns about the proximity of the rail ROW to residences prompted the Department to evaluate options outside the rail ROW. The three following alignment options were evaluated for the portion of the busway south of Cedar St. in Newington:

	Description	Construction Cost[9]
1	Use rail ROW to downtown New Britain	$57 - $61 million
2	No busway south of Cedar St.	$38 - $42 million
3	Use Route 9 median to downtown New Britain	$71 - $75 million

While this section of the busway lies largely outside the boundaries of the Capitol Region, the alignment choice will affect the functionality of the entire busway and have some direct impacts on Newington. For

[7] There is a suggestion in the EIS that the trail "could conceivably add a minor additional impact to wetlands or other water resources." Page 4-75
[8] See Chapter 1 for discussion of purpose and need.
[9] Does not include design costs, ROW costs, or the cost of purchasing buses.

Responses to Comments:

12. Since the multi-use trail is now included in the recommended action its cost and impacts have been included in this FEIS.

13. ConnDOT is presently preparing to test bike racks on their new buses in the Stamford Division. ConnDOT will evaluate whether to use bike racks on buses elsewhere pending the results of this testing.

this reason the Capitol Region Council of Governments supports Option 1. Option 1 is the alignment that best supports the goals of the busway projects in terms of promoting ridership and opportunities for transit oriented development around stations. It also avoids the extra traffic impacts on Cedar Street that Option 2 would create. 14

Bus Operations/Service Plan

The Department has proposed an ambitious service plan for the busway. Service will be provided 18 hours per day (6:00 am to 12 mid night) seven days a week. Service will also be frequent to make it attractive for patrons. The following table illustrates just how frequent service will be in the peak period (assuming alignment Option 1):[10]

Station	Buses per Hour	Ave. Headway	Comments
Downtown New Britain	20	3.0 min	Express buses stop here
East Main St	12	5.0 min	
East St.	14	4.3 min	
Cedar St., Newington	16	3.7 min.	
Willard Ave.	16	3.7 min.	
Elmwood, West Hartford	16	3.7 min.	
Flatbush Ave.	20	3.0 min	
New Park Ave., Hartford	20	3.0 min	
Park St.	20	3.0 min	
Sigourney St.	28	2.1 min	Express buses stop here
Legislative Office Building	28	2.1 min	Express buses stop here
Union Station	28	2.1 min	Express buses stop here

The Department also proposes to implement the same type of fare structure for the busway as it uses for the regular bus service. This means that the base service from New Britain to Hartford (and anywhere in between) will be only $1.00.[11] This low fare will help increase use of the service.

We commend the Department for pursuing such an aggressive service plan and for keeping a low fare for the base service.

Downtown Circulator

The draft EIS assumes that the Downtown Circulator service and the associated downtown transit priority pathway are in place. These two elements are needed to (1) provide an efficient downtown circulator or shuttle that serves key destinations throughout downtown and complements the downtown connections provided by the busway service, and (2) to increase the travel speed of busway vehicles who enter the city street system after they exit the busway in downtown. CRCOG continues to support the Downtown Circulator as a critical completion to the busway system. 15

[10] See page ES-19 and page 2-76.
[11] See page 2-75.

Responses to Comments:

14. Option 1 is the alignment selected in the recommended action.

15. Concur. A downtown circulator is essential to the success of the busway for both of the reasons cited. Operating plans for the busway will be greatly influenced by the findings of the downtown circulator study. See Section 2.7.2.2 for more information.

CAPITAL COST

The estimate for capital cost of the project has increased from the $82 million estimated in the Major Investment Study to the current estimate of $98 - $103 million (for Option 1). The increase is due to several factors. First, the higher cost reflects the increased emphasis on station construction and amenities. Second, there are some new costs associated with the decision to provide a grade-separated crossing at Flatbush Avenue in Hartford and East Street in New Britain. Third, the higher costs also reflect a refinement of the estimate of how much it will cost to construct a busway through Union Station. **16**

We support the additional costs reflected in the project cost estimate. The extra costs are required to achieve the Council's goal of building attractive safe stations. They are also required for the grade separation at Flatbush Avenue, which is needed to solve traffic operations problems. Furthermore, the structural improvements required to bring buses into the upper level of Union Station will also benefit both the Griffin Busway and the Manchester Busway when those facilities are constructed.

Responses to Comments:

16. Concur. Capital costs have increased between the DEIS and FEIS as a result of increased commitment to the stations, new grade separations, and to the multi-use trail.

6.4.4 City and Town Comments

- City of Hartford (including attachments from Natural Resources Conservation Service)
- City of New Britain
- Town of Newington

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CITY OF HARTFORD

OFFICE OF THE CITY MANAGER
550 Main Street, Hartford, Connecticut 06103

COUNCIL – MANAGER GOVERNMENT

May 16, 2001

RECEIVED
MAY 18 2001
ENVIRONMENTAL PLANNING DIVISION

Mr. Edward T. Hurle
Director of Environmental Planning
Connecticut Department of Transportation
2800 Berlin Turnpike
P.O. Box 317546
Newington, CT 03131-7456

Dear Mr. Hurle:

We at the City of Hartford are pleased to respond to the Draft Environmental Impact Statement for the New Britain-Hartford Busway. The City is very supportive of the proposed busway, the first leg of a system of busways and commuter rail that will improve transportation throughout the region. The following comments are the result of a collaborative effort from city staff from Public Works, Planning, Housing and Community Development, the City Manager's Office, and the Mayor's Office. These comments are offered in the spirit of creating the best busway possible within the physical and financial constraints. Our belief is that the busway must be:

- SAFE
- EFFICIENT
- COMFORTABLE
- RAPID

Our comments are in two parts: first, general comments on the overall plan and design of the busway; second, on the specific station stops.

General Comments

1. Under all circumstances there should be no decrease in local bus access. Nearly 40% of our households are transit-dependent. | 1

2. Transit Oriented Development must be encouraged and promoted through incentives and public policies regarding and around the station areas. Municipalities, the regional planning agencies and the state must work together to make this a reality. | 2

3. Station amenities (as referenced on page ES-1) should be planned at all station stops. Bike lockers should also be considered. | 3

4. Safety needs to be a priority in all the station planning. | 4

Responses to Comments:

1. The operations plan is still to be finalized, but overall, the busway will increase transit access to the study area communities, including Hartford. The existing local feeder bus service in Hartford would not change, and more bus service would be added.

2. See DEP Response #1.

3. Amenities at each station will vary based on site by site needs. See Section 2.2.7 for more detail. ConnDOT has taken into consideration to provide bike racks at all stations. Bike lockers will be considered based upon public input received during the design process.

4. Concur. Section 2.2.2 discusses facility security and "defensible space."

5. Natural screening should be incorporated to improve the aesthetics where needed along the busway. The metal recycling yard in Parkville is an obvious area in need. 5

6. Bike racks should be on all the busses to encourage more bicycle transportation. 6

7. Concerning the beginning of the busway in New Britain, we feel it is extremely important for the overall success of the project that Alignment Option 1 – The Abandoned Railroad Right of Way – is adopted. This option with a Downtown New Britain station has the best chance for success and can improve development opportunities. We recognize there are many issues that need to be addressed on the New Britain alignment and do not mean to interfere in another municipality's decision, but it is clearly the best of the options presented. 7

8. Alternative fuels to diesel gas should be considered.

9. The busses chosen for the busway should be designed for maximum efficiency and comfort. For example, low riding busses where riders step directly into the bus rather than have to step up to get into the bus. 8

10. We need to start calling this project something other than a busway. The public is turned off to busses and do not view them as a rapid, comfortable, or even safe alternative to autos. The busses will operate more like a light rail line than a conventional bus. We need a new term to better define the rapid transit busway system. 9

Station Planning

Staff spent considerable time reviewing the various options presented. We ask that in future reports that the site plans and artist's renderings be consistent. The renderings show far more landscaping and platforms appear much closer than they are in the site plan. 10

1. Flatbush Station

Option G-1 – This is unacceptable for several reasons. Besides having offset platforms and poor circulation in the parking area, it would mean re-locating COASTAL TOOL, which recently moved in there. The location is not good and we question who it would serve.

Option G-2 – This is the preferred option by our staff. It has closest proximity to the charter Oak site and is supported by the Hartford Housing Authority because of its direct access. We strongly prefer the opposite platforms configuration. Only one business would need to be relocated. This site could be improved by bringing the station closer to Flatbush Avenue and needs a great deal more landscaping than shown in the plan. 11

Option G-3 – This option would have negative impact on the future development of the former Heublein site. It would also affect three businesses: the gas station, donut shop, and auto parts store. If this site were chosen, the intersection of Flatbush and New Park would be totally dominated by surface parking, which is not what we want to see at a transit stop or as a way to encourage transit oriented development.

Responses to Comments:

5. Concur. A landscaping plan will be developed during final planning that will address screening with natural materials.

6. See Response #13 to CRCOG.

7. Alignment Option 1 was the selected alignment in the recommended action.

8. See Response #4 to US EPA.

9. See Response #1 to US EPA.

10. Architectural renderings attempted to show station concepts as accurately as possible. It should be reiterated that the renderings were concepts of how the area could look and were not meant to reflect the final landscape and site designs. As noted above, a landscaping plan will be developed.

11. Option G-3 was the selected station in the Recommended Action. It was the location that offered the best layout opportunities and was closest to anticipated passengers. It has been modified since the Draft EIS, based upon comments received. The gas station has been retained on the corner, and an opportunity would be provided for private redevelopment of the donut shop on site as a TOD feature. The number of parking spaces at this site has been reduced, and with the above-grade crossing of Flatbush, the parking facility would be equally accessible to the Charter Oak site for busway passengers as with Option G-2. Refer to Section 2.4.7 for more information.

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New Park Avenue Station

We view this station as a potential for future transit oriented development. We recommend that DOT seek a shared parking arrangement with the Crown Cinemas. The northern end of their lot is the least utilized and gets little use during daytime hours when transit users would be most likely to use it. By developing shared parking, a new smaller parking lot would have less impact on Kane Brook, which should be enhanced. Shared parking should also be pursued with Stop 'n Shop in the area just south of their building which is also underutilized.

The offset platforms create a safety issue. We urge you to figure out how these can be made closer. The in bound platform is isolated behind the Stop 'n Shop. If it is not possible to move this platform to the south, we recommend building a station near the pedestrian crossing. This would make the in-bound platform more visible. Discussions should be held with Stop 'n Shop if they wanted to open a small convenience store in the station where transit users could pick up small items. Other development could occur here at this site as well. 12

It would be better to refer to this stop as the Kane Street Station to better identify its location, as there are three stops on New Park Avenue. 13

Park Street

Option I-1 - Would have the greatest impact on the street but does create problems with more acquisition of property.

Option I-2 – Affects fewer businesses, has a station, and opposite platforms, which are all positive.

Option I-3 – Should be scrapped altogether. The split platforms are far apart and the inbound platform is very isolated. This option is neither safe nor convenient. 14

This station, with no parking area, has to be made more pedestrian friendly. Sidewalk improvements in the area, especially under the railroad bridge, are needed. The area under the bridge needs a good lighting system. A pedestrian crossing for Park Street needs to be incorporated into the street plan as well as drop off access. A connection to 17-35 Bartholomew Avenue – presently a vacant lot – needs to be planned for to make it more marketable for Transit Oriented Development.

The Committee supports Option I-2 with these additional considerations.

Sigourney Street

The present configuration, Option J-1, does not serve anyone very well. Access through the Aetna parking would be a problem. Aetna employees would still have a long walk. We understand Aetna is open to the idea of having a station adjacent to their parking garage. This would be a great improvement but raises other concerns. 15

Such a station location needs to have clear public access and good visibility from Sigourney Street. It could be designed as a colonnade with minimal intrusion into the Aetna garage. Design and security would have to be carefully planned to balance the need for security at Aetna with the need to make it easily accessible and inviting to the public coming in from Sigourney Street.

Responses to Comments:

12. This station has been substantially refined since the Draft EIS based upon comments from Hartford staff and others. The parking for the site has been moved to ConnDOT property under I-84 (currently used for storing equipment). The station now has an "opposite" platform configuration and now has less impact on the Kane Brook area. The site still has opportunities for ecological restoration and TOD. Refer to Section 2.4.8 for more information. Stop and Shop has indicated in their correspondence (seen in this Final EIS) that they have a parking shortage, not a surplus. Hartford staff and others will be actively involved in station planning during the final planning and design phases.

13. This issue will be addressed as the project moves forward.

14. This station has also been revised as a hybrid (I-4) of the three station options evaluated in the Draft EIS. Again, this change was made to address comments from Hartford staff and others. Platforms are "opposite." See Section 2.4.9 for more information. All of Hartford's recommendations regarding pedestrian improvements and an opportunity to connect to 17-35 Bartholomew Avenue are now part of this station concept. Hartford staff and others will be actively involved in station planning during the final planning and design phases.

15. This station has also been altered since the Draft EIS, both in concept design and in location. Aetna has proposed to expedite the reconstruction of their parking structure on the east side of Sigourney Street in order to accommodate a busway station within the structure. (See Aetna letter and Section 2.4.10 for more information). It will be more visible from Sigourney Street and more centrally located to serve Aetna employees.

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Most of the properties on Hawthorne Street are used for surface parking. This is an ideal location to promote transit-oriented development. 15

Legislative Office Building

This station needs to have a presence on Broad Street. It should serve employees of the Hartford Courant, YWCA, Hartford Insurance and state employees working west of Broad Street. The in-bound platform is very isolated and creates safety concerns. It needs to be brought closer to the covered walkway. The walkway appears to be glass enclosed. We suggest you talk with Legislative Management about problems with their glass-enclosed walkway. It is very hot most of the year and needs constant attention. Many workers avoid using it. 16

As this station will clearly serve state employees, we recommend the state consider subsidizing bus passes, which would free up parking space for the public and alleviate the terrible congestion on Broad Street and the Capitol area as well as increase ridership. 17

Union Station

We recommend this station be altered to take advantage of Union Station.

Option L-1 – Would create pedestrian conflicts as this area is already tight and the tunnels are not especially inviting. Option L-1 should re-enforce Union Station as a transit hub and stimulate use of the building itself for transit oriented development. Bus riders should enter and exit through Union Station. 18

We want to re-enforce that we at the City are excited about the development of a rapid transit system that will benefit the whole region, stimulate the economy, and provide greater mobility for our residents.

Our suggestions are all intended to make this first leg of the system a real success.

We look forward to continue to work with you on this process.

Sincerely,

Patricia M. Williams
Deputy City Manager

G. Hurte
GM/cds

Responses to Comments:

16. A Broad Street connection was always part of the LOB Station as shown on the plans in the Draft EIS. The connection is now presented more prominently. Placement of platforms at this location was greatly constrained by the I-84 Capitol Avenue off- ramp, Amtrak tracks, and the curved alignment in this area. ConnDOT will continue to investigate possible improvements to this station layout.

17. This will be considered as the project moves forward.

18. In the recommended action, platforms are placed over Asylum Street rather than within Union Station so that passengers have shorter distances to walk to downtown destinations. Passengers will still have the opportunity to use Union Station to enter and exit the busway if they are so inclined to walk through the building.

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DEPT. OF PLANNING TEL: May 16'01 11:08 No.004 P.02

CITY OF HARTFORD

OFFICE OF THE CITY MANAGER
550 Main Street, Hartford, CT 06103

COUNCIL – MANAGER GOVERNMENT

May 18, 2001

Mr. Edward T. Hurle
Director of Environmental Planning
Connecticut Department of Transportation
2800 Berlin Turnpike
P.O. Box 317546
Newington, CT 03131-7456

Dear Mr. Hurle:

Please include the attachment correspondence from the Natural Resources Conservation Service addressed to Gerry Maine as a supplement to the City of Hartford's comments on the Draft Environmental Impact Statement for the New Britain-Hartford Busway.

Their analysis of the Kane Brook corridor reinforces our belief that this area should be enhanced by improved landscaping and any additional parking should be minimized. 1

Preserving and enhancing Kane Book will improve the natural environment and create a better human environment for transit users.

Sincerely,

Patricia M. Williams
Deputy City Manager

Busway
G/Hwds

Responses to Comments:

1. As noted in comment 11 of Hartford's May 16, 2001 letter (preceding), this station has been substantially refined since the Draft EIS based upon comments from Hartford staff and others. Refer to Section 2.4.8 for more information.

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USDA United States Department of Agriculture
Natural Resources Conservation Service
627 River Street
Windsor, Connecticut 06095
Phone: 860.688.7725
www.ct.nrcs.usda.gov

City of Hartford Housing & Community Development Dept.
Gerry Maine, Principal Planner, Planning Division
10 Prospect Street, 4th Floor
Hartford, CT 06103

May 18, 2001

Dear Mr. Maine,

I am writing in response to your request for an evaluation of the potential effects of the proposed New Britain/Hartford Busway on the Kane Brook corridor in Parkville. On May 8th, NRCS staff visited the site to assess the soils adjacent to Kane Brook where a bus station and parking lot are proposed. Attached are comments from Marjorie Faber, Assistant State Soil Scientist, addressing soils and floodplain issues of Kane Brook. Following are additional comments for the City to consider while choosing alternatives for the busway.

Kane Brook is a typical urban stream corridor whose water quality has been degraded mainly due to stormwater runoff and altered floodplains. As Marjorie's report indicates, the area between the Stop and Shop parking lot and the brook has been manipulated during past development. Within the fill material and asphalt, the site now supports a mix of grasses and early successional plant species such as milkweed. There are also exotic weeds as well as red maples and box elder trees along the streambank. Borehole indicate that at one time, Kane Brook functioned as a natural stream system. Significant water quality improvements within Kane Brook would require addressing stormwater runoff issues throughout its watershed and though its recommended, is probably not feasible at this time. However, any new development should address stormwater discharge and the area between Kane Brook and Stop and Shop could provide an opportunity for proper stormwater management as well as enhancement to the brook, the bus station and to Parkville.

The proposed parking lot construction for station Option H1 (New Park Avenue) would encroach upon this "open space" next to the brook. The City may want to consider the following while determining potential alternatives to constructing an impervious parking lot in this area:

1. Investigate the possibility of utilizing existing parking lots immediately adjacent to the site.
2. Investigate the possibility of using the area underneath the Interstate 84 overpass. 2
3. Install pervious materials that would allow infiltration of parking lot runoff. 3

In addition to eliminating the proposed parking lot or installing, at the very least, pervious parking lot materials, the site could be enhanced by:

1. Planting a wider vegetative buffer along the brook, which is always recommended to help improve water quality and aesthetics. A buffer of at least 35 feet is recommended. 4

The Natural Resources Conservation Service works hand-in-hand with the American people to conserve natural resources on private lands.

AN EQUAL OPPORTUNITY EMPLOYER

Responses to Comments:

2. As noted in comment 11 of Hartford's May 16, 2001 letter (preceding), this station has been substantially refined since the Draft EIS based upon comments from Hartford staff and others. The recommended action's concept for Station H2 now uses an existing disturbed ConnDOT equipment storage area under the I-84 viaduct for parking.

3. For areas that are not already paved, use of pervious materials will be considered where practicable.

4. NRCS' proposed concepts (wider vegetative buffer, ecological restoration, stormwater detention, floodplain restoration) will be considered during project design and implemented as appropriate. During the design process, resource agencies, including NRCS, will be afforded the opportunity to provide input.

2. Restoring the area with naturalistic, low maintenance landscaping such as red stem dogwood, silky dogwood, highbush blueberry and American Cranberry.
3. Utilizing the area for stormwater detention through creation of wet and/or dry basins.
4. Possibly restoring the floodplain by partial fill removal. | 4

As Marjorie's report states, soil contamination testing should be performed before any disturbance to the site takes place and deep test holes would be needed to determine the natural floodplain area. | 5

Given that there may be feasible alternatives to provide parking for the proposed bus station, it is preferable that this site remains an "open space". Restoration of the floodplain, establishing a wider vegetative buffer along the brook, creating a low maintenance landscape and providing stormwater detention, would be an asset to the new station installed, the neighborhood of Parkville and to Kane Brook.

I hope this information assists the City in its landuse decision making. If you have any questions or would like additional assistance, I can be reached at 688-7725, extention 120.

Sincerely,

Vivian Feltan, CT Basin Project Coordinator

Encs.

Responses to Comments:

5. ConnDOT will follow their established procedures for assessing risk of encountering hazardous materials, will perform subsurface testing where appropriate, and will provide mitigation as appropriate.

05/18/01 13:34 ☎860 594 3028 CT DOT NE 2 010/010

USDA

United States Department of Agriculture | Natural Resources Conservation Service | Windsor Service Center | 627 River Street, Windsor, CT 06095, (860) 688-7725 TEL, (860) 688-0063 FAX

SUBJECT: New Britain/Hartford Busway DATE: 14 May, 2001

TO: Vivian Felten, Project Coordinator FILE CODE:

On May 8, Dr. Nels Barrett, NRCS Ecologist, and I conducted an on-site investigation at the site of the proposed New Park Avenue Busway station adjacent to Stop & Shop in the Parkville section of the city of Hartford.

We reviewed the station H proposed location and wetland 11 adjacent to Kane Brook, just south of the proposed station.

Our comments are as follows:

1. We could not confirm the wetland identification with soil observation because of the presence of compacted fill throughout the area. However, the location of Kane Brook and the boxelder trees suggest the possibility of Connecticut state wetland soils. A soil scientist would have to observe deep test pits in the filled areas to see how deep the fill extends and if the natural soil would have been considered CT state wetland soil (alluvial, poorly drained, or very poorly drained soil). Deep test pits would also show what the depth to seasonal high water is. 6
2. Any construction on this site would disturb these filled soils. Laboratory testing would be necessary to assess whether there were any contaminants in the soil. 5
3. Since there is a parking lot proposed which has spots for over 100 cars, stormwater runoff from the lot should prevented from going directly into the Kane Brook or the identified wetland area. Perhaps a detention pond could be incorporated into the site design. Another suggestion is reduce the number of parking spaces or to construct the parking lot with pervious pavement to allow infiltration of rainwater. 4

Please contact me if you have any questions.

Marjorie Faber

Marjorie Faber
Assistant State Soil Scientist

CC: Nels Barrett, NRCS Ecologist, Tolland

The Natural Resources Conservation Service works hand-in-hand with the American people to conserve natural resources on private lands

AN EQUAL OPPORTUNITY EMPLOYER

Responses to Comments:

6. A formal wetland delineation, including evaluation of soils, will be performed during the design phase. Mitigation will be performed for jurisdictional wetland impacts.

05/15/01 13:14 ☎860 594 3028 CT DOT NE 2 002/006

City of New Britain

New Britain, Connecticut 06051

"New Britain: A City for All People"

From the desk of:
Ald. Art Helfgott
12 Brady Ave.,
New Britain, CT 06052
860-224-8869 (h)
860-225-7220 (w)
abelfab@aol.com

May 10, 2001

RECEIVED
MAY 15 2001
ENVIRONMENTAL PLANNING DIVISION

Mr. Edgar T. Hurle
CT DOT Environmental Planning Div.
Rm. 2159 (NE2)
P.O. Box 317546
Newington, CT 06131-7546

Mr. Hurle,

Enclosed is a copy of a resolution passed by the New Britain City Council on Wednesday, May 9, that is the official position of the City regarding the New Britain – Hartford Busway.

The resolution articulates the concern that the Busway project is a very positive step toward alleviating the congestion on the I-84 corridor. The benefits to the region, and to Hartford in particular, are immediate and indisputable. The benefits to New Britain are largely in the form of potentials. It therefore becomes incumbent upon us to insure to the greatest extent possible that New Britain derives value equal to that which we're giving to the project in property, inconvenience, and potential downsides.

While it is understood that much of what is in our package falls outside the purview of DOT, we still feel that they must be put on the table at this time. We hope you understand that our approval and support for this project is contingent upon successful negotiations regarding those stipulations. There can be no doubt about this. (As I've said often throughout this process to people from Wilbur Smith Assoc's, you're dealing with a community that was told by CT DOT "trust us, a highway through the center of your town will be a good thing".)

The City is definitely upbeat about the potential for New Britain that this project represents, and we are looking forward to working with you and your people to insure its success.

Most Respectfully,

Art Helfgott, Chair,
City Council Busway Comm.

Responses to Comments:

No response is necessary on this page.

08/15/01 15:14 ☎860 594 3028 CT DOT NE 2 ☑003/006

Resolution

Item #_____

To the Honorable Mayor, and the Common Council of the City of New Britain

the undersigned beg leave to recommend the adoption of the following:

A Resolution of the Common Council of the City of New Britain Regarding the Hartford to New Britain Busway.

Whereas, the Common Council previously established the Busway Committee and charged it with investigating the proposed Hartford-New Britain busway, seeking public input and framing policy positions on said busway for the full Council to consider; and

Whereas, the Busway Committee investigated the proposed busway, offered possible alternatives to the original proposal, heard public concerns and opinions and considered the overall interests of the city;

Be it, therefore, resolved by the Common Council of the City of New Britain that:

1. The City of New Britain finds that the Hartford-New Britain busway is a transportation project that, on its merits, is a good and worthy undertaking. There is a need for significantly improved public transit capacity in our region. Efficient public transit reduces transportation congestion. It encourages a regional pattern of development centered around vital urban centers, a kind of development beneficial to New Britain as a city. It provides greater mobility to many senior citizens and persons with disabilities. It reduces transportation as an obstacle to finding decent employment. It helps businesses by helping their employees to travel to work. The proposed busway would bring, potentially, thousands of commuters through New Britain's downtown, providing economic development opportunities. It enhances the prospects for transit-oriented development to occur along the line as well as in the downtown area.
2. The position of the City of New Britain on each of the three possible routes for the busway within New Britain are as follows:

   Route #1. (The original MIS proposal.) The City of New Britain finds that this route does have a number of advantages. It calls for a station at the former ITT site parking lot. Having a station located there would be an asset to the neighborhood in which it would be located, especially the streets to its south. This neighborhood has a large number of two and three family houses – making it a neighborhood well suited as a "transit village". The presence of this station may increase residential

1

Responses to Comments:

1. Alignment Option 1 was selected as the recommended action.

08/15/01 13:18 ☎860 594 3028 CT DOT NE 2 ☎095/098

(a) any bridges or abutments on, over or near any city street or residential area be designed to the City's specifications;
(b) the City maintain control over the location of the downtown terminal; 7
(c) the downtown terminal and other New Britain stations be designed to the City's specifications;
(d) appropriate noise remediation be constructed at sites selected by the City; 8
(e) assurances be made of the state's investment to greatest the extent possible in state-of-the-art buses to minimize noise and pollution; 9
(f) the City maintain the right to determine the appropriate design of the busway, the barriers protecting surrounding areas from it and the appropriate decorative elements. 7

4. The City of New Britain finds that, built well, a downtown terminal can be made a vital center of life in our city. Nevertheless, the proposed location of this terminal is in a prime location in the downtown landscape. By agreeing to make this commitment of downtown land, the city would give up certain opportunities for economic development in favor of others that tie into the regional public transit system. To make this type of economic development possible, the city will need continuing public investment. Therefore, the City of New Britain must make its support for the proposed busway contingent upon a continuing investment by the state in our city's downtown, including:

(a) Funding or financial assistance to insure that the downtown station site is further enhanced by co-development of sufficient magnitude appropriate to its location and importance to downtown;
(b) Funding for transit-oriented planning and development and land use planning in the vicinity of the downtown terminal and the other New Britain stations; 10
(c) Funding for street and infrastructure improvements in the downtown area;
(d) Funding for pedestrian walkways, public art and aesthetic improvements; 11
(e) Completion of the final Government Center building;
(f) Funding for a platform over Rt. 9;
(g) Make downtown the preferred location for the proposed CCSU Sports facility;
(h) Funding for aggressive marketing of the New Britain's downtown; 6
(i) Continuing state investment in business start-ups and expansions;
(j) Money to gain site control of the Central Inn site;
(k) Money to gain site control of the former Stop&Shop Plaza;
(l) Money for sidewalk and infrastructure improvements in the Fairview Street neighborhood; 11
(m) Money for substantial housing improvements in the neighborhood between East Main and Smalley streets; 6
(n) Money to create proper buffers between the Fairview Street

Responses to Comments:

7. ConnDOT will coordinate with the City of New Britain on all of these issues during the design phase of the project.

8. Noise impacts have been evaluated on this project in the Draft EIS and were re-evaluated in the Final EIS. Noise abatement will be considered at all locations listed in Sections 3.1 and 4.1.

9. See EPA Response #4.

10. See EPA Response #6.

While ConnDOT agrees with the benefit of TOD, there is no existing mechanism for ConnDOT to provide financial assistance in this regard.

11. ConnDOT will provide the necessary pedestrian improvements in the immediate vicinity of stations to encourage pedestrian use of the busway. Public art and aesthetic improvements may also be elements within stations to increase public acceptance of the busway.

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neighborhood (including Dwight Street) and the Guida's facilities; | 6

(c) Money for alterations to East Street near CCSU to make it more pedestrian-friendly. | 11

5. The City of New Britain must also make its support for the proposed busway contingent upon the state:

(a) Constructing a multi-use path alongside the busway route from the downtown New Britain terminal into at least Newington. | 12

(b) Ensuring that the Cedar Street station can be moved and integrated into the new CCSU development to the south of Cedar Street. | 13

6. The City of New Britain concludes that a public transit system traveling through our city, with a number of stations, including a downtown terminal, would be a positive development. The busway system planned by the state generally meets the public transit needs that exist, and the City of New Britain, therefore, agrees that the proposed busway should extend to a terminal in New Britain, with one or more other stations in the city. Of the different routes noted in paragraph #2, above, the City of New Britain rejects Route #2, outright, and hereby approves of Route # 1 as the route to be chosen by the state. | 1

Alderman Arthur Hedgott
Chair, Busway Committee

Responses to Comments:

12. See EPA Response #6.

13. See Response #2 to CCSU.

05/15/01 08:26 ☎860 594 3028 CT DOT NE 2 002/005

TOWN OF NEWINGTON

Town Hall • 131 Cedar Street, Newington, Connecticut 06111
Central Telephone (860) 665-8500 665-8575
Department Telephone (860) 665-8577
Department Fax No. (860)

OFFICE OF THE TOWN PLAN AND ZONING

May 10, 2001

RECEIVED
ENVIRONMENTAL PLANNING DIVISION

Mr. Edgar T. Hurle
Director of Environmental Planning
Connecticut Department of Transportation
2800 Berlin Turnpike
P.O. Box 317546
Newington CT 06131-7546

Re: **STATEMENT OF SUPPORT: NEW BRITAIN-HARTFORD BUSWAY**
Dear Mr. Hurle:

At Newington Town Plan and Zoning Commission meeting, May 9, 2001, the following statement of support for the proposed New Britain-Hartford Busway project was endorsed. Please accept the following statement as part of ConnDOT's public comments on the Environmental Impact Statement and Section 4 (f) Evaluation.

The Newington Town Plan and Zoning Commission support the proposed New Britain-Hartford Busway. The Commission finds that this proposal is consistent with the Newington 1995-2005 **Plan of Conservation and Development**, adopted September 11, 1996.

First, the busway proposal would further the Town Plan's Transportation Component's **Alternate Modes of Transportation Policy and Action Strategy** which state:

POLICY: **Promote non passenger vehicle modes of transportation that are appropriate and practical within a suburban community.**

STRATEGY: **In conjunction with the development of a master plan for the 291 land along the Newington/New Britain townline consider the long range reuse of the rail line through this property as a transportation resource which provides access to adjacent urban centers.** 1

Second, the proposed multi use trail should be constructed as a busway improvement. This trail would run parallel to the busway from the East Street Station in New Britain to Newington, Junction. This proposal is also consistent with the Plan of Development's support for safe bicycle travel and with the CRCOG Bicycle Plan, April 2000, 1.1 Regional Greenway System. 2

Third, complimentary **Plan of Development** Future Land Use Component strategy which relates to the proposed Cedar Street Station and is compatible with the concept of Transit Oriented Development around bus stations states: 3

Responses to Comments:

1. Concur. The busway will greatly enhance alternative modes within Newington.

2. See EPA Response #4.

3. See EPA Response #6.

Third, complimentary Plan of Development Future Land Use Component strategy which relates to the proposed Cedar Street Station and is compatible with the concept of Transit Oriented Development around bus stations states:

STRATEGY: Create an Interchange design district zone for the Cedar/Fenn area that would permit by Special Exception highway oriented uses and commercial uses with regional markets. 3

STATEMENT OF ISSUE TO ADDRESS

The Draft Environmental Impact Statement proposes that the station located behind Stop and Shop be considered an interim station until the area south of Cedar Street, land now owned by CCSU, future development is determined. The exception to the interim station scenario would be the full and larger development of the station behind Stop and Shop as the "gateway terminal" in the event the City of New Britain does not support a station in their downtown. (Alignment Option No. 2)

Given the recognized development potential of the Cedar/Fenn intersection as well as the CCSU property the Newington TPZ recommends that the following issues be considered and addressed by ConnDOT's Environmental Planning Division:

1. Traffic impacts on Fenn Road for either the interim and full built stations needs to be clearly stated. What effects on LOS (level of service) might result from added busway generated trips?

2. How will added trips on Fenn Road effect the operation of existing traffic signals at Holly Drive and Stop and Shop site drive? At PM peak hour the traffic back up between Cedar Street and these signals is heavy. What is the effect of this heavy traffic on left turn exiting vehicles from the busway station drive onto Fenn Road, will sufficient gaps be available to let these vehicles safely turn onto Fenn Road? 4

3. Another traffic capacity/safety issue occurs at the intersection of Cedar, Fenn and Route 9 off ramp. The off ramp traffic now backs up onto Route 9 during peak hour when students are arriving for CCSU. Will the additional trips generated by busway station, either behind Stop and Shop or south of Cedar Street, aggravate this poor situation?

4. How will the driveway from Fenn Road into the terminal behind Stop and Shop be handled? Will the ConnDOT acquire a strip of land in fee simple as well as the station parking area from property owner? This might constitute a property subdivision. Will the State claim exemption or will zoning and subdivision regulations be followed? How will Newington's Inland Wetlands permits be handled? The proposed location will certainly impact the watercourse/wetland buffer in this area. How will environmental remediation of soil and ground water be treated? 5 6

5. What longer range development opportunities will be considered as a result of the access drive/bus terminal behind Stop and Shop? For example, if this drive is constructed as a public road then new accessible frontage is created for the Koczera property. ConnDOT should not impose a non access line along this roadway frontage for either Koczera or the property to the north, owned by Hayes-Kaufman. Will utilities be installed in this road right of way? Consider that future development that might benefit from the provision of water, sewer, gas, electric, etc. 7

6. What provisions should be given to the reuse of the interim busway terminal/parking lot? Could this become a future parking area for the reuse of the National Welding site/building? What needs to be done to insure that the reuse of the interim busway terminal/parking lot 8

Responses to Comments:

4. Under the recommended action there is no appreciable change in overall delay or level of service at these intersections.

5. ConnDOT is not under the jurisdiction of local zoning regulations.

6. All necessary environmental permits will be obtained from Federal and State agencies. Regarding wetland impacts, ConnDOT will obtain permits from DEP, as well as, the US Army Corps of Engineers, as required under Section 404 of the Clean Water Act. Hazardous materials will be remediated as per ConnDOT policy, DPH regulations, and OSHA and RCRA requirements.

7. The proposal is conceptual in nature at this time. During the design and rights of way phases, as the busway and station layouts are refined and detailed information is available such issues can be addressed.

8. See Response #2 to CCSU, and Response #7 above.

can legally be converted back into private ownership for a development site that will generate business and taxes? | 8

7. What if anything should ConnDOT and/or CCSU be doing to make sure the Ciaffaglione and L & L Realty Corp. properties do not have a negative impact on the busway and future development potential of property south of Cedar Street? | 9

8. Is it really practical to except CCSU students to walk to campus from a station, either behind Stop and Shop or south of Cedar Street? Both locations should be supported with short run campus "feeder vans". Maximum walking distance under good conditions, i.e. weather, safety, daylight, is less than a half mile and both station locations appear to exceed this standard. | 10

9. The residents in the Summit Street and Chapman Street neighborhood will be sensitive to noise generated by buses. Project related noise in this area is projected to be 54dba. While this level may not exceed the "severe impact" threshold it will result in an impact range that should be monitored to determine if mitigation measures, such as a noise barrier, would lower buses dba to achieve a no impact range for this neighborhood. | 11

10. The Environmental Impact Statement's Visual Impact assessment correctly cites the opportunities along the corridor to clean up poorly maintained areas. Within Newington the area south of Newington Junction near Summit Street and Willard Avenue bridge are in need of clean up now. The Study only addresses visual physical features such as landscaping and station architecture along the busway corridor. As a host community, most important to Newington will be the sustained commitment to busway maintenance for litter control, snow plowing, sand sweeping etc. that will be necessary for an attractive public facility to succeed. | 12 | 13

11. The Town of Newington is user and supporter of alternative fuel vehicles. Presently the Town operates 20 natural gas cars. The proposed air quality mitigation measure which makes a commitment to examine alternative fuel types and to purchase alternative fuel buses as practicable is commendable. | 14

Thank you for the opportunity to comment on this important project.

Sincerely,

Dominic Pane

Dominic Pane
TPZ Chairman

Cc: Newington Town Council
Keith Chapman, Town Manager
Capitol Region Council of Governments.

ss

Responses to Comments:

9. ConnDOT can respond as part of the State Traffic Commission's permitting process to any proposed development, if required.

10. ConnDOT will coordinate with CCSU staff and students to ensure that adequate access is provided for CCSU students to the busway stations. CCSU currently offers campus shuttles to the Stop and Shop supermarket next to the Cedar Street Station, so it may be feasible to provide similar service to the busway station. Public feeder service may also be appropriate. These options will be given high priority during the service design process.

11. This area was re-studied for its noise impacts in this Final EIS, at the request of citizens in the area. Section 3.1 discusses these impacts further.

12. Concur. Landscaping, bridge treatments, and station architecture are emphasized to improve the appearance of the area south of Newington Junction.

13. ConnDOT, through the mechanism of its choosing, will be responsible for maintenance of busway facilities. See Section 2.2.8 for more information.

14. See EPA Response #4.

6.4.5 Written Business Letters

- Aetna
- Peter Pan Bus Lines
- Stop & Shop Supermarkets

Aetna

151 Farmington Avenue
Hartford, CT 06156

Leonard R. Revoir
Aetna Services, RS51
(860) 273-6625
FAX: (860) 273-4002

April 9, 2001

RECEIVED
APR 18 2001
ENVIRONMENTAL PLANNING DIVISION

Mr. Edgar Hurle
Director of Environmental Planning
Connecticut Department of Transportation
Environmental Planning Division
Room 2159 (NE2)
P.O. Box 317546
Newington, CT 06131-7546

Re: DOT Bus-way Proposal

Mr. Hurle,

These comments are submitted on behalf of Aetna Inc. and support the concept of the proposed New Britain-Hartford Bus-way. As we understand the proposal a Bus Rapid Transit facility will be created along 9.4 miles of inactive and active rail corridors. The facility would provide an exclusive bus only roadway with up to 12 Bus-way stations, one of which would be located in close proximity to Aetna's corporate headquarters in Hartford.

Aetna applauds the concept behind the Bus-way to encourage the use of alternate means of transportation. Since the Bus-way will provide Aetna employees a viable alternative to automobile travel, we support the proposal. However, the suggested placement of the Park Street Station is not, in our judgment, the optimal placement of that station. 1

In view of that, we would suggest that the DOT consider the possibility the Bus-way station within the Aetna parking garage. In order to accommodate this proposed alternative, and the DOT planned timetable, Aetna would be required to demolish the existing parking garage and build a new garage that would meet both our needs and the needs of the Bus-way. This would also require us to accelerate by several years the planned replacement of our existing garage. However, we believe this proposal would better serve the people who would use the Bus-way to access their employer. I have attached an architectural rendering of our suggested alternative and would be very pleased to meet with the Department to discuss this plan. 2

Very truly yours,

Len Revoir

Responses to Comments:

1. The station that is located in the immediate vicinity of Aetna, and the one that they have expressed interest in, is the Sigourney Street Station, not the Park Street Station.

2. The Sigourney Street Station has been modified greatly to reflect the opportunity that Aetna has offered in accelerating the replacement of their parking structure. The revised station (described in Section 2.4.10) is closer to the Aetna corporate campus and Sigourney Street. This change helps address other comments raised by the Asylum Hill neighborhood and City of Hartford staff.

Peter Pan Bus Lines, Inc.

The People Professionals

CORPORATE HEADQUARTERS
1776 Main Street, P.O. Box 1776 • Springfield, MA 01102-1776
Telephone: 413-781-2900 • Fax 413-746-8671
Internet: www.peterpan-bus.com

May 10, 2001

RECEIVED
MAY 14 2001
ENVIRONMENTAL PLANNING DIVISION

Sandra Bartenstein, Transportation Planner
Connecticut Department of Transportation
2800 Berlin Turnpike
P.O. Box 317546
Newington, CT 06131-7546

RE: NEW BRITAIN – HARTFORD BUSWAY PROJECT

Dear Ms. Bartenstein:

I am writing to follow up on the public meeting we attended and our brief conversation regarding the above-captioned project.

We applaud the initiative of ConnDOT to develop this type of project. It is encouraging to see a busway project undertaken, which we believe is a much more flexible and cost-effective solution than fixed rail, in the New Britain-Hartford corridor.

As I mentioned to you, Peter Pan Bus Lines and Greyhound Lines are very interested in utilizing the facility when it is available for our scheduled public transit service between these communities. The Peter Pan/Greyhound pool service operates 14 trips per day between New Britain and Hartford as part of our Hartford-New York City route. We strongly feel our passengers will greatly benefit from the time savings that will be realized from the busway. We consider our service to be a key part of the public transportation network serving Connecticut, in part operated with coaches owned by the Greater Hartford Transit District and leased to Peter Pan. Our companies and our passengers are taxpayers, and we look forward to utilizing this publicly funded facility to improve public transit services. With our vehicles and passengers on the busway, the performance measurements of the busway will clearly improve in terms of number of passengers served and cost per passenger. 1

Responses to Comments:

1. Refer to Response #6 to Connecticut Office of Policy and Management.

alternative?" In the Capitol Region there is no convenient alternative to the single-passenger automobile. In southern Connecticut, by contrast, where there is a commuter rail alternative, the Connecticut Coastal Coalition has successfully demanded better state support for transit. And Fairfield County legislators have fought hard and successfully in the General Assembly for legislation setting reduced congestion targets on I-95 for ConnDOT.

Present travel habits were not formed in a vacuum, nor were they inevitable. They are the result of government policy over a period of years. Other cities, principally outside the United States, have developed in different ways, although some U.S. Cities have made such conscious choices as well. Most notable is Portland, Oregon, which has made a concerted effort to shift priorities away from automobiles; 25 years into that effort, it is one of the most successful and rapidly-growing metropolitan areas in the country. In Ottawa, Canada, 65% of the downtown workforce rides a comfortable, convenient and efficient bus system to work – the result of 30 years of explicit prioritization: pedestrians first, bicycles second, transit third, automobiles last. In Paris, roads and sidewalks occupy 87 square kilometers, whereas in Los Angeles, with an almost identical population, the number is 1201 square kilometers. Houston residents consume six times more gasoline per person than London residents, and eight times more than Amsterdam residents.

As Roy Kienitz, the Executive Director of the Surface Transportation Policy Project said in Hartford last June, "If you build roads for 40 years, you get driving; if you build something else for 40 years, you get something else." Unfortunately, the Hartford West MIS planners instead assumed that escalating vehicle usage, like the rain, is inevitable, and that they are merely passive responders to it. No real policy alternative to the automobile was developed and put forth for discussion.

4. The Use of Computer Models. Some comments on the use of computer models used so extensively in the Hartford West MIS are essential to a thorough discussion of the methodology of the study. CORFLO, a network simulation model developed under the sponsorship of the Federal Highway Administration (FHWA), was used to approximate the movement of individual vehicles in a single model package for the overall network of highways and arterials. FRESIM, also a simulation model, was used for a more detailed analysis of the Interstate 84 mainline and ramps only. ALL ABOARD! is not qualified to comment on the effectiveness or accuracy of these models, and as of this writing has no reason to believe they are not useful and correct.

ALL ABOARD! does, however, have some general comments on ConnDOT's statewide travel demand model, which was used

> to derive the the basic relationships with which to calculate future traffic performance. The model is a TRANPLAN-based analytical tool that applies the classic four-step modeling process: trip generation, trip distribution, mode choice, and traffic assignment. Trip generation is the process by which fundamental demographic characteristics ... are used to derive the total travel demand that will result in a given transportation analysis zone.

These most basic assumptions from which travel demand is derived -- such as population and employment -- will drive all subsequent analysis, will determine the ultimate "need" for transportation "improvements", and will heavily influence the final recommendations. These

going-in assumptions are at best educated guesses; they can be tweaked and jiggled to push the results in a desired direction. If they are off base, then the computer model is little more than an expensive and sophisticated example of "garbage in-garbage out".

For example, who would have guessed in 1988 that Connecticut would experience four continuous years of population decline and job loss between 1990 and 1994? Similarly, there is considerable evidence that car travel growth has slowed dramatically in the 1990's for much of the U.S., the first plateau since World War II – and despite the drop in gasoline prices to the lowest level since 1920. The USDOT recently released its 1997 "Condition and Performance Report", which provides information on transit, highway and bridge conditions, as well as performance and investment needs. Among other major findings, state and local officials have observed a reduction in demand for highway travel and an increase in demand for transit use in recent years, a trend it expects to continue through 2015. Do the assumptions of the ConnDOT's travel demand model take this recent information into account?

ALL ABOARD! does not have access to the assumptions that went into the ConnDOT travel demand model. It can only observe that the population and employment projections that emerged seemed startlingly high. Accordingly, the projected 2020 peak-hour traffic flows, traffic volume profiles, levels of service, speeds, vehicle miles traveled, etc. all demonstrate a dramatic deterioration in the performance of the present system -- to the point of gridlock -- and thus justify major "improvements" to head off this catastrophe.

To evaluate the relative costs and benefits of the various Reasonable Alternative Packages developed during the study, the FHWA's Surface Transportation Efficiency Analysis Methodology (STEAM) was used; any project scoring over 1.0 is judged to be economically viable. Using this methodology, the New Britain-Hartford busway scored as the most economic alternative at 1.48, far above the other alternatives, all of which fell below 1.0. Interestingly, the highway reconstruction package that was rated (RAP 3 without the Downtown component) scored only .64. Nonetheless it became the final recommendation for the highway component of the package, at 62% of the cost of the total package.

USDOT's "Condition and Performance Report" cited above is a major departure from previous editions due to data and methodological improvements. In measuring traffic volumes and highway performance, for example, the report now accounts for the effects of adding new lane capacity on creating new travel demand, i.e., induced traffic. And estimates of average annual investment requirements for highways, bridges and transit are now based on cost/benefit analyses rather than being solely driven by engineering considerations. Have these analytical innovations been accounted for in the STEAM analysis? It was difficult to know from the discussion in Technical Report #3, but one suspects not in view of this statement from Technical Report #3:

> Although this analysis shows the most economical project, it is important to note that these values do not include environmental or social impacts. This analysis is meant to be a tool in the decisionmaking process rather than a means of making the final project implementation decision. Such community impacts must be taken into consideration by the decisionmaking body, along with the economic impacts summarized here.

In the end, technical analysis is only one input into the final decision regarding transportation improvements in the Hartford West Corridor. The ultimate decision is a policy decision that must be driven by the values of the policy makers.

III. PUBLIC COMMUNICATION AND INPUT

Despite the trumpeted public outreach effort, the public participation in the Hartford West Major Investment Study has been inadequate at best. The written materials made available to the public are of only two types, neither of which provides information on which a layman could form an educated opinion. And the public presentations left much to be desired.

A. THE NEWSLETTER

The "Hartford West MIS Newsline", of which there have been three issues over an 18-month period, is so brief and general as to be of little assistance in understanding the issues and the recommendations emerging from the study. The latest issue of the newsletter touts the busway proposal for four of its six pages, including photographs of the Ottawa system, as though it were the principal component of the recommendations. Capital and operating costs are given only for this recommendation, and then only to put a rail system in the same corridor in an unfavorable light. The highway-related changes, which constitute 62% of the cost of the overall package, are described in less than half a page, and no costs for them are given.

B. THE TECHNICAL REPORTS

The three technical reports, by comparison, are so long, detailed, technical and jargon-filled that no layman could realistically hope to plow through and understand them, particularly in the limited comment time given. And the executive summaries that might have brought an organized overview, a statement of fiscal impact and a plain English summary to the project, are little more than condensed listings and repeating of the rest of the volumes.

The Executive Summary for Technical Report #3, for example, which contains the recommendations of the "hybrid package", does not include the most obvious and essential element of an executive summary – a simple budget that shows the costs of the overall package and its components in one place where it is possible to see the bottom line. In fact <u>nowhere</u> in the Technical Report #3 does such a budget appear. The Executive Summary does include, however, several pages of highly-detailed tables comparing capital and operating costs of all the alternatives, including those not selected – a level of detail highly inappropriate in an executive summary that should have been confined in any case to two or three pages rather than extending to 18 pages.

Even given their many deficiencies, the technical reports could have been made readily available to the public. They were not. One copy was provided to each TAC and PAC member, and one copy was made available in each local public library – an arrangement useful only to those who could spend hours there poring over them. The executive summaries were not even made available separately. Nor was any means advertised for the public to obtain copies of these materials. Undoubtedly a determined citizen could have gotten access to this information – even had it mailed. But the system adopted did not make it easy.

C. PUBLIC PRESENTATIONS

The public presentations were equally baffling to the layman. At these meetings numerous very technical and handsome color charts, maps and tables were displayed on mounted boards and by overhead projection slides. For example an exhibit labeled "Screenline Volume Profiles, A.M. Peak Period", with four bar graphs labeled "Screenline 1", "Screenline 2", "Screenline 3" and "Screenline 4" is virtually incomprehensible without detailed explication to a layman seeing it for the first time. Similarly, "Performance Measures - I-84 Westbound A.M.Peak Hour", a table combined with a map comparing 1995 and 2020 traffic volumes, levels of service and mainline speed, is an economical and clever way to illustrate important data, but only to those already familiar with the concepts and the presentation devices used. This kind of data overkill, as well as the jargon and acronyms, made it difficult to know what the relevant questions were. Most members of the audience could only ask about the direct impact of a specific issue on their home or street; a meaningful layman's evaluation of public policy was virtually impossible.

The turnouts at the official Public Information Meetings were amazingly small given the scale and impact of the proposed changes; one wonders what methods were used to publicize these meetings. It was primarily the special meetings requested by neighborhood groups and publicized by them that produced large and informed audiences. Even at these meetings – and despite the considerable verbal skill and willingness of the consultant to take all questions – the frustration of people trying to see the forest obscured by the trees was evident.

Yes, transportation planning is technical and complicated. For that very reason special efforts at public communication are needed. On that score the Hartford West MIS – whether by accident or by design – is resoundingly deficient.

IV. ENVIRONMENTAL JUSTICE

In April of 1997 USDOT released its Order on Environmental Justice, which provides some guidelines for transportation projects in complying with Title VI of the Civil Rights Act of 1964. Technical Report #1 discusses environmental justice briefly in its introduction, citing federal Executive Order 12898 signed by President Clinton in February of 1994, which calls for methods and techniques to identify, measure, and resolve disproportionately high and adverse, disparate impacts resulting from transportation projects on minority and low-income populations. This section states that the Hartford West MIS will employ technical analyses, public outreach and consultive decisionmaking to achieve this goal. It further says that "This technical report sets the stage for (a) full and complete examination (of) Environmental Justice-related issues," and then lists nine such issues, including, for example, "patterns of existing and future land use" and "access to minority employment opportunities."

Perhaps "the stage has been set", but the term "environmental justice" is not mentioned again in any of the three technical reports. No "full and complete examination" is anywhere in evidence as part of the consultant's work, nor is it clear what ConnDOT's future intentions are in carrying out this responsibility. It seems that any evaluation of transportation alternatives against standards of environmental justice will have to be done by the towns themselves, and

particularly by the City of Hartford, which has the largest stake in this issue, for the recommendations of Hartford West MIS clearly perpetuate the present system of support for middle-income drivers.

V. CONCLUSIONS AND RECOMMENDATIONS

A. FOLD THE HARTFORD WEST STUDY INTO REGIONAL TRANSIT PLANNING.

The entire Hartford West Major Investment Study is deeply flawed, both in its methodology and its recommendations, as documented in this report. Its failure in the beginning to articulate, discuss widely, and define precisely the problems it is addressing draws into question all the subsequent work of the study. Its assumptions are questionable and its technical analysis suspect.

Furthermore, since the study began almost two years ago, circumstances in the Capitol Region have changed dramatically. These changes, to mention only the most obvious, include: 1) the initiation and conclusion of a regional economic development effort now into the implementation stage, 2) the completion of a Downtown Economic and Urban Design Strategy that proposes a Downtown public transit system, 3) the completion as early as 2001 of a 68,000-seat NFL football stadium in Downtown Hartford with attendant pressures on the transportation system, and 4) the increasing prominence of "smart growth" agendas, with their emphasis on public transit and growth management, at both the national level -- where the administration is proposing both a "Better America Bonds" program and vastly increased funding for open space -- and at the regional level -- where CRCOG has co-sponsored a conference on this subject and has put such initiatives high on its legislative agenda.

In light of the above, ALL ABOARD! recommends that the Hartford West MIS be abandoned as a separate planning effort. Further planning for the Hartford West corridor should be folded into the CRCOG Regional Transit Plan now under way. Whatever highway improvements might be needed in the Hartford West corridor should emerge from that more comprehensive plan, and thereby avoid the danger of planning facilities that compete with or are incompatible with a more comprehensive plan.

B. DON'T REJECT LIGHT RAIL YET.

It is too early in the regional transit planning process to reject light rail as the more appropriate transit alternative, particularly in view of the fact that both the capital cost and the operating cost of the proposed Hartford-New Britain busway are only slightly higher than those projected not long ago for the Griffin Line. The "new start" designation gained by the Griffin Line and still available to the Capitol Region should be pursued and utilized to save years of waiting in line for federal funds.

C. CHANGE THE TRANSPORTATION PARADIGM.

The Capitol Region must make a threshold decision to change the transportation paradigm within its borders. Planning should begin with policy objectives that are precise, prioritized, and the product of extensive public discussion. ALL ABOARD! recommends that transportation goals be set to reduce the use of the single-passenger automobile by target

amounts within specified time frames, to reduce sprawl on the fringes of the region, and to encourage compact growth and reinvestment in the center city and town centers. Unlike many southern and western cities which never had a real urban core, the Capitol Region already has a historic downtown, the historic street patterns, and the density of population that they strive to create their sprawl. Rather than continue to erode this infrastructure pattern whose value is now beginning to be appreciated again, transportation investments should be capitalizing on and reinforcing it as the asset that it is.

Further, transportation investments of taxpayer dollars should be prioritized, with an explicit commitment to pedestrians first, bicycles second, transit third, and automobiles last -- much as Portland, Ottawa, and other successful regions have done. Reducing traffic congestion should not be a high priority, let alone a principal goal: rather it should be a byproduct of a mode shift to public transit over the long run. Beyond that, it should be tolerated as the price of a healthy region and a disincentive to sprawl. Safety concerns should be addressed in minimal changes only to the highway system, and by lowering the design speed of roads everywhere.

Future highway investments should be limited to maintenance of the present system, much as Washington State and Vermont have done. This "level of maintenance" concept embodies the idea that departments of transportation do not have and never will have the funds to bring their roads up to traditional Green Book or other similar road standards. In Washington State this has meant that about two-thirds of the state roads are merely maintained as they are -- paved once in a while, but no attempt made to improve clear zones, reconstruct or rehabilitate, invest in drainage, or any other major maintenance or capital investment. These policies recognize the economic limits of highways, and reallocate scarce transportation resources to higher-return investments in mass transit.

This recommendation recognizes the enormous power of transportation investments in shaping land use and thus the economic future of the Capitol Region. It recognizes that all planning is value-driven and that the first task of any planner is to elicit and achieve public consensus around the values that will drive the planning, and then to shape the policy accordingly.

D. INCLUDE ENVIRONMENTAL JUSTICE.

Environmental justice should be made an explicit goal for transportation planning in the Capitol Region. Targeting more transportation dollars towards the urban core and fewer to suburban sprawl in itself serves this goal. Targeting more transportation dollars towards mass transit and fewer to highway reconstruction serves this goal. And planning transit around the needs of the car-less, particularly linking poorer communities with major employment sites, serves this goal. Environmental justice is easier to achieve than previously, because it is so readily compatible with the recent desire of many suburbs to have fewer highways and automobiles in their environs and greater open space preservation.

E. REORGANIZE TRANSPORTATION PLANNING.

Transportation planning must involve elected officials much more deeply, particularly at the beginning, than has been done with the Hartford West MIS. Planners, technicians and engineers were asked to do their work with far too little direction from policy makers, and as

a result ended up inadvertently making policy themselves. The Technical Advisory Committee, which was otherwise competent, attentive and well intentioned, found itself making policy frequently. Far too little time was spent articulating what was at stake, identifying the values that should govern the effort, and prioritizing goals in a meaningful way.

The City of Hartford in particular must participate more meaningfully at the policy level. Its elected officials have been virtually absent from this enormous undertaking. In light of the enormous investment and impact at stake here, the leaders of the central city, where so much of the transportation system is focused, must become more conversant with transportation issues and participate more fully in transportation planning – and they have a special responsibility to educate their colleagues and their constituents.

Much greater involvement by community organizations and stakeholder groups generally should be built into the planning process than was done with the Hartford West MIS. Before the clock begins to tick on expensive technical consultants, a thorough and inclusive public discussion of the values of the community, and the goals that derive from them should be held. It is this program, then that will guide consultants and technical staff, probably at much lower cost in the long run. The process being used by CRCOG for its regional transit plan is a good model for the future.

ALL ABOARD! has every confidence that a truly representative and responsive transportation planning process – one with a strong public outreach and education effort – will resoundingly endorse this kind of sea change, because it is what residents involved in the Hartford West effort have said they want. To its credit, Technical Report #3 makes this abundantly clear:

> It is clear that the corridor communities that have participated in the Hartford West MIS study want a new future for the I-84 corridor. Almost without exception they have sought transportation investments that do not rely on the single-occupant automobile for success. They have asked ConnDOT and CRCOG to make investments that encourage alternative forms of transportation whether light rail, commuter rail, or busway.

Despite this clear sentiment, the Hartford West MIS' final recommendations, while they include one element that addresses the expressed desires of the corridor communities – the New Britain-Hartford busway – still target the lion's share of the analysis, attention and funds to highway building. The Study has substantially failed to address what Capitol Region residents are saying they want.

F. TIE TRANSPORTATION MORE CLOSELY TO ECONOMIC DEVELOPMENT.

There is a pressing need to coordinate regional transportation planning much more closely with other planning efforts, particularly the MetroHartford Millennium economic development effort and the Economic and Urban Design Action plan for Downtown Hartford, both of which have named transportation as one of the major ingredients in creating a successful city and region. Nothing is more important than such a coordinated approach in ensuring the future economic success and global competitiveness of the Capitol Region. Business has to recognize this, led by the real estate industry, which is directly and immediately affected by

the presence or absence of coordinated planning. This point is illustrated most persuasively in "EMERGING TRENDS IN REAL ESTATE 1998, published by ERE Yarmouth/RERC, probably the most respected real estate forecast in the country – an annual report by real estate professionals for other real estate professionals. "EMERGING TRENDS" ranks various cities by their potential as real estate investment markets:

> The top six metro markets – led again by San Francisco, Seattle, and Boston – are all 24-hour powerhouses combining strong residential fundamentals in their urban cores with multidimensional environments, convenient retailing, relative safety, and mass-transportation alternatives to the car. New York vaults from twelfth place last year to fifth just behind Chicago....
>
> Clearly, many traditional U.S. cities are enjoying a renaissance, while newer Sunbelt suburban agglomerations – without true urban cores and with only minimal mass transportation capacity – are losing favor amidst a certain degree of land-use chaos. Sample the attitudes of suburbanites today and you'll find a growing number who think their lifestyle is becoming more difficult and less appealing. And for the first time they're beginning to consider alternatives.
>
> As we noted last year, the willy-nilly pace of suburban evolution has begun to hit the wall after more than 50 years, and investors must be more discerning about these markets whether in suburban agglomerations or ringing traditional cities. Despite the surge in suburban commercial growth over the past decade and today's strong market fundamentals, many suburbs are inherently more risky than CBDs. Unrestrained commercial development has shorn some formerly attractive suburbs of their exclusivity and quiet feel. Traffic congestion is strangling many "edge cities," which never adequately developed the amenities or infrastructure features of healthy urban cores and are struggling to manage growth. Some suburban residents grow increasingly exasperated about the time spent trapped in their cars. "Even on Saturdays it's getting impossible to go anywhere." Malls and office parks in congested areas feel the pinch.
>
> In reality, the most stable investment markets – the ones that have staying power and hold value – also have growth controls, either government-enacted or enforced by natural geographic boundaries. It's no coincidence that San Francisco, Seattle, and Boston are hemmed in by water; Chicago borders a huge lake, and Manhattan is an island. Developers reflexively loathe the regional growth boundaries set by Portland, Oregon, but admit the laws have led to a thriving downtown center as well as a healthy metropolitan area. On a more micro level, cities and suburbs that set aside parks and thoughtfully zone residential areas to integrate with commercial and retail districts are more likely to thrive over the long term than towns with "anything goes" zoning boards. Then there is the associated issue of mass transportation. Regions that ignore the need to provide alternatives to the automobile will become increasingly troubled, especially in their suburbs.

No more pointed or relevant commentary could be made for the Metro Hartford region. The Capitol Region can no longer afford to plan for transportation as if nothing else mattered.

ATTACHMENT B

Draft Final Technical Report

Regional Transit Strategy: Opportunities for Transit-Oriented Development In the Hartford Region

Prepared for

Capitol Region Council of Governments

Prepared by

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August 22, 2000

Introduction

The interrelationship between land use and transportation investments has long been recognized (if not well understood) by planners and policymakers. It is clear that land use patterns influence transit investment decisions – without threshold levels of development (both residential and employment-based), transit cannot be supported. Concentrated, compact development patterns within a region generate transit demand. Corridors with concentrations of both origins and destinations are particularly conducive to transit. Research confirms that increased densities within walking distance of transit, combined with a mix of uses and pedestrian friendly urban design, further increase demand for transit.[1]

While land use patterns clearly influence demand for transit, a transit investment can also influence land use patterns, particularly if accompanied by supportive public policies. Such policies include, for example, zoning to allow higher density development in the corridors and near the stations, and the institution of parking policies to discourage automobile use. Studies of rail investments in the U. S. have demonstrated that these transit investments, accompanied by favorable public policies and market conditions, have led to increased property values (both residential and non-residential), as well as an increase in the intensity of development, and can accelerate the timing of development.[2,3] However, new transit service in a corridor may not automatically generate transit-supportive development by itself, particularly in no growth or slow growth areas. Public investment may be necessary to act as a catalyst for private development in such instances.

The interactions between land use and transit are influenced by numerous external factors, such as general economic conditions, public development and land use policies, attitudes toward transit, and political and business leadership. As the Hartford region considers investments in major new transit facilities and services, it is important to both explore opportunities to support transit by encouraging supportive land uses in transit corridors, and evaluate general conditions in the Hartford region that will influence how transit will impact land development decisions. The fact that Hartford is an older city with higher densities in the urban core is one "built-in" land use characteristic that will help support new transit investments that serve the central city. Furthermore, the region is one of only a handful of communities across the country to receive a Transportation and Community Systems Preservation (TCSP) grant from the Federal Highway Administration to explore the potential for sustainable development policies in the urban, suburban and rural parts of the region. The TCSP project will work to encourage transit-friendly development in the region. Hartford's Regional Plan of Development also supports transit-oriented development policies, as does the Regional Transit Strategy. This technical

[1] For example, Pushkarev, B. and J. Zupan, *Public Transportation and Land Use Policy*, Bloomington, Indiana University Press, 1977; and Parsons, Brinckerhoff, Quade and Douglas, Inc., *Report 16 – Transit and Urban Form: Volume 1*, Transit Cooperative Research Program, National Academy Press, 1996.
[2] For example, Cervero, Robert, "Rail Transit and Joint Development: Land Market Impacts in Washington, D.C and Atlanta", *Journal of the American Planning Association*, 60, 1 (1993) 83-94; Cervero, R. *BART @ 20: Land Use and Development Impacts*. Institute of Urban and Regional Development, University of California at Berekely (July 1995); KPMG, *Fiscal Impacts of Metrorail on the Commonwealth of Virginia*, 1994.
[3] No similar studies have been done to evaluate these impacts for busways in the United States.

report will explore additional tools and policies that can encourage development patterns that can support transit in the Hartford region.

This report provides general background information about transit-oriented development and land use patterns. In addition, sensitivity analyses for four alternative future regional development patterns are described and then tested to identify the impact of each on transit ridership. Finally, the report includes general recommendations for how the Hartford region should proceed to encourage transit-supportive development patterns in conjunction with future transit investments.

Transit-Oriented Development

Transit-oriented development (TOD), most generally, refers to transit station area development focused toward the station area and away from roads and parking lots. The idea of TOD is to generate mixed-use, higher density development within walking distance of a transit station. This type of development encourages transit ridership by providing shopping, work, entertainment and living opportunities in close proximity to transit, thus reducing the need for auto ownership and usage.

"Six key characteristics typify transit-oriented development:

- *Compact Land Development.* The fronts of buildings come right up to the street, and parking is located on the side or rear, or there is no parking.
- *Mixed Use.* A variety and mix of activities near stations to promote vitality and create a sense of place.
- *Pedestrian Environment.* Attractive, pedestrian-friendly streets and buildings that are at a pedestrian scale and make people feel comfortable walking. Views into buildings, eyes on the street, help create a feeling of safety.
- *Public Amenities.* Awnings, shelters, benches, good lighting, and similar features that provide comfort and safety.
- *Parking Management.* Careful management of parking supply and demand can help encourage transit use and walking while limiting auto use. Some cities have gone so far as to establish parking fees…
- *Pedestrian and Bicycle Network.* A complete network of walking and biking paths. Places that allow for easy transfers between [modes]."[4]

Although the term TOD was coined within the past decade, it is not a new concept. Transit-oriented development has occurred since the advent of the streetcar in the 1800s. In fact, compact, mixed-used development was common along transit lines of the 1800s, prior to the advent of the automobile, since access to station areas generally was limited to walking. Only with the advent of the automobile have land use patterns shifted away from the compact developments that support transit to the more sprawled, auto-dependent uses common today.

[4] City of Seattle Strategic Planing Office, *Background Report for Light Rail Station Area Planning in Seattle: Existing Conditions and Future Prospects for Transit-Oriented Development*, January 1999.

Today, the TOD concept is an integral part of nearly every new fixed-guideway transit project in the United States. The majority of successful TODs in the United States, as well as extensive research literature, focus on TOD around light rail and heavy rail transit stations. The reason for this is simple. Pittsburgh, Pennsylvania has the only fixed guideway busway of any length in the United States, and limited efforts have been put into encouraging TOD in the Pittsburgh corridor. The busway system in Ottawa, Ontario provides a much more promising example of the type of TOD that can be sustained by a busway.[5] The experience of several North American cities with TODs will be discussed in more detail in a later section of this chapter.

Reasons to Pursue Transit-Oriented Development

Transit-oriented development is not simply a fad pursued by transit-agencies. There are, in fact, several good reasons why transit agencies, government agencies, and developers may wish to undertake transit-oriented development. Several goals that are supported by TOD are described below:

Increase ridership to support transit. A major goal of transit-oriented development is to provide a concentration of living, shopping and employment opportunities within walking distance of transit stations, so that people can easily use transit as an alternative to the automobile. Successful TODs should boost transit ridership, increase farebox revenues and reduce dependence on transit subsidies.

Improve environmental quality. Increased transit usage results in a reduction in auto vehicle trips. Fewer vehicles on the roadways translates into reduced congestion levels, reductions in vehicle emissions, and improved air quality.

Achieve sustainable development patterns. The goal of sustainable development became popular in the 1990s, as sprawl threatened to increase the costs of community services and infrastructure, lead to congestion and air quality problems, increase travel times, and generally reduce the quality of life in many urban areas. Sustainable development refers to development patterns that can be served by minimal investment to new infrastructure and services, while maintaining or improving the general quality of life for a region's residents. Transit-oriented development concentrates housing and commercial uses, and facilitates the concentration of services and infrastructure investments in smaller geographic areas. These development patterns can help focus economic growth, and can be part of an overall strategy to reinforce city and older town centers.

Broaden transit financing options. As the costs for fixed guideway transit systems continue to rise, transit agencies and state departments of transportation must explore all options for financing transit investments. The primary funding source for major new transit

[5] Government regulations unique to the provincial government of Ontario have been a major reason for the development patterns along the busway in Ottawa. Not all of the policies and tools used to encourage TOD development in this city are transferable to Hartford, but they do provide important guidance on the types of strategies that might be successful.

infrastructure investments is the Federal Transit Administration (FTA). The FTA has a rigorous transit "new starts" application process for all projects (new systems or expansions to existing systems) for which federal funding is sought. Applicants for new starts funding must demonstrate that they are pursuing efforts to encourage transit-supportive development, including transit-oriented development. The land use factors on which new starts applications are judged are listed in Table 1.

In addition, TOD is conducive to joint development projects, which can leverage public investment in transit with private investment. In some cases, private developers lease land owned by transit agencies, build commercial space, and contract with the transit agency to pay a percentage of rents or sales revenues to the transit agency. Transit development districts can be established and financed with tax increment financing. All of these financing strategies can enhance the success of a transit investment.

Characteristics of a Region that Support Transit-Oriented Development

Transit-oriented development does not occur simply because a fixed-guideway transit facility is built. A substantial body of research exists on the relationship between transit and land use, and the regional and corridor conditions or characteristics that are necessary to encourage and support transit-oriented development. A wide range of studies on the topic, starting in the 1970s and continuing through the 1990s,[6] all had a similar conclusion: transit-oriented development will only occur if supported by a number of local and regional conditions. These conditions, or characteristics, are discussed below:

Supportive market conditions. In order to channel new development into a transit corridor, a development market must exist at several levels. There needs to be economic growth at the regional level, leading to job creation, business investment in new facilities, and demand for new housing as population increases. In addition, the transit corridor must be competitive within the region. This means that the corridor must be attractive to developers in comparison to other areas of the region. Finally, station areas must have development potential. The station areas must be competitive with other sites within the corridor and region, and must have land available for development or redevelopment. Sites should be "development-ready", i.e., they should be free of major environmental contaminants, and should be in single ownership, or easily assembled into single ownership.

Regional commitment to transit. The idea of regional commitment to transit is multifaceted. At the broadest level, successful integration of a new fixed-guideway transit system into a region requires a long-range regional vision aimed at limiting sprawl, and focusing development into corridors well-served by the existing transportation system and the new transit investment. It also includes strong local and regional leadership

[6] For example, Knight, Robert L. and Lisa L. Trygg. *The Land Use Impacts of Rapid Transit: Implications of Recent Experience*, Urban Mass Transportation Administration, U.S. Department of Transportation, Washington, D.C., 1983; Cambridge Systematics, Cambridge, Inc., *Impact of Transit on Cities*, prepared for the Urban Mass Transportation Administration, 1983; Parsons, Brinckerhoff, Quade and Douglas, Inc., *Report 16 – Transit and Urban Form: Volume 1*, Transit Cooperative Research Program, National Academy Press, 1996.

Table 1
FTA New Starts
Land Use Factors

1. **Existing land use**
   - Existing station area development
   - Existing station area development character
   - Existing station area parking supply and existing regional parking policies
2. **Containment of sprawl**
   - Planned density and market trends for development within corridor and region
   - Growth management policies
3. **Transit-supportive corridor policies**
   - Plans and policies to increase station area development
   - Plans and policies to enhance transit-friendly character of station area development
   - Parking policies
4. **Supporting zoning regulations near transit stations**
   - Zoning ordinances that support increased development density in transit station areas
   - Zoning ordinances that enhance transit-oriented character of station area development
   - Zoning allowances for reduced parking and traffic mitigation
5. **Tools to implement land use policies**
   - Endorsement and participation of organizations in development and planning process
   - Tools and actions to promote transit-oriented development
   - Involvement of development community in supporting station area plans
   - Public involvement in corridor and station area planning
6. **Performance of land use policies**
   - Demonstrated cases of development affected by transit-oriented policies
   - Corridor development targets
   - Station area development proposals and status
7. **Other land use considerations**
   - Other circumstances, conditions, or constraints under which the transit agency operates which influence local and regional land use policies, plans and implementation.

(public and private sector), a well-respected transit agency, regional coordination and cooperation, a culture that supports transit, and a long-term commitment to investment in transit.

A regional vision must go beyond transportation to encompass economic growth, community preservation, environmental concerns, regional assets, and more. That is, the vision needs to be a comprehensive package that addresses all the strengths and weaknesses of the region, includes a long-range goal for regional development, and lays out an integrated strategy for achieving this goal. Transit should be a prominent piece of the strategy, but only one of many pieces.

The process of creating a regional vision can be used as a tool to foster a transit-supportive culture. A transit-supportive culture means that the population believes in the benefits of a multi-modal transit system, and is willing to utilize all modes (not just support certain modes as a transportation option for others.) In Seattle, the regional planning agency engaged in a multi-year public process called Visions 2020. The process identified several different potential future development patterns for the region, ranging from a center city focused development strategy to a sprawled pattern of development. The process included an evaluation of the transportation infrastructure that would be needed to support each potential development pattern. The process resulted in a vision for the future focused on center city development and development of regional centers. The resulting vision, included a strong emphasis on a multi-modal transportation system, including substantial investment in bus, light rail and commuter rail. Several of the transit investments necessary to support the vision are now undergoing implementation.

For transit to truly succeed, the regional commitment to transit must have widespread support at all levels of government (e.g., town, city, county, regional, state), as well as from a wide variety of stakeholders (e.g., the business community, the environmental community, social services providers, etc.). Regional coordination and cooperation are necessary to both support the transit investment, and to support land use policies that will channel development into corridors well-served by transit.

Strong and respected regional and local leadership also is necessary for a transit strategy aimed at encouraging TOD to succeed. Transit-supportive leadership must come from both the public and private sectors. Strong institutional support also is important to successful implementation of TODs. In addition, there must be proven, respected leadership at the transit agency charged with constructing and operating the transit investment. The public must trust that their investment will succeed and be maintained.

Finally, the regional commitment, both from the public sector and the private sector, must be long-term. TOD does not happen overnight. It requires continual commitment beginning early in the transit system planning stage and continuing through construction and system operation. Some development sites in a corridor might have immediate developer interest, while others will require substantial public investment in time or resources to help foster development interest. The process takes years, and success builds over time.

Regional support for TOD must be maintained through continued support from the regional leadership, and marketing of successes.

Supportive public policies and tools. Successful TOD can only be achieved if supported by public policies and tools aimed at channeling development into transit corridors. Table 2 describes policies and tools that have been implemented in other communities to encourage TOD. The table includes regulatory policies ranging from stringent regional growth boundaries (generally mandated at the state level) to local zoning and parking policies. Incentive-based policies include density bonuses, financial incentives, and public participation in development projects.

For the most part, communities that have adopted the most stringent policies, and the most comprehensive package of policies, have had the most success with TOD. However, it is important to keep in mind that the policies have not been implemented in a vacuum. They have succeeded when implemented in combination with a regional growth strategy (or vision), positive market conditions, regional support of transit, and local leadership. Policies and actions such as zoning for mixed use development, or offering financial incentives, will not be successful if the culture will not support transit-oriented development, or if sites for which these incentives are offered are not competitive within the regional real estate market. Policies that promote public investment in the corridors are often necessary to encourage private investment. For example, in Sacramento, all public office buildings must be built within walking distance of transit. Public investment can be an important indicator to the private sector that the government believes transit can support development, and is willing to support such belief with concrete investments. This type of public investment policy is particularly critical in areas that do not have strong market conditions to support TOD.

In communities where economic markets have been weak, policy makers have been more reluctant to adopt transit-supportive land use policies. They fear that the policies may be perceived as restrictive and, thus, discourage development. St. Louis is an example of a community that steered away from adopting transit-supportive land use policies due, in part, to a weak economy. There is no evidence to suggest that this fear is well-founded.

Experience Elsewhere

Numerous North American cities have invested in fixed guideway transit facilities during the past twenty-five years. The widely divergent experiences of these cities with TOD are instructive for illustrating how the regional characteristics described above affect successful efforts to undertake transit-oriented development. This section provides brief summaries of the TOD experiences of several U.S. and Canadian cities that have invested in fixed guideway (light rail and busway) transit systems.

Portland, Oregon.

Portland opened the first section of its MAX light rail system in 1984, and continues to add to the system today. Portland has had considerable success with TOD, including re

Table 2
Policies Used to Encourage Transit-Supportive Land Use

Policies/Actions
REGULATORY POLICIES
Zoning for Mixed -use Development – Revise zoning to allow a mix of commercial and residential uses at densities that support transit use. Mixed use development provides a mix of retail and service opportunities within walking distance of transit, thus reducing reliance on the private auto.
Increased Allowable Densities – Revise zoning to allow higher densities near transit stations. Higher densities can reduce walking distances between uses, provide for a better pedestrian environment, and increase transit ridership.
Urban Growth Boundaries – Urban growth boundaries have been established in some states to restrict growth outside urban areas. Planners establish boundaries that encompass enough vacant land to meet future development projections at higher densities than might occur without boundaries. Generally only effective in states that have statewide land use planning.
Restricted Expansion of Urban Services – Some communities have developed regulations to restrict the extension of urban services outside areas targeted for development.
Downzoning Outside Station Areas – In areas outside station areas, zoning is more restrictive. Densities and uses are restricted. This forces development into targeted corridors.
Parking Caps – These are regulations that limit the total number of parking spaces allowed within a specified area. They are currently in use in Portland (OR), Boston and San Francisco.
Increased Parking Rates – Parking fees are increased to discourage people from driving to work. Often short-term prices are reasonable to encourage shoppers, but long term parking prices are prohibitive to discourage commuters from driving.
Parking Lot Restrictions – Some communities have limited the number and type of parking lots allowed in areas served by transit. Surface lots are sometimes prohibited because they both encourage auto usage and result in a less dense, pedestrian unfriendly land use pattern.
Trip Reduction Ordinances – These are regulations that require employers above a certain size (usually 100+ employees) to reduce the number of workers driving to work in single occupant vehicles.
Transit Corridor Zoning Overlay District – A special zoning overlay district that allows for transit-oriented development, may allow higher densities, and may have maximum parking requirements or reduced minimum parking requirements.
Density and Parking Gradients – Zoning that allows for reduced parking requirements and higher densities as distance to transit facilities decreases.
INCENTIVE POLICIES
Transit Friendly Design Guidelines – Design guidelines that call for pedestrian facilities, as well as orientation of development toward transit stations and away from parking facilities.
Density/Height Bonuses – Zoning regulations that allow for developers who provide access

to transit to develop at higher densities.
Public Acquisition/ Assembly of Land – Public sector purchases land or assembles land around stations to make parcels more attractive and/or accessible for private development.
Land Write-Downs – Public sector provides land at a discount to developers.
Demolition/ Site Preparation Assistance – Public sector reduces site development costs to private developer by helping with site preparation.
Public Development – Many communities have spearheaded transit station developments by locating public facilities at transit stations. In Boston, the Registry of Motor Vehicles was located at a transit stop. In Portland, a convention center was built at a station. In San Diego, the transit agency built its headquarters in air rights over a transit line.
Public/Private Partnerships – Public sector agencies and private developers work together to develop sites around transit.
Transit Corridor Development Corporation – A special agency or development corporation is established within a transit corridor to assist with and promote transit supportive development.
Parking Credits – Parking requirements are reduced for developers who provide transit amenities or build transit-oriented developments.
Shared Use Parking – Zoning regulations are written to allow land uses that have different peak parking periods to share parking facilities. Also, nighttime uses are allowed to utilize commuter parking at night.
Transfer of Development Rights – A developer of a site not served by transit may choose to develop the site at densities less than that allowed by zoning, and may transfer or sell the "unbuilt" development potential to a site within close proximity to transit.
Tax Increment Financing – Taxes collected on the increased value of properties due to their proximity to transit are used to finance transit amenities.
Transportation Management Associations – A private sector organization established to help employers assist their employees find alternatives to single occupant vehicles for commuting.

tail and office development in the vicinity of downtown stations; a shopping center, a convention center, a sports arena and office development around the Lloyd Center and Coliseum stations, and planned shopping malls and housing at soon-to-be opened stations. The MAX system is frequently highlighted as the premier example of how to make TOD happen.

Several local and regional conditions have coalesced to encourage and support TOD in Portland. In 1979, the Oregon state legislature mandated that all urban areas in the state adopt an urban growth boundary. New development over the next few decades had to occur within the urban growth boundary, preserving agricultural uses outside the boundary. This mandate led to increased densities in the urban core, at levels supportive of transit. During the 1980s, Portland also adopted strong parking policies in the downtown, limiting the amount of new parking allowed, disallowing new surface lots, and encouraging the conversion of existing parking to other uses. Restrictions on parking discouraged people from driving single occupant vehicles to downtown, further encouraging transit usage.

Despite the urban growth boundary and supportive parking restrictions, transit-oriented development in Portland did not happen immediately. MAX opened in 1984, just as the region was entering a period of deep recession. The forestry and wood products industries, major sectors of the Oregon economy was particularly hard-hit by the recession, and very slow to recover. Weak development market conditions hindered transit-oriented development in the first few years of light rail operations. In fact, early transit-oriented development in Portland was not driven by private market conditions. Instead, the public sector (city and state) began the trend toward TOD in Portland by investing heavily in public facilities in the vicinity of the Lloyd Center and Coliseum stations. In this area, the public sector invested in a new convention center and a professional basketball arena, both with very limited parking.[7] A federal office building, state offices, and Port of Portland offices were also built at the Lloyd center station. These public investments demonstrated public commitment to and faith in the transit system as a viable transportation alternative to the automobile, and encouraged private sector investment, including a shopping mall and offices for a power company.

Three other factors have contributed significantly to the success of TOD in Portland. First, the public agencies involved in transit are well-respected. Tri-met is a well-run transit agency, and has developed a multi-modal, integrated system that provides reliable service to the region. Metro, the regional planning agency, is also a strong, respected player in transportation and land use planning. Second, Portland has a very transit-supportive culture. The region is located between the sprawling, congested San Francisco Bay area, and the fast-growing Seattle region. Many people from the Bay area, as well as Los Angeles and Seattle, have relocated to Portland to escape congestion and sprawl. Thus, the culture is supportive of policies that encourage compact growth and transit investment. Third, the region has adopted a long-term commitment to transit and transit-oriented development. Regional plans to concentrate development in transit corridors rather than invest in new highways have met with strong public support. A regional vision has been created, and planners and the public are committed to working toward the vision over time.

San Diego

The San Diego Trolley is a light rail system operating on two lines. The first line, which connects downtown San Diego to the Mexican border at Tijuana, opened in 1981. Both lines operate in abandoned freight rail rights-of-way. Additional light rail corridors are planned to open in the next ten years.

TOD in San Diego has met with mixed results. Factors that have hindered TOD include regional economic downturns accentuated by structural shifts in the defense industry and military downsizing. Also, the location of the transit facility in an old rail corridor means that the line runs through less affluent neighborhoods and industrial areas, which tend not to be competitive areas for new real estate development. Furthermore, the culture in southern California is one of dependence on the automobile, with sprawl prevalent, and

[7] Only 800 parking spaces were built with the convention center, and only 3,446 parking spaces were built to support the 20,000 seat Trailblazers Arena.

limited support for restrictive parking policies. Rising congestion levels may work to counter this resistance to the future.

Despite these characteristics that are not transit-supportive, San Diego has had some success with TOD due to some specific efforts by the public sector. When the first transit line was planned, the Metropolitan Transit Development Board (MTDB), the agency that operates the transit system, elected to build its new headquarters building in air rights above a major transit station. The building was financed in part by the County, which occupies a large portion of the ten-story building. MTDB receives an income stream from the joint development project. This major public initiative helped to convince private investors that the public sector was committed to and confident in fixed guideway transit, and a major new office building was constructed across the street from the the MTDB offices. Other public sector investments near stations include a convention center, an arena, and a stadium. Small privately funded mixed-use developments and child care facilities have been built in close proximity to other station sites.

Another factor that has helped encourage TOD in San Diego is the prestige of the transit agency itself. MTDB is nationally recognized as one of the best-managed transit agencies in the country. The agency provides strong, transit-supportive regional leadership.

Finally, land use policies are in place to encourage TOD. The regional growth management strategy limits growth to already urbanized areas. SANDAG, the regional planning agency, has adopted land use plans and growth strategies aimed at encouraging land use policies that support increased intensity of uses within walking distance of transit, and local government adoption of design guidelines conducive to TOD. MTDB produced a manual that provides communities with guidance for developing transit-oriented design guidelines and land use regulations.

Sacramento

In 1987, Sacramento completed an 18.3-mile light rail line that primarily serves the downtown area. One small extension opened in 1998, and additional extensions are planned. Sacramento has had limited success with TOD.

In 1991, the California economy entered a period of recession, which lasted until 1994. No development occurred around transit stations during this period. Since 1995, the region has seen a period of expansion, but transit area development remains limited. Like San Diego, Sacramento is characterized by an auto-dependent culture, and development has been focused along highway corridors. Although regional and local plans have recommended higher density and infill development along transit corridors, supportive regulatory policies have not been adopted. The state has adopted a requirement that all new state office be sited within walking distance of transit service, which has helped maintain downtown as a major employment center.

Some transit-oriented development has occurred along the K Street mall in downtown Sacramento. This development activity has been spearheaded by the Sacramento Hous-

ing and Redevelopment Authority, with little input from the transit agency. In fact, disagreement between the two agencies has hindered TOD in the downtown area. Strong public sector leadership has been an important missing component for encouraging TOD in Sacramento. In addition, the transit agency does not own land in the vicinity of stations that can be used to leverage development projects.

San Jose

The Santa Clara County Transit Authority operates the 21-mile light rail system serving downtown San Jose, which began operations in 1991. Development in the vicinity of transit stations has been limited. Some housing developments have occurred near transit, primarily as a result of efforts by the Redevelopment Authority. The city has adopted new categories of zoning to encourage dense residential development in the vicinity of transit, and the transit agency has undertaken station area planning efforts to plan for mixed use development around stations. Strong growth in the region and the corridor should support TOD.

Despite a strong economy and some supportive policies, TOD in San Jose has been limited. Again, as with the other California case studies, San Jose is characterized by auto-oriented development patterns. Most new development occurs near major highways. In addition, the cost of housing in the San Francisco Bay area has forced people to live far from the employment centers and commute long hours to jobs. It is not uncommon for workers in San Jose to live over fifty miles from their jobs, in areas not well-served by transit. Because so many workers are forced to drive to work, and the culture remains auto-dependent, the region has not adopted any parking restrictions. In fact, there is substantial subsidization of parking in the downtown area.

St. Louis

Metrolink, the St. Louis light rail system, opened in 1993. Broad economic development goals, including preservation and revitalization of downtown St. Louis, were among the initial motivating factors for the system. The Bi-State Development Agency operates Metrolink. The regional planning agency, the East-West Gateway Coordinating Council, initially proposed the system, and has provided continual planning and support for the light rail system.

Despite strong leadership and economic development goals for the project, little transit-oriented development has occurred in the Metrolink corridor. One overriding factor limiting TOD has been a weak regional development market, and, within much of the corridor, poor market conditions. In addition, few land use policies have been adopted to support TOD. This is typical in regions where markets are not strong enough to support substantial development. Planners and policymakers are reluctant to adopt land use regulations that might be interpreted as restrictive, and, thus, might discourage development. The region has adopted a long-term commitment to transit, and improved market conditions could encourage some transit-oriented development in the corridor.

St. Louis has had success in attracting ridership for special events at venues along the light rail line. However, the transit system has been less successful attracting weekday commute trips.

Pittsburgh

Pittsburgh has the only limited access busways in operation in the United States that extends beyond a downtown. The busways are part of a larger transit system that includes a light rail system and traditional bus service. The first busway (4.3 miles) opened in 1977, and the second (6.8 miles long) opened in 1983. A third 8.1 mile-long busway is scheduled to open in 2000.

While some development has occurred in pockets along the busway, no major TODs have been built. Development has occurred in areas with strong market characteristics, and has included mixed-use (retail and office) development, some redevelopment projects, and limited housing development. The most significant investments have been expansions at existing facilities, such as expansion of a hospital and investment in already existing commercial districts. Lack of suitable land has somewhat constrained development opportunities.[8] Pittsburgh has not adopted supportive regulatory policies to encourage development in the transit corridors. However, much of the success of transit-supportive development in the Martin Luther King, Jr. busway corridor can be attributed to public financial support. Public sector involvement "included tax abatements, tax credits, tax-increment financing, and public investment in new construction."[9] The public sector also helped clear development sites in the corridor as the busway was constructed.

Baltimore

Baltimore opened its 22.5 mile light rail system in 1993 and has since added a 7.5 mile extension to the system. The light rail system is part of transit service that includes bus, commuter rail, and heavy rail.

Baltimore's light rail system operates through several distressed neighborhoods and connects to the downtown and baseball stadium at Camden Yards. The Metropolitan Transit Administration (MTA), which operates the system, published *Access by Design: Transit's Role in Land Development* in 1988 to provide information and standards for incorporating transit stations into development projects. The state of Maryland also adopted a Transit Station Development Incentive Program, which provides grants for station area development initiatives. The state has in place a Smart Growth Initiative, aimed at limiting sprawl and encouraging concentrated development patterns. No transit-oriented development policies are included in the MPO's transportation plan, and the city has not taken a lead in promoting station area development.

[8] Wohlwill, David E. *Development Along a Busway: A Case Study of Development Along the Martin Luther King, Jr. East Busway in Pittsburgh, Pennsylvania*, unpublished paper, June 1996, Port Authority of Allegheny County.
[9] *Ibid.*, p. 7.

Several factors have prevented successful transit-oriented development in Baltimore's light rail corridors. First, the corridors operate in distressed areas of the city, including the city center. The regional economy itself is not strong. The city is focusing substantial redevelopment efforts in the center city, but with limited results. Because of poor economic conditions in the corridor, the city has been reluctant to implement restrictive parking policies; instead, parking policies support the use of single occupant vehicles. In addition, lack of coordination among local, regional and state planning and transit agencies has further inhibited efforts to promote station-area development.

Ottawa-Carlton

The Ottawa-Carlton busway, first opened in 1984, provides 31 kilometers of exclusive, bus-only transit service. Stations include platforms, seating and canopies. "On a per kilometer basis, the Transitway...carries ten times as many person kilometers of travel as the regional road system."[10]

Ottawa-Carlton offers many examples of transit-oriented development, including office, commercial and residential projects. "Four regional malls and several office complexes have been redesigned to integrate with transit stations... over 2,300 housing units in apartments and mid-rise condominiums have been built near stations...several new subdivisions have been built that adhere to the region's transit-friendly site guidelines that put virtually all residents within a five minute walk of a bus stop."[11]

Ottawa-Carlton's success with TOD is not accidental. Several factors have converged to support and encourage (require) transit-oriented development. The region has experienced strong regional growth that supports overall regional development. More importantly, the provincial government of Ontario has adopted stringent land use regulations that require that development happen in areas served by transit. Regulations include a provision that any shopping mall over 375,000 square feet and any employment center with over 5,000 employees be located within ½ mile of a transit stop. Employment centers with more than 2,000 employees must be located within walking distance of all day transit service. The federal government limits the parking supply in all federal office buildings located in the capital, and local governments also regulate the parking supply. The strong regional government has adopted a land use plan that supports TOD, and all local governments are required to adhere to the regional land use plan. Transit-supportive design guidelines have been developed, and developers are required to adhere to these. Planners and other stakeholders have developed a long-term regional vision that includes a "transit first" regional transportation policy. Finally, the transit service is reliable and truly regional in scope. The population can and does depend on the system to travel throughout the metropolitan area. The system carries 70 percent of peak period trips to the downtown, and 30 percent of peak period trips to suburban employment centers.

[10] Parsons, Brinckerhoff, Quade and Douglas, Inc., *TCRP Report 16: Transit and Urban Form: Volume 2*, prepared for the Transit Cooperative Research Program, 1996, p. 144.
[11] Ibid., p.140.

Case Study Conclusions

The case studies confirm that the following specific regional characteristics or conditions affect the ability of a transit investment to attract transit-oriented development:

- A strong development climate is necessary to support station area development.
- Supportive public policies have a strong impact on TOD.
- Policies adopted at the regional or state level, and enforced at the local level are particularly effective, and regulatory policies that channel development to transit corridors and restrict parking are most influential.
- A clear, long-term regional vision, including a transportation component, will buoy public support for transit.
- A strong transit agency, reliable transit service, supportive institutions, and a culture supportive of transit all help support TOD.

Cities such as Portland, Ottawa and San Diego, which display a number of these characteristics, have successfully supported transit-oriented development. Conversely, cities that do not benefit from these conditions have had much less success with transit-oriented development. Cities with weak or lagging development markets, such as St. Louis and Baltimore have been reluctant to adopt regulatory policies that support transit-oriented development. Efforts to move the Hartford region toward achieving some of these characteristics will help to support future TOD opportunities.

Four Scenarios for Transit-Supportive Development in Hartford

Analysis of the Hartford region, and interviews with planners and stakeholders in the region, revealed that most policy makers and the development community are not really familiar with the concept of transit-oriented development. This is not surprising, given that Hartford does not have a multi-modal transit system with fixed-guideway facilities. Clearly, a public education process is needed to inform policy makers, developers, local officials and the public about the TOD concept, and that TOD can increase transit ridership within the transit corridors proposed as part of the Regional Transit Strategy. An education process has already begun as part of the TCSP project, and additional public outreach is underway as part of the environmental analysis and pre-engineering for the New Britain Busway project. These efforts are setting the groundwork for a better understanding of transit-oriented development potential in the Hartford region.

To explore how efforts to concentrate development in transit corridors might affect ridership in the transit corridors included in the Regional Transit Strategy, CRCOG developed four future land use scenarios, and tested how these scenarios would affect transit ridership. The first three scenarios are based on assumptions that different levels of projected future development can be attracted to the corridors. These three scenarios represent hypothetical "what if" futures for the Hartford region. None of the three is likely to occur.

Instead, these three scenarios were developed to provide an indication of the level of magnitude of shifts in ridership that would be achieved if development patterns in the region could be shifted radically. The impact of each of these scenarios on daily boardings in the year 2025 provide a point of reference for understanding the level of population and employment shifts that might affect transit ridership.

The fourth scenario focuses on the New Britain corridor. It considers the land development and ridership impacts that might occur if communities along the corridor institute new land use policies identified in interviews to be *acceptable* in those communities at this time. Note that these are policies that are acceptable given the current understanding and knowledge of TOD. If a well-structured public outreach and education strategy aimed at promoting TOD is adopted and implemented in the region, greater impacts could be achieved than are forecast under scenario four.

The remainder of this section describes the four scenarios, and the affects of those scenarios on population, employment and daily transit boardings in the transit corridors. For all four scenarios, regional future (Year 2025) employment and population is the same as that forecast for the Base Case. The scenarios simply shift some of the forecast future employment and population into the corridors. Because Scenario 4 is based on information collected through significant site analysis, market analysis, and interviews with planners working in the communities in the New Britain corridor, the description of this scenario is substantially more detailed than that provided for the other three scenarios.

Table 3 shows the projected population and employment changes for the region and each corridor for each land use scenario. Table 4 shows, for the High Capital Transit Alternative and the no-build alternative, year 2025 daily transit boardings for the base case and each of the four land use scenarios. The land use scenarios are detailed below.

Scenario 1 – Development focused in the five fixed guideway transit corridors.

Land Use Scenario 1 focuses future development within the five fixed guideway transit corridors described in the Regional Transit Strategy. Under this scenario, 25 percent of the population increase forecast for the region between 1997 and 2025, and 50 percent of regional employment growth over the same period, is channeled into the five proposed fixed guideway transit corridors. (In the base case, only 14 percent of regional population growth, and 32 percent of employment growth is forecast to occur in the fixed guideway corridors.) Under this scenario, system-wide daily transit boardings are projected to be 126,660, or 8 percent greater than projected for the base case in 2025. Daily transit boardings on the fixed guideway facilities are projected to be 48,947 in 2025, or 10 percent greater than projected under the base case.

Scenario 2 - Downtown-focused development

Land Use Scenario 2 focuses future development (particularly commercial development) into downtown Hartford. This scenario reflects the goal of several regional and Hartford-based development organizations that wish to strength downtown Hartford as the center

REGIONAL TRANSIT STRATEGY
TABLE 3
POPULATION and EMPLOYMENT CHANGE
BASE CASE and LAND USE SCENARIOS

	Regional Total Year 2025	Absolute Change (compared to current year)				
		Base Case	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Total Population	2,128,964	219165	219165	219165	219165	219165
Corridor Population	317,716	29196	54154	29196	67016	29286
CBD Population	3,464	515	689	10907	1178	755
New Britain Corridor Population	119,386	14902	22318	14902	42722	14902
Total Employment	1,198,650	220783	220783	220783	220783	220783
Corridor Employment	236,646	50365	81603	50365	81603	50675
CBD Employment	67,717	19740	26679	55291	26359	21600
New Britain Corridor Employment	72,973	14021	23653	14021	25259	14531
Difference Between Base Case and Scenarios						
Total Population Change		0	0	0	0	0
Pop Change - Corridors		0	24958	0	27820	90
Pop Change - CBD		0	174	10392	663	240
Pop Change - NB		0	7414	0	27820	90
Total Employment Change		0	0	0	0	0
Emp Change - Corridors		0	31238	0	11238	510
Emp Change - CBD		0	6939	35581	6616	1860
Emp Change - NB		0	9632	0	11238	510
Percent of Total						
Total Population Change		100.0%	100.0%	100.0%	100.0%	100.0%
Pop Change - Corridors		13.3%	24.7%	13.3%	28.9%	12.4%
Pop Change - CBD		0.2%	0.3%	5.0%	0.5%	0.3%
Pop Change - NB		6.8%	10.2%	6.8%	19.6%	6.8%
Total Employment Change		100.0%	100.0%	100.0%	100.0%	100.0%
Emp Change - Corridors		22.8%	37.0%	22.8%	27.9%	23.0%
Emp Change - CBD		6.9%	13.0%	25.0%	11.9%	9.8%
Emp Change - NB		6.4%	10.7%	6.4%	11.4%	6.6%

Regional Transit Strategy

REGIONAL TRANSIT STRATEGY
TABLE 4
PERFORMANCE OF ALTERNATIVES
PERFORMANCE OF LAND USE ALTERNATIVES

HIGH CAPITAL	Year 2025 (Base Case) (Daily Boardings)	LU Scenario 1 (5 corridors) (Daily Boardings)	LU Scenario 1 % Change from Base Case	LU Scenario 2 (downtown) (Daily Boardings)	LU Scenario 2 % Change from Base case	LU Scenario 3 (New Britain Corridor) (Daily Boardings)	LU Scenario 3 % Change from Base case
New Britain BRT	14,654	16,416	12%	16,733	14%	16,992	14%
Griffin BRT	10,244	11,646	13%	11,910	16%	10,563	16%
Manchester BRT	10,321	10,836	6%	12,860	25%	10,386	25%
Rocky Hill BRT	4,075	4,641	14%	6,681	59%	4,324	69%
New Haven-Hartford-Springfield Rail (2) (3)	5,122	5,604	7%	6,483	27%	6,492	27%
Fixed guideway totals	44,376	46,947	10%	54,657	24%	47,841	24%
Non-Fixed Guideway totals	73,230	77,713	6%	85,787	17%	77,626	17%
HIGH CAPITAL TOTAL	117,606	126,660	8%	140,644	20%	125,173	20%
High Capital work trip mode split	3.19%	3.65%		3.93%		3.40%	
High Capital all trips mode split	0.88%	0.99%		1.06%		0.93%	

of the region. For example, the Adriaen's Landing proposal, and the Greenberg plan both aim to attract more development to the city center. Under this scenario, 5 percent of population growth[12] between 1997 and 2025, and 25 percent of employment growth over the same period, are concentrated in the Hartford central business district. This compares to just 0.2 percent of regional population growth and 8.9 percent of employment growth forecast for the central business district under the base case. Year 2025 daily transit boardings under this scenario are projected to be 140,644, or 20 percent greater than daily transit boardings projected for the same year for the high capital alternative. It is interesting to note that, while the number of transit boardings increases dramatically, the proportion of transit boardings on the fixed guideway transit facilities does not change dramatically (37.7% for the base case versus 39% for Land Use Scenario 2.) This reflects that many people who do not live in one of the fixed guideway corridors will choose to take other transit service (express or local bus) to jobs in the downtown under this scenario.

Scenario 3 – Future Development Focused in the Hartford - New Britain Busway Corridor

Land Use Scenario 3 focuses new population and employment growth between 1997 and 2025 in the New Britain Busway corridor. This scenario was tested because the New Britain Busway corridor is moving forward. In this scenario, 20 percent of both future population and employment growth forecast to occur between 1997 and 2025 (compared to 6.8 percent and 6.4 percent, respectively, under the base case) are concentrated in the New Britain Busway corridor. Under this scenario, Year 2025 system-wide daily transit boardings are projected to be 125,173, or 6.4 percent greater than daily transit boardings for the base case for the same year. Year 2025 daily transit boardings for the New Britain busway are projected to be 16,992 under this scenario, 16.3 percent greater than projected under the base case.

Scenario 4 - Potential Land Use Impacts of Transit-Supportive Policies and Actions in the New Britain Busway Corridor

The State of Connecticut is moving forward with an Environmental Impact Study for the proposed New Britain busway project. Therefore, a scenario was developed to test how the busway, combined with existing market conditions and the institution of public policies that have real potential for implementation in the corridor based on current knowledge of TOD, will affect station area land development and, thus, daily transit boardings.

To understand the potential for transit-oriented development associated with the proposed busway, and the impact of that development on system ridership, planners and policymakers active in the corridor were interviewed to identify the types of land use policies that might be supported in the corridor today. In addition, an analysis of corridor land use and market conditions was conducted. Based on the identification of policies with a

[12] While 5 percent does not sound like a large percentage of population growth to concentrate in the downtown, it represents more than a tenfold increase in the current downtown population. Any larger percentage increase would be unrealistic.

realistic potential for implementation, and the assessment of the market, the amount of development that might be generated as a result of the busway and locally-supported land use policies was estimated.

This section describes the market assessment for each of the four communities through which the busway will operate, and the potential impact that locally-acceptable land use policies might have on corridor and station area development. The impacts described here represent only those that might occur as a result of construction of the busway and implementation of currently acceptable transit-oriented land use policies. Development projects that might occur as a result of market trends, public investment or other efforts exclusive of the busway are not included in this analysis, although such developments may be very real. In fact, we believe that the development potential is greater than what is reflected here, but, to achieve this potential, an effort is needed to educate the decision-makers and community about transit-supportive development and supportive land use policies.

Factors Influencing the Success of Policies to Encourage Development in the New Britain Busway Corridor

Several factors will influence future development patterns in the New Britain busway corridor, should the busway be built. Those factors include:

1. Development Market – what is the regional market for and pattern of development? What is the market in the corridor and station areas?
2. Availability of Land – How much vacant land is within 1/3 mile (i.e., walking distance) of the station sites? How much vacant building space is available within 1/3 mile of the station sites? What is the potential of these sites for (re)development?
3. Existing policies and actions to support transit-oriented development.
4. New policies that could support transit-oriented development and have the potential (support) for implementation.
5. Regional and corridor support for project and policies, and supportive development initiatives.

This analysis considers all of the above factors since all of them contribute to the potential development of a station area. Each factor is discussed below for each of the four communities through which the busway passes. However, the analysis measures only that amount of development that is influenced by construction of the busway combined with number four – the adoption of new policies to support transit-oriented development. Furthermore, the analysis assumes that only those policies for which local support has been voiced will be adopted. For example, there may be a market for 100,000 square feet of new office space at a site within the corridor, but only a small part of the site's marketability is affected by the busway and locally-supported transit-oriented land use policies. It is only this marginal impact that is estimated here. The magnitude of the impact depends on the types of policies that each community along the busway is willing to adopt. Strong regulatory policies, such as urban growth boundaries and stringent parking regulations, have a much greater impact on corridor development (given strong market condi-

tions) than do policies such as zoning for mixed-use development. In addition, in almost all instances where a new transit investment has had a major impact on corridor development, there has been substantial public investment in development projects along the corridor. For example, in Portland, Oregon, the city and state invested heavily in the convention center and arena at the Lloyd Center, which anchored much of the private development at that site. This has, in turn, stimulated subsequent private investment nearby.

The estimated development impact of the busway and land use policies for each station site is presented as a range from zero square feet by type of use, to some upper level estimate of the potential impact. The impact is presented as a range starting with zero because there cannot be certainty that the policies and actions will lead to development in the corridor above that which might happen anyway. Finally, the range represents an estimate of development impact above that which is forecast to happen in each traffic analysis zone in the base case without new, supportive land use policies.

Conditions in New Britain Busway Corridor

To identify the type and level of transit-oriented development that realistically might be attracted to the New Britain corridor, interviews were conducted with planners representing communities located in the corridor, and input was sought from the Regional Planning Commission. The interviews were designed to identify the types of land use policies and actions that have the potential for implementation in the corridor (e.g., those that would be acceptable to the residents and policy makers of each community today). In addition, a market study of development conditions in the corridor was conducted to better understand the type of development that might occur. This section describes the results of the market analysis for each community and for each station site, and identifies the land use policies that might be implemented in each community. Then, based on this information, an estimate of potential transit-oriented development is provided for each station site, and translated into future population and employment impacts. Finally, the impacts of the transit-oriented development on future ridership in the corridor is discussed.

City of Hartford Overview.

A brief overview of the conditions in the Hartford section of the busway is described in this section. More detailed descriptions for conditions for each station area are provided later.

1. Development market: The development market has been weak throughout the City of Hartford for the past decade. The downtown has high office vacancy rates (approximately 18%)[D], and only one redevelopment project has advanced in the past five years. There are several development proposals for downtown properties, ranging from housing to mixed-use (retail/office/housing) to a major waterfront development project. These projects are in different proposal stages, and none is under construction at this time. However, downtown Hartford still remains the most concentrated

[D] Cushman and Wakefield, 4th Quarter 1999.

employment center in the metropolitan area. The Parkville neighborhood has seen some successful redevelopment projects in recent years, such as Real Arts Way, the brew pub, the new Super Stop &Shop, and the ongoing redevelopment of the Heublein site into a multiplex cinema.

2. Availability of land: According to the *The Downtown Development Plan* (adopted in April 1994)[14], there are 15 vacant parcels comprising 1,064,891 square feet, and six vacant buildings totaling 317,513 square feet within approximately 1/3 mile of Union Station and the Armory Station. Thus, there is capacity to accommodate substantial new commercial and/or residential development in the downtown area within walking distance of the transit stations.

   The Aetna Insurance complex dominates the Asylum Hill neighborhood near the busway. The site of the old Hawthorne Building, which has been cleared since a fire destroyed the building, is adjacent to the proposed station site, and provides a major development opportunity. Aetna was considering this site for satellite parking, but has made arrangements to continue leasing parking at another site. The owner of the Hawthorne site is considering the site for an indoor soccer facility.

   The Parkville neighborhood has had some success in revitalizing its retail district, and in attracting new uses (such as the brew pub). There remains substantial vacant and underused space along the busway in the Parkville neighborhood.

3. Existing supportive land use policies: While a regional plan does exist that supports transit-oriented development, and Bloomfield did adopt supportive policies in response to the proposed Griffin Line light rail project, existing planning policies that support transit-oriented development are not yet strong enough or well-coordinated to encourage TODs. In Hartford, allowable densities generally are supportive of transit, but developers are not developing at these densities. Furthermore, there is a move to "de-density" residential land uses. Efforts are underway to demolish vacant high-density residential developments, and replace them with lower density housing. The City has had limited involvement financing development, and with providing assistance with land assemblage, land write-downs and other such strategies. The City looks to the state for most financial support for major development projects.

4. Potential transit-supportive land use policies: Based on discussions with the City Planning Department, it appears that the City might be amenable to increased densities along the busway if it is shown that higher densities will help transit. However, it is currently unlikely that the Council will support regulatory policies that will in any way discourage development in any other part of the City in order to encourage development in the busway corridor. Furthermore, it is unlikely the City will support targeting financial incentives to particular parcels near transit at the expense of offering similar incentives elsewhere. The City does not have the financial resources to

[14] City of Hartford Planning Department, *Downtown Development Plan*, prepared for the Commission on the City Plan, April 19, 1994.

provide significant development incentives. There is no evidence that the City or state would invest in new public facilities in the corridor as catalysts for new private development in the corridor.

5. Regional and corridor support, and supporting initiatives: There seems to be general resistance to any parking policies that would discourage the use of private automobiles, and general resistance to any land use policies that might discourage development in individual communities.[15] Several organizations are working to encourage development in Hartford, particularly the downtown. Neighborhood groups, with assistance from the City and the Growth Council, are trying to revitalize neighborhoods along the busway (Asylum Hill, Parkville). The Parkville neighborhood, in particular, has met with some success in its revitalization efforts.

Overall, there are substantial vacant parcels and underused buildings available for development (redevelopment) in the downtown and within the corridor. Also, there are numerous groups pushing to encourage development in these areas. However, three overriding issues currently limit the potential for transit-oriented development in the corridor. First, the real estate market in the City of Hartford has been, and remains, weak. In particular, the downtown has not attracted substantial new investment in several years. Second, there is not widespread understanding of the busway project and the opportunities it might provide, and for policies and actions to support transit-oriented development. More public outreach and education is needed. Third, the City of Hartford is reluctant to target development in the corridor through the adoption of substantial regulatory and incentive-based policies to encourage development in the station areas. There are numerous competing sites available for development in the downtown, and without policies that strengthen the marketability of sites near the busway stations compared to other sites, these sites will not have a substantial advantage over other sites.

Potential Impact of Policies and Actions on Development in City of Hartford, by Station Area

Given the above discussion, the potential impacts of the busway and new locally-supported land use policies upon development in the corridor is expected to be limited, and is summarized below. These forecasts represent development over and above the projected growth forecasts without transit. With additional public outreach and education about TOD, these impacts will likely increase. (See recommendations at the end of this document.)

CBD Stations – Union Station and Armory

While office vacancy rates have declined in the CBD over the past five years (from approximately 22% in 1996 to 18.2% in 4th quarter 1999), no new projects have been constructed. Several projects have been discussed, including the Adriaen's Landing project, development of the Carter parcel (hotel, housing and retail complex proposed for a site

[15] Based on presentation to and follow-up discussion with Planning Commission in October 1999.

bounded by Lewis, Pearl and Trumbull), renovation of the Civic Center (apartments and retail/restaurant uses), redevelopment of the Society Block (Main and Market), and redevelopment of 410 Asylum (housing). However, only one redevelopment project – the renovation of 280,000 square feet of space at 1 Constitution Plaza from Class B office space to Class A office space - has occurred during the past 5 years.[16] This project, while completed, remains vacant. No new office space has been built, despite a target of 500,000 square feet of new office space by the year 2000 included in *The Downtown Hartford Economic and Urban Design Action Strategy*.[17] The G. Fox building remains vacant, although state bond money has recently been approved to renovate part of the building to house the Capital Community College in part of the building, with retail development slated for the remainder of the building. Developers interested in redevelopment of the Society block are looking to the City to provide tax increment financing (TIF) for the project, but the City has never done a TIF before.

Two major redevelopment plans have been proposed for the downtown in the past few years. The previously-referenced *Economic and Urban Design Action Strategy* promotes an aggressive redesign and redevelopment of downtown, featuring a renovation of the Civic Center, a new convention center, the Adriaen's Landing project, substantial new housing development, additional retail space, and a downtown circulator. The latest plan for Adriaen's Landing features a $190 million convention center, shopping, entertainment, an outdoor skating rink, a hotel, offices, and housing. The Hartford Economic Development Commission, the Hartford Planning Department, the Hartford Downtown Council, the Capitol City Economic Development Authority, and the Connecticut Capitol Region Growth Council are all working to encourage development in the downtown. The proposed projects require substantial public funding (primarily from the state).

The *Downtown Development Plan* (adopted in April 1994)[18] identifies all the vacant parcels (including surface parking) and vacant buildings in downtown Hartford. While the inventory dates to 1993, the list is still current.[19] The report lists fifteen vacant parcels comprising 1,064,891 square feet, and six vacant buildings totaling 317,513 square feet within approximately 1/3 mile of Union Station and the Armory Station. Thus, there is capacity to accommodate substantial new commercial and/or residential development in the downtown area within walking distance of the transit stations.

Based on the above discussion, the busway and the transit-supportive land use policies with potential for implementation could affect a limited amount of development in the downtown. Potential development impacts are as follows:

[16] Christina Emery, Researcher, Cushman and Wakefield, telephone conversation 2/1/00.

[17] Urban Strategies, in association with Development Strategies, *The Downtown Hartford Economic and Urban Design Action Strategy*, prepared for the Connecticut Capitol Regional Growth Council, December 1998.

[18] City of Hartford Planning Department, *Downtown Development Plan*, prepared for the Commission on the City Plan, April 19, 1994.

[19] Confirmed by Gerry Maine, February 2000.

CBD	0-440,000 square feet office[20] 0-50,000 square feet retail[22] 0-120 housing units[24]	0-1,760 office employees[21] 0-100 retail employees[23] 0-240 residents[25]

Aetna Station

The Hawthorne site provides the most obvious opportunity for transit-oriented development at this station. The site is large (roughly 200,000 square feet) and could accommodate a mix of uses. The City has identified the site as a redevelopment opportunity, although the existing market for a major mixed-use development at this site is not strong. The landowner has expressed an interest in developing an indoor soccer facility on the site.

The City could adopt a special zoning district for the site that encourages a mixture of higher density retail, office and residential uses. (The current zoning is I-2.) Such a policy would help to make the site more attractive for development, but market issues would still prevail in any decision to develop the site, since the City does not appear to have substantial financial capacity to assist with redevelopment. Market conditions and the interests of the landowner will drive the future development of this site. The rezoning would be a minor contributing factor to realizing mixed-use development of the site. The impact of the busway plus supportive land use policies (with potential for implementation) on development at this site would likely result only in small-scale transit-oriented, neighborhood serving development.

0-7,500 square feet of retail	0- 15 retail employees

Park Street

This area has considerable redevelopment potential, has demonstrated one of the strongest real estate markets among Hartford's neighborhoods, has a strong neighborhood association committed to redevelopment, and has support for redevelopment from the City. The transit station should further boost the marketability of the area, and rezoning of the Parkville Industrial Corridor (over 3 million square feet of land roughly bordered by Park Street, Frances Avenue, Grace Street, the railroad tracks, Bartholomew Avenue, and Pope Park Highway) to encourage densification and a mix of uses (commercial, retail, and residential north of the tracks, and light industrial/commercial south of the tracks), as well as adoption of transit-oriented design guidelines, coupled with the grass roots neighborhood support and redevelopment efforts, should support new development and redevelopment here. The location of the station here, combined with a well-planned package

[20] Assumes 0-2% over existing base of 22,000,000 square feet of downtown office inventory.

[21] Assumes 4 employees/1000 square feet of office development

[22] Assumes minor impact on retail, given trend away from retail in downtown

[23] Assumes 2 employees/1000 square feet of retail space

[24] Assumes 0-10% over existing base of 1,200 competitive housing units in CBD, as reported in *The Downtown Hartford Economic and Urban Design Action Strategy*. An upper range of 10% rather than 2% is used for housing because the existing base of housing is very small.

[25] Assumes no more than 2 persons per housing unit.

of transit-supportive policies and planning efforts, could attract up to 100,000 square feet of mixed-use development over the next two decades.

0-75,000 square feet commercial	0-22 Semployees[26]
0-25 condominium or apartment units	0-50 residents

New Park Station

Opportunities for transit-oriented development are limited at this station. The area has had substantial development activity in recent years, including several auto-dependent uses such as the Super Stop and Shop and the ongoing redevelopment of the Heublein site for a multiplex movie theater. I-84 creates a substantial barrier for transit-oriented development at this location. The scrap metal yards could provide a redevelopment opportunity, but redevelopment of this site is likely to involve costly environmental work. This site does not lend itself to TOD.

Flatbush Station

The area around this station lies in both Hartford and West Hartford. Like the New Park Station area, the Flatbush area has experienced substantial auto-oriented development, including big box retail (Home Depot, BJs) and the Raymour and Flanigan furniture store. The Hartford Housing Authority is working to redevelop the Charter Oak Terrace site (100 acres, of which 55 acres are developable). The site has been cleared of 700 units of high density housing. The Housing Authority has proposed a plan to the US Department of Housing and Urban Development to build a 300 square foot community serving shopping center on the site. An alternative plan calls for 200 low to moderate income housing units. Either plan will require federal funding. Plans to site a velodrome (not a transit-supportive land use) in this area have also been discussed. The industrial park lies within walking distance of the Flatbush station; however, industrial development is generally not conducive to transit-oriented development.The busway combined with supportive public policies could influence help support redevelopment of the Charter Oak Terrace site. However, public funding and public participation in site development will be the driving forces influencing the development of this site in the current market.

West Hartford

Two busway stations are proposed for West Hartford – Flatbush or Oakwood, and New Britain Avenue/New Park Avenue. An assessment of factors influencing development at these sites follows:

1. Development market: The busway runs through an older industrial area that has been transitioning into more commercial (retail and office uses). Major big box retailers

[26] Assumes combination of retail and office with an average of 3 employees per 1,000 square feet.

(Home Depot, BJs) recently located along New Park Avenue (approximately 700,000 square feet of old industrial space was torn down and replaced with 300,000 square feet of big box retail surrounded by parking). In addition, Raymore and Flanagan renovated 120,000 square feet in an old industrial building into a furniture show room.

2. Availability of land: According to the planner for West Hartford,[27] the town is 99 percent built-out. There are very few commercial and industrial sites left, and the town is generally not able to meet the land and/or building needs of prospective new businesses. The planner called the town a "start-up community", indicating that there are several good opportunities for start-up businesses, but no space left for established firms that have substantial space needs. According to the planner, approximately 200,000 square feet of industrial space is in the corridor that could be renovated. Redevelopment plans have been proposed for the old school building on South Quaker Lane. Plans include office, retail and residential development.

3. Existing supportive land use policies: Planning goals in West Hartford include: preserving the moderate density residential character of the community; facilitating commercial development and employment opportunities, and reinforcing transit. The town already has in place a Traditional Neighborhoods Design (TND) Concept for the Elmwood area (in the vicinity of the New Britain/New Park station) that encourages mixed-use development conducive to a TOD. The concept includes a modified parking requirement for development around transit stations, and density and height bonuses (4 stories, 45 feet high) within 1,300 feet of a transit station. The town has an "assistance team" that works with businesses interested in locating in West Hartford. The town does not provide tax benefits or other assistance programs because it "doesn't have to." The Council would not consider financial assistance to developers/businesses wishing to locate in West Hartford.

4. Potential transit-supportive land use policies: The town has in place the range of tools it is likely to provide to support transit-oriented development.

5. Regional and corridor support, and supporting initiatives: West Hartford is very supportive of the busway project, and is interested in seeing redevelopment and conversion in the corridor, particularly in the Elmwood area.

Oakwood Station

The Oakwood Station area is characterized by low density, one to three story industrial buildings, with some residential development to the west. The area is zoned for mixed-use industrial/commercial uses. The character of the station area suggests that it will remain in low intensity industrial and commercial uses that are not likely to be transit-supportive. This station site is not a good candidate for TOD.

Elmwood (New Park/New Britain)

[27] Interview with Don Foster, January 13, 2000.

The Elmwood neighborhood is a commercial area that incorporates a mix of uses. Several small commercial and industrial businesses are located adjacent to the railroad tracks both north and south of New Britain Avenue. New Britain Avenue is lined with small retail/commercial establishments. Most of the retail businesses in this area are auto-oriented. The area has been zoned a Traditional Neighborhood Design District, which "encourages the development of integrated, mixed-use, pedestrian-oriented neighborhoods."[24] A developer has put forth plans to build a mixed-use (office/retail) complex on the site of the old Talcott Junior High School building located on South Quaker Lane, just north of New Britain Avenue two blocks west of the station site. The business/real estate market in this neighborhood appears healthy. This area could be developed at a higher density than currently exists, and in conjunction with the ongoing TCSP project, increased densities in support of transit could be achieved. Efforts to tie the busway station into the neighborhood are more likely to result in improved pedestrian connections, pedestrian-friendly design, a strengthening of the business climate for existing businesses, and some commercial infill.

10,000 square feet commercial	0-20 employees
20 condominium or apartment units	0-40 residents

Newington

1. Development market: The Town of Newington has had a strong residential market, and the Town is now trying to limit residential development. The Town recently purchased a 54-acre farm to prevent its conversion to residential use. Developers have been interested in pursuing big box retail development, which the Town is resisting.

2. Availability of land: Like West Hartford, Newington is near build-out. According to the Town Planner, the 8,500-acre Town is 85-90% buildout, with 10% of the undeveloped land in wetlands. Despite the limited amount of developable land within the Town, both station areas do present good opportunities for transit-oriented and transit-supportive development. At the Newington Junction Station, northwest of the tracks, is the Cashman lumberyard, which has been used primarily for storage. The Town Planner identified this is a potential site for commercial/industrial development. (The site is currently zoned industrial.) An old neighborhood retail area at the intersection of West Hill Road and Willard Avenue is now vacant and could benefit from TOD-related incentives.

   The Cedar Street station site provides one of the best opportunities for new development along the entire busway. Between Fenn Road and the tracks, north of Cedar Street, there are 12 acres of land that offer development potential. The land is zoned industrial. There is an old industrial building on this site adjacent to the tracks, and the site may be contaminated. The site also includes an abandoned bar, another vacant industrial building, and a small ranch home where the owner of the property

[24] West Hartford Zoning Code, Chapter 173-44.1.

lives. Some developers have been interested in locating a large super market in the vicinity of this site.

South of Cedar Street are three large, contiguous parcels. Vacant industrial buildings are located on two parcels located along Cedar Street (totaling approximately 8 acres). Behind these two parcels to the south is located a 120 acre parcel owned by Central Connecticut State University. The University has a strong interest in developing this site, perhaps as a biotech park, or other research facility. The Town is very interested in seeing some type of public/private partnership for the development of this site, as they would like to have some of the land on the tax roles. The Town wants a master plan done for the area around and including the site, and is very interested in tying the site planning into the busway planning. This site *does* have substantial access problems due to its proximity to the intersection of Cedar Street and Route 9, changes in elevation between Cedar Street and the site, and substantial wetlands present on the site. However, both the university and the Town are interested in pursuing some type of mixed-use development here.

3. Existing supportive land use policies: Newington has a Planned Development zone that allows for residential densities of up to 1 unit per 1,500 square feet. (This zoning is not in affect at either station area.) Zoning in the Town Center allows for reductions in parking, payments in lieu of parking, shared parking and deferred parking (i.e., the developer shows that the required parking could be accommodated on the site, but also that the parking will not be needed.) In conformance with State regulations, the Town has provided tax abatements to industrial developers; however, the Town does not provide other financial incentives to developers.

4. Potential transit-supportive land use policies: Despite the limited amount of land available, and resistance to dense residential development, the Town is supportive of the busway, and may be amenable to adopting several policies that might support TOD. Policies that the Town might consider include: zoning for mixed-use development, increased allowable densities at station areas, downzoning outside station areas, transit corridor zoning overlay district, density and parking gradients, transit friendly design guidelines, density and height bonuses, public acquisition and assembly of land (if done by the state), public/private partnerships, parking credits, shared parking, and tax increment financing.

5. Regional and corridor support, and supporting initiatives: As mentioned above, the Town is very supportive of TOD and other development in the vicinity of both proposed busway stations. Both the Town and Central Connecticut State University are interested in pursuing a master plan and development opportunities at the Cedar Street site.

Newington Junction

The station area includes two areas with development potential. To encourage transit-oriented development, both sites would benefit from re-zoning for mixed uses with increased densities, and perhaps a transit development overlay district might be appropriate for the entire station area north of West Hill Road and Francis Avenue. The lumberyard site might also benefit from some public investment in infrastructure improvements, particularly related to site access. Transit friendly design guidelines would also be helpful here. These policies would encourage redevelopment of the neighborhood retail area, and, potentially, encourage light industrial/commercial development at the lumberyard site. Neither would be large scale, given the neighborhood character of the area.

0-5,000 square feet neighborhood retail	0-10 retail employees
0-15,000 square feet commercial/industrial	0-60 employees

Cedar Street

Cedar Street has substantial redevelopment potential, and the university is likely to undertake a significant redevelopment project with or without the busway. However, the busway and supporting land use policies can have a substantial influence on how this area develops. For example, the 12 acre site north of Cedar Street can be zoned for higher density, mixed-use development, perhaps with language to discourage or prohibit auto-oriented uses such as super markets and big box retail. Transit-oriented design guidelines could be adopted for this site. The site has the potential do develop as a retail/entertainment area for the university.

To encourage transit-oriented development on the parcels south of Cedar Street, a partnership between the University, the Town, CRCOG, and ConnDOT to prepare a master plan for the site would be useful. While the site is likely to develop, it is not guaranteed to develop in a transit-friendly way. However, early efforts during a master planning process to incorporate the busway and transit-friendly design guidelines and land use policies (such as increased densities, zoning for mixed-use development, and parking policies) into the development would be useful to encourage TOD. The site is likely to include commercial and light industrial (technology-based) uses. Transit-oriented development land use policies could encourage denser and more floor area of development. Such policies could attract development as follows:

0-25,000 square feet retail	0-50 employees
0-50,000 square feet office	0-100 employees
no affect on industrial/technology development	

New Britain

1. Development market: New Britain's economy has suffered during the past decade, and the City continues to struggle to attract new development and jobs. The office vacancy rate in the downtown area is approximately 30-40 percent, while the retail vacancy rate is between 40 and 50 percent in downtown New Britain.[29] Much of the

[29] Christopher Edge, New Britain Chamber of Commerce.

retail activity has left the downtown. The large Stop and Shop adjacent to the downtown busway station is scheduled to close, which will leave 80-90,000 square feet of vacant retail space. (Retail development, such as the new Target store at the intersection of Hartford Road and Route 9, has been locating along major highways.) The police headquarters may be relocated from the station area as well. There are several multi-family residential buildings scattered throughout the downtown, many with vacancy rates exceeding 30%. There have been no new single family developments in the City in recent years. The highways north and east of the downtown limit development potential.[30]

2. Availability of land: There are numerous vacant or underusedparcels located in downtown New Britain. As mentioned above, the Stop and Shop parcel will soon become vacant, and the police headquarters building directly across from the station site may also be vacated. The City's lumber storage facility, located at the station site, could, potentially, be redeveloped. The Ramada Hotel also is struggling to remain viable. The old Courthouse building across from the Stop and Shop is currently vacant, although an architectural firm interested in renovating the building has purchased it. There is considerable vacant land and several vacant or underutilized buildings within walking distance of the downtown station.[31] There also are two underutilized parking garages in the vicinity of the downtown busway station.

3. Existing supportive land use policies: The downtown is a state-designated enterprise zone, which offers downtown businesses some financial incentives, such as tax abatements, corporate income tax credits, and grants for job creation. The City does offer tax-related incentives to businesses on a case by case basis, and low interest loans are available to businesses that relocate to or expand in New Britain. The City is working with the state and Harvard University on the initiative for a Competitive Inner City, a program aimed at working with inner city businesses to expand and hire inner city residents.

   The City currently is trying to discourage dense residential uses, and is discouraging development of new, dense, multi-family projects. Current zoning does not encourage mixed-use development.

4. Potential transit-supportive land use policies: The City's planner felt that the City would consider the following transit-supportive development policies: zoning for mixed-use development, increased allowable densities, transit corridor overlay district (if done corridor-wide), public acquisition and assembly of land (if money is available), land write-downs, public/private partnerships, parking credits, and shared parking.

5. Regional and corridor support, and supporting initiatives: While there is support for the idea of the busway, there is some concern that it will get built. There are no major development plans for any area in the downtown, with or without the busway. The

[30] Conversation with Steven Schiller, New Britain City Planner.
[31] There is not a complete inventory of vacant space available.

New Britain DPW built a new filling station over the railroad tracks at the East Main Street station, despite having knowledge of the planned busway project.

East Street

At the East Street station, the railroad tracks have been covered with mulch, and the track area is used for parking. The area is characterized by parking, commercial and industrial uses immediately adjacent to the station site, with some multi-family residential uses within walking distance of the site. There is land available for some neighborhood-serving commercial development in close proximity to the station, which could be encouraged by zoning for mixed-use development. Significant public participation likely would be needed to encourage TOD in this area, as the area currently is characterized by fairly low intensity, industrial/commercial land uses. There is no indication that the City would undertake a plan to target development to this site.

0-5,000 sf neighborhood-serving retail 0-10 jobs

East Main Street

Uses immediately adjacent to the East Main Street station area include the new DPW fueling station and storage lot, and a vacant industrial /commercial building. One block from the station site is a large, vacant commercial/industrial building. Besides these uses, the area is characterized by residential uses (generally one to three family structures). The neighborhood and City wishes to retain the residential character of the area. There is potential for a small amount of neighborhood-serving commercial uses at the station on the north side of East Main on the Parcel bordered by the railroad tracks and Wilson Street. The site is already zoned for commercial uses, and the policies and actions acceptable to the City, with the exception of a public/private partnership, would not likely further encourage TOD at this site.

0-5,000 sf neighborhood serving retail 0-10 jobs

Downtown Station at Columbus Avenue

The overriding issues affecting TOD in downtown is the poor economy and weak real estate market. There has been very limited interest by developers and businesses in downtown locations in recent years, and, with the exception of public/private partnerships with substantial public funding or tax benefits, new land policies and the busway are not likely to change the development or business climate. There are several potential development sites (Stop and Shop, lumber yard, potentially the police headquarters, the Old Court House, and other scattered sites) within walking distance of the downtown station that could be redeveloped. Disinvestment in the area by both the City and the private sector does not increase the attractiveness of these sites for development. Given the amount of land available near the station area, it would be wise to begin discussions with the state, the City and the development community to identify potential public or public/private development opportunities for the area (such as siting new state or municipal offices.) Without substantial public investment or other public initiative, the busway combined with the limited, currently-acceptable transit-supportive land use policies and actions acceptable to the community are not likely to spur development in the station area or in downtown in general. At most, a small amount of commuter-serving retail/service-related might occur in the immediate vicinity of the downtown station.

5,000 square feet retail/service[12] 0-10 employees

Impacts of Land Use Policies in the New Britain Corridor on Daily Transit Boardings

The above discussion highlights the fact that, at the present time, communities along the New Britain corridor, while supportive of the busway project, are reluctant to institute substantial land use policies to encourage transit-oriented development. This reluctance results from a myriad of factors. First and foremost, the Hartford region has no experience with transit-oriented development, and knowledge about how it is accomplished and its impact on a community is limited. Second, in Hartford and New Britain, where the development market has been sluggish for several years, policy makers are reluctant to adopt any regulations or policies that might be viewed as inhibiting development in any area of their cities. Conversely, in Newington and West Hartford, two communities of moderate density that are almost completely built-out, residents and policy makers are concerned about encouraging dense development anywhere in their communities. Third, the locations of several of the station areas are not particularly conducive to TOD.

Given the above, the types of policies and actions that might be adopted in the New Britain corridor (given the current understanding within the corridor of transit-oriented development) are fairly limited in scope. Existing market conditions further limit the potential impacts of these policies. Therefore, the overall impact on population and employment estimated to results from implementation of these policies in the corridor is modest – 330 new residents and 2,370 new jobs. This limited growth will have only a modest impact on overall daily transit boardings. In total, this growth will result in an increase of between 200 and 400 additional daily transit boardings corridor-wide.

One factor in favor of transit-oriented development is that there are a number of vacant or underutilized parcels in the vicinity of many of the stations. To encourage transit-oriented development of these sites and achieve greater impacts on transit boardings, additional land use policies and tools will need to be implemented in the New Britain corridor. Efforts to educate planner, stakeholders, public officials, and citizens about the benefit that such policies can have on transit-supportive land development and daily transit boardings will move the region toward achievement of the desired impacts. CRCOG and ConnDot currently are developing a multi-year strategy to:

- improve the public's understanding of TOD,
- identify policies and strategies most appropriate for communities along the busway, and

[12] A dry cleaning establishment is one type of service business that might be attracted to this site.

- work with communities to adopt such strategies.

This program will improve the likelihood of successful transit-oriented development in the New Britain corridor.

Overall Conclusions from the Land Use Scenarios

Some general conclusions can be drawn from the results of the four land use scenarios. These include:

- Increasing employment and population in downtown Hartford will have the greatest effect on increasing transit ridership in the region. The primary reason for this is that, as more people try to access jobs concentrated in one area (i.e., downtown Hartford) during commute hours, congestion levels on roads leading into Hartford will increase, and more people will seek alternative modes of access to the downtown area.

- Each land use alternative results in increased daily transit boardings not only on the fixed guideway portions of the transit system, but also on the non-fixed guideway transit service. This probably reflects that many people will use feeder bus service to access stations along the fixed guideway system. This finding demonstrates that transit-oriented development in the fixed guideway corridors will have system-wide benefits.

- Scenario 4 best reflects current conditions and the existing potential for the implementation of supportive land use policies. The limited impact of this scenario on daily transit boardings speaks to the fact that the potential of TOD and the benefits of adopting transit-supportive land use policies are not well-understood in the Hartford region. To improve the opportunities to benefit from TOD in Hartford, additional outreach and public education, as well as community leadership and private development initiatives are necessary. Both CRCOG and ConnDOT acknowledge this need and are taking pro-active steps to address these needs through the New Britain busway planning and development process. Some of the steps necessary to move Hartford toward more transit-oriented development are outlined in the following section.

Hartford and Transit-Oriented Development - Next Steps

If the Hartford region wishes to move forward with planning for the New Britain busway, as well as with other fixed guideway corridors, efforts to support integrated land use and transportation planning will be required. The ongoing TCSP project, which focuses on West Hartford, the Parkville neighborhood, and Suffield, is working toward the integration of transportation and land use planning. Furthermore, ongoing efforts to revitalize the downtown, including the Adriaen's Landing project and the Greenberg Plan, have incorporated a downtown circulator and connections to transit into development plans. These efforts are laying the groundwork for broader efforts to encourage transit-supportive development. To be successful with transit-oriented land development

throughout the corridor, it is important to engage the development community in the transit planning process, and educate both the public and the development community about the benefits of TOD from an early stage in the transit planning process. Recommendations for encouraging transit-supportive development patterns include:

- **Development of a long-range strategy plan, or vision for the region.** In 1998, as part of the MetroHartford Millenium Project sponsored by the Connecticut Capitol Region Growth Council, Inc., residents of the Capitol Region participated in the formulation of a regional vision for economic development. This work provides a starting point for a comprehensive vision for the region. However, a comprehensive vision must incorporate not only economic development goals, but also land use, transportation, environmental and community facilities goals. A comprehensive regional strategy plan, or vision, should be developed through a public process that engages citizens, business organizations, civic groups, special interest groups, public officials, and other stakeholders from the communities throughout the region. It should include transit and supportive land use policies as part of an overall package of how the region wants to be defined and characterized in 25 years. Other elements should include economic development and business goals, environmental goals, and community service goals. It should include strategies for realizing the vision. The process of creating a region vision can take 2-4 years as all the various interest groups are engaged and consensus is achieved. A visioning process can be accomplished in a variety of ways. It can be led by the public sector, the business community or other interest groups. The form that it takes in Hartford should be decided locally, and may be guided by available funding sources. The most important ingredients to a successful visioning process are widespread support and buy-in from a diverse range of interest groups. Regional ownership is also essential.

- **Build support for transit from regional stakeholders, including special interest groups and business leaders.** Work with regional stakeholders to establish a "leadership team." The leadership team does not need to be a formal organization. However, strong support and sustained leadership from stakeholders is imperative to keep the region focused on transit issues, and to create the (true) impression that regional powerbrokers are behind the concept.

- **Engage the public and the development community in the station area and corridor planning processes from an early stage.** As planners finalize alignments and station siting, institute a formal, ongoing community involvement process. Provide public education about transit-oriented development through neighborhood workshops and charrettes. Solicit station area development ideas from community groups and citizens. Listen to how residents want to see stations integrated into their neighborhoods.

- **Work with planners and the development community to integrate transit-oriented development into their plans and development projects.** This includes proponents of major downtown redevelopment plans, the owner of Hawthorne site, owners of land adjacent to station locations, major developers, realtors, and others.

These groups need to be educated about TOD through open forums and work sessions. The public sector (planners, elected officials, others) should participate in these discussions, as some projects are likely to require public-private partnerships.

- **Work with planners and economic development officials in New Britain to integrate the busway into planning activities.** Redevelopment efforts in the downtown could include links to the busway, and land use incentives that encourage development in the vicinity of the busway. Public investment projects in the corridor may

- **Embark on a public education campaign.** Efforts to inform the public about transit-oriented development should not be limited to workshops and public meetings. Additional strategies to reach the general public and target audiences will be needed, which may include news letters, press releases, brochures, videos, story boards, cable television coverage, and other medium.

Both CRCOG and ConnDOT are committed to encouraging TOD throughout the Hartford region. The ongoing TCSP project, the Regional Plan of Development, and the Regional Transit Strategy are just three examples of how the region is already moving toward support of transit-oriented development. Through public workshops, educational materials, meetings with public officials and developers, additional site analysis, and planning, these agencies will continue to pursue opportunities for TOD in Hartford.

Goals for Regional *Transit*

- Enhance the quality of life in the Hartford region.
- Protect the environment and improve the region's air, water, and land.
- Reduce energy consumption.
- Protect existing residential neighborhoods.
- Reduce congestion on highways by reducing dependence on the single occupancy automobile.
- Improve the ability of the labor force, in particular in the city of Hartford, to get to jobs in the suburbs.
- Improve suburb to suburb and city to suburb connections to employment, housing, shopping, services, recreation, education and culture.
- Improve transit circulation in the City of Hartford and at other major destinations to encourage the use of transit by residents of the region.
- Provide transit for those who need alternatives to the automobile, especially the poor, the elderly, the young and the disabled.
- Encourage and support economic development and create a competitive advantage for the region in the national and global economy.
- Develop transit systems that will reduce sprawl and reinforce the City of Hartford and the urban core of the region.
- Integrate transit planning and operations for public transit and school transit systems to achieve a comprehensive transit system for the region.

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PARKVILLE REVITALIZATION ASSOCIATION

May 9, 2001

DEPARTMENT OF TRANSPORTATION
MAY 14 2001
COMMISSIONER'S OFFICE

To the Editor:

The New Britain-Hartford Busway is first step in the way out of the dead end of building more and more highways lanes, with more and more congestion. In 1999, Connecticut Department of Transportation saw the light and recognized that it is more cost effective and a better congestion-mitigation to build transit, in lieu of widening I-84. When commuters are provided more options, such as transit, they will use them.

More options need to be created and improved upon! The New Britain-Hartford Busway needs to be the first step in a comprehensive fixed-route regional transit system with frequent service on a 24/7 basis, using fuel-efficient vehicles. And yes, for the transit system to be successful, the City and surrounding towns need to adopt and actively support/enforce transit-oriented land use policies. In addition to the busway, we will need feeder buses, like the one our neighborhood advocates – the Parkville Trolley, a cute rubber-wheeled small vehicle to get people of all ages to the busway. We need better walkways with streetscape improvements for pedestrians, and bike lanes for bicyclists, as well. 1

We support the New Britain-Hartford busway as the beginning for better transportation options! Let's leave the dead end of highway expansion, build better places to live, and create more travel options through transit.

Sincerely yours,

Parkville Revitalization Association

David Morin

David Morin, President

11 New Park Avenue. Hartford. Connecticut 06106

Responses to Comments:

1. These responses to these issues appear in the document from PRA that follows.

PARKVILLE REVITALIZATION ASSOCIATION

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE NEW BRITAIN-HARTFORD BUSWAY

By:
Parkville Revitalization Association

May 18, 2001

11 New Park Avenue, Hartford, Connecticut 06106

PARKVILLE REVITALIZATION ASSOCIATION

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APPENDIX I. Parking Data and Map from Milone & MacBroom for New Park Avenue

APPENDIX II. Evolution of design of the Park Street and Kane Street Busway Stations, prepared by the Miniutti Group, llc, and Milone and MacBroom as part of the TCSP Project, Picture It Better Together.

- Park Street Station
- Kane Street, or *"Stop'n'Shop Station"*

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POTENTIAL NOISE BARRIER LOCATIONS (MAP 1 OF 3)

NEW BRITAIN - HARTFORD BUSWAY
Environmental Impact Statement (EIS)

FIGURE 3.1-1

PARKVILLE REVITALIZATION ASSOCIATION

back-ups on I-84 often exit and take short-cuts through Parkville on local streets. Since Parkville is a low-income neighborhood, those residents who do own cars are more likely to own older vehicles with less up-to-date emission technology.

We note that the draft EIS states[4] that *"One reason for the deficiency of congestion area roads is that overtime, dispersed land use development patterns for residences and workplaces have resulted in longer distances that commuters must travel. This decentralization has resulted in high travel demand on I-84 and other arterial and local roadways."* We concur with this finding. We, however, wish to point out, that the construction of the busway and the institution of transit-oriented-development (T-O-D) land use standards along the busway, will mitigate this trend. T-O-D must be more than a nice idea. Zoning regulations and standards must be studied, formulated, and adopted by the municipalities. Regional planning entities, such as CRCOG and CCRPA, encouraging T-O-D development standards is a step forward, but not sufficient. Moreover, the bus rapid transit stations must be planned so as to enable and support T-O-D development. This is a missing element in most station plans discussed in the draft EIS. Furthermore, the recommended Reasonable Alternative Plan (RAP) from the Hartford MIS explicitly incorporated land use regulation to support transit friendly design.[5] This RAP element needs to be provide sufficient resources, so that the necessary land use changes can be implemented in concert with busway planning, with the active involvement and partnership with the effected neighborhoods. 4 5

Connecticut Department of Transportation, as a pilot state for the Federal Highway Administration's context sensitive design initiative, should take aggressive steps to ensure that the design of the busway alignments, stations, and multi-modal nexuses between the busway, other buses, taxis, cars, pedestrians, and bicyclists adhere to the principles of context-sensitive design. The busway will be a success if its infrastructure is woven into the physical and social fabric of neighborhoods and communities. The importance of the walking mode as a critical link to the proposed busway in the transportation system is inadequately addressed in the Draft EIS. This overlooked link of the transportation system and its importance to the New Britain-Hartford Busway must be more fully recognized and planned for. 6 7 8

The Parkville Revitalization Association as a partner in the Picture It Better Together TCSP[6] planning process held extensive meetings and planning workshops in 9

[4] Page 1-8, Section 1.1.1.
[5] Page 2-3, preliminary Draft EIS.
[6] TCSP stands for the Transportation and Community and System Preservation program of the Federal Highway Administration.

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Responses to Comments:

4. See Response #1 to Connecticut DEP.

5. CRCOG, CCRPA, municipal representatives and interested citizens and businesses will all have an active role in addressing station design and Station Area Planning in the design process.

6. Concur. One of the guiding principles that has steered the architectural efforts so far is the need to provide "context sensitive solutions" for the busway stations and facilities. ConnDOT has appealed to the public for input using architect-generated renderings of station concepts. Context sensitive principles dictate that the busway should be appropriately designed to blend into the context of the surrounding community, rather than "stick out" from the existing landscape. See Section 2.2.3 of this Final EIS for more information.

7. Section 4.13 of the Draft EIS evaluated pedestrian and bicycle issues.

8. Improving pedestrian access to stations has not been overlooked, and is emphasized. It is recognized that stations, particularly those that are expected to have a high pedestrian-based ridership, need to have adequate pedestrian access to ensure the busway will be successful. ConnDOT will work with neighborhood groups and communities during the design process to ensure that ConnDOT and the corridor communities make appropriate improvements within the vicinity of busway stations

9. ConnDOT has been actively working with PRA and PIBT-TCSP and looks forward to continuing the coordination during the design process.

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the neighborhood to explore planning and busway design issues, and to move towards neighborhood consensus on key planning parameters. Over 100 different people have been involved in the workshops and meetings regarding the busway in Parkville as part of the TCSP planning process. Through this grassroots community planning process Parkville has formulated basic planning prerequisites and principles. Parkville Picture It Better Together TCSP Committee maintains a mailing list of over 500 Parkville residents, businesses and stakeholders.[7] 9

The Parkville Revitalization Association is articulating thirty points of concern and principles that need to be addressed by the proposed New Britain-Hartford Busway. They are summarized below. Each point of concern is expounded upon more fully in later in this document.

1. Service Frequency: The busway with connecting feeder bus services, and downtown Hartford circulator service, should operate seven days a week, 24-hours daily, with frequent service, ideally at a minimum of ten to fifteen minute intervals during non-rush hour periods from 5 am to midnight, and at lower frequencies between midnight and 5 am.

2. Support the Retention of Existing Businesses and the Expansion of Economic Development Opportunities through Transit-Oriented Development around the Busway Stations. The Parkville Revitalization Association is very concerned about existing businesses and the jobs they create for neighborhood residents. PRA supports minimal impacts on existing businesses at the proposed busway stops at Park Street, Kane Street and Flatbush. The overall successful operation of the busway, and neighborhood economic vitality are our paramount concerns. 10

   When businesses are impacted, they should be promptly notified, and fully and promptly compensated for any and all impacts. ConnDOT should take immediate steps to help existing business identify suitable relocation sites, preferably in the same neighborhood to keep jobs and business local.

   Provisions for economic development using transit-oriented development principles must be created at all stations in Parkville. By this the PRA believes ConnDOT needs to take a more active and aggressive role in:

   - Land for TOD. Providing adequate space and land for transit-oriented development at each station, e.g., the Kane Street station.

[7] The nature and magnitude of outreach, public participation and involvement, and mailing list are larger and more extensive than the Hartford MIS study undertaken by ConnDOT. 11

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Responses to Comments:

10. As these thirty points of concern that are summarized here are all repeated in more detail in the document that follows, they will all be addressed in the respective sections that follow.

11. ConnDOT encourages Parkville PIBT-TCSP to disseminate information to their members, and to encourage those members that are very interested in the project to get directly involved.

PARKVILLE REVITALIZATION ASSOCIATION

- Commitment for Joint and Co-Development in Transit-Oriented Development. Providing for joint and co-development at each station. ConnDOT should work with PRA to include a connection to the Parkville Industrial Corridor and joint development with the property at 17-35 Bartholomew Street, directly east of the Park Street busway station stop.

- T-O-D on both the east and west side of the busway right-of-way. The east side of the Kane Street station is an additional joint development opportunity at the southeast corner of Kane Street extended and New Park Avenue. ConnDOT's West Side Access proposal to extend Bartholomew Street southward creates additional opportunities for Transit-Oriented Development at Kane Street. Plans and provisions should be incorporated to enable T-O-D development on both the east and west sides of the busway right-of-way.

- Aggressive, pro-active action is required of ConnDOT to create transit-supportive land use planning. ConnDOT should be charged to aggressively work with local municipalities, namely Hartford and others, to actively rezone and take supportive land use planning actions to at minimum create and support Transit-Oriented Development within 2000 feet radius of each busway stop. 10

- Fiber Optics and Electronic Infrastructure to support the busway and TOD. The success of the busway and the necessary and critical supporting and reinforce transit-oriented development needs to be augmented by utility planning and installation. The busway right-of-way needs to include high speed fiber optic and cable electronic infrastructure to stimulate future growth and development of transit-oriented development. This fiber optic and cable electronic infrastructure must be more than the existing through lines connecting New York and Boston, there must be provisions for local connections and additional lines, connecting parcels in Parkville's Industrial Corridor, Creative Arts Cluster on Arbor Street, the Kane Street corridor, and future development at Charter Oak Terrace and Rice Heights.

3. Connection to the Industrial Corridor. At the Park Street station busway stop there should be a strong connection to the Industrial Corridor.

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Responses to Comments:

10. As these thirty points of concern that are summarized here are all repeated in more detail in the document that follows, they will all be addressed in the respective sections that follow.

PARKVILLE REVITALIZATION ASSOCIATION

4. Create and operate the Parkville Trolley, as feeder bus routes throughout the Parkville vicinity linking with the busway, and expanding easy, safe access to the busway for all Parkville residents and employers. Most Parkville residents will not be served without the implementation and operation of a feeder route throughout the Parkville area, namely the Parkville Trolley. The draft EIS refers to locating stations in areas to maximize access to employers and residents. The Park Street, Kane Street, and Flatbush Avenue Stations are all situated at locations which require feeder bus service. No discussion of proposed feeder routes was made in the draft EIS. Thus, PRA cannot be assured that the same or better level of service will continue for Parkville. Feeder routes are critical. Parkville insists on the creation of the Parkville Trolley to serve and feed the New Britain-Hartford Busway.

5. Unified (or opposite) station platforms should be used to ensure basic safety and ease of access at all stations, and particularly the Parkville Stations, namely Park Street, Kane Street, and Flatbush Avenue.

6. Physical improvements within a 2,000 foot radius of the stations to improve streetscape, and the walkways to the new busway stops at Park Street, Kane Street and Flatbush. This should include benches, sidewalk bumpout, sidewalk amenities, decorative paving; lighting; trees; bicycle-friendly improvements; and waste receptacles. 10

7. Adoption of safety and defensible space principles in the design of all busway station stops. This includes the use of opposite (or unified) platform design at all stations, especially the three stations in Parkville – Park Street, Kane Street, and Flatbush Avenue. Buses should also be selected using defensible space principles, as well.

8. Station Buildings. Each stop in Parkville – Park Street, Kane Street, and Flatbush – should have a full station building for waiting and services at the busway. Each station building and stop in Parkville should have a map and geographic orientation to the larger neighborhood, highlighting local institutions.

9. Hamilton Street. Expanded study of impacts of the busway on Hamilton Street, and the queuing of cars on Hamilton Street east and west of the busway. Implementation of mitigation measures and improvements on Hamilton Street, per the findings of the expanded study, in consultation with the PRA.

10. Bridge Design. PRA urges ConnDOT to retain specialized bridge designers to design the proposed new overpasses and reconstruction of bridges at Flatbush,

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Responses to Comments:

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PARKVILLE REVITALIZATION ASSOCIATION

Park Street, and Capitol. PRA want to be assured that the bridges provide adequate access for vehicles, trucks, bikes, and pedestrians, and moreover do not create another barrier or blight entering Parkville or the City of Hartford.

11. Maintain and Expand Existing Levels Transit Service. Existing bus service to the Parkville should be at minimum maintained.

12. Public art at the busway stops, and throughout the busway corridor.

13. The busway should be a greenway through Hartford. The greenway should provide a noise and sound barrier between buses and abutters.

14. Bike Amenities and Bike Parking at all busway stops, with buses that have bike racks. There should be a pedestrian and bicycle connection to the proposed South Park River Greenway and the expanded Pope Park West.

15. Clean, energy-efficient, quiet buses. PRA urges ConnDOT to utilize clean, energy-efficient, quiet buses for all vehicles travelling on the busway, including coaches that may be privately-owned or school buses. Alternative fuels, including the use of hydrogen fuel cells, should be developed for all vehicles. ConnDOT should provide a varied sizes of bus vehicles for the busway, and not just full-sized, and extra-long vehicles. 10

16. Fully-funded, long-term, and continuing maintenance of the busway by ConnDOT. A long-term and continuing maintenance plan should be developed and appended to the draft EIS, with necessary full-funding levels for long-term and continuing maintenance. The use of high-quality, high-durability materials should be used in the capital construction phase of the New Britain-Hartford busway, so as to minimize future maintenance and repair expenses. Use high-quality materials, build it right, and maintain the busway!

17. Context-sensitive design principles should be used with the busway, not only at stations, but also as how the busway affects abutters and as to underpasses. This is particularly important with at-grade and bridge crossings.

18. Design speed, width of traffic islands, and lane width should be slowed or narrowed, so as to minimize effects of stations on existing businesses and abutting land owners. ConnDOT should take every step to minimize any impacts on Sack Oil at the Park Street station, including reduction of design speed, reduction of the width of pedestrian islands, and reduction of the width of bus

May 18, 2001 Comments on the New Britain-Hartford Busway Draft EIS 7

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Responses to Comments:

10. As these thirty points of concern that are summarized here are all repeated in more detail in the document that follows, they will all be addressed in the respective sections that follow.

PARKVILLE REVITALIZATION ASSOCIATION

lanes. This will minimize potential brownfields exposures to ConnDOT and the busway project and minimize busway impacts.

19. Stations should be visible, in their entirety, to promote safety and use. The current proposal for the Kane Street station has the inbound platform behind Stop'n'Shop's truck loading area. This is not acceptable, and needs to be altered. The station, in-bound and out-bound, loading and de-planing areas both need to be highly visible. PRA supports unified (opposite) station design at Kane Street.

20. Shared and sustainable parking strategies should be adopted at all locations where parking is to be constructed. Parking at stations should be minimized, and promotion of multi-modal connections, especially bicycle, transit, and pedestrian should be aggressively pursued and supported. New parking lots at Kane Street are not necessary, since a shared parking lot strategy can easily be pursued with the Crown Theaters or Stop'n'Shop.

21. Strong pedestrian improvements and connections should be present at each busway station. There should be strong pedestrian connections at Kane Street, Park Street, and Flatbush, especially to the Capitol Community College and Job Corp Center. Overall, the multi-modal transit-pedestrian connections are weak in the draft EIS. These need to be strengthened. 10

22. Drainage issues need to be addressed, and appropriate infrastructure installed, at all station areas, including underpasses, for the busway. The area at Park Street already floods during heavy rain storms. This impedes traffic, vehicular, bicycles, and pedestrian at Park Street and the trestle. The construction of additional impervious surfaces, e.g., the busway road, will aggravate this problem. Mitigation measures must be planned and implemented. The area at Kane Street also has a history of drainage problems. All drainage improvements should correspond with the new storm water regulations being promulgated by USEPA for urban areas. PRA is concerned about the removal of snow and subsequent spring meltings. Adequate provisions need to be made for the removal of snow. The proper storm runoff, in the event of use of any chemicals and salt for snow and ice mitigation, needs to be addressed especially as to the Kane Brook and South Park River. Increased runoff from snow and rain to adjoining properties, including residences and businesses along the busway needs to be addressed. Nothing is mentioned in the draft EIS on this point.

23. An ecological corridor should be recognized, and greenspace should be developed to complement the Kane Street station area.

May 18, 2001 Comments on the New Britain-Hartford Busway Draft EIS 8

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Responses to Comments:

10. As these thirty points of concern that are summarized here are all repeated in more detail in the document that follows, they will all be addressed in the respective sections that follow.

PARKVILLE REVITALIZATION ASSOCIATION

24. Kane Street Station should be officially called Kane Street, and be an urban, pedestrian-walking centric station.

25. Coordination of the Busway and West Side Access Study. Proposed changes to be adopted and implemented by West Side Access Study should support and reinforce the success of the busway.

26. Increasing mobility of carless households should be also be stated goal of the busway. 10

27. Improve image of the busway and "busea."

28. Flatbush Station.

29. Barrier Walls between Amtrak and the Busway.

30. Park Street Station.

May 16, 2001 Comments on the New Britain-Hartford Busway Draft EIS 9

11 New Park Avenue, Hartford, Connecticut 06106

Responses to Comments:

10. As these thirty points of concern that are summarized here are all repeated in more detail in the document that follows, they will all be addressed in the respective sections that follow.

PARKVILLE REVITALIZATION ASSOCIATION

1. Service Frequency

The Parkville Revitalization Association strongly supports the New Britain-Hartford Busway and a comprehensive system of regional transit, with additional connecting busway lines and feeder services to the busway. There should be strong connections and links with downtown Hartford, including the proposed downtown circulator service, the insurance office area, and buses servicing other stations throughout the system. 12

Buses should operate seven days a week, 24-hours daily, with frequent service, ideally at a minimum of ten minute intervals during non-rush hour periods from 5 am to midnight, and at lower frequencies between midnight and 5 am. The early morning service, pre-6 am, is important for many Parkville residents. Frequency and dependability are critical for prospective Parkville patrons. 13

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Responses to Comments:

12. The proposed service plan addresses many of these issues. The need for additional connecting busway collector and feeder services will be determined as the service design process progresses during project design. A comprehensive system of busways has been planned in CRCOG's Regional Transit Strategy to also include potential future BRT lines in the Griffin and Manchester corridors.

13. For the purposes of the EIS analyses, it was assumed for buses to run daily from 6 AM to midnight. Service frequencies will be determined based upon demand and available resources, and may change over time. The frequencies listed in the Draft EIS were primarily generated for EIS analyses (noise, etc.) and to determine the need for new vehicles. While Parkville considers it desirable to have buses running 24 hours daily, or to offer peak service from 5 AM onward, ConnDOT and CT Transit will have to determine service frequencies that are reasonable based upon passenger demand, perception of passenger security, impact on abutting properties, etc.

PARKVILLE REVITALIZATION ASSOCIATION

2. Support Retention of Existing Businesses and the Expansion of Economic Development Opportunities around the Busway Stations.

The Parkville Revitalization Association is very concerned about existing businesses and the jobs they create for neighborhood residents. PRA supports minimal impacts on existing businesses at the proposed busway stops at Park Street, Kane Street and Flatbush. The overall successful operation of the busway, and neighborhood economic vitality are our paramount concerns.

When businesses are impacted, they should be promptly notified, and fully and promptly compensated for any and all impacts. ConnDOT should take immediate steps to help existing business identify suitable relocated sites, preferably in the same neighborhood to keep jobs and business local. 14

The proposed Park Street Station will impact businesses, and require property acquisition. The following table summarizing the business impacts as to each option, and Parkville's comments.

Park Street Busway Station Options	# of Businesses Impacted by Proposed Option	Parkville's Comments
Park Street Option I-1 with Opposite Platforms & realignment of Francis Street.	3, possibly 4 businesses impacted. ▪ Used Car Dealer ▪ Plumbing Supply ▪ Oil Distributor ▪ Restaurant (if Francis is realigned) *This option could be revised to impact only Two (2) businesses – see comments.*	It is possible to reduce the business impacts of Option I-1 to no more than 3 businesses, by eliminating the realignment of Francis Street (which is reviewed below.) PRA supports no impacts on Saks Oil, and urges ConnDOT to take after the design (as to design speed, lane width, and island width), thereby minimizing the number of businesses adversely affected. This is the option that PRA prefers to endorse, if the business impacts are reduced.
Park Street Option I-2 with Opposite Platforms.	2 businesses impacted. ▪ Plumbing Supply ▪ Used Car Dealer	Option I-2 best meets the Parkville neighborhood planning criteria to retain existing businesses.
Park Street Option I-3 with Off-Set Platforms.	1 businesses impacted. ▪ Plumbing Supply ▪ Used Car Dealer ▪ Auto Repair	This option is the only alternative that impacts a MBE-owned business.

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May 18, 2001 Comments on the New Britain-Hartford Busway Draft EIS 11

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Responses to Comments:

14. Concur. ConnDOT has endeavored to minimize acquisition of property to the greatest degree possible throughout the corridor. Sections 3.8 and 4.12 discuss property acquisitions in detail. All owners of properties acquired would be compensated for their fair market value. In addition, relocation services would be offered to all displaced persons (owners and tenants) and businesses without regard to race, color or national origin in accordance with the Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970 and Chapter 135 of the State of Connecticut General Statutes. The property owner is given the choice of where to relocate based upon availability of properties that meet the owner's needs. In the case of businesses, they typically elect to stay as close as possible to their original location for the benefit of their existing customer base.

15. This station has been revised as a hybrid (I4) of the three station options evaluated in the Draft EIS. Changes were made to address comments from Parkville, Hartford staff and others, and ConnDOT believes that many concerns that were previously raised are now addressed. Platforms are "opposite" configuration. This option will affect a plumbing supply company, two auto-related businesses, and would require a partial taking of an oil company. There may be an opportunity for them to purchase excess property to reconfigure the oil company office building after construction. See Section 2.4.9 for more information.

PARKVILLE REVITALIZATION ASSOCIATION

Park Street Station Option I-1 design as proposed in the draft Environmental Impact Statement calls for impacting the Saks Oil distribution center on Francis Avenue. The Parkville neighborhood is opposed to any taking (partial or whole) of Saks Oil. Parkville contends that Option I-1 could be made more viable (minimizing the impact on existing businesses), by deploying a combination of the following strategies: 15

- Narrowing the "pedestrian islands" in the busway right-of-way from 6 feet to 5 feet or 4.5 feet.
- Further reduce the design speed for the busway at this location to 30 mph at this point only. 16
- Slightly narrow the platform widths for waiting passengers.
- Slightly narrow the lane widths for pull-off vehicles, and for pass-through buses.

Park Street Station Option I-1 also calls for the realignment of Francis Avenue, and the acquisition land owned by the restaurant at the southwest corner of Park Street and Francis Avenue. The realignment of Francis Avenue was initially perceived as an improvement. Further study by the Parkville neighborhood indicates that this will have detrimental effects. At this time, PRA is not advocating for the realignment of Francis Avenue, as proposed in Park Street Option I-1. In a separate but related work, the PRA assessed the parking needs and available parking along Park Street and New Park Avenue. The table highlighting the findings of this assessment can be found in the Appendix to this document. It was found that there is a deficiency of eight (8) parking spaces in the block surrounded by Park Street, Francis Avenue, Hamilton and New Park Avenue. This is the very block that would be further adversely impacted if Francis Avenue is realigned and acquires the restaurant property presently being used for parking. Hence, PRA is not advocating for the realignment of Francis Avenue. 17

Provisions for economic development using transit-oriented development principles must be created at all stations in Parkville.

We note that the draft EIS states[8] that *"One reason for the deficiency of congestion area roads is that overtime, dispersed land use development patterns for residences and workplaces have resulted in longer distances that commuters must travel. This decentralization has resulted in high travel demand on I-84 and other arterial and local roadways."* We concur with this finding. We, however, wish to point

[8] Page 1-8, Section 1.1 1.

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Responses to Comments:

16. The design of this station has been reduced to reach a reasonable balance among safety, operational effectiveness and right-of-way needs. Any further reduction could create a safety condition that would be unacceptable.

17. Realignment of Francis Avenue is not included as part of the Recommended Action.

PARKVILLE REVITALIZATION ASSOCIATION

out, that the construction of the busway and the institution of transit-oriented-development (T-O-D) land use standards along the busway, will mitigate this trend. T-O-D must be more than a nice idea. Zoning regulations and standards must be studied, formulated, and adopted by the municipalities. Regional planning entities, such as CRCOG and CCRPA, encouraging T-O-D development standards is a step forward, but not sufficient. 4

The State of Connecticut should adopt and implement policies in which state investments, including the siting of offices and leases for state offices, support and re-inforce transit and transit-oriented-development. Vehicular parking requirements for leasing of state offices should be reduced when situated within 2000 feet of the New Britain-Hartford busway, and future busways in the region. Furthermore, the State of Connecticut should utilize incentives amongst its own workforce to encourage use of the busway, in lieu of driving and the creation of additional parking spaces. Preference should be given in leasing and state investment decisions to locations near transit or commuter rail stations. 18

Moreover, the bus rapid transit stations must be planned so as to enable and support T-O-D development. This is a missing element in most station plans discussed in the draft EIS. Furthermore, the recommended Reasonable Alternative Plan (RAP) from the Hartford MIS explicitly incorporated land use regulation to support transit friendly design.[6] This RAP element needs to be provide sufficient resources, so that the necessary land use changes can be implemented in concert with busway planning, with the active involvement and partnership with the effected neighborhoods. 4 5

By this the PRA believes ConnDOT needs to take a more active and aggressive role in:

- Land for TOD. Providing adequate space and land for transit-oriented development at each station, e.g., the Kane Street station. 19
- Commitment for Joint and Co-Development in Transit-Oriented Development. Providing for joint and co-development at each station. ConnDOT should work with PRA to include a connection to the Parkville Industrial Corridor and joint development with the property at 17-35 Bartholomew Street, directly east of the Park Street busway station stop. 20

[6] Page 2-3, preliminary Draft EIS.

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Responses to Comments:

18. This recommendation, however, is beyond the purview of ConnDOT, and may require legislative authority.

19. ConnDOT has attempted to incorporate room for TOD at station sites wherever possible. It is not ConnDOT policy, however to acquire land for speculative development purposes.

20. ConnDOT has included accommodation for a possible connection from the Park Street busway station to 17-35 Bartholomew and the Parkville Industrial Corridor in its concept plans for the busway. ConnDOT will encourage efforts on the part of Parkville and Hartford regarding development of that site.

PARKVILLE REVITALIZATION ASSOCIATION

- T-O-D on both the east and west side of the busway right-of-way. The east side of the Kane Street station is an additional joint development opportunity at the southeast corner of Kane Street extended and New Park Avenue. ConnDOT's West Side Access proposal to extend Bartholomew Street southward creates additional opportunities for Transit-Oriented Development at Kane Street. Plans and provisions should be incorporated to enable T-O-D development on both the east and west sides of the busway right-of-way. 21 22
- Aggressive, pro-active action is required of ConnDOT to create transit-supportive land use planning. ConnDOT should be charged to aggressively work with local municipalities, namely Hartford and others, to actively rezone and take supportive land use planning actions to at minimum create and support Transit-Oriented Development within 2000 feet radius of each busway stop. 23
- Fiber Optics and Electronic Infrastructure to support the busway and TOD. The success of the busway and the necessary and critical supporting and reinforce transit-oriented development needs to be augmented by utility planning and installation. The busway right-of-way needs to include high speed fiber optic and cable electronic infrastructure to stimulate future growth and development of transit-oriented development. This fiber optic and cable electronic infrastructure must be more than through lines connecting New York and Boston, there must be provisions for local connections and additional lines, connecting parcels in Parkville's Industrial Corridor, Creative Arts Cluster, and future development at Charter Oak Terrace and Rice Heights. 24

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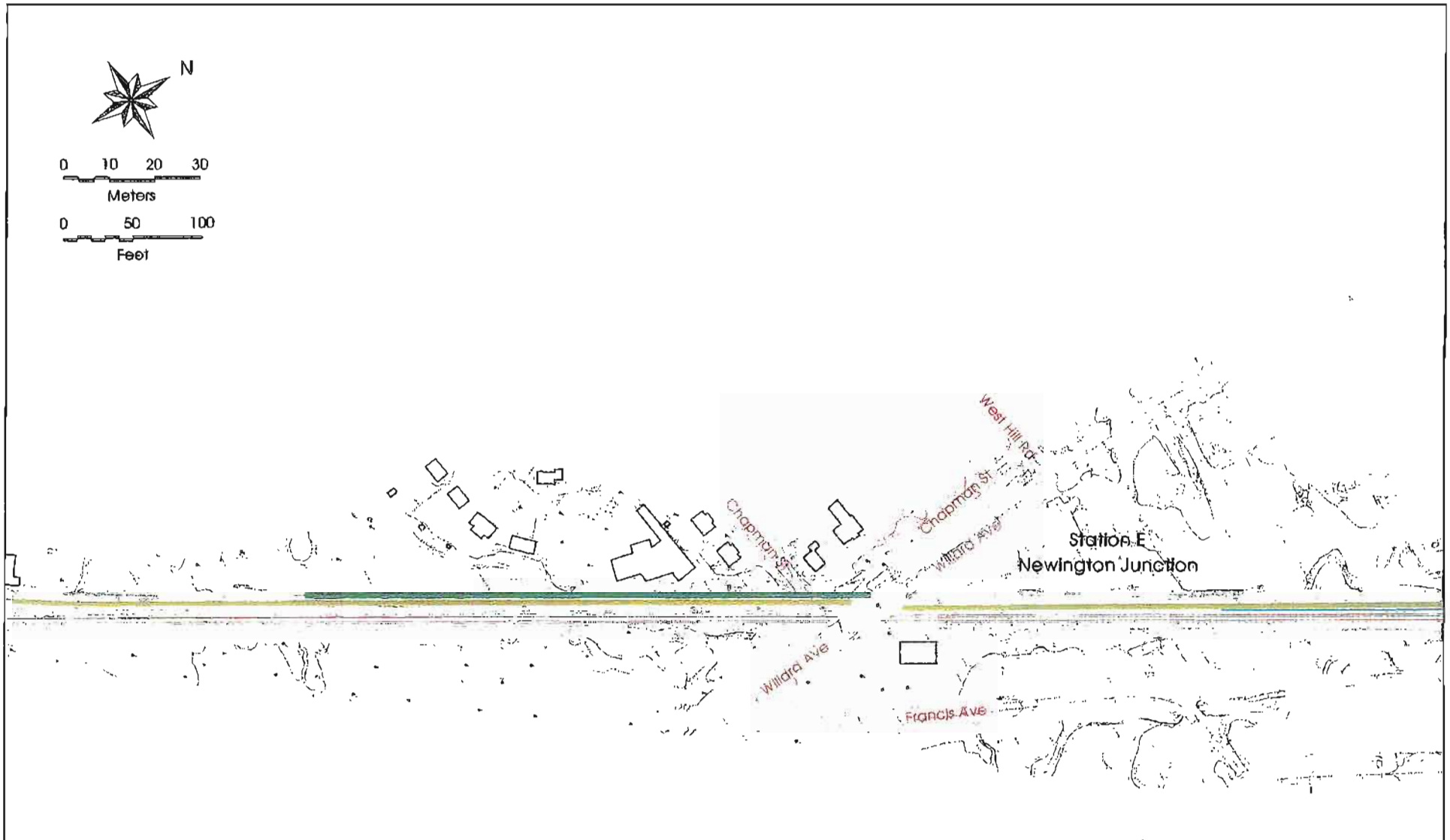
Responses to Comments:

21. Concur. The current configuration of the New Park Avenue (Kane Street) Station allows for TOD and restoration of wetlands/floodplain (which PRA has also requested for the site).

22. ConnDOT will encourage efforts for TOD as noted in Response #5 above, but does not have control of property east of the busway corridor, which is owned by Amtrak.

23. As noted in Response #4 above, ConnDOT does not have authority re-zone Hartford property, but will endorse Hartford and Parkville's efforts to do so.

24. ConnDOT would provide the electronic infrastructure to support the busway. Any other infrastructure would be the responsibility of private providers.



POTENTIAL LIMITS OF NOISE BARRIER

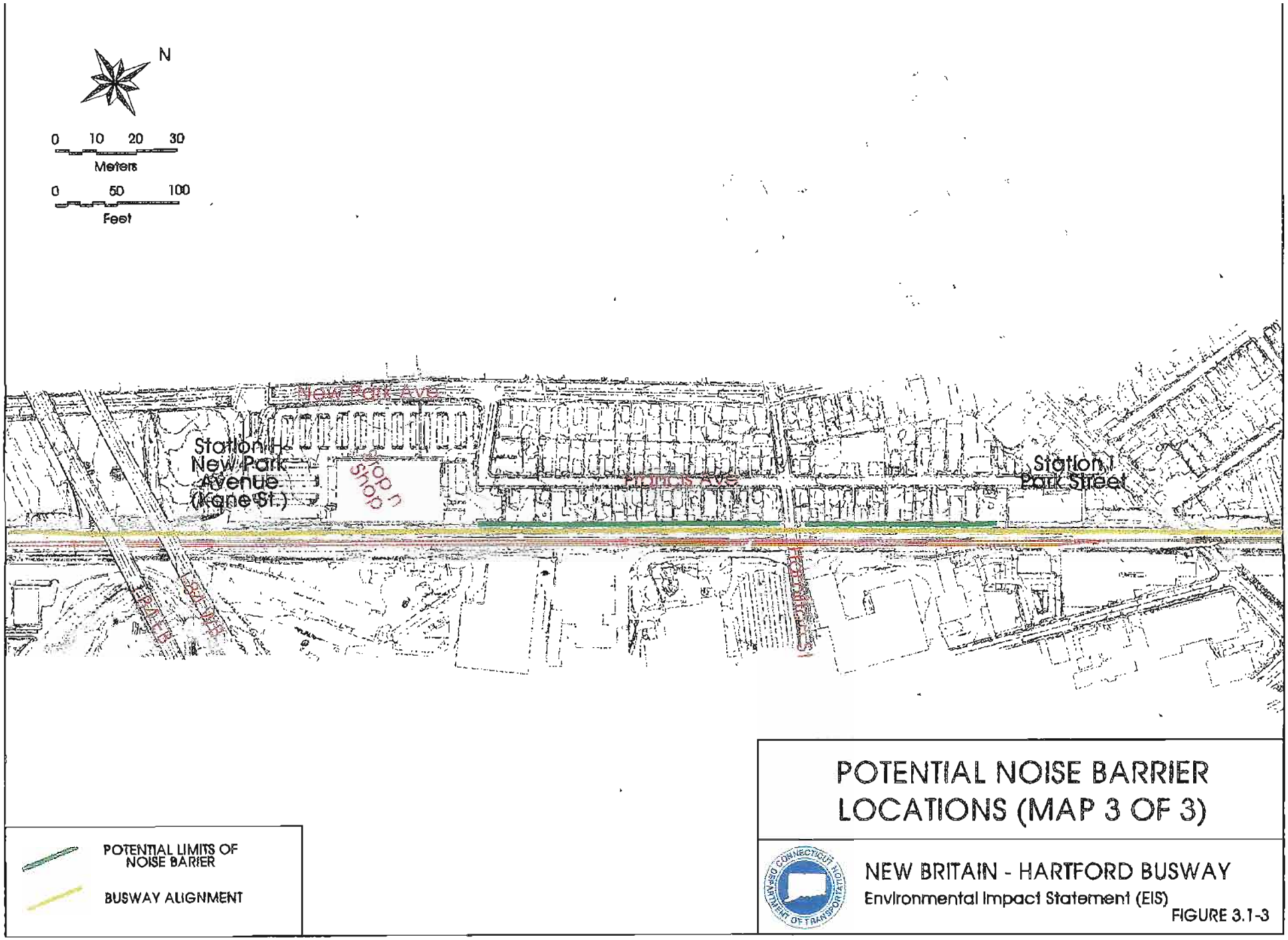
BUSWAY ALIGNMENT

POTENTIAL NOISE BARRIER LOCATIONS (MAP 2 OF 3)

NEW BRITAIN - HARTFORD BUSWAY

Environmental Impact Statement (EIS)

FIGURE 3.1-2



POTENTIAL NOISE BARRIER LOCATIONS (MAP 3 OF 3)

NEW BRITAIN - HARTFORD BUSWAY

Environmental Impact Statement (EIS)

FIGURE 3.1-3

PARKVILLE REVITALIZATION ASSOCIATION

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE NEW BRITAIN-HARTFORD BUSWAY
By: PARKVILLE REVITALIZATION ASSOCIATION

May 18, 2001

Executive Summary

The Parkville Revitalization Association strongly and emphatically supports the development and construction of the New Britain-Hartford Busway proposed by the Connecticut Department of Transportation. We believe the busway will be the start of a comprehensive system of rapid transit for the Hartford region, which we strongly endorse and support. We believe the busway is important because it provides Parkville area residents, businesses and employers travel choice and options. 32% of Parkville households do not have a car (compared to 10% of the MSA region)[1]. We believe the busway provides much needed and overdue transit choice. Parkville will be one of the most impacted neighborhoods by the busway, with three stops now proposed to be in Parkville, namely Park Street, New Park Avenue (Kane Street)[2], and Flatbush Avenue – 25% of the busway stops. The Parkville Revitalization Association, as the official designated Neighborhood Revitalization Zone (NRZ), supports the New Britain-Hartford Busway with qualification. The qualified support and comments are offered to make the New Britain-Hartford Busway the best transit service and wisest investment of public dollars. 1

Parkville is a highly impacted neighborhood by the proposed New Britain-Hartford Busway. Parkville is a neighborhood protected by the President's Executive Order for Environmental Justice. Parkville is an ethnically diverse, low-income neighborhood of Hartford. Parkville is the lowest income neighborhood directly impacted by the New Britain Hartford busway. The following table[3] summarizes the demographics of Parkville in comparison with other communities served by the busway.

[1] 1990 US Census, Summary Tape File 31. MSA refers to Metropolitan Statistical Area.
[2] Throughout the Draft EIS, the station located at New Park Avenue and Kane Street extended is referred to as New Park Avenue. Since several stations are equidistant from New Park Avenue, this name is not informative. The PRA prefers and strongly recommends that this station be named Kane Street. The comments filed by PRA use the name Kane Street, in lieu of New Park Avenue.
[3] All data is from 1990 US Census, STF 3A.

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Responses to Comments:

1. Concur. One of the primary needs of the project as listed in the EIS' Purpose and Need Statement is to increase opportunities for alternative modes. The existing transit system needs to be improved to better serve all users, including transit-dependent persons.

PARKVILLE REVITALIZATION ASSOCIATION

AREA	1990 Population	1990 Pct. White Non-Hispanic	1990 Median Household Income	1990 Population Per Square Mile	1990 Pct. Rode Transit to Work	1990 Pct. Walk to Work	1990 Pct. Households without Vehicles
MSA	1,085,895	83%	$41,440	642	4%	3%	10%
Hartford	137,299	31%	$22,140	8,077	17%	10%	39%
Parkville	6,119	45%	$20,444	12,239	N/A	N/A	32%
West Hartford	62,548	92%	$49,642	2,732	3%	4%	8%
Newington	29,257	95%	$45,481	2,212	1%	1%	4%
New Britain	75,841	79%	$30,121	5,676	3%	3%	16%

Development of the busway, and its stations should be designed with paramount concern for the busway patron, and his/her safety and ease of access. This should not be a secondary concern to operations and engineering. In the long run, the busway will succeed as a major transit investment, and as an alternative travel mode (to I-84) when the needs, convenience, and comfort of the customer are the central focus. 2

The Parkville Revitalization Association has supported the busway recommendation from the outset when it was initially considered as a traffic congestion mitigation strategy during the Hartford West Major Investment Study. As planning for the busway and the West Side Access Study continues, any additional investments in I-84 should be undertaken so as to not only support, but to reinforce the success of this major new public investment, the New Britain-Hartford Busway. 3

The impetus for the busway is traffic congestion mitigation and expansion of travel options for present-day and future users of I-84. Parkville is significantly and highly impacted by I-84 and its congestion, even though one-third of Parkville households do not have cars. I-84 is wrapped around the east and southern boundaries of Parkville, as illustrated in Figure 1

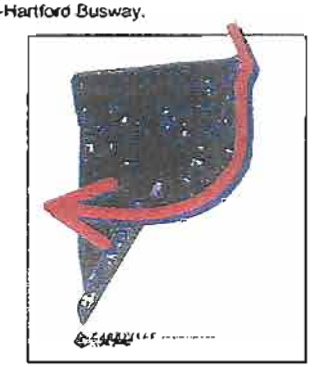

Figure 1. Parkville, with I-84 and its corresponding congestion wrapping the neighborhood

Stalled traffic on I-84 adversely affects air quality. Hartford is a non-attainment zone. 41% of Hartford school children have asthma and respiratory diseases. Suburban drivers to downtown Hartford when faced with

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Responses to Comments:

2. Concur. The success of the facility in attracting riders is the primary focus in determining design. Nonetheless, engineering limitations have to also play a role in determining what can and cannot be constructed

3. Concur. Coordination with the West Side Access Study was carried out throughout the development of the busway. The assumptions in the West Side Access Study are that the busway would be contracted and operating. This was done to attempt to reflect any synergies with both projects. The concepts presented in the West Side Access Study are currently not programmed for advancement. Should these concepts be advanced into design, further coordination would continue

PARKVILLE REVITALIZATION ASSOCIATION

3. Connection to the Parkville Industrial Corridor.

The Parkville Industrial Corridor is a job center for Parkville, Hartford, and the nearby region. Consequently, the Parkville Industrial Corridor will be a destination for riders on the busway. Local Parkville business owners anticipate using the busway mid-day, assuming sufficiently frequent service, to conduct business in Downtown Hartford. As a major destination, there needs to be a strong connection to the Parkville Industrial Corridor, especially at Park Street. The preferred busway connection to the Industrial Corridor is overhead and connecting with proposed joint development site at 17-35 Bartholomew Avenue (now a vacant city-owned brownfields site). This is portrayed below in the overlay on the aerial of Park Street station area:

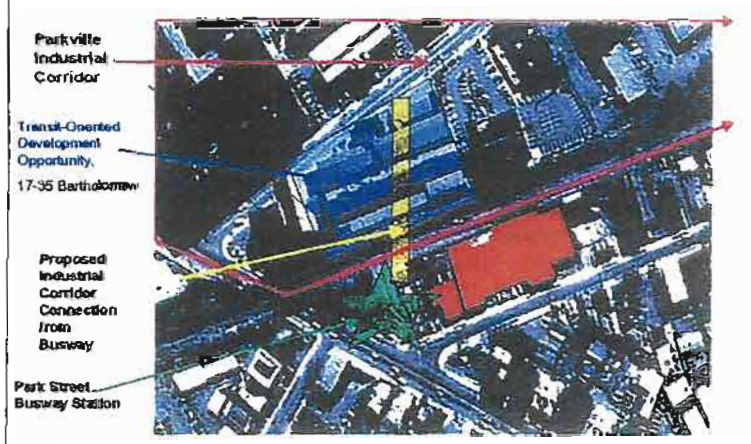

Figure 2. Recommended connection to the Parkville Industrial Corridor at the Park Street Busway Station to connect station with Parkville area employment centers.

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Responses to Comments:

No response is necessary on this page.

PARKVILLE REVITALIZATION ASSOCIATION

An architectural illustration of how this connection with the Parkville Industrial Corridor and the Park Street Busway Station could work is shown below:

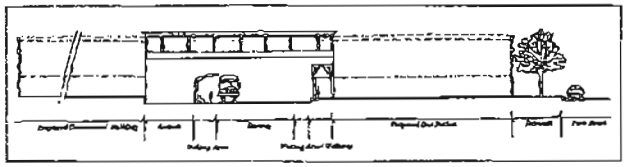

Figure 3. Park Street Station with unified (opposite) platforms and connection to the Parkville Industrial Corridor.

20

The companion traffic-highway study to the busway, the West Side Access Study, currently underway by the Connecticut Department of Transportation and the Capitol Region Council of Governments is proposing to make changes to I-84 Exit 45, which would extend Bartholomew Avenue southerly to Flatbush Avenue. Projected implementation of these changes is later in this decade, 2008-2010. Provisions should be made at this time to enable a connection at the Kane Street busway stop to the south-central portion of the Parkville Industrial Corridor. No mention of coordination with the implementation plans of the West Side Access Study was made in the Draft EIS for the New Britain-Hartford Busway. Since the busway is the outgrowth of the Hartford West MIS, as is the West Side Access study, the implementation outcomes need to be coordinated and planned for maximum benefits. No consideration of this alternative was considered in the discussion of the Draft EIS.

25

26

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Responses to Comments:

25. Under the West Side Access Study, such a connection could be provided at such time that there is interest in development in that area

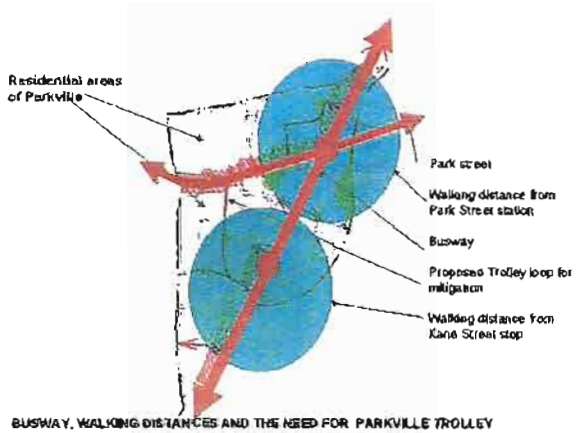
26. Coordination with the West Side Access Study was carried out throughout the development of the busway. The assumptions in the West Side Access Study are that the busway would be contracted and operating. This was done to attempt to reflect any synergies with both projects. The concepts presented in the West Side Access Study are currently not programmed for advancement. Should these concepts be advanced into design, further coordination would continue

PARKVILLE REVITALIZATION ASSOCIATION

4. Create and Operate the Parkville Trolley.

The draft EIS refers to locating stations in areas to maximize access to employers and residents. Since the Connecticut Department of Transportation has selected a right-of-way for the busway using the existing Amtrak rail line, which is the historic rail line serving industry, it is distant from residents. Research indicates that transit users are willing to walk a maximum one-quarter to one-third mile, or approximately 2000 feet to access transit. ConnDOT's decision to use the existing rail right-of-way was is attributable to a desire to minimize costs and to minimize property acquisition. While both criteria are laudable, this decision precludes the ideal location of transit in the population and commercial centers of neighborhoods and towns. No specific and explicit mitigation strategies were discussed in the Draft EIS, so that the maximum number of residents (potential busway system users – transit generators) and transit destinations (e.g., employers, schools and service centers) are served. Figure 4, below, illustrates how the Park Street and Kane Street busway stations do not serve the bulk of Parkville residents. 27

28



BUSWAY, WALKING DISTANCES AND THE NEED FOR PARKVILLE TROLLEY

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Responses to Comments:

27 Generally for a fixed guideway rapid transit system like the busway, the walking distance to a station is usually considered up to ½ mile. A ½ mile radius around both the Park Street and New Park Street station covers a large majority of Parkville. This is further complemented by the highly used K Route which travels down Park Street

28 As noted earlier service plans for the EIS have been formulated and are open to public input, and as noted, they will be reviewed as the project moves forward.

PARKVILLE REVITALIZATION ASSOCIATION

Recognizing the difficulty in locating the New Britain-Hartford Busway in the center of neighborhood and town centers, the Parkville Revitalization Association supports siting the busway along the existing rail right-of-way. However, PRA calls for mitigation through the creation of explicit feeder bus service routes. In Parkville, the

Figure 5. The recommended feeder service for the New Britain-Hartford Busway: *The Parkville Trolley*.

Parkville Revitalization Association contends that the feeder bus service for the New Britain-Hartford Busway should serve all area residents in Parkville, Laurel Street residents at Park Towers and senior housing, as well as Frog Hollow. Our proposed mitigation strategy is the ***Parkville Trolley***. The feeder bus vehicles, or the Parkville Trolley, should be cute, accessible to all – young, old, physically-handicapped, easily identifiable, and operated using alternative fuels, such as hydrogen fuel cells. 28 29

The Parkville Revitalization Association further believes that the Connecticut Department of Transportation should be required to create and operate the Parkville Trolley, as feeder bus routes throughout the Parkville vicinity linking with the busway, and expanding easy, safe access to the busway for all Parkville residents and employers. Most Parkville residents will not be served without the implementation and operation of a feeder route throughout the Parkville area, namely the Parkville Trolley. The Park Street, Kane Street, and Flatbush Avenue Stations are all situated at locations which require feeder bus service. Although the feeder service concept was mentioned in the draft EIS, no discussion of proposed feeder routes was made in the draft EIS. Thus, PRA cannot be assured that the same or better level of service of transit service will continue for Parkville. 30

Parkville needs explicit assurances that there be feeder bus service at frequent intervals, seven days a week, since Parkville is: 31

(1) a highly impacted neighborhood by the proposed New Britain-Hartford Busway – three stations constituting 25% of the stops.

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Responses to Comments:

29. There is already an existing Feeder Service that will serve most of the remainder of Parkville, the existing K Route. The existing K Route will continue to operate on Park Street with a stop at the busway station. The two busway stops in conjunction with the K Route provide coverage for most of Parkville.

With regards to alternative fuels, refer to Response #4 to US EPA.

30. When locations with ½ mile of the stations and ½ mile of the K Route are considered, the majority of Parkville is covered by either walking or feeder service to the busway stations. There will be no reduction of existing bus services in Parkville. Feeder services will be considered during service design.

31. ConnDOT will work with PRA to ensure that the neighborhood is well served by feeder bus service. ConnDOT has worked actively with PRA to reduce the impacts of the project on the neighborhood. With 25% of the stations in Parkville, Parkville is highly benefited by the busway.

PARKVILLE REVITALIZATION ASSOCIATION

(2) Continues to be adversely affected by the congestion and resulting air emissions generated by vehicles on I-84; 32

(3) A low-income, racially-diverse neighborhood which wants to be assured that it will benefit fully from the proposed New Britain-Hartford Busway; and 33

(4) A transportation-disadvantaged neighborhood that needs to be assured that its mobility options are at minimum maintained, and preferably expanded. 34

Feeder routes are critical. Parkville insists on the creation of the Parkville Trolley to serve and feed the New Britain-Hartford Busway. Consequently, preliminary proposed routing of the Parkville Trolley feeder service has been developed, which is illustrated below in Figure 6

28

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Responses to Comments.

32 The purpose of the Hartford West MIS and subsequent projects (including the New Britain – Hartford Busway and Westside Access Study among others) was to reduce congestion in the Interstate 84 corridor, and thereby improve air quality. These projects are going to provide that benefit

33 PRA themselves noted in Comment #31 that 25% of the stations over a 9.4 mile corridor are in Parkville, so every intention is that the neighborhood will derive a high level of benefit from the project

34. One of the goals of the project is to increase access to transit. The existing bus services will be maintained

PARKVILLE REVITALIZATION ASSOCIATION

5. Unified (or Opposite) Station Platforms should be used.

The stations throughout the proposed New Britain-Hartford Busway system should have unified (or opposite station platforms to ensure basic safety and ease of access at all stations. This is particularly important for the Parkville Stations, at Park Street, Kane Street, and Flatbush Avenue. 35

Unified station platforms are safer because they incorporate security principles of defensible space and visibility.

The Park Street busway station stop will be elevated above the street since it is on the railroad bed right-of-way from the street. Passengers waiting at platforms will consequently be more isolated, and not visible from the street. Unified station platforms provide waiting passengers on both the inbound and outbound platforms with visibility of the station, of each other, and close and visible proximity to help in the event of danger or an emergency.

This is particularly important for the New Britain-Hartford Busway and its urban locations. Public perception of safety is as important, if not more critical, than actual safety (or crime) statistics. The design of the stations with clear sight lines, and close proximity of the waiting areas through the use of unified platform design are fundamental to the users' perception of safety, and indeed the users' actual safety. The installation of video surveillance cameras is not an adequate response, nor does technology create safety. Good urban station design using unified station design, good sight lines, and the close proximity of people are key elements in creating safe areas. Technology can record incidents, but good design, including unified stations, can prevent incidents. 36

Although the New Britain-Hartford Busway is a form of rapid transit, it differs from its light rail counterparts for the planning of station design and waiting areas. Rapid transit systems, such as the Washington Metro, the New York City subway, or Boston "T," are contained systems with limited access through station entrances. These systems are for the most part below-ground or elevated, and rarely at-grade, especially in the central cities. In contrast, the Park Street and Kane Street stations in Parkville will both be on the railroad right-of-way at-grade, with at-grade rail crossings only a few blocks away from the stations. The topography and open-busway system enables potential miscreants to enter the busway right-of-way, and pose a risk to isolated, waiting passengers. This risk can be best mitigated by unified station platforms. 37

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Responses to Comments:

35. ConnDOT has modified all three of these stations in the recommended action. All three now contain "opposite" platforms as Parkville has requested. Platforms are slightly offset from each other to enable passengers to cross behind stopped buses. Visibility across the busway from platform to platform at these three stations is now high. Stations will incorporate "defensible space" principles. See Section 2.2.2 for general information on defensible space, and Sections 2.4.7 through 2.4.9 about each station.

36. See Section 2.2.2 for general information on defensible space. Parkville will be an active participant during the design process to help ensure security at stations.

37. Security systems will be used for monitoring busway facilities, and local patrols would likely be provided from local law enforcement.

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Safety, accessibility, and visibility are the three minimal prerequisites for any station design option. The station design alternatives discussed in the Draft EIS for Park Street, Kane Street, and Flatbush stations do not all meet the minimum prerequisites for a safe, accessible and visible station design.

Park Street Station. The following table rates each of the busway station alternatives for Park Street as to safety, accessibility, and visibility.

Busway Station Options	Safety	Accessibility	Visibility
Park Street, Option I-1 with Opposite Platforms and realignment of Francis Street	X	X	X[10]
Park Street, Option I-2 with Opposite Platforms	X	X	X[11]
Park Street, Option I-3 with off-set platforms.	Poor	Poor	In-bound platform to Hartford invisible from the street.

38

Only station options I-1 or I-2 at Park Street meet the necessary minimum criteria for safety, accessibility, visibility, -- the fundamental tenets of defensible space. The in-bound Hartford platform in Option I-3 is particularly isolated from view. Option I-3 does not meet the standards for safety, accessibility, visibility, and defensible space.

Kane Street Station[12]: Only one option for Kane Street was developed. This option provides only for off-set station platforms, and not unified station platforms as recommended by the Parkville Revitalization Association. The proposed off-set platforms are at the closest points 285 feet apart. At the farthest points, the waiting platforms for passengers are 480 feet apart. Moreover, one of the station platforms is

39

[10] Visibility of the busway platforms is based on the assumption that a station building will be highly transparent. Plus, the busway platforms using the unified platform (or opposite platform) design will be visible from the north side of Park Street. At present, none of the abutting land uses provide visual access to the Busway. This additional visibility could be created through Joint or Co-Development at the Park Street Station of the 17-35 Bartholomew Street parcel (owned by the City of Hartford).
[11] The comments at footnote 10, apply to Option I-2, as well as Option I-1.
[12] The draft EIS refers to the Kane Street Station as New Park Avenue Station. Since New Park Avenue passes by three different stations – Kane Street, Flatbush, and Elmwood, the name New Park Avenue is uninformative and provides the user no clear geographic reference. Hence, all references to this station use the more appropriate reference, Kane Street Station.

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Responses to Comments:

38. A "hybrid" of Options I-1, I-2, and I-3 is the recommended action presented in the Final EIS. See Section 2.4.9 for more information on Station I-4. This layout takes into consideration Parkville's concerns.

39. The New Park Avenue (Kane Street) Station has been revised since the Draft EIS to address many of Parkville's, Hartford's, and Stop and Shop's concerns. See Section 2.4.8 for more information. The recommended action, Station H-2, now has platforms opposite each other, and moves the northbound platform south, out from behind the Stop and Shop supermarket.

PARKVILLE REVITALIZATION ASSOCIATION

located behind the Stop'n'Shop truck loading dock, totally hidden from the street. The design of this station as proposed in the draft EIS is very isolated. The architectural rendering of the Kane Street Station (Figure 2.4-27 in the Draft EIS on page 2-47) is extremely misleading as to the visibility of the Hartford in-bound platform. It does not conform to the technical plan shown at Figure 2.4-26. 39

The draft EIS states that opposite (or unified) platforms are precluded by the I-84 bridge piers and the existing Stop'n'Shop building. However, it may be possible to design the station so that the platforms are closer. This does not appear to have been explored. 40

Furthermore, there is no station building provided. No alternatives to this one option called for in the draft EIS have been developed to date. Alternatives need to be generated for the Kane Street Station. This station clearly needs further study and development, in direct consultation with the Parkville Revitalization Association. 41

Flatbush Avenue Station. Three alternatives are shown in the draft EIS for the Flatbush Avenue Station. One alternative, Option G-1, has off-set platforms. The Hartford in-bound platform is situated away from view behind a building, as shown on the plan in Figure 2.4-23. This station alternative, Option G1 for the Flatbush Avenue busway station, is the most problematic from the PRA's perspective. Off-set platforms is just one of the reasons this station scheme does not work. Basic safety as to platform design and parking configuration makes Option G-1 unworkable. 42

Both Flatbush Options G2 and G3 shown in the Draft EIS utilize opposite (or unified) station design, which the PRA applauds. Option G2, Flatbush South Station, uses a tighter design with station platforms, elevator, and station building in closer proximity. This is one of several reasons why the Parkville Revitalization Association contends that the Flatbush South Station Option G2 is the preferred alternative for this stop. 43

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Responses to Comments:

40. In response to this comment, the station layout was reconsidered, as noted in the preceding comment. The new station configuration overcomes the limitations posed by the I-84 viaduct piers.

41. This station now contains a building which is visible from Kane Street and from New Park Avenue.

42. The location, configuration, and right of way impacts of this station were considered undesirable. The recommended action includes Option G-3. See Section 2.4.7 for more information.

43. Option G-3, the recommended action, has been revised since the Draft EIS. It now uses less parking, and offers on-site opportunities for joint development/TOD. Like Option G-2, it offers an elevator. It is also closer to much of Parkville and than Station G-3.

PARKVILLE REVITALIZATION ASSOCIATION

6. Physical Improvements Within a 2000 Foot Radius of the Busway Stations for Safe and Good Connections with the Walking and Bicycling Travel Modes.

The Parkville Revitalization Association is pleased that ConnDOT set forth increasing the viability of alternative modes of travel, including bicycle and pedestrians, and a goal of the New Britain-Hartford Busway Project.[13] "Traffic research indicates that, generally speaking, local-income neighborhoods bear a disproportionate brunt of pedestrian fatalities, as those residents are more like to walk or use public transportation."[14] Data reported in the Draft EIS on the number of pedestrians who walk to work, 10% in the City of Hartford, and 6% for City of New Britain, confirm this. Parkville, unfortunately, by the proposed Kane Street Busway station at New Park Avenue, was the site of a pedestrian death within the past two years. The need for good pedestrian connections is recognized by the project proponents, but concrete plans and actions to ensure good pedestrian connections must be made explicit.

The Draft EIS mentions pedestrian connections at busway station stops, but does not expressly provide for or plan for true inter-modal pedestrian-busway connections. Inter-modal pedestrian-busway connections are essential for the success of the New Britain-Hartford Busway for the following key reasons:

1. From a public safety perspective.
2. From a transit perspective and optimizing potential ridership;
3. From a congestion-mitigation strategy and alternative to building additional travel lanes on I-84; and
4. From an environmental perspective – reducing air emissions through use of alternative travel modes.
5. From a public accessibility perspective – ease public access for persons who are physically handicapped or disabled, who wish to use the busway, e.g. connection with the Parkville Senior Center at Park Street and New Park to the Park Street Station.

44

Transit research reports that pedestrians will walk up to 2000 feet to use transit, otherwise other travel modes are chosen. If the pedestrians' path is unpleasant, unsafe, or otherwise difficult, the pedestrian travel mode is effectively discouraged. ConnDOT would not construct a busway station on a road, which was riddled with potholes or even sub-standard pavement for anticipated traffic counts, without

[13] Draft EIS, page 4-72.
[14] Greenbelt, Alan. "Taking Back the Street," Governing, May 2001, page 60.

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Responses to Comments:

44. Concur. The design of the stations has attempted to connect to existing sidewalk facilities and where required provide additional sidewalk to connect to sidewalks near the station.

Connections will be refined during project design.

PARKVILLE REVITALIZATION ASSOCIATION

upgrading the road. If an intersection where cars are entering the busway station, ConnDOT would invest in changes in signalization to provide for busway station access and safe vehicular movements. Comparable investments need to be made by ConnDOT and the Federal Transit Administration for the pedestrian and bicycle travel modes. There needs to be supporting infrastructure for pedestrians and bikes, as well as cars, for the busway to be truly successful, and environmentally beneficial.

The assertion that consideration for pedestrians and bikes will be made during the design phase is not sufficient. ConnDOT and project proponents need to make a stronger and more explicit commitment to the interface of the Busway and pedestrian and bicycle travel modes, and supporting pedestrian and bicycle infrastructure. Good will statements about working with the neighborhood and local municipalities in the future is a start, but not enough. ConnDOT and FTA need to explicitly commit to make pedestrian and bicycle infrastructure improvements within a 2000 foot radius of each station. Since the Draft EIS anticipates bicyclists will bike two miles to the busway station[15], extended bicycle improvements in the two mile radius should also be considered. The proposed mitigation of impacts on bicycle and pedestrian travel, outlined in section 4.13.3 of the Draft EIS, is not sufficient. 45

The following supporting pedestrian and bicycle infrastructure is necessary to assure environmentally-sound and strong inter-modal connections with the New Britain-Hartford Busway.

1. Pedestrian Crosswalks using alternative pavement materials, e.g., bricks, at streets approaching the busway stations. 46
2. Evaluation of, and installation of LED lights implanted in the road that flash and tell drivers whenever people are crossing for all streets approaching the busway stops. 47
3. Sidewalk improvements, including benches, paving, lighting, trees, and waste receptacles, should be made a standard part of each station and the 2000 foot pedestrian approaches to each station. 48
4. Marked bicycle lanes, bike parking, and bike-friendly stairs (when built) should be developed. 49

The urban design section of streetscape improvements for Park Street on the following page illustrates Parkville's preferred pedestrian and bicycle improvements for the approach to the Park Street busway station, and the corresponding 2000 feet

[15] Draft EIS, page 4-69.

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Responses to Comments:

45. The purpose of the EIS process is to determine impacts of a project at the planning level. ConnDOT acknowledges Parkville's concern, and will continue to work during the design phase with stakeholders like PRA, when design-level decisions are made. ConnDOT cannot unilaterally improve sidewalks and bicycle facilities in Hartford on non-state-owned property, but will work with the City to ensure that they make appropriate improvements where needed, so that pedestrians and bicycles can easily access busway stations.

46. Pedestrian treatments such as those listed will be considered during the design phase in close proximity to stations with the input of stakeholders like PRA. PRA has worked on streetscape plans for Park Street, and ConnDOT's improvements near the Park Street Station will be consistent with Parkville's design.

47. This is not a practice undertaken in Connecticut at this time.

48. All station areas will include amenities such as those listed; see section 2.2.7 for a list of the types of amenities that could be provided. By extending amenities to 2000 feet from stations, Parkville is requesting streetscape improvements. As noted above in Response 46, ConnDOT will make streetscape improvements near the Park Street Station that will tie into Parkville's proposed improvements.

49. Provision of bike lanes will be considered where feasible and reasonable. ConnDOT's bicycle coordinator will work with stakeholders and the design team to ensure that bike-friendly stairs, if appropriate, are offered.

PARKVILLE REVITALIZATION ASSOCIATION

pedestrian travel length to the station. Similar improvements need to be constructed for the pedestrian and bicycle approaches to the Kane Street and Flatbush busway stations, and within 2000 feet of each station.

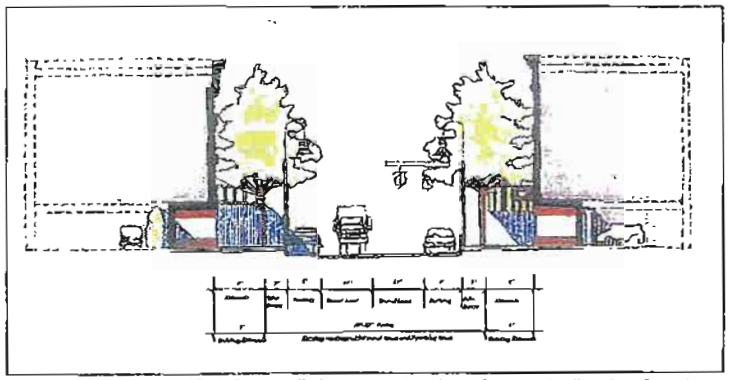

Figure 7. Cross-section of Park Street traffic improvements to better incorporate all modes of travel, vehicular, bicycle, and pedestrian.

50

The photographic montage, Figure 8, on the following page illustrates a proto-typical sidewalk and bikeway approach that should be adopted for the busway stations in the Parkville area, and especially the Park Street station. This recommended proto-typical approach improves the quality of the pedestrian travel mode, and enhances connections to the busway travel mode.

49

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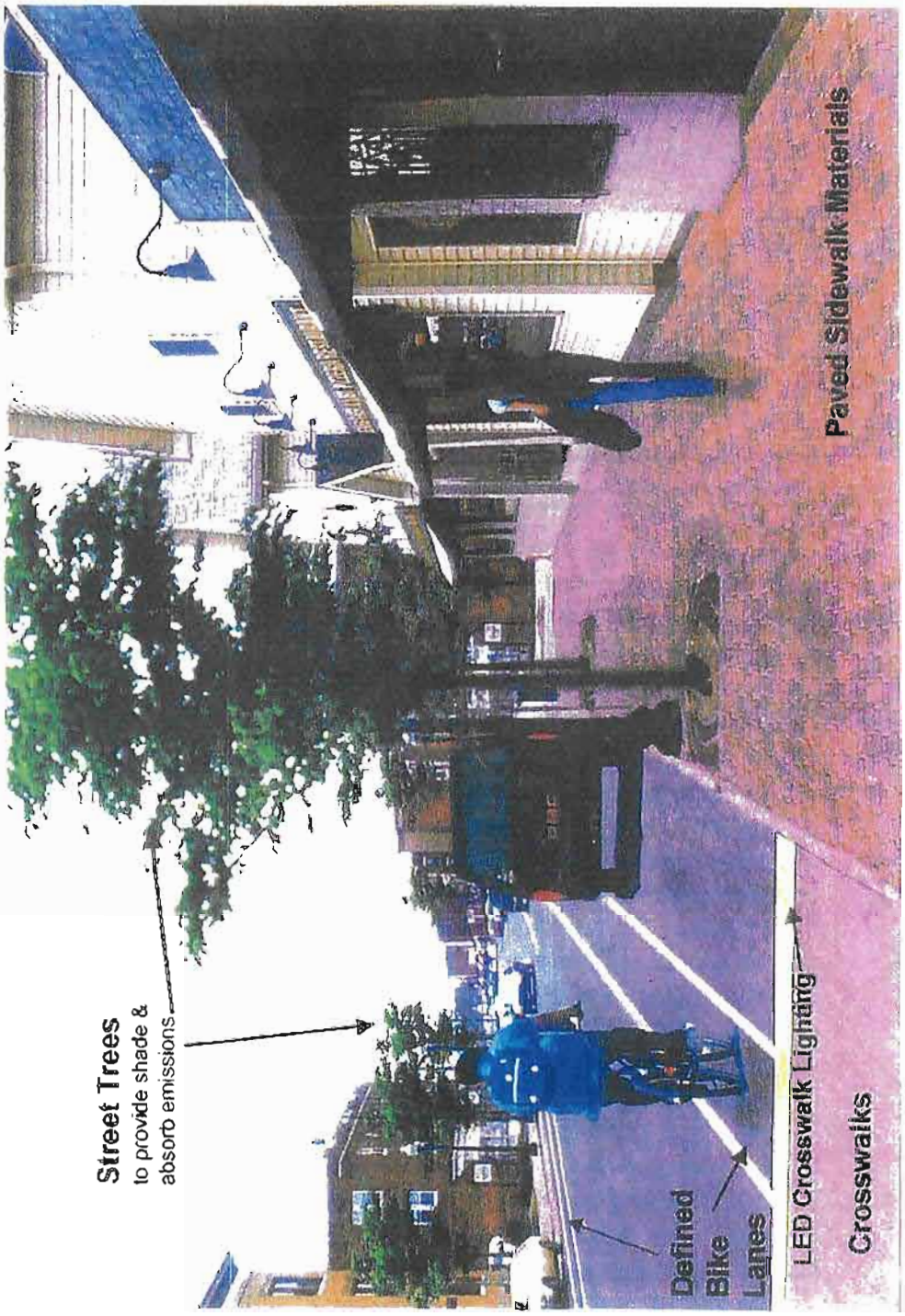
Responses to Comments:

50 Figure 7 shows bike lanes to the outside of parking, up on the curb, and between street trees and the curb/parked cars. This is an extremely unsafe design because of the potential for conflicts with passenger side car doors, sidewalk pedestrians, street trees, and the curb. This is also in contradiction of Parkville's Figure 8 on the following page. Bike lanes, if striped on local roads, would instead be provided as shown in Figure 8.



May 18, 2001 Parkville Revitalization Association's
Comments on the Busway Draft EIS

Recommended Pedestrian and Streetscape Approach to Busway.

PARKVILLE REVITALIZATION ASSOCIATION

7. Adoption of Safety and Defensible Space Principles in the Design of All Busway Station Stops and Bus Vehicles.

As discussed extensively in Section 5, the Parkville Revitalization Association believes one of the cardinal principals in the design of the busway and the vehicles on the busway is Defensible Space. Readers should turn to Section 5 for how defensible space principles should be incorporated specifically into the station designs for Park Street, Kane Street, and Flatbush Avenue. 36

Defensible space principles should also be applied to the actual vehicles to be operated on the busway. Waiting busway users should be able to see into the bus and through the windows. Bus passengers should also be able to easily see out and anticipate the next stop, or enjoy the ride along the busway. Advertisements wrapped around the bus, including the windows, minimize visibility in and out of the bus. Effectively advertising "wraps" preclude the use of defensible space principles for vehicles. Advertising wraps detract from the bus passenger's sense of safety.

It is recognized that advertising and advertising wraps generate important revenues for bus operations. However, advertising "wraps" works counter to the stated goals of the New Britain-Hartford Busway, including passenger safety. Consequently, buses with advertising wraps should be explicitly precluded from operating on the busway. Revenue sources that reinforce all of the goals of the busway and its operations should be identified and utilized instead. 51

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Responses to Comments:

51. It is anticipated that the use of "full bus wraps" that block windows on busway vehicles will not be permitted for many of the reasons outlined in the comment.

PARKVILLE REVITALIZATION ASSOCIATION

B. Station Buildings.

The Parkville Revitalization Association strongly supports the construction of station buildings at Park Street, Kane Street and Flatbush Avenue stations. Each station should have a building with full services, including restrooms, waiting and information areas, fare and schedule information, busway pass purchasing opportunities, possibly venders to serve patrons in conjunction with local private enterprise. Station buildings, not only are important to provide essential conveniences and services to busway users, but are also important to project an image of reliability and permanence. This contrasts with the existing images of bus routes on city streets, which is one of questionable reliability and uncertainty. 52

Each platform and station building should have a permanent map of the area surrounding the stop, with local institutions, services, and businesses highlighted. In lieu of pay telephones, call boxes with direct lines to police and emergency services should be provided at each of the stations. Direct phone lines for taxi services should also be considered. 53

May 16, 2001 Comments on the New Britain-Hartford Busway Draft EIS 28

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Responses to Comments:

52. Concur. A station building is now provided at all three stations. Provision of amenities at each station will be determined during the design phase, using community input. See section 2.2.7 for a list of the types of amenities that could be provided.

53. As noted in Response 53, community input will influence decisions on amenities. Informational kiosks, local and bus service maps will be considered at each station. Emergency call boxes will be provided at stations. Pay phones will only be provided with community support.

PARKVILLE REVITALIZATION ASSOCIATION

9. Hamilton Street At-Grade Crossing.

Expanded study of the projected traffic impacts caused by the busway buses at Hamilton Street is necessary. There are extensive queuing problems already when trains pass through this at-grade crossing. Cars on the east side of the busway/rail right-of-way, now back-up waiting to travel west to east of the Bartholomew Avenue/Hamilton Street intersection when a train passes. Cars waiting to go east, on the west side of the busway/rail right-of-way, now back up to almost New Park Avenue when a train passes. The intersection of Hamilton Street and Francis Avenue is extremely congested between 2:30 pm and 5:30 pm, as workers leave places of employment and rush to the grocery store, Stop'n'Shop at the southern edge of Francis Avenue. The additional traffic generated by the Park Street Station on Francis Avenue will exacerbate the existing situation[16]. 54

No traffic projections were detailed in the Draft EIS as to the number of vehicles that might be added to Francis Avenue, with trips generated by either the Park Street or Kane Street busway stops (e.g., drop-offs). The Draft EIS reports that during peak rush hour there will be 56 buses crossing Hamilton Street during peak travel hours.[17] This will exacerbate the existing congestion on Hamilton as a local street. Hamilton Street is the connecting street from Parkville to Trinity College and the grade school now serving Parkville residents who live south of Hamilton and east of the railroad. Hamilton Street is also the designated bikeway through Parkville on the Connecticut state bicycle map.

The intersection of Hamilton Street and Francis Avenue was not reviewed or discussed in the Draft EIS. The delay caused by congestion at the intersections discussed in Section 3.2, Intersection Operations, focused on the issue of delay of vehicles. While this is an important and a traditional measure of intersections and congestions, it is not the only variable that needs to be considered. The ease of pedestrians crossing Hamilton Street also needs to be considered. The Draft EIS states that the busway will have no effect on Amtrak operations[18]. However, the cummulative impacts of train operations and busway operations at the Hamilton Street at-grade crossing were not reviewed or discussed in the Draft EIS, as to queuing of vehicles during crossing vehicular traffic in the busway/rail right-of-way, and pedestrian impacts. 55

These impacts needs to be studied, evaluated, and mitigation measures developed.

[16] This is another reason to encourage and promote walking and pedestrian travel to and from the Park Street Busway Station, as discussed in Section 6 of these comments.
[17] Draft EIS, page 4-74.
[18] Draft EIS, page 3-20.

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Responses to Comments:

54. With the use of Intelligent Transportation System (ITS) technology and the coordination of the traffic signals with the Amtrak crossing, the resultant queues on Hamilton Street from the busway crossing will be no worse than those that exist today or would exist in the future without the busway.

55. Any traffic volume increases in the Parkville area are offset by the decreased number of people using these cars to get to Parkville. Traffic operations in Parkville are not anticipated to change with or without the busway.

PARKVILLE REVITALIZATION ASSOCIATION

10. Bridge Design.

Three bridges, overpasses, or flyovers are being proposed to be constructed or reconstructed, which impact the Parkville neighborhood at the following locations:

1. Park Street;
2. Capitol Avenue;
3. Flatbush Avenue.

The Parkville Revitalization Association wants to be assured that the bridges provide adequate access for vehicles, trucks, bikes, and pedestrians, and moreover do not create another barrier or blight entering Parkville or the City of Hartford from the suburbs.

Bridge design for the three busways bridges critically impacts Parkville. When Interstate 84 was constructed, Parkville was separated from the rest of Hartford by the highway, and blighted by the highway overpasses at Capitol Street, Park Street, and Hamilton Street, as shown in some of the photographs below.

56

Figures 9 and 10. Views of Park Street walking under the Interstate 84 bridge (or underpass), two blocks east of the Park Street Busway Station. This is <u>not</u> the environment that should be replicated under the three proposed bridges in Parkville at Capitol, Park Street, and Flatbush.

Since this project is part of the congestion mitigation strategy and adopted RAP for the Hartford I-84 MIS, special attention on bridge design is merited. The busway/rail bridges should connect not only the buses and trains in the north-south direction, but also become bridges and not barriers for east-west travel by pedestrians, bicyclists and motorized vehicles. The potential and likely adverse impacts of the three bridges needs to be fully and properly mitigated. The design of these three bridges is critical, and must

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Responses to Comments:

56 A pedestrian-friendly environment to access busway stations is acknowledged as a critical feature in maintaining ridership and offering a context-sensitive solution. The busway/Amtrak corridor will be a much narrower span than either of the two interstate-highway spans shown in the photographs. Unlike the photographs, which show a poorly-lit viaduct, the Park Street, Flatbush and Capitol Avenue bridges will also have a well-lit space under the bridge, with aesthetic treatments on the side of the abutments (not a poorly-lit open viaduct like shown).

PARKVILLE REVITALIZATION ASSOCIATION

enhance the entrance to the City of Hartford and the neighborhoods (in lieu of blight). A special bridge designer on the caliber of Menis who designed the Zakim Bridge in Boston for the Central Artery or Cavaletero who is designing the bridge in Milwaukee, should be retained.

Two of the three proposed reconstructed bridges in Parkville at Capitol Avenue and Park Street are within two blocks of Interstate I-84 overpasses. This succession of highway and busway/rail bridges in a short interval can have serious negative impacts as to visual environment, as to safety, and the creation of isolation. Based on the past forty years experience of the successive blight from the rail trestle and I-84, Parkville knows that it is very important to put significant effort and resources to make sure that these "improvements" do not become objects of blight and barriers.

The proposed busway flyover, or bridge, at Flatbush Avenue poses critical design and environmental justice issues. The Flatbush Avenue bridge will be situated approximately at the border between the City of Hartford and the suburban town of West Hartford. The two communities are a study in contrasts. Hartford has a median household income of $22,140, contrasted with West Hartford's $49,642.[19] Hartford is a majority minority City, with 69% of its residents African-American, Hispanic or Asian-American. West Hartford is a majority 92% white suburban community. The Flatbush flyover could be construed to be more than a transportation improvement, but another barrier between two communities. It is important that this not occur for Parkville, for the city of Hartford, or our neighbor West Hartford. Consequently sensitivity to the design of this proposed bridge is essential. This is one of the many reasons, PRA is advocating for a high-quality proven bridge designer to be employed for these bridges. 57

No elevations for the proposed new bridges or reconstructed or widen bridges were presented in the Draft EIS for Capitol Avenue, Park Street, and Flatbush Avenue crossings. This is a serious omission. There is no explicit discussion of how the adverse impacts of bridges will be mitigated in the Draft EIS section of Mitigation of Visual Impacts, section 4.12.3. The opening paragraph of the discussion of visual impacts at Section 4.12.2[20] is rather dismissive of the issue, citing subjectivity. This commentary causes us to wonder how seriously visual impacts are considered.[21] 58 59 60

[19] 1990 US Census, STF 3A.
[20] Draft EIS, page 4-62.
[21] The Capitol Region Council of Governments (CRCOG) as a part of the Transportation & Community & System Preservation (TCSP) project conducted a Visual Preference Survey to quantify perceptions about alternative physical designs and landscapes, natural and built in rural, suburban and urban settings. The results of the CRCOG Visual Preference Survey point out that visual impacts can be assessed using quantitative and qualitative measures. ConnDOT and FTA are strongly urged consult with CRCOG on the 60

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Responses to Comments:

57. The bridge designer for this project will be part of ConnDOT's consultant design team. The designer will work with the community during the design phase to ensure a context-sensitive design. In the case of the Flatbush Avenue bridge, the designer will pay special attention to the disparities between the economic status of Hartford and West Hartford, and build a bridge, with input of both communities, that does not become a psychological barrier between the two municipalities. It should be remembered that Amtrak will remain at-grade in this area.

58. Bridge elevations will be formally determined during the design phase, and have not been omitted. All bridges will be constructed to current standards. Necessary clearances for trucks and railroad grade limitations will all influence the bridge elevations.

59. Section 4.12.3 of the Draft EIS noted that communities will provide input to mitigate visual impacts during design, and this applies to all busway features, including bridges. As bridges have not been designed yet, since the EIS is a planning-level study, it would be impossible to determine mitigative measures.

60. As noted in the Draft EIS, visual effects, in fact, are subjective. For example, a large sign on a business may be visually undesirable to PRA, but appealing to the business owner, employees, and customers that need to see it easily. Every stakeholder brings his or her own subjective values into what is attractive.

PARKVILLE REVITALIZATION ASSOCIATION

Park Street. Although the discussion of Park Street Station[22] acknowledges that the bridge will be redesigned to accommodate the busway, the reader of the Draft EIS is assured that it will be "aesthetically beneficial." However, no strategies, other than landscaping, are mentioned. Landscaping is not sufficient to address the potential adverse impacts of the bridge reconstruction and widening. Other impacts include the effect on pedestrians walking underneath the Park Street busway trestle. This is a material impact, since this is the only proposed pedestrian connection to the Parkville Industrial Corridor proposed in the Draft EIS.[23] Adequate lighting and a sense of security for persons passing underneath the bridge are fundamental. 61

Another concern regarding the Park Street bridge is drainage by and under the bridge at Park Street. There is already a drainage problem during flash rain storms, and significant ponding during wet weather. Reconstruction of the bridge needs to take into account the effects below, including addressing drainage issues. 62

There has been considerable neighborhood discussion in Parkville about the ability of trucks to safely travel underneath the Park Street bridge, and the varying proposed bridge widths of the three options. ConnDOT representatives have verbally assured Parkville that state law requires all changes to bridges be of sufficient height to provide truck passage. This verbal assurance regarding truck access underneath bridges at Park Street as well as at other locations should be made more explicit, and should be incorporated in the final EIS. 63

Provided that all three busway station alternatives can be built to enable trucks to pass successfully under the Park Street busway/rail trestle as modified by this project, and that pedestrians can pass on safe (non-scary), well-lit passages on both sides of Park Street underneath the trestle, bridge width becomes moot as a criteria for selection of Park Street station options.

The PRA is concerned about the potential adverse effects of the addition of pedestrian walkway on the Park Street busway/rail trestle, which is set forth in Option I-3. The proposed elevated pedestrian walkway is viewed as an invitation for rock-throwing or worse with passing vehicles (cars, trucks, bikes) as the targets. The pedestrian walkway on the bridge at Park Street should be eliminated, if option I-3 is pursued by ConnDOT. 64

results of the Visual Preference Survey. The Visual Impact Assessment section in the Draft EIS is weak, and could be benefited with the details and findings of the CRCOG Visual Preference Survey.

[22] Draft EIS, pages 4-68

[23] The Parkville Revitalization Association is recommending that a connector to the Industrial Corridor be built over the busway, which is discussed in further detail in Section 3 of these comments.

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Responses to Comments:

61. Since the bridge is conceptual at this point, it is impossible to determine exact strategies for mitigating aesthetic impact. With refinements to the Park Street Station concept, a possible connection to 17-35 Bartholomew Avenue has been added, so the bridge is not the only possible connection to the Parkville Industrial Corridor. ConnDOT concurs that adequate lighting and good visibility under the bridge are important.

62. This issue will be considered during the design phase.

63. It is repeated that current design standards require a minimum bridge clearance of 16 feet 6 inches, to be able to accommodate truck clearances underneath. Text to this effect has been added to Section 2.3.2 of the FEIS.

64. This pedestrian overpass of Park Street has been incorporated into the Recommended Action. Parkville has noted a desired goal to improve pedestrian access in the area. The overpass will allow busway users to walk directly to Real Art Ways and locations north of Park Street.

If rock throwing is presumably a current problem, it should decrease or stop after the project is operational because buses on the facility, persons at the station, and security cameras would offer more visual surveillance of the area. Additionally, the railroad rock ballast will be removed in the area where the busway roadway is paved, and barriers will restrict illegal access to Amtrak property. Design elements of the bridge over Park Street could consider special railing treatments that hinder the throwing of objects off the bridge while still allowing visibility of the area.

PARKVILLE REVITALIZATION ASSOCIATION

It should be noted that the City of Hartford and the Parkville Revitalization Association are in the process of upgrading the rail/busway trestle, since this is a neighborhood gateway. The proposed station designs should honor and incorporate the adopted design by the City of Hartford and the Parkville Revitalization Association, as illustrated on the next page. 65

Capitol Avenue Bridge. The Draft EIS reports that this bridge will be re-built since it has deteriorated significantly. No additional information is provided in the Draft EIS. Consequently, PRA is limited in its ability to comment regarding this proposed change. Concern remains for the need for a high quality bridge designer to be used on all three bridges, and for the impacts to persons at grade below on Capitol Avenue. 57

ConnDOT and FTA should follow the principles of context-sensitive design for the design and construction of the Capitol Avenue Bridge, and all other bridges. There was no mention of context-sensitive design in the Draft EIS, nor ConnDOT's participation as a pilot state in Federal Highway Administration's initiative in context-sensitive design. This oversight should be corrected, and context-sensitive design principles should be applied to bridge design. 66

Flatbush Avenue Bridge. Many of the concerns and need for an specialized expert in bridge and urban design have been discussed earlier in this section. Special care needs to be undertake with the design of this station and the flyover, for the speed of traffic on Flatbush to remain the same or slower. The New Britain-Hartford Busway will be, hopefully, adding to the pedestrian traffic on Flatbush Avenue to the Capitol Community College, Prince Tech, and the new Job Corps center. Strategies that tend to increase vehicular speed, such as flyovers, need to be complemented with traffic calming measures to ensure the safety of the pedestrians on the ground plane on Flatbush Avenue. 67

The design of the Flatbush Avenue Flyover (bridge) needs to be coordinated with changes being proposed in the West Side Access study. Alterations in the exits and entrances to I-84 and the extension of Bartholomew Street southward need to be planned for now. Coordination of these two projects was not discussed in the Draft EIS, particularly as to the Flatbush Flyover. 3

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Responses to Comments:

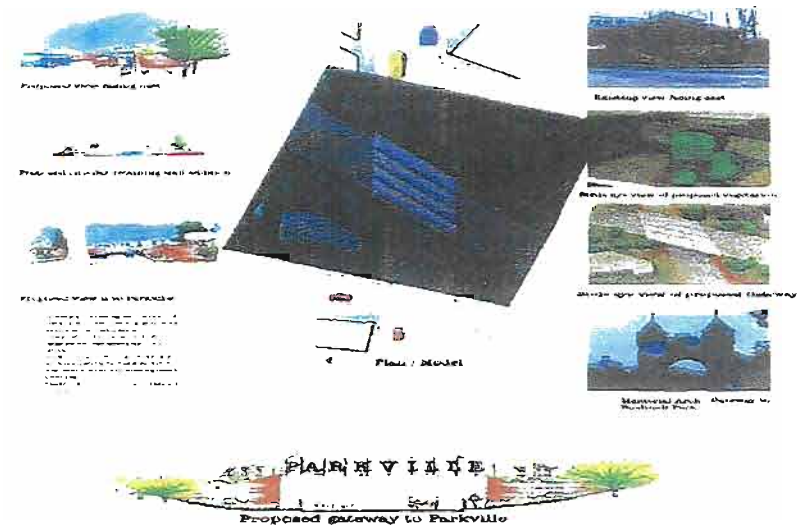
65. These design elements will be considered in the bridge design, to provide an individual identity to the Parkville area. While it is desirable to provide continuity among busway facilities to help establish an identity to the system, the design of stations will also strive for context-sensitive solutions that relate to the specific neighborhood. Local input will be crucial to ensure that these two goals are met.

66. Context Sensitive Solutions (CSS) have been a guiding principle from the beginning of this project, as evidenced by the use of architectural renderings to steer the visual theme of the busway, and by the comprehensive coordination PRA has had with ConnDOT on this project to date. There will be an even greater emphasis on CSS during the design phase. Text has been added to Section 2.2.3 of this Final EIS to more explicitly discuss this issue and the ConnDOT program.

67. The construction of the Flatbush Avenue overseas should have no effect on the speed of traffic on Flatbush Avenue. The busway station will have elevators and stairs on both sides of Flatbush Avenue to aid pedestrian access to the station without the need to cross the street at grade. Sidewalks on Flatbush Avenue will be improved and connected to existing sidewalks. Coordination with the West Side Access Study is on-going.

PARKVILLE REVITALIZATION ASSOCIATION

PARKVILLE



PARKVILLE TRAIN TRESTLE GATEWAY- DESIGN COMPETITION

Figure 11.

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65

Responses to Comments.

No response is necessary on this page. (see Response 65 Above)

PARKVILLE REVITALIZATION ASSOCIATION

11. Maintain and Expand Existing Levels of Transit Service.

Expanding transit and mobility options for Parkville residents is of paramount importance to the Parkville Revitalization Association. The presentation of the draft EIS indicates that there wil be a decrease in transit usage from the City of Hartford, modeled for the year 2020, even with the construction of the busway. Care should be given to at minimum maintain and preferably increase bus routes and service. Parkville area and Hartford residents, especially persons who are too young to drive, people who chose not to drive, and households who cannot afford a car do not today have sufficient mobility and travel options. 68 69

PRA strongly recommends and urges the full funding and operation of the Parkville Trolley, discussed in detail in Section 4, by ConnDOT. This will provide essential feeder service to the busway throughout the Parkville area surrounding the busway stations. The Parkville Trolley would help mitigate possible reduction in service. Although, PRA clearly support and urges the continuation of all existing bus routes. 28, 29

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Responses to Comments:

68. The interpretation of the statistic is incorrect. PRA is presumably responding to Table 3.1-5 on page 3-5 of the Draft EIS, which shows local Hartford feeder routes declining from 11,400 riders (No-Build) to 8,800 riders (Build) in the year 2020. The reason is that many existing routes will divert to the busway, and new routes will be added. Therefore, 1,600 riders daily on existing routes will increase to 22,300 riders on diverted and new routes.

69. An absolute priority of the project is to improve service for transit-dependent persons.

PARKVILLE REVITALIZATION ASSOCIATION

12. Public Art at the Busway Stops.

The Parkville Revitalization Association believes that public art, both permanent and temporary installations, should be part of the overall New Britain-Hartford Busway. A Parkville resource, Real Art Ways, can assist ConnDOT with public art installations. Public art will help enliven stations and make the busway more interesting for patrons.

Public art should be integrated into the design of all busway stations, especially those located in and around Parkville, namely Park Street, Kane Street, Sigourney Street and Flatbush. Public art can and should be more than reproduction of old photographs from the neighborhood. Public art can and should be alive, vibrant, interactive, and multi-sensory, and tailored to the uniqueness of each station. Public art should be at the stations, in vehicles serving the busway, and the pedestrian walkways to and from the busway stations. 70 71

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Responses to Comments:

70. ConnDOT welcomes PRA's and Real Art Ways' cooperation in the design process to find ways of providing public art that will enhance the busway experience while being resistant to vandalism.

71. Provision of "original" public art within busway vehicles would not likely be practicable, though interior advertising panel space could be used to display copies, or to advertise local art events/exhibits.

PARKVILLE REVITALIZATION ASSOCIATION

13. The Busway as a Greenway.

Parkville has the least amount of greenspace or open space of any of Hartford's seventeen neighborhoods, less than one acre. Much of Parkville's greenspace was lost when Interstate 84 was constructed forty years ago. The busway is viewed as an opportunity to "green" the Parkville area. The planting of urban species-appropriate trees is encouraged and supported at each busway station, the approaches to the busway stations, and the busway right-of-way itself.

The busway should be a greenway through Hartford. Specific narrative discussions and site plans for busway stations in Hartford do not incorporate sufficient landscaping. The renderings include trees that do not currently exist, nor are they included in the site plans. 72 The busway should also connect with the South Park River Greenway project, just east of the busway in Parkville and Hartford. No provision for connections to the South Park River Greenway and Bikeway are provided for any of the station plans. This could easily be done at both the Kane Street and Flatbush stations. 73

The planting of trees forming a greenway along the busway is important for an environmental health and control of air emissions perspective as well. Trees help absorb negative emissions. This is an important consideration since one in four Hartford public school students have asthma or a respiratory disease. Hartford is also a non-attainment zone

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Responses to Comments:

72. Renderings were only concepts to provide an idea of what the busway could look like, and are not necessarily exact images of existing conditions. A formal landscaping plan will be produced during the design phase with input from all stakeholders. Landscaping is an essential element of context-sensitive solutions, and is important to make the facility attractive to passengers.

73. Connections to trails would be an initiative of local communities. ConnDOT will cooperate with this effort.

PARKVILLE REVITALIZATION ASSOCIATION

14. Infrastructure for Bicycles and Bike Parking.

The Parkville Revitalization Association supports the development of the necessary infrastructure to support the bicycling travel mode, and the creation of bike parking at each busway station. Bike parking options should include both racks and lockers. Stairs, if any, to the busway, should incorporate designs for bikes. All buses using the busway should have bike racks. ConnDOT and their transit operators should develop and implement bike-friendly policies. There should be pedestrian and bicycle connections from the New Britain-Hartford Busway to the proposed South Park River greenway, and to the expanded Pope Park West. 74 75 73

The impacts of bridges (and the underpasses) at Capitol, Park and Flatbush; the at-grade crossings, such as Hamilton Street on the bicycle travel mode needs to be evaluated. These impacts were not discussed in the Draft EIS. 76

The Draft EIS failed to note that the one Hartford City Council endorsed bike path, the Hartford Parks Bike Tour path passes through Parkville along Park Street. The historic first location of American bicycling manufacturing is in Parkville, the former Pope Tube Factory at the northwest corner of Bartholomew Avenue and Hamilton Street in Parkville's Industrial Corridor. 77

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Responses to Comments:

74. All stations will offer, at a minimum, bike racks. Provision of lockers may be considered based upon public input, the anticipated level of demand for lockers, and available space. ConnDOT's bicycle coordinator will work with stakeholders and the design team to ensure that bike-friendly stairs, if appropriate, are offered.

75. ConnDOT is planning to test bicycle racks on buses and other bike friendly policies in the Stamford Division. Results from this test will be used to make informed decisions for busway bike policies.

76. Bridge underpass and at-grade crossings will be designed to accommodate bicycles.

77. This comment has been added to Section 3.7 of the Final EIS.

PARKVILLE REVITALIZATION ASSOCIATION

15. Clean, Energy-Efficient, Quiet Buses.

The Parkville Revitalization Association urges ConnDOT to utilize clean, energy-efficient, quiet buses for all vehicles travelling on the busway, including any coaches that my be privately-owned or school buses. Alternative fuels, including the use of hydrogen fuel cells, should be developed for all vehicles. ConnDOT should provide a fleet with varied sized bus vehicles for the busway, and not just full-sized, and extra-long vehicles. 78 79

The New Britain-Hartford Busway will be using the right-of-way in the backyards of several blocks of residential homes. Although abutters to the right-of-way now hear the noise, fumes, and wind generated by ten passing trains on a daily basis. The New Britain-Hartford Busway will significantly increase the number and frequency of vehicles traveling along this right-of-way in the Parkville area. Clean, energy-efficient vehicles are important, since one in four Hartford public school students have asthma or a respiratory disease. Hartford is also a non-attainment zone. 78

Quiet vehicles are also very important. The Parkville neighborhood has a high level of ambient noise, in large part due to I-84. The New Britain-Hartford Busway will increase the overall ambient noise level. This noise generator is in closer proximity to residences and the Parkville Community School and Parkville Community Center. The Draft EIS reports that twelve receptor locations, including one in Parkville, were monitored for noise. The Parkville site on Francis Avenue had the existing highest noise decibel level of all twelve receptors (residential and non-residential)[24] and the highest projected, modeled noise level from the busway.[25] 80

The reduction of noise and unhealthy fumes is best addressed at the source – the vehicles. To adequately mitigate the adverse environmental and health impacts of significantly increasing vehicular traffic, up to 58 buses during peak hours in Parkville, ConnDOT should be obligated to use clean-fuel, energy-efficient, quiet vehicles. 78

Other mitigation measures should also be investigated and implemented for the Parkville area on noise and air quality. This could include creating additional greenspace near the busway, such as Pope Park West or greenspace at Kane Street. 81

[24] Draft EIS, Table 4.1-1, page 4-5.
[25] Draft EIS, Table 4.1-3, page 4-9.

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Responses to Comments:

78. See Response #4 to US EPA.

79. Various styles of new buses are being considered at this time, but no final decisions have been made.

80. Noise was monitored and modeled for the Draft and Final EIS. The Parkville location (on Francis Street) experiences high noise levels because of Amtrak's presence. Busway noise would be an incrementally small addition to the noise environment, and would not typically warrant noise mitigation from its own impact. However, noise abatement barriers along Francis Avenue are proposed and will be constructed if the neighbors support the concept. Noise abatement would also shield neighbors in part from the visual impacts of the buses and Amtrak trains. Ways to soften the appearance of these barriers, such as with plantings, or decorative treatments, will be considered during design.

81. It is not clear how greenspace in Pope Park West or at Kane Street would mitigate noise impacts, as mitigation of noise requires dense, large stands of vegetation that cannot be provided at any location along the busway.

PARKVILLE REVITALIZATION ASSOCIATION

16. Fully-funded, long-term and continuing maintenance.

No provisions for funding or approaches to long-term and continuing maintenance of the New Britain-Hartford Busway were discussed in the Draft EIS. The PRA believes that a long-term and continuing maintenance plan should be developed and appended to the Draft EIS, with the necessary commitments for full-funding levels for long-term and continuing maintenance. The potential lack of maintenance of the right-of-way and of vehicles will adversely affect environmental quality and public health, and jeopardize the much-valued and sought long-term benefits of the busway, and a comprehensive regional transit system. The potential lack of maintenance could cause adverse storm run-off to the abutters (residential, small businesses, as well as wetlands), or increase the level of air emissions and fumes from possibly poorly maintained buses -- to name a few examples of problems generated from poor or under-funded maintenance.

82

The New Britain-Hartford Busway's promise and positive potential is trumpeted by the Parkville Revitalization Association. However, the promise could be significantly tarnished, without a fully-funded, long-term and continuing maintenance plan and commitment by the project proponents. Parkville needs to be assured that the potential busway benefits are not obliterated through the lack of adequate, quality maintenance. This issue of maintenance was overlooked in the Draft EIS, but is truly how long-term benefits are guaranteed.

The use of high-quality, highly-durable materials should be used in the capital construction phase of the New Britain-Hartford Busway, so as to minimize future maintenance and repair expenses. Use high-quality materials, build it right, and maintain the busway and its vehicles!

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Responses to Comments:

82. Refer to Response #13 to the Town of Newington.

PARKVILLE REVITALIZATION ASSOCIATION

17. Context-Sensitive Design.

Connecticut is a participating pilot site in Federal Highway Administration's Initiative for context-sensitive design for roads and transportation improvements. The Draft EIS made no mention of context-sensitive design principles as one of the strategies the New Britain-Hartford Busway will be using to mitigate adverse visual impacts, and to enhance the overall design of the project. Context sensitive design principles should be used in station design, for bridges, underpasses, and at-grade crossings. 66

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Responses to Comments:

Refer back to Comment #66.

PARKVILLE REVITALIZATION ASSOCIATION

18. Design Speed, Width of Traffic Islands, Travel Lanes, Shoulder Areas, and Platforms.

ConnDOT should examine all strategies or combination of strategies, including design speed, the width of traffic islands, travel lanes, should areas, and platforms so as to minimize the effects of stations on existing businesses and abutting land owners. ConnDOT should take every step to minimize any impact on Sack Oil at the Park Street station, so as to enable the construction of unified (or opposite) station platforms. | 83

The PRA recognizes that there is a balancing act and series of trade-offs, overall trip time-savings and design speed, safety and traffic island or travel lane widths. We also contend that unified (opposite) station platforms are important to the overall, safe functioning of busway stations. Consequently, a series of small steps using multiple strategies and trade-offs may be needed to achieve unified (or opposite) platforms with minimal business impacts at Park Street station. | 35 | 16

This reassessment is also needed at the Kane Street station to enable the construction, of visible station platforms (not hidden behind the Stop'n'Shop). All efforts should be made to decrease the distance between the in-bound and out-bound platforms at Kane Street, so that they approach the unified (or opposite) station platform design. | 41

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Responses to Comments:

83. The layout currently being proposed is conceptual. ConnDOT acknowledges the impacts upon this business that the construction of the Park Street Station will create; however, at this time, the actual design of the station has not been definitively determined, and the exact extent of impacts cannot be quantified. A Property Agent will be assigned to Sack Oil once the rights of way process has commenced. This agent will discuss in detail any and all compensation they may be eligible for under the Uniform Relocation Assistance and Real Property Acquisition Policies Act. The agent will determine the possibility for purchasing excess property to reconfigure the site to allow Sack Oil to remain at their current location.

PARKVILLE REVITALIZATION ASSOCIATION

19. Stations should be visible.

Busway stations, namely Park Street, Kane Street, and Flatbush Avenue, should be highly visible and easy to find. The stations in their entirety, should be visible to promote safety and use. The current proposal for the Kane Street station has the inbound platform behind Stop'n'Shop's truck loading area. This is not acceptable, and needs to be altered. The station, in-bound and out-bound, loading and de-planing areas both need to be highly visible. 39

PRA suports unified (opposite) station design at Kane Street. PRA recognizes that the I-84 bridge piers create a significant design constraint, and must be worked around. However, overall station design at Kane Street needs considerable attention and additional work by the project proponents in concert with the Parkville Revitalization Association and 40

The Kane Street Busway Station should be highly visible with a station building at the terminus of Kane Street extended. This would create high visibility of the New Britain–Hartford Busway from the west. 41

The Park Street Station should be highly visible, as well. Park Street is the primary commercial street and the City of Hartford. Retail sales on Park Street are greater than retail sales in downtown Hartford. The architectural renderings of the various options in the Draft EIS are misleading, and do not correspond the actual plans for each option. Although the architectural renderings lead the Draft EIS reader to believe there will be adequate site lines and visibility of the busway stations at Park Street and Kane Street from several blocks away, this is not in fact true. A station building at Kane Street and a prominent large-scale station building at Park Street would improve the visibility and street presence of the busway. 84 85

The Flatbush Station will likely be highly visible due to the proposed Flatbush Flyover. Concerns regarding the potential effects of the Flatbush Flyover are extensively discussed in Section 10 on Bridges, of these comments.

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Responses to Comments:

84. The Park Street Station will be prominent and visible close up, but its long-distance visibility is limited by the available site. To enhance visibility from Park Street, the entrance to the busway station at the corner of Park Street and Orange Street will be designed to increase the visibility of the station area from the Parkville Community Center. If the building itself is blocked by other existing buildings, a gateway treatment will be used, along with decorative elements on the bridge over Park Street, to enhance its visibility.

85. Both of these stations will have buildings and a street presence through gateway treatments or other features. The New Park Avenue (Kane Street) station building will be visible from Kane Street and New Park Avenue.

PARKVILLE REVITALIZATION ASSOCIATION

20. Shared and Sustainable Parking Strategies.

Shared and sustainable parking strategies should be adopted at all locations where parking is to be constructed. Parking at stations should be minimized, and promotion of multi-modal connections, especially bicycle, transit, and pedestrian should be aggressively pursued and supported.

New parking lots at Kane Street are not necessary, since a shared parking lot strategy can be easily be pursued with the abutters, the Crown Theaters or Stop'n'Shop. Parkville's engineering consultants[26] in fall 2000 made field observations of parking throughout Parkville, and noted that there is a surplus of approximately 100 parking spaces on the Stop'n'Shop site.

Crown Theatres, the recently opened multi-screen "I-Max"-style theater complex, has built an abundance of parking, over 500 spaces. Crown Theaters hours of operation lend itself to a shared parking strategy with busway patrons. A well-lighted and designed walkway crossing the Kane Brook ecological corridor could easily and pleasantly connect the Kane Street Busway Station with the massive Crown Theatres parking lot. Project proponents need to actively and aggressively pursue shared parking strategies with Crown Theatres and Stop'n'Shop, before committing to build any additional parking at the Kane Street Busway Stop. 86

The present proposal for Kane Street station calls for 127 new, additional parking spaces at Kane Street, including construction of parking spaces in the flood plain.[27] No data is provided in the Draft EIS on proposed ridership at Kane Street. Consequently, it cannot be ascertained as to why 127 additional parking spaces are being proposed, and if it is warranted. Shared parking should be pursued in lieu of constructing all 127 new parking spaces. Use of pervious materials for the parking lot at Kane Street Station should be considered. Shrinking the parking lot at Kane Street would more easily enable the creation of transit-oriented development and greenspace at this location.

The Flatbush Avenue busway stations call for significant parking lots. The Flatbush Station North option G-3 would create another corner of parking lots at Flatbush and New Park Avenue. The Flatbush Station South, option G-2 also increases additional parking at the corner. The creation of additional parking lots along the street 87

[26] Parkville retained engineering and urban design services through the TCSP project, Picture It Better Together, with the City of Hartford and Capitol Region Council of Governments. Parkville retained the team, Milone & MacBroom, Johnson Land Design, the Miniutti Group, llc, and Norman Garrick, PE.
[27] Draft EIS, Figure 2.4-26 at pages 2-45, 2-46.

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Responses to Comments:

86. Parking at the revised New Park Avenue (Kane Street) Station H-2 (see Section 2.4.8) is now provided on an existing paved work area under the I-84 viaducts. The location previously proposed for parking in the Draft EIS could now be used for ecological restoration and/or TOD. Stop and Shop, in their letter (in Section 6.4.5) has indicated that they have a shortage, not a surplus of parking. ConnDOT can approach the Crown Theatres with regard to shared parking, though the longer walk to the station may discourage parkers.

87. This station (G3 Modified) has been changed since the Draft EIS, based upon comments (see Section 2.4.7). The gas station on the northeast corner of Flatbush and New Park Avenue will remain intact under this concept. The donut shop that would be acquired may be reconstructed as an outbuilding on-site that would serve a TOD function.

PARKVILLE REVITALIZATION ASSOCIATION

tends to increase the speed of cars traveling along New Park Avenue. This is already problematic from Parkville's perspective. If these options are built for the Flatbush Avenue station, there needs to be a significant buffer between the parking lots, sidewalks and streets. 88

The Parkville Revitalization Association recognizes that good parking facilities are an essential element of success for many stations along the busway. Sustainable parking design principles should be incorporated into station designs. Sustainable parking principles include:

- shared parking for multiple users (e.g., adjacent commercial or residential users, along with busway patrons);
- maximize parking utilization through shared use and coordination of peak time demands for parking;
- enhanced storm water drainage (using NEMO standards) or storm drainage structures where clay-like soils are present, as in the Parkville area;
- a strong interface between pedestrians and sidewalks and vehicles in parking lots, e.g., fencing and landscaping; 89
- use of trees and shade in parking lots;
- parking for bicycles;
- alternative fuel recharging for vehicles;
- when parking structures are erected, first floor uses facing the street should provide space for retail or pedestrian-oriented businesses.

The Parkville Revitalization Association believes that the project proponents should at minimum incorporate sustainable parking standards for all stations in the Parkville area, Flatbush and Kane Street busway stations.[28]

[28] No parking is proposed for the Park Street Busway station.

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Responses to Comments:

88. Landscaping between parking lots, sidewalks, and streets is planned to serve this buffer function. The landscape plan will address this issue and will be formulated with public input.

89. Sustainable parking principles such as these will be considered during the design phase, where reasonable. Several of these items such as the pedestrian-parking interface, landscaping, bicycle racks) are already integral to the planned stations. Local input will be solicited during this phase of the project. Opportunities to pursue shared parking have been considered throughout this process, and if future opportunities open up, they will be considered.

PARKVILLE REVITALIZATION ASSOCIATION

21. Strong Pedestrian Improvements and Connections.

Strong pedestrian improvements and connections should be present at each busway station. There should be stronger pedestrian connections at Kane Street, Park Street, and Flatbush Avenue, especially to the Capitol Community College, Prince Tech, and the future Job Corp Center.

Pedestrian connections between the Kane Street busway station and proposed shared use parking at the Crown Theatres should cross diagonally under the Interstate, and not be aligned along the busway right-of-way, which is less visible and less direct. 90

Parkville Revitalization Association contends that project proponents should provide for pedestrian infrastructure improvements to enable strong pedestrian-transit intermodal connections within a 2000 foot radius of each station. This is extensively discussed in further detail in Section 6 of these comments.

On many of the station designs long covered walkways are proposed. These walkways in most designs, e.g., the Sigourney Station and the Kane Street stations, are set at a distance away from the street, traffic, and the presence of people. Pedestrian paths should be integrated with the sidewalk for greater safety, increased utilization, and longer-term good maintenance. The proposed covered walkways defy the general principles of defensible space and "eyes on the street." The history of covered walkways set away from the street, whether in Hartford or in other transit systems, is that they are marked by graffiti, urine odors, and lower levels of maintenance. Proposed designs should design for safety and success, and not for problems. 91

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Responses to Comments:

90. This walkway follows the busway alignment, rather than a diagonal path, to avoid wetland impacts.

91. Covered walkways have been suggested as a way to improve the pedestrian experience, by providing a sheltered, convenient walkway to platforms. The intent for covered walkways is to design them, maintain them and provide surveillance of them to keep them from becoming problem areas like PRA described. ConnDOT will work with PRA and others during the design process to ensure that these areas are secure and attractive.

PARKVILLE REVITALIZATION ASSOCIATION

22. Drainage Issues.

Drainage issues need to be addressed, and appropriate infrastructure installed at all station areas, including underpasses, for the busway. The area at Park Street already floods during heavy rain storms. This impedes traffic – vehicular, bicycles and pedestrians – at the Park Street and the busway/rail trestle. The construction of additional impervious surfaces, e.g., the busway road, will aggravate this problem. Mitigation measures must be planned and implemented. 92

The area at Kane Street also has a history of drainage problems. Historically this area was a brickyard, and has clay-like soils, which makes drainage difficult. All drainage improvements should correspond with the new storm water regulations being promulgated by USEPA for urban areas. 93

PRA is concerned about the removal of snow and subsequent spring meltings. Adequate provisions need to be made for the removal of snow. The proper storm runoff, in the event of use of any chemicals and salt for snow and ice mitigation, needs to be addressed especially as to the Kane Brook and South Park River. Increased runoff from snow and rain to adjoining properties, including residences and businesses along the busway needs to be addressed and mitigated. 94

The drainage issue is not discussed in the draft EIS, and no mitigation strategies are mentioned. This omission needs to be corrected.

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Responses to Comments:

92. During the design phase, ConnDOT will be completing a drainage analysis and design that will need to be reviewed, approved and permitted by several agencies. ConnDOT will adhere to its BMPs.

93. ConnDOT will adhere to its most recent BMPs.

94. ConnDOT is aware of the issue of snow removal and will make provisions for it in the project design.

PARKVILLE REVITALIZATION ASSOCIATION

23. Ecological Corridor.

An ecological corridor should be recognized, and greenspace should be developed to complement the Kane Street station area, towards the south of the station area. The Kane Street area is part of an ecological corridor with the Kane Brook connecting to the South Branch of the Park River. Environmental, ecological, wetlands, and wildlife issues need to be incorporated into the planning for this station. These issues at the Kane Street station are insufficiently addressed in the Draft EIS.

A pro-active approach on how to blend the ecology into station design to create an unique station with transportation, much-needed greenspace in Parkville, transit-oriented development has not been considered. Additional work in developing appropriate station design options needs to be expended for the Kane Street Busway Station by project proponents, in conjunction with the Parkville Revitalization Association. 95

A pedestrian and bicycle connection to the South Park River Greenway and Bikeway should be incorporated into the station design, linking the ecological corridor along the Kane Brook. This waterway could and should be an interesting design and environmental feature of the Kane Street Station. 96

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Responses to Comments:

95. The New Park Avenue (Kane Street) Station has been revised since the Draft EIS in response to PRA's and others' comments and now avoids impacting existing ecological resources south of the Stop and Shop southern parking lot. The concept plan for this station now contains enhancements to the upland area between the parking lot and the brook. The landscape design for this particular station will consider the opportunities afforded by the Kane Brook corridor, and public input will be solicited on ways that existing disturbed areas can be landscaped to enhance the resources that are already present.

96. Links from the busway to the South Park River Greenway are provided via Flatbush Avenue at the Flatbush Station as well as along Park Street from the Park Street Station. Access from the New Park (Kane Street) Station would be via New Park Avenue to Flatbush, Hamilton or Park Street.

PARKVILLE REVITALIZATION ASSOCIATION

24. Kane Street Station.

The Kane Street Station should be officially called Kane Street, and not New Park Avenue station. The reference to New Park Avenue is confusing, since three stations along the New Britain-Hartford Busway border New Park Avenue. Therefore, the Parkville Revitalization Association strongly urges officially renaming this station, Kane Street. 97

The Kane Street Station is located in the pedestrian-walking area of Parkville, and the station design should reflect its location in an urban walking neighborhood. Overall, additional work on the development of station design alternatives is very much needed for Kane Street. Many of the concerns regarding the design and operation of the Kane Street Station have been discussed at length in other sections of these comments. The concerns regarding Kane Street are summarized below:

A. Unified, or opposite platform design is preferred. The proposed north-bound platform hidden behind the Stop'n'Shop building beyond its loading dock is unsafe, not visible from the street or accessway to the station, and is inappropriate. 39

B. A station building should be erected at Kane Street-Extended at the busway. 41

C. The proposed covered walkway to the Cinemas are located at the most distant point from the street is inappropriate. Pedestrian traffic should be connected to an improved and enhanced sidewalk along New Park Avenue, where visibility, lighting, and safety is better, as well as diagonally to the proposed shared parking with Crown Theaters.. 90

D. The Kane Street area is part of an ecological corridor with the Kane Brook connecting to the South Branch of the Park River. Environmental, ecological, wetlands, and wildlife issues need to be incorporated into the planning for this station. These issues at the Kane Street station are insufficiently addressed in the draft EIS. 98

E. The provision of 127 parking spaces at Kane Street Station using impervious asphalt surfaces is inappropriate and insensitive to the abutting wetlands and ecological corridor. It is recommended that on a temporary basis the area designated for parking be surfaced with pervious material. Appropriate selection of pervious material will enable the so-called parking area to be used either for much-needed open space in Parkville or for parking, as it is needed. 86

F. Parking management at the Kane Street Station should include negotiations with abutting property owners, the Palace Cinema and Stop'n'Shop for shared use of

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Responses to Comments:

97. For consistency with the Draft EIS, the station is still being referred to as the New Park Avenue Station with Kane Street in parentheses. The names of the stations, and ultimately, the name of the entire busway facility and system still are to be determined, but PRA's recommendation will be taken under advisement.

98. All these issues were addressed in the Draft EIS. The station has been revised as described in comment 96 above, and offers opportunities for ecological restoration.

PARKVILLE REVITALIZATION ASSOCIATION

existing parking resources. No mention of shared parking management strategy option is noted in the narrative. | 90

G. The Kane Street Station and the Kane Street corridor westward is an opportunity for future new investment and development that can be transit-oriented and reinforce the success of this station. This potential needs to be acknowledged and incorporated into the overall station planning. The current station scheme in the Draft EIS ignores this possibility. | 99

H. Pedestrian options and connections need to be enhanced, including crosswalks at Kane Street and New Park Avenue, as well as pedestrian and streetscape amenities, as well as pedestrian improvements within a 2000 foot radius of the Kane Street Station. | 100

I. Provision for bicycle amenities and parking needs to be provided at the Kane Street Station. | 74, 86

J. The proposed culvert adjustments and construction need to be designed sufficiently large enough to address the drainage of potential development at the Kane Street site. | 101

K. I-84 at New Park Avenue is the barrier and transition point between the auto-oriented zone in Parkville, and the walking-centric area of Parkville. The Kane Street station is located in the pedestrian-walking centric area, and the station design should reflect its location in an urban walking neighborhood. | 102

L. A pedestrian and bicycle connection to the South Park River Greenway and Bikeway should be incorporated in the station design, linking the ecological corridor along the Kane Brook. This waterway could be an interesting design and environmental feature of the Kane Street station. | 96

The Parkville Revitalization Association believes further work to design a proper station alternative is necessary. On the following page is a preliminary scheme for Kane Street. The Parkville Revitalization Association wishes to work with ConnDOT to further refine this option. | 103

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Responses to Comments:

99. A space for potential TOD is now shown as part of the revised plan for this station. Regarding the Kane Street corridor beyond the station limits, as noted in Response #1 to Connecticut DEP, ConnDOT cannot formally influence the planning choices made near stations; rather, Hartford needs to make zoning and planning decisions that capitalize on the opportunities the transit facility provides. ConnDOT will encourage station-area planning efforts.

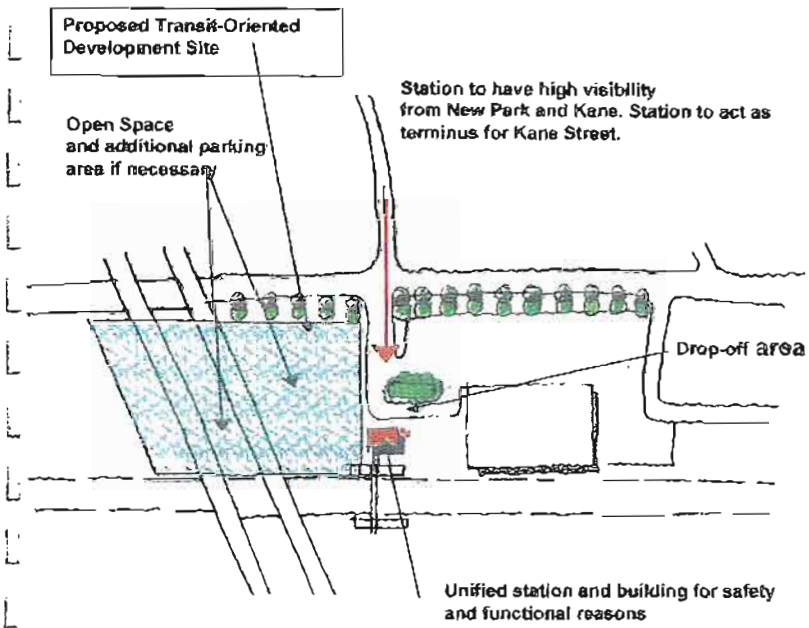
100. Pedestrian treatments such as those listed have been have been considered during this process from input by stakeholders like PRA. Connections to existing facilities have been provided where reasonable and practical within the station areas.

101. Drainage analysis and design will be completed during the design process.

102. This station will need to serve both the needs of pedestrians and the needs of motorists, and design of the station will cater to both groups.

103. The revised Station H2 at New Park Avenue (Kane Street) offers the features shown in PRA's "preliminary scheme." ConnDOT will work with PRA during the design process.

PARKVILLE REVITALIZATION ASSOCIATION



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Responses to Comments:

No response is necessary on this page.

PARKVILLE REVITALIZATION ASSOCIATION

27. Improve the Image of Busway and "Buses."

ConnDOT and FTA need to aggressively market and promote the busway and buses. Unfortunately, buses have a negative image as that transport of last resort. The success of the busway depends on an improved public perception of buses and the busway. ConnDOT should develop a name for the entire proposed system of regional busways, similar to the names used by other major transit agencies, e.g., the "T" in Boston, METRO in Boston, MARTA in Atlanta, to name a few. The name should not use the term bus, and should short and snappy. In addition, the terms bus and busway should be minimized, if not eliminated, from the regional transit system. These terms reinforce the negative image, instead of noting the creation of a new form of transit. **105**

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Responses to Comments:

105. Refer to US EPA Comment #1.

PARKVILLE REVITALIZATION ASSOCIATION

28. Flatbush Station.

Parkville's preliminary preference on the Flatbush station area strongly favors Station Option G-2, Flatbush South Station. Since neighborhood representatives were first informed that this station was potentially being relocated to Hartford (and hence Parkville) only one week ago, there has been limited opportunity for neighborhood discussion of the Flatbush options. Option G-2 appears to minimize pedestrian conflicts and access to the new Job Corps Center, and the Hartford Public Housing Authority. Option G-3 adversely affects the redevelopment of the Heublein property, thereby devaluing this property and reducing Hartford's commercial tax base. Parking in the G-1 station alternative design is unsafe, and maximizes vehicular-pedestrian conflicts. 106 107 108

The busway should have a station presence on the street, both Flatbush and New Park Avenue. The corner of Flatbush and New Park Avenue should not become a sea of automobile parking at two-to-three corners. It is inappropriate to propose an at-grade parking lot at a major urban corner. A model of the proposed flyover of Flatbush, the station options, and the reconfiguration options Flatbush exit at I-84 should be constructed and available for view and analysis by the neighborhood. These two major investments intersect, and need to be carefully examined for impacts. They cannot be considered in isolation. 87 109

Additional comments regarding the Flatbush Station options can be found throughout this document.

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Responses to Comments:

106. Station Option G3, the recommended action, has been under consideration for some time, and was shown in the Draft EIS along with the two other options. PRA has seen this concept, along with the architectural renderings, for some time prior to the release of the Draft EIS. The Flatbush Avenue station was not relocated to Hartford. One of the three sites under consideration has always been in Hartford.

107. Station Option G3 was selected because the site could be better developed, and because it did not require the acquisition of an automobile dealer. The donut shop on site would need to be acquired but could be redeveloped on site as a TOD feature (also retaining its tax revenue). The Heublein property offers a great opportunity for TOD under station Option G3.

108. Option G1 had a number of shortcomings, most notably its location, and so was not selected as the recommended action.

109. Any reconfiguration of the Flatbush ramps as part of the West Side Access Study would not change the view down Flatbush Avenue. As the busway project moves into the design phase, appropriate visualization tools will be used to help understand what proposed improvements might be. Coordination with the West Side Access Studies is on-going.

PARKVILLE REVITALIZATION ASSOCIATION

29. Barrier Walls between Amtrak and the Busway.

The proposed barrier and noise walls need to not block vistas and views of the Industrial Corridor and Parkville to both Amtrak and busway passengers. An eight foot high barrier wall on top of the rail trestle at Park Street, as suggested in Option I-3, would block light, block the vista and viewshed, and mar the gateway entrance to Parkville. 110

Considerable work on the design of decent and appropriate barriers for safety between Amtrak and the busway was is necessary. Decorative fencing (or barriers) should be developed. Current proposals in the Draft EIS are inadequate.

The busway should not become an above-ground tunnel through the Parkville area, with only the "lid of the tunnel" missing. Noise and visual barriers using plant material should be explored, and incorporated wherever possible, especially abutting the residential areas on Francis Street. 80

A climatic impact analysis of the barrier walls and their effect on abutting properties and pedestrian ways should be undertaken. The climatic analysis should address wind, sunlight, and shade issues. The barriers are proposed to protect waiting passengers from trains traveling at fifty miles per hour, or faster. This protection is needed. However, attention to wind issues is needed to make sure that wind tunnels are not inadvertently being created. 111

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Responses to Comments:

110. Amtrak and ConnDOT agree that barriers need, at a minimum, to be of a thickness and height to prevent conflicts between pedestrian/busway patrons and rail operations. ConnDOT will work with PRA to determine ways to improve the appearance of these barriers during the design phase.

111. Protection of pedestrians/busway patrons is paramount. Every effort will be made to make the stations attractive, unimposing and using defensible space and context sensitive solutions.

PARKVILLE REVITALIZATION ASSOCIATION

30. Park Street.

Option I-2 best meets the neighborhood planning criteria to retain existing businesses.

Another major planning consideration for the Park Street busway station is the connection to the Parkville Industrial Corridor. The Industrial Corridor includes over 30 employers, and will be both a destination and trip generator. None of the Park Street design schemes as portrayed in the draft Environmental Impact Statement address this key issue. The opening narrative of the EIS applauds the need for connectivity, but there is no provision for connectivity in the station design plans as portrayed in the draft EIS. Options I-1 and I-2 can both be connected to the Parkville Industrial Corridor through joint or co-development of the publicly-owned parcel at 17-35 Bartholomew. Option I-3 has insufficient frontage on the busway south of Park Street to enable a connection with the Parkville Industrial Corridor. **20, 38**

There is no provisions noted in either the rendering, station description, or plan view of the station options for Park Street that include bicycle parking or bicycle amenities. Provisions for the bicycle travel mode to the Park Street busway station should be incorporated, and is one of Parkville's major planning criteria. **74,76**

Option I-3 as portrayed in the draft EIS was rejected by the neighborhood during the public planning workshops. It should not have been incorporated in the draft EIS as is. The north-bound platform in Option I-3 is not visible from Park Street, contrary to the rendering image contained in the draft EIS. This design violates basic safety design standards, and isolates passengers, in the event of trouble or an accident. **38**

Option I-3 calls for an above-ground pedestrian crossing over Park Street. This creates a hazard for vehicles and pedestrian traveling below on Park Street, by providing a stand for target practice for stones, rocks or other items thrown from the overpass. **64**

In general, during community planning workshops neighborhood residents and businesspeople favored the grander scheme, Option I-1. Concerns about business dislocation was a major drawback identified with Option I-1. Consequently, the Picture It Better Together Parkville Working Committee of the Parkville Revitalization Association supports Option I-2 as the option in the Draft EIS that best meets Parkville's objectives. **38**

11 New Park Avenue, Hartford, Connecticut 06106

Responses to Comments:

Refer back to the responses listed.

PARKVILLE REVITALIZATION ASSOCIATION

APPENDIX

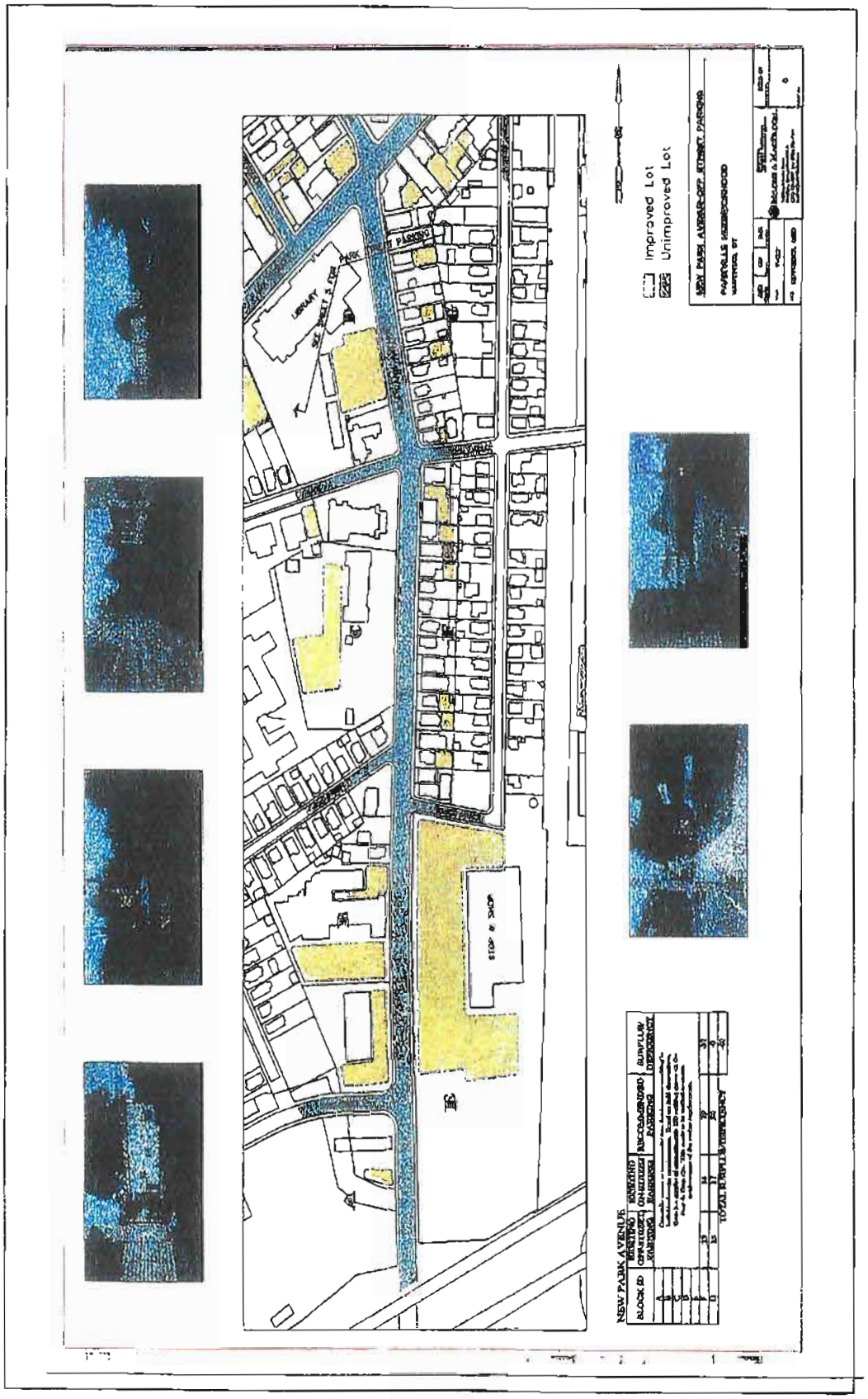
I. Parking data and map from Milone & MacBroom for New Park Avenue.

II. Evolution of design of the Park Street and Kane Street Busway Stations, prepared by the Miniutti Group, llc and Milone & MacBroom as part of the TCSP project, Picture It Better Together.

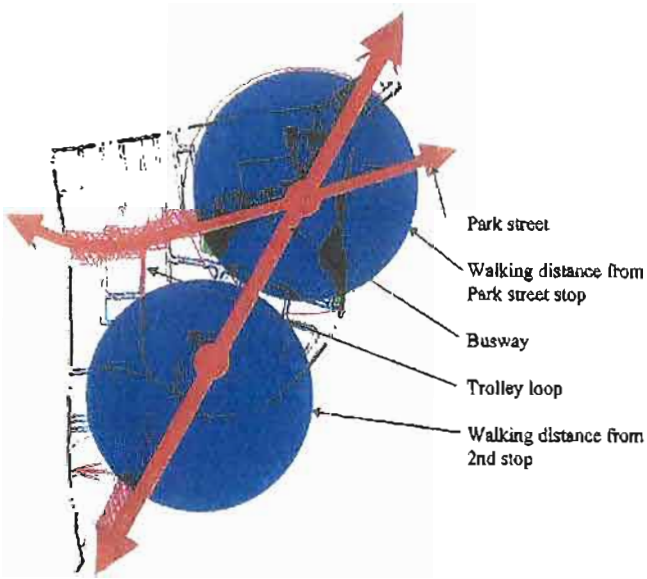
11 New Park Avenue, Hartford, Connecticut 06106

Responses to Comments:

No response is necessary on this page

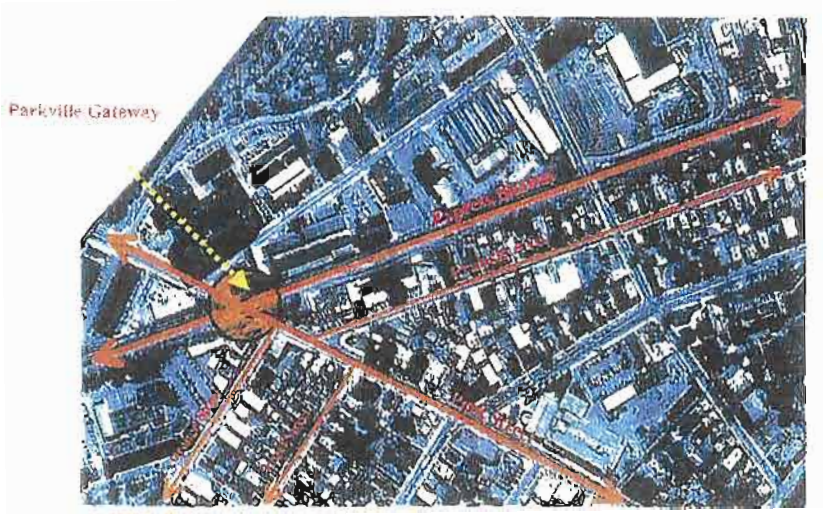

Improved Lot
Unimproved Lot
NEW PARK AVENUE
STOP & SHOP
LIBRARY

Park Street Bus Station

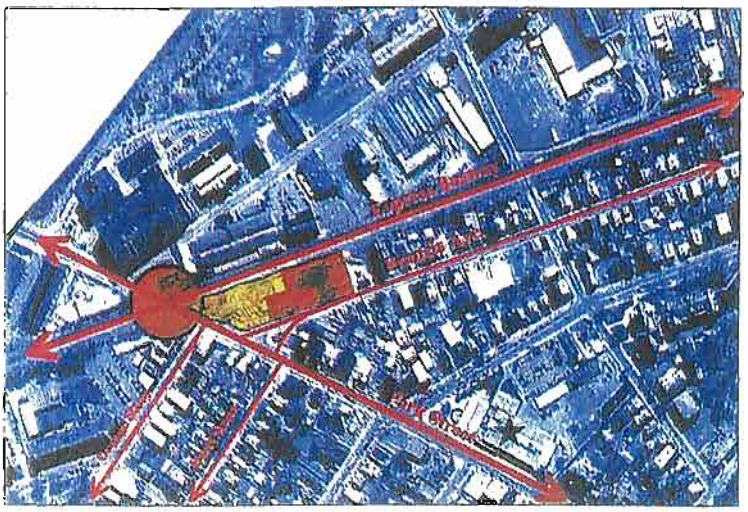


BUSWAY, WALKING DISTANCES AND THE PARKVILLE TROLLEY

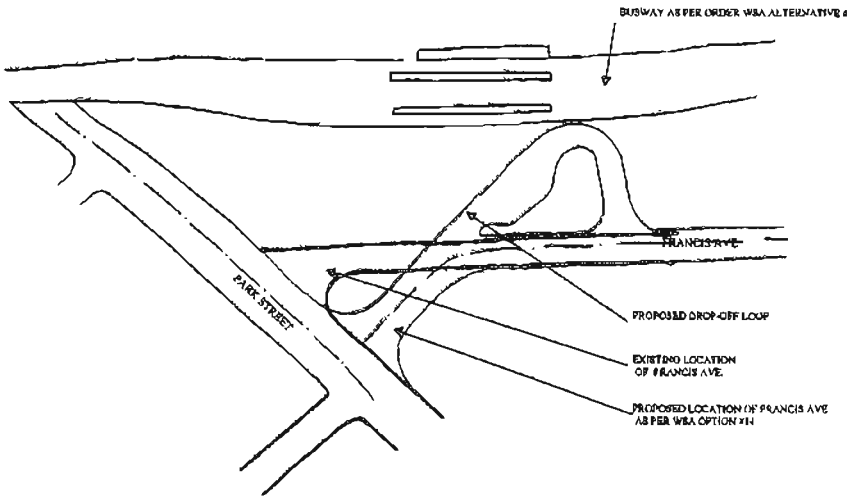
PARKVILLE TROLLEY



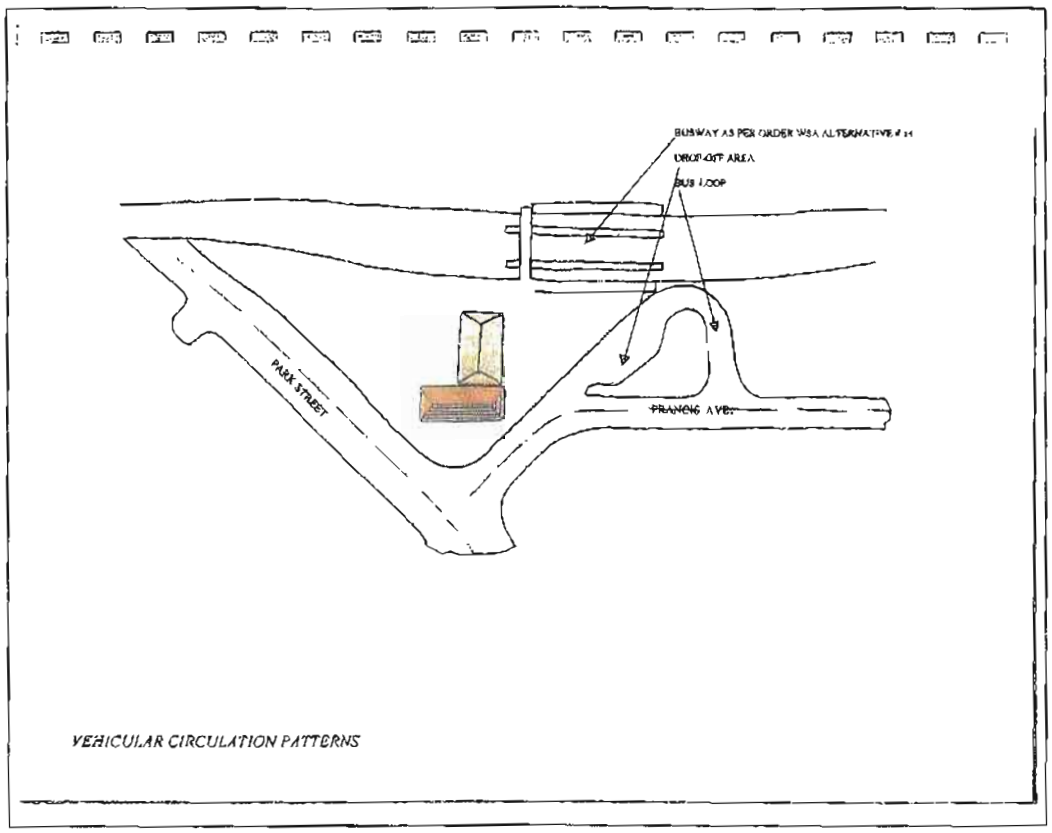
EXISTING CONDITIONS @ PARK STREET AND TRESTLE BRIDGE



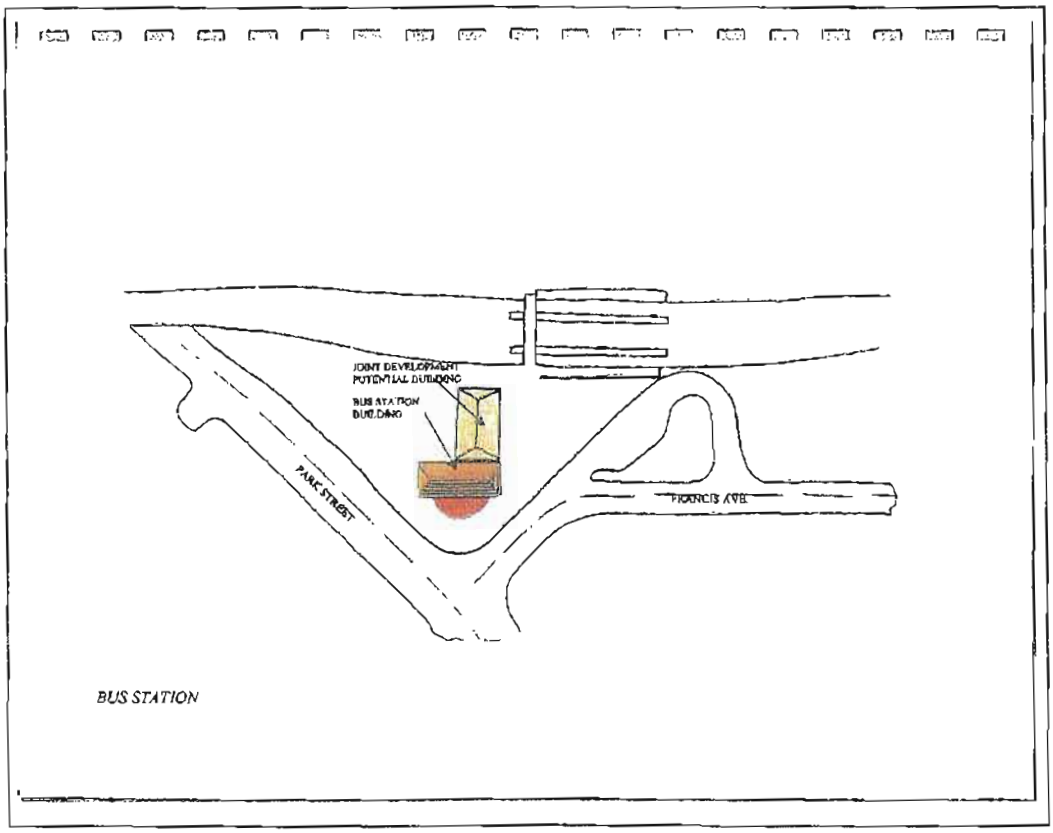
PROPOSED BUILDING AND ROAD ALTERATIONS FOR BUS STATION @ PARK STREET



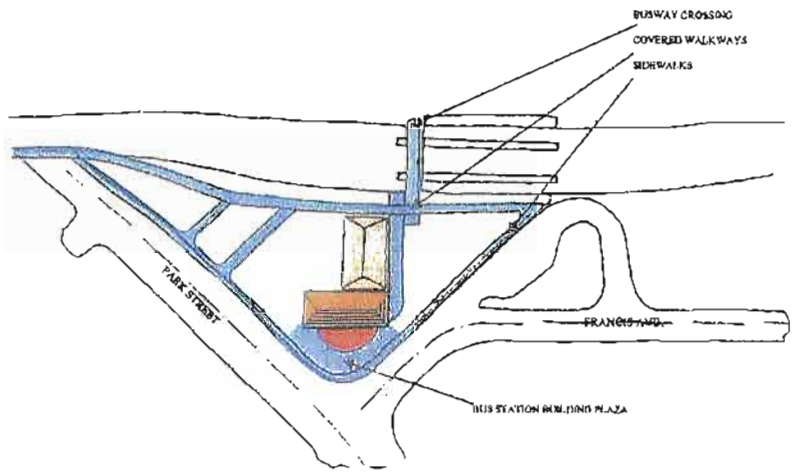
EXISTING AND PROPOSED ROADWAYS



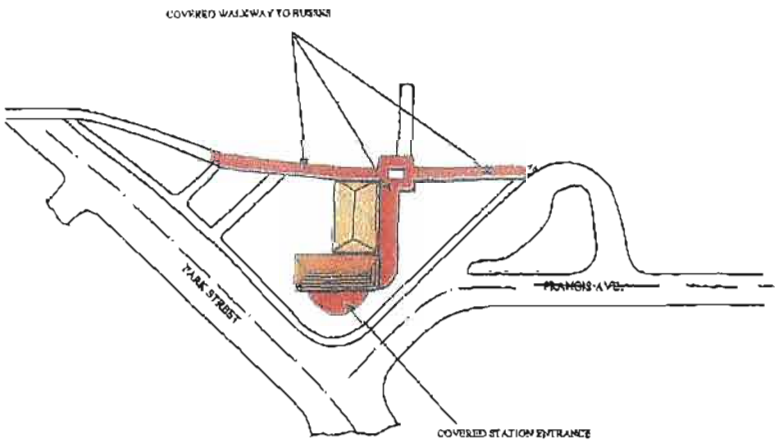
VEHICULAR CIRCULATION PATTERNS



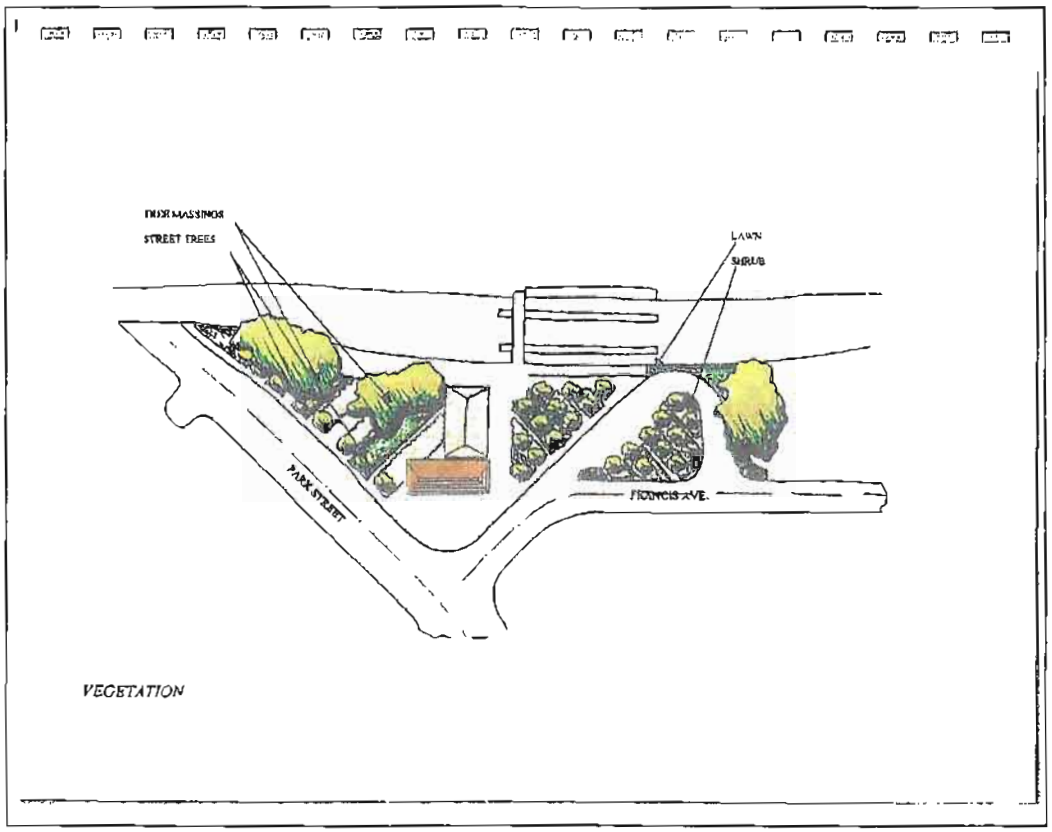
BUS STATION



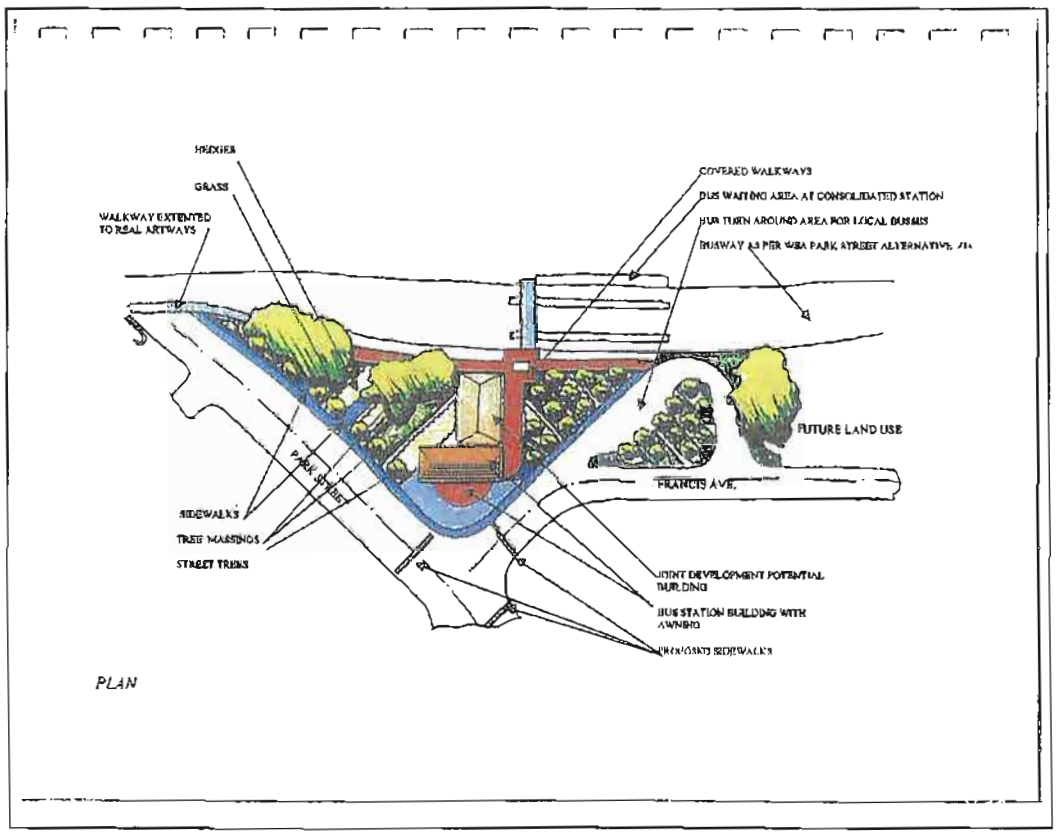
PEDESTRIAN CIRCULATION PATTERNS



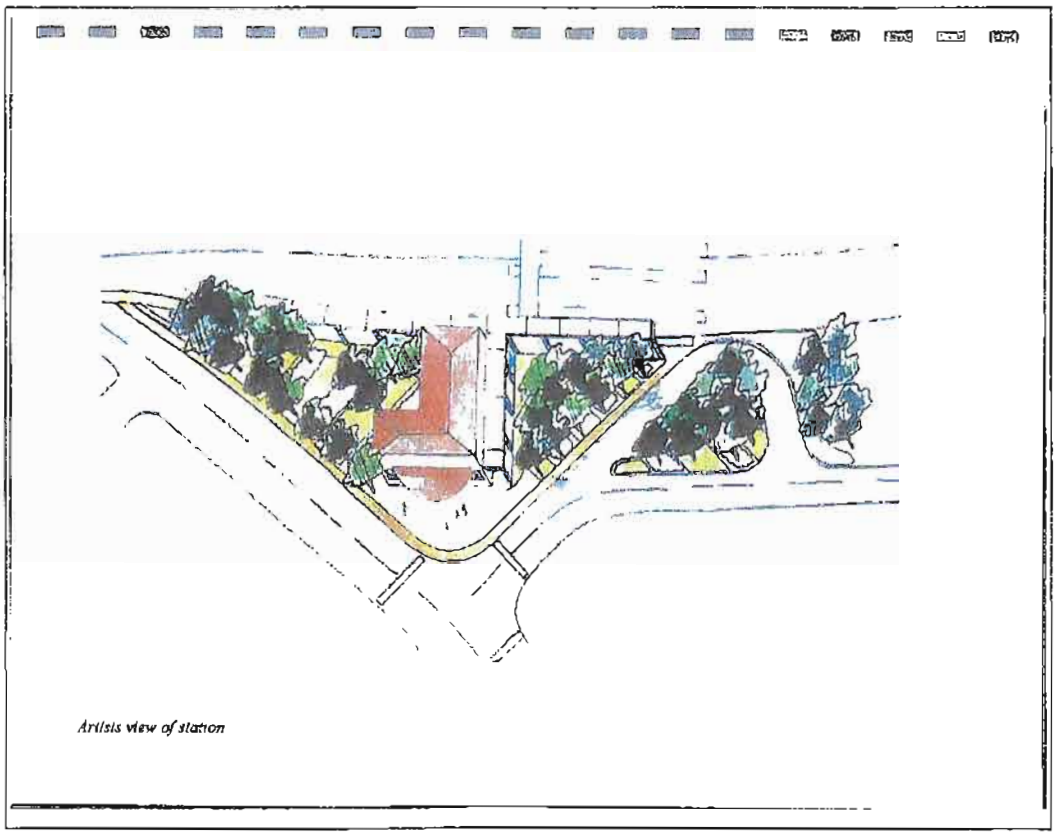
COVERED WALKWAYS



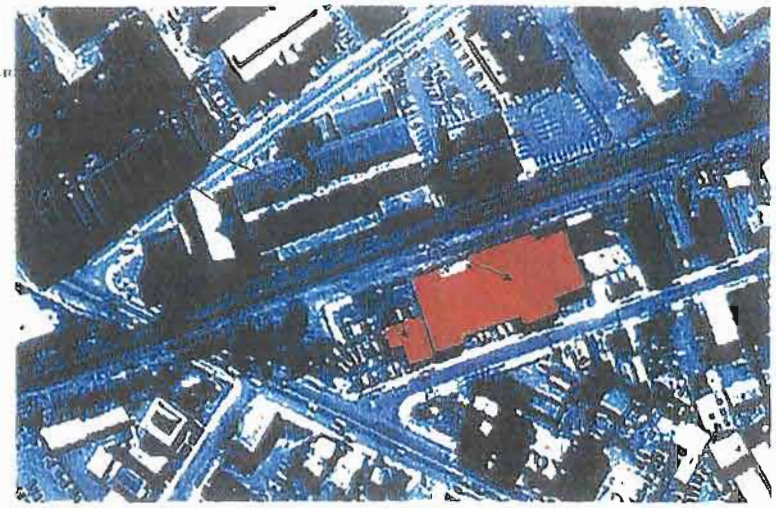
VEGETATION



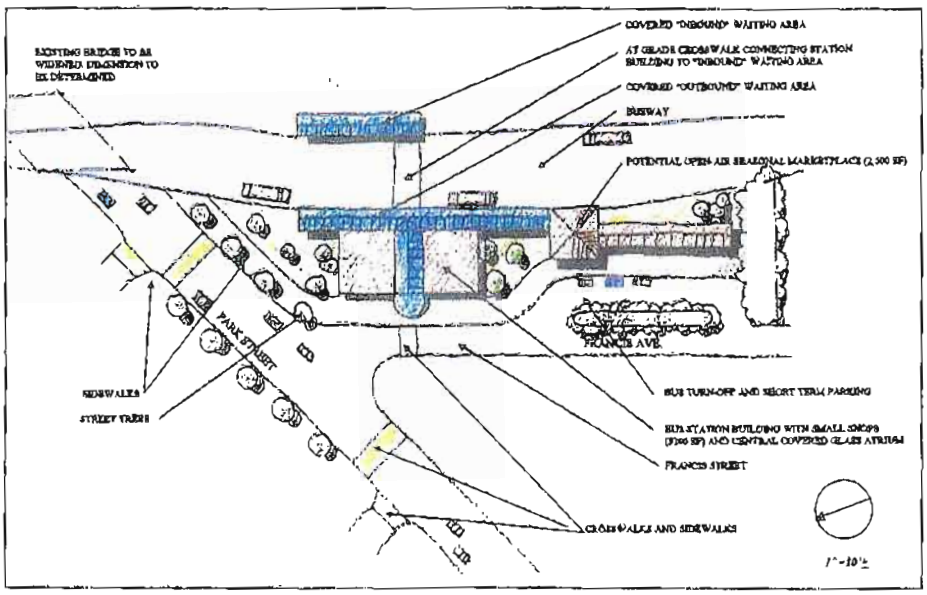
PLAN



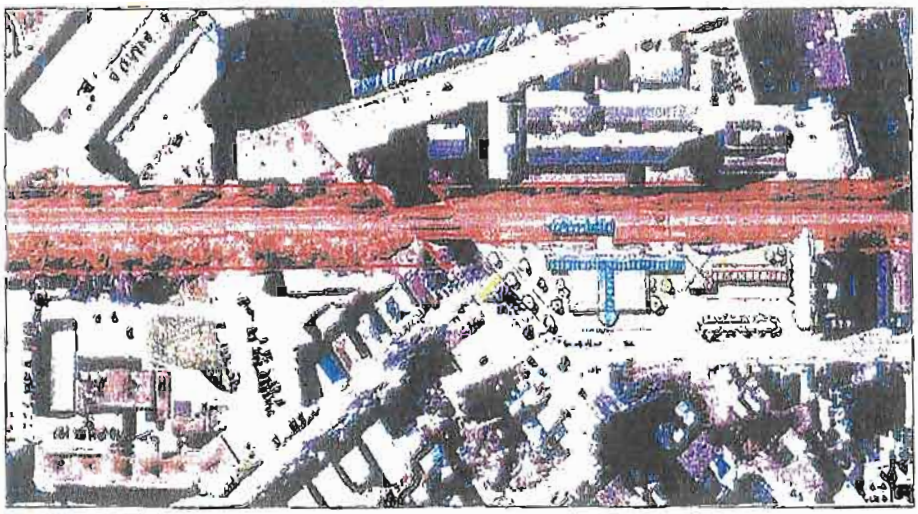
Artist's view of station



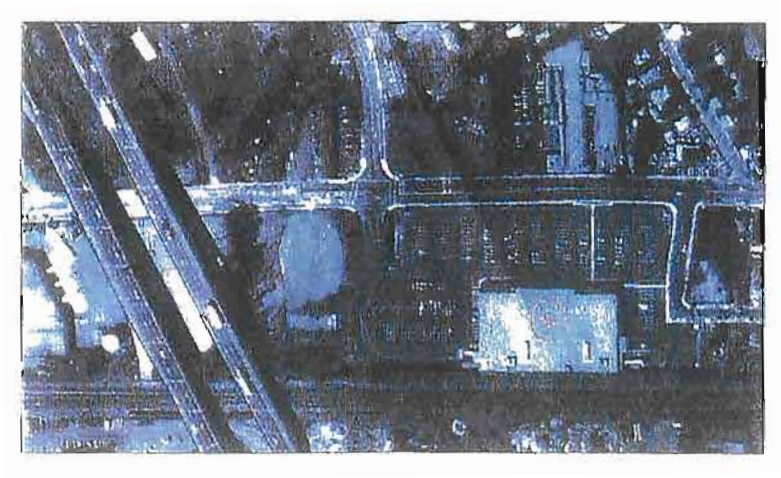
BUILDINGS TO BE REMOVED



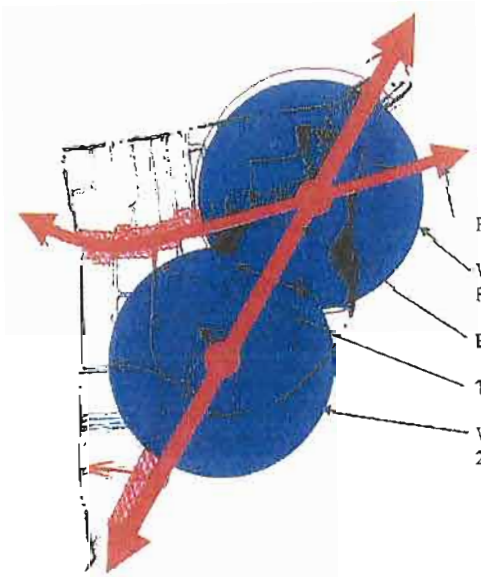
Park Street Station with existing Francis Avenue alignment and unified platforms



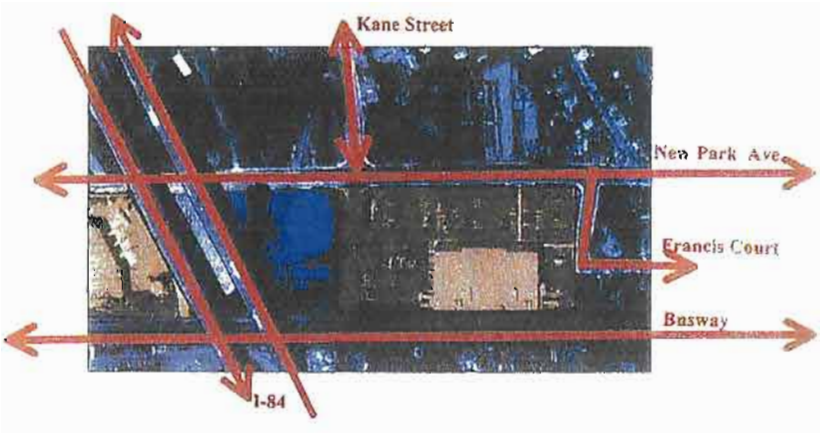
Unified Park Street Station Design with Francis Avenue, as is.



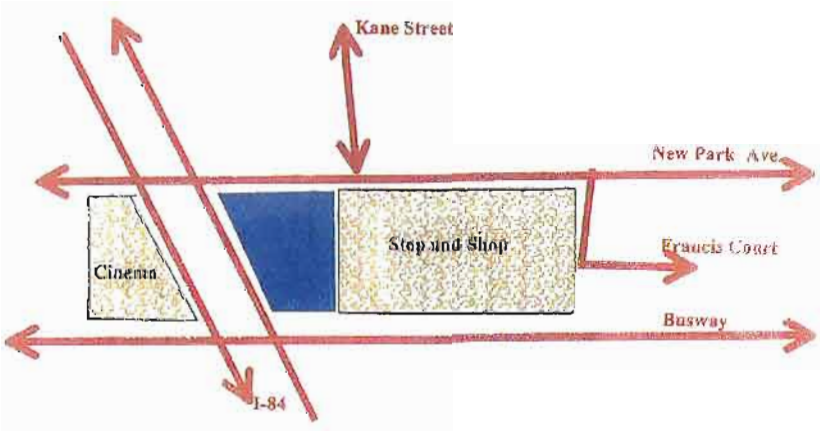
AERIAL PHOTO OF EXISTING CONDITIONS @ NEW PARK AND KANE STREET



BUSWAY, WALKING DISTANCES AND THE PARKVILLE TROLLEY



AERIAL PHOTO OF EXISTING CONDITIONS @ NEW PARK AND KANE STREET



EXISTING CONDITIONS @ NEW PARK AND KANE STREET

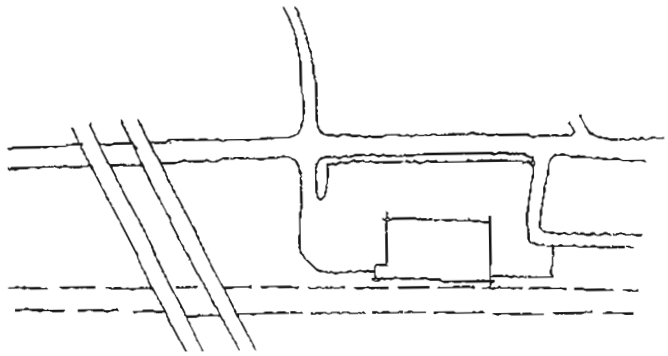


DIAGRAM OF EXISTING CONDITIONS

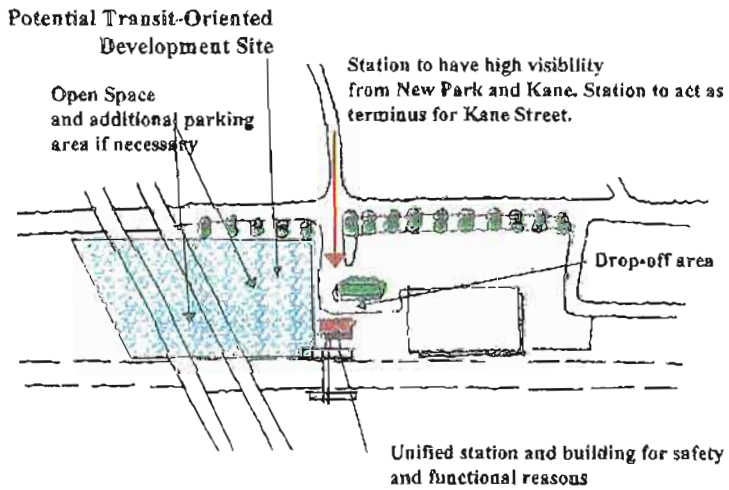


DIAGRAM OF PROPOSED STATION LAYOUT

Vision New Britain
" A City For All People"

185 Main Street Suite 416
New Britain, CT 06051
E-Mail: gelgary@aol.com

Telephone(860) 225.3336
Fax(860) 225.3335

Visit our web page at a.aonet.com

May 2, 2001

Edgar T. Hurle
Director of Environmental Planning
Environmental Planning division
Room 2159 (NF2)
PO Box 317546
Newington, CT 06131-7456

RECEIVED
MAY 04 2001
ENVIRONMENTAL PLANNING DIVISION

Dear Director Hurle:

The Draft Environmental Impact Statement (EIS) for the New Britain-Hartford Busway reports that a multi-use, bicycle-pedestrian pathway also could be built with the Busway. This addition to the project is encouraged by Vision New Britain's Transportation Committee, which supports Federal and State transportation policies. This rails-to-trails pathway has the potential to increase bicycle and pedestrian traffic to work and for leisure trips. 1

The State and City of New Britain can also plan, and implement on and off roadway bicycle connections to the Busway stations, where appropriate, along the entire route. It is our opinion that this multi-use pathway will spur inter-neighborhood pedestrian and bicycle activity for both transportation and exercise. 2

From an economic point of view the logical connection of these two projects will no doubt be a minor addition to the overall cost of the project.

Vision New Britain endorses the design and inclusion of the pathway concurrent with the Busway.

We look to you for support of this concept.

Sincerely yours,

Lindsley Wellman
Chair
Transportation Action Group

Gary Robinson
President

Responses to Comments:

1 See Response #6 to US EPA.

2. Concur. ConnDOT will work with the four communities to increase bicycle accessibility to stations.

6.4.7 Written Citizen Letters / Comment Sheets / Drawings

- **16 comments (letter form, drawing, or on written comment sheets)**

05/14/01 09:12 ☎860 594 3028 CT DOT NE 2 002/002

JOHN AND JEANETTE BONEE
22 ENGLEWOOD ROAD
WEST HARTFORD, CT 06119

April 30, 2001

DEPARTMENT OF TRANSPORTATION
MAY 8 1 2001
COMMISSIONER'S OFFICE

Mr. James F. Sullivan
Commissioner of Transportation
Department of Transportation
2800 Berlin Turnpike
Newington, CT 06131-7546

Re: New Britain/Hartford 10-Mile Busway

Dear Commissioner Sullivan:

Enclosed herewith please find a copy of Tom Condon's article published April 29, 2001 in The Hartford Courant concerning the captioned proposal of DOT. I agree with his point of view. The one hundred million dollars could be far better used for the following:

1. Repair potholes on Route 84 in Hartford/West Hartford | 1
2. Build a fast train, and I mean fast, from Bradley Airport to Hartford and to New Haven. | 2
3. Build light rail transit from downtown Hartford along Farmington Avenue to Farmington center. | 3
4. Permit the tobacco lawsuit monies to be used for what they were intended, i.e. smoking cessation programs.
5. Eliminate trucks involved in interstate transport from Route 84 between Waterbury and Hartford due to public safety concerns. | 1
6. Enforce pollution laws by instructing State Police to pullover open and obvious gross polluting, un-tuned automobiles which pollute more than one hundred times than a properly tuned car.

Thank you for your attention to these matters.

Very truly yours,

John L. Bonee III

JLBIII:smm
Enclosure

cc: Tom Condon
Sidney J. Holbrook

Responses to Comments:

1. The Hartford West MIS evaluated ways to improve congestion on Interstate 84 west of Hartford, and a Reasonable Alternatives Package (RAP) was selected that included the New Britain – Hartford Busway, along with other actions such as the West Side Access project. Elimination of trucks on Interstate 84 would be considered a restriction on interstate commerce and would not be supported by the Federal Highway Administration.

2. Bus Rapid Transit will be investigated as part of a future study in the Griffin Line corridor.

3. Light Rail Transit along Farmington Avenue was evaluated in the Hartford West MIS. The New Britain – Hartford Busway was shown to have larger ridership and was a more effective way to address congestion in the Hartford West study area.

03/31/01 08:43 ☎860 594 3028 CT DOT NE 2 ☎002/003

Re. 11/8
LB

New Britain-Hartford Busway

COMMENTS

Sorry this is so late. Just forgot to mail it. Hope you can consider it.

Date: 4-12-01

The Connecticut Department of Transportation and Federal Transit Administration are interested in your ideas and comments on the proposed Bus Rapid Transit (BRT) Facility to address transportation needs in the Greater Hartford Region.

Please complete this self-addressed form (Please Print Clearly), and leave it with a Study Team Member this evening, or mail by May 18, 2001 (Postage Required).

Name: Patricia Carbonneau
Address: 139 Pedand St.
City: West Hfd. State: Ct. Zip Code: 06110

I have been informed about this study primarily through (Please select one)

___Newsletters ✓Public Meetings ___Newspaper Advertisement
___Web Site ___Radio News ✓Newspaper Article
✓Friends/Neighbors ✓Other West Hartford Visina membership

COMMENTS: (Please Print Clearly)

The stops near us would be Elmwood and Newington Junction. Thinking particularly of 3 friends who are victims of MS, it is important to the public that the stations be accessible to all. Since you are aware of state requirements it is probably not necessary to remind you of that, so I'll go on. A safe place to park bikes and lock them is necessary, and it would be super if the buses had space to carry bikes and luggage, since the busway would connect with planned bikeways, interstate bus transportation, and rail travel. The planned Elmwood station is very likeable in design and conveniences within. The approach to it needs more thought, as walkers need to cross a wide intersection, climbing a hill or stairs, — difficult for elderly patrons. There also should be a walk wide enough for walkers and bikes on the east side of the underpass. That approach now is very poor. Solving these problems presents challenges.

1 2 3 4

Thank you for your participation in this study. If you have any questions, please call the Connecticut Department of Transportation at (860) 594-2941.

(over)

(RE: DETS/4 (f), March 2001)

Responses to Comments:

1. All stations will be ADA accessible, as required by law. See Section 2.2.1 for more information.

2. Bike racks and other amenities will be provided at stations. The public will have a role in influencing the amenities provided during the design process. Refer to Section 2.2.7 for more information. See Response #13 to CRCOG regarding bike racks on buses.

3. Pedestrian improvements will be provided in the area surrounding the stations. All grades that pedestrians need to navigate will be consistent with ADA requirements. There will be stairs provided south of New Britain Avenue, thereby permitting access for pedestrians from the south side of New Britain Avenue without having to cross the street at grade.

4. Full sidewalks will be provided through the New Britain Avenue underpass.

06/31/03 08:44 ☎860 594 3028 CT DOT NE 2 003/003

Elevators come to mind, an expensive solution but feasible / 3
The state's tourism enterprises would benefit from a sub-station
in the Elmwood station – close to Noah Webster/Sarah Whitman
Hooker houses/Rockledge Golf/Westfarms Mall/West Hartford 5
shopping and dining centers/libraries etc./Park Rd. theatre and stores/
Elmwood Community Center

Two other real concerns are ① the proximity of Amtrak
to the busline, particularly since the brush fires caused by 6
wheel sparks recently near Enfield, and ② the importance of
routing truck traffic away from the bus stations. The
excellent solution for the Elmwood/New Park/Newington area
would be the extension of South St., (West Hartford)
across New Britain Ave. to connect with an 84 entrance.
Trucks and other vehicles could then access 84 from
Newington without going down Newington Rd to New 7
Britain Ave., to So. Quaker Lane or New Park. The state
should seriously consider this, though it probably entails
building a bridge over the ~~Park~~ Trout Brook. Perhaps
even building a road which doesn't cross Trout Brook
but connects with New Park would even be a great
help. The road could enter Quaker Lane from the
south side of Trout Brook. Something smart should
be done, the situation as it now stands would be
miserable.

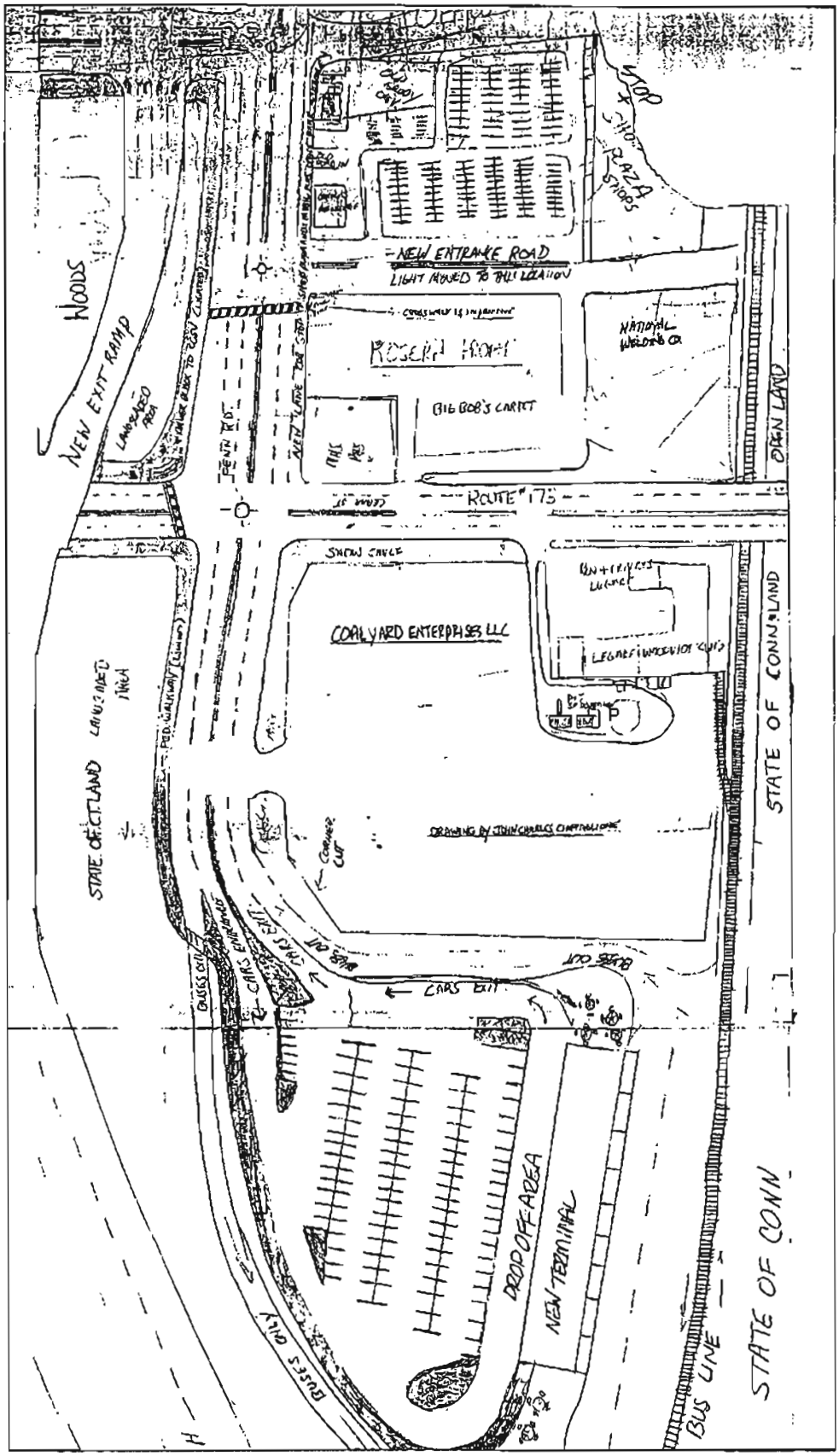
Responses to Comments:

5. ConnDOT will encourage some form of joint development/TOD at the Elmwood Station site. A tourist office or private commercial development would both be possibilities. It is also possible for tourist information to be provided within the station building itself in displays.

6. Amtrak will be separated from the busway by a barrier. The busway design will not prevent Amtrak from current maintenance activities. Brush fires would hopefully be avoided through Amtrak's maintenance of vegetation near tracks.

7. Truck routing through the Elmwood area is beyond the purview of this study. The West Side Access study is evaluating local accessibility concerns, more in the vicinity of Interstate 84.

Drawing by John Charles Ciaffaglione



Response to Contents of Drawing on Following Page

Response to drawing submitted by John Charles Ciaffaglione (preceding page):

The basic assumption of the plan shown in Mr. Ciaffaglione's drawing is to relocate the existing Route 9 northbound off-ramp from its present location (terminating at Cedar Street/Route 175) to a new location at Ella Grasso Boulevard (opposite the existing northbound on-ramp) or as a fifth leg to the Ella Grasso/Fenn Road intersection. The land where the off-ramp used to be could allow for a driveway to a proposed busway station south of Cedar Street. While this plan would seem to improve traffic operations at the Cedar Street/Fenn Road intersection (which may or may not be the case), it will actually serve only to exacerbate the existing problem at the Ella Grasso Boulevard/Fenn Road intersection, which already operates at a LOS F during the PM peak hour.

Beyond that, it would entail filling an extensive wetland/stream course area between Route 9 and Fenn Road. The layout of the ramps at Ella Grasso Boulevard and at Route 175 were designed in response to ACOE concerns in the 1980's. It is unlikely such a ramp like the proposed new one would be permitted by the federal regulatory agencies.

Refer to response # 2 to CCSU regarding a busway station south of Route 175.

New Britain-Hartford Busway

COMMENTS

Date: 4/24/01

The Connecticut Department of Transportation and Federal Transit Administration are interested in your ideas and comments on the proposed Bus Rapid Transit (BRT) Facility to address transportation needs in the Greater Hartford Region.

Please complete this self-addressed form (Please Print Clearly), and leave it with a Study Team Member this evening, or mail by May 18, 2001 (Postage Required).

Name: CHRIS EDGE
Address: 1 COURT STREET - 4TH FLOOR
City: NEW BRITAIN, CT 06051 State: CT Zip Code: 06051

I have been informed about this study primarily through (Please select one)

___Newsletters ✓Public Meetings ___Newspaper Advertisement
___Web Site ___Radio News ___Newspaper Article
___Friends/Neighbors ___Other_____

COMMENTS: (Please Print Clearly)

THE CONCEPT OF THE NB-HTFD. BUSWAY IS A GOOD ONE FOR NUMEROUS REASONS. THE BIGGEST NEGATIVE IS THE PLACEMENT OF A STATION BEHIND THE STOP & SHOP IN NEWINGTON. CCSU LAND WOULD BE A BETTER PLACE FOR THE STATION TO BE, DUE TO THE POTENTIAL ECONOMIC DEVELOPMENT FOR THE AREA. 1

Thank you for your participation in this study. If you have any questions, please call the Connecticut Department of Transportation at (860) 594-2941.
(RE: DEIS/4 (f), March 2001)

Responses to Comments:

1. Refer to Response #2 to CCSU.

CARL EISENMANN
34 Lincoln Lane
Simsbury, CT 06070-3014

Tel/FAX 860.658.0100

March 28, 2001

Mr. Edgar Hurle
Connecticut DOT
Environmental Planning Division
Room 2139 (NE2)
P.O. Box 317546
Newington, CT 06131-7546

RECEIVED
ENVIRONMENTAL PLANNING DIVISION

Dear Mr. Hurle:

In response to your invitation to submit written comments on the proposed Busway appearing in The Hartford Courant, I support the Busway, but would seriously suggest that strong consideration be given to using electricly propelled vehicles as opposed to vehicled propelled by internal combustion engines.

Several American municipalities are proceeding in that direction, including Dayton and Seattle. The modern trolleybus is a non-polluting vehicle capable of faster acceleration than diesel driven busses.

Please take a few enjoyable minutes to read the enclosed The New Electric Railway Journal, particularly pages 22 et seq., and pass it on to the officials in DOT who, along with your office, are responsible for the planning and implementation of the construction of the Busway.

I would ask to you return the Journal to me after it has been reviewed. I am providing a postage paid addressed envelope for your convenience.

Please do not let this environmentally sound suggestion be summarily rejected. It is in the interest of the health of our citizens and cleanliness of our air that this viable option be seriously considered.

Thank you for your invitation to comment.

Sincerely,

Carl Eisenmann
Encl.

Response to comment:

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

2800 BERLIN TURNPIKE, P.O. BOX 317546
NEWINGTON, CONNECTICUT 06131-7546
Phone:

April 10, 2001

Mr. Carl Eisenmann
34 Lincoln Lane
Simsbury, CT 06070-3014

Dear Mr. Eisenmann:

Subject: Use of Electrically Propelled Vehicles for the New Britain–Hartford Busway

Thank you for your March 28, 2001 letter concerning the use of electrically propelled vehicles for the proposed New Britain-Hartford Busway. One of the reasons the busway is a cost effective option for the traffic congestion in the Hartford West Corridor is that the initial capital costs are reduced by not building the electric wire infrastructure. In Seattle and Dayton, the overhead wire system was never retired, therefore trolley buses are a more viable option for those cities.

Up to thirty new vehicles will be purchased for use on the busway. "Clean" fueled vehicles such as electric-only and diesel-electric "hybrid" buses, and the use of low-sulfur diesel fuel and other emission-reduction ideas will all be considered. The choice of fuel will be a fleetwide operational decision and will be dependent upon the state of the clean fuels technologies and the fueling, storage and maintenance facilities that would be required. Once tested, the Department will consider any system that would maintain or improve the level of operations for the busway and our overall fleet.

I trust this answers your question concerning the New Britain-Hartford Busway. Enclosed is your New Electric Railway Journal as requested. If you have any further questions, please contact Mr. Michael Sanders, Transit and Ridesharing Administrator, at (860) 594-2830.

Very truly yours,

Edgar F. Hurle
Director of Environmental Planning
Bureau of Policy and Planning

Enclosure

bcc: Mr. Timothy P. Sorenson (NSA) - Please include comments and response in the Final EIS.

An Equal Opportunity Employer
Printed on Recycled or Recyclable Paper

New Britain-Hartford Busway

COMMENTS

Date: 4-24-01

The Connecticut Department of Transportation and Federal Transit Administration are interested in your ideas and comments on the proposed Bus Rapid Transit (BRT) Facility to address transportation needs in the Greater Hartford Region.

Please complete this self-addressed form (Please Print Clearly), and leave it with a Study Team Member this evening, or mail by May 18, 2001 (Postage Required).

Name Susan Forster
Address 270 E Britain, Farms Rd
City New Britain State CT Zip Code 06053

I have been informed about this study primarily through (Please select one)

X Newsletters
X Web Site
__ Friends/Neighbors
__ Public Meetings
__ Radio News
X Other work
X Newspaper Advertisement
__ Newspaper Article

COMMENTS: (Please Print Clearly)

Great proposal. Be prepared to provide a great deal of education associated w/ the benefits of the busway. There are more & more voices desiring light rail as opposed to the busway. 1

Thank you for your participation in this study. If you have any questions, please call the Connecticut Department of Transportation at (860) 594-2941.
(RE: DEIS/4 (f), March 2001)

Responses to Comments:

1. LRT was investigated for several corridors in the Hartford West MIS. The RAP that was selected in the MIS included a BRT system rather than an LRT system. There are a number of distinct benefits that BRT confers over LRT Ridership was projected to be higher with BRT, primarily because it offers riders "one seat trips." With a fixed guideway associated with a train, many passengers need to find ways to get from their origin to the train station, and from the train station to their destination. This shortcoming is addressed with BRT, which can circulate in local neighborhoods and in destination areas such as Downtown Hartford, to bring passengers closer to where they get on and off the system. Furthermore, express bus services from areas beyond the immediate region (Meriden, Waterbury, Cheshire, Southington, Bristol) can capitalize on the busway's benefits, and in this fashion, a much larger area can be served than a single train line. In addition, BRT is significantly less expensive than LRT, which requires capital outlays for new train stock, laying new track, etc. Therefore, BRT was found to be significantly more cost-effective. With provision of a high level of amenity as is planned at busway stations, the busway will offer many of the comforts, conveniences, and dependability of rail service, but in a more cost-effective manner.

Because of the promise of BRT to serve transit needs, the FTA is sponsoring demonstration projects for BRT in ten areas around the United States. The New Britain – Hartford Busway is one of the ten demonstration projects.

New Britain-Hartford Busway

COMMENTS

Date: 4/4/01

The Connecticut Department of Transportation and Federal Transit Administration are interested in your ideas and comments on the proposed Bus Rapid Transit (BRT) Facility to address transportation needs in the Greater Hartford Region.

Please complete this self-addressed form (Please Print Clearly), and leave it with a Study Team Member this evening, or mail by May 18, 2001 (Postage Required).

Name: Ann Lachelier
Address: 179 Prospect Ave
City: West Hartford State: Ct Zip Code: 06105

I have been informed about this study primarily through (Please select one)

__Newsletters __Public Meetings __Newspaper Advertisement
✓ Web Site __Radio News __Newspaper Article
__Friends/Neighbors __Other: Off Aboard!

COMMENTS: (Please Print Clearly)

It is hoped by all, that any and all environmental issues will be carefully considered before construction begins as well as after and that the present use of diesel fuels will be replaced by environmentally friendly energy sources. 1 2

Thank you for your participation in this study. If you have any questions, please call the Connecticut Department of Transportation at (860) 594-2941.
(RE: DEIS/4 (f), March 2001)

Responses to Comments:

1 Concur. The National Environmental Policy Act of 1969 (NEPA) and the Connecticut Environmental Policy Act (CEPA) require environmental assessment of anticipated impacts associated with activities that can affect the environment. For that reason, ConnDOT and the FTA have prepared the Draft and Final EIS's for this project. The environmental impacts of this project have been outlined in both documents. Section 4.0 of this document outlines all the mitigative measures that will need to be followed in order to ensure that the project does not have an adverse impact upon the environment.

2. Refer to Response #4 to US EPA.

05/16/01 11:40 ☎860 594 3028 CT DOT NE 2 ☎009/017

LARRY P. LEVESQUE
103 ELBRIDGE ROAD
NEW BRITAIN, CT 06052
(860) 229-8884

RECEIVED
MAY 17 2001
ENVIRONMENTAL PLANNING DIVISION

May 16, 2001

Mr. Edgar T. Hurle
Director of Environmental Planning
Connecticut Department of Transportation
2800 Berlin Turnpike
P.O. Box 317546
Newington, CT 06131-7546

Mr. Richard H. Doyle
Regional Administrator
Federal Transit Admin., Region I
55 Broadway, Suite 920
Cambridge, MA 02142

Certified Mail

RE: Comments on the Draft Environmental Impact Statement of the Proposed New Britain – Hartford Busway

Dear Public Officials and Citizens:

1. Introduction – Economic Development of Integrated Project

The Busway route may have the biggest negative impacts on residents of New Britain. The southwest terminus of the Busway would use a key Main Street development site. The project proposes to route many noisy, polluting commuter buses off existing highways and onto the Busway. As a major host of the Busway, we should see clearer benefits to New Britain. Resources of the State and Federal Government are needed to lessen the significant negative impacts on New Britain. The final EIS, and project budget, should fund and provide significant economic development benefits. 1
There may be too much emphasis, in the Hartford West Corridor project, on hundreds of millions to reconfigure existing I-84 interchanges. There is not enough emphasis on reducing vehicle trips and promoting transit and other alternatives. There is little emphasis on rebuilding city neighborhoods and encouraging shorter trips within revitalized areas. 2 3

Preliminary economic development plans have surfaced, and the City of New Britain needs to work closely with community groups and the State. The Hartford West Corridor project spends most of the money on increasing vehicle movement. The coordination of economic development to further decrease single occupancy vehicle trips lags behind. The paving of the old railway right-of-way should not be rushed at the expense of a well-planned, successful project. 2

1

Responses to Comments:

1. ConnDOT is charged with maintaining and improving the state's transportation infrastructure. While these efforts influence economic development, ConnDOT is not charged with specifically funding economic development. ConnDOT will encourage other agencies' efforts to enhance economic development where it influences the success of the New Britain – Hartford Busway.

2. The Hartford West MIS selected a Reasonable Alternatives Package to address congestion on Interstate 84 west of Hartford. The package included the New Britain – Hartford Busway, the West Side Access Study, and other improvements, as described in Section 2.1.5 of the Draft EIS. The selected RAP will address congestion on Interstate 84 without adding capacity to the highway. The interchange improvements cited (Westside Access Project) will only address safety concerns and substandard design without adding travel lanes to the highway.

3. The Hartford West MIS determined that overall, Vehicle Miles Traveled throughout the Hartford West region will decline with the proposed actions. It is expected that the busway will encourage the redevelopment potential for TOD in areas that will rebuild neighborhoods and encourage shorter trips.

2. **Necessary Economic Developmnet, with Identified Funding**

More recent transportation laws encouraged Connecticut's first proposed busway. This first project needs more attention and improvement. We can complement DOT for keeping down the Busway costs, limiting the project to traditional transportation services. But in New Britain we need more assistance for housing and neighborhood improvement. A better view along the ride will make the project more successful.

A new regional transit station in Downtown New Britain could be a catalyst for further Downtown improvement. Downtown improvement is crucial for success of the transit station and system. Subsidy for business and residential development is needed for this Main Street site. Just as State and Federal programs fund the many rail stations along our shoreline towns, Connecticut's first Busway must include a successful transit station and surrounding development.

We have developed a reasonable preliminary concept in the Draft EIS, which has become the drawing for the cover of the Draft EIS report. Studies for commercial and housing use on the Greenfield site should be completed with station design, even if causes some delay. Housing in the downtown promotes development and reduces traffic congestion for everyone. A middle income residence tower above the Station would provide interesting views of historic Main Street, the highway, the Busway and the treed hills to the north. An elevated, enclosed walkway to the Municipal Parking Garage would provide parking. State funded parking in the City's garage would be comparable to free commuter lots at highway interchanges. 1

Assistance to the New Britain neighborhoods around the project should be made to improve them as places to live, connected to a transit system. But the State's tax system makes it difficult for the City to fund needed improvements. City residents also pay unfairly high auto insurance rates. We are the mercy of well funded insurance interests. The City does not even have adequate planning staff to research, document and promote all the improvements needed. It needs funding for planning and engineering work before the transit plans are approved. The State should provide a substantial budget for the economic development component.

3. **Downtown Station**

The new regional transit station should be located on Main Street. The Busway route, interstate/intercity and local bus routes, taxis, bikers and walkers would meet at the new station. This of course will allow easier transfers. People should be able to find the new intermodal station. I have seen many people Downtown ask where to find the bus station. Children and elderly persons will no longer have to wait uncovered in a cold rain or snow while waiting outside for a bus, like they do now. 4

Responses to Comments:

4. The visibility of the Downtown New Britain Station will greatly rectify this problem. The City of New Britain has been instrumental in influencing the placement of the Station Building on the site, which will help provide a strong identity on Main Street.

4. East Main Street Station

The State's primary consultant first sited the East Main Street station at the intersection of Wilson Street. This site, currently labeled B2, formerly contained a restaurant and bakery which had a significant business. New services, such as a beauty salon and café, in an attractive building next to the station could be successful there. The transit consultant's first choice for the station was a good one. It provides good spacing between the Downtown and East Street stations. It is near the well known intersection of East and East Main Streets. Station visibility is important to success. The many people driving on East Main Street would see the Wilson Street site up close. The B2 site is surrounded by high-density housing whose residents could benefit from improved transit and other services. Landlords may benefit from having rental units close to the station. There is a significant population within walking and biking distances from this site.

Because of the reasonable opposition from Cottage Place residents, the alternative B1 site was considered. This provides the noise of the buses to Cottage Place, without the benefit of a closer station. B1 does have the advantage of being within walking distance of some higher density housing. But, the B1 site is too far from East Main Street. Transit users, even with bright lighting, would feel uncomfortable there. This station site is isolated from roads in every direction. The B1 site is also separated from the streets to the south. The only persons at the B1 station would be the few people getting on and off transit vehicles, very few waiting in automobiles for them, or people hanging around. If passengers feel uncomfortable they will not use the station. The B1 site was a good suggestion, as drawn on paper. The EIS process provides the opportunity to receive valuable insights from people who actually have walked and driven along these streets for years. 5

Transit users feel safer at a busy station on a thoroughfare. I have used park and ride stations in the Chicago area and Baltimore, and these felt more dangerous. The B1 location is not as familiar to local residents. Familiarity makes a big difference. The B2 East Main Street site has been more visited. Residents have walked, parked and driven right at the B2 site before. During the evening there is a steady flow of vehicles on East Main Street. The City Yard across the street also provides a sense of security not found at the rear of the large parking lot alternative.

More detailed and precise draft designs need to made before choosing the location of the East Main Street Station. Municipal planning and engineering staff and the Planning Commission have not been consulted adequately to develop this area station. It seems easier to use the now vacant parking lot site, but I believe it would not be successful. The B1 location would also take away some of a valuable industrial/commercial site. We would not want to take even more land at this site for supporting commercial services.

I appreciate the presentation of alternatives and we need further review of a larger Wilson Street site. The B2 site would require acquisition from more than one

Responses to Comments:

5. The Recommended Action includes an East Main Street Station under Option B2, with a minor reconfiguration of the access from East Main Street to avoid impacting the vacant ITT Cannon site. As the writer noted, neighbors were concerned about a loss of privacy and other impacts, including the acquisition of an active business, with a station at Option B1. In addition, the city aldermen, who were actively involved in the project, supported the B2 site as well. The station offers the opportunity for a developer to redevelop the ITT Cannon site with adjacent transit access. See Section 2.4.2 for more description of this station.

05/18/01 11:44 ☎860 594 3026 CT DOT KE 2 018/017

Distribution list:

Mayor Pawlak	Representative Geragosion
City Councilors	Representative Gerratana
City Plan Commission	Representative Purdin
Senator Bozek	Representative Tercyak

8

05/18/01 11:44 ☎860 594 3026 CT DOT KE 2 017/017

LARRY P. LEVEQUE

Experiences and Education of Commentator:

Attorney, admitted before State and Federal Courts
Practice before State and Federal Administrative Agencies
Member Planning & Zoning and Public Utility Sections, Connecticut Bar Association
Chairman, Planning Commission of New Britain
Masters in Urban & Regional Planning, University of Illinois
B.A. Economics/Geography, University of Arizona
Attorney to Municipal Commissions and Agencies
Member, Hartford Parks Commission
Bicyclist, walking and driving commuter
Long time resident of New Britain
Significant use of transit systems in U.S., Canada and Europe
Childhood user of bus system in New Britain
Volunteer various community and government groups

Attachment, Busway Comments

New Britain-Hartford Busway

COMMENTS

Date: 4/9/01

The Connecticut Department of Transportation and Federal Transit Administration are interested in your ideas and comments on the proposed Bus Rapid Transit (BRT) Facility to address transportation needs in the Greater Hartford Region.

Please complete this self-addressed form (Please Print Clearly), and leave it with a Study Team Member this evening, or mail by May 18, 2001 (Postage Required).

Name S. OPRICA
Address 6 KINGSLEY CT
City W HARTFORD State CT Zip Code 06110

I have been informed about this study primarily through (Please select one)

___Newsletters ___Public Meetings X Newspaper Advertisement
___Web Site ___Radio News X Newspaper Article
___Friends/Neighbors ___Other_____

COMMENTS: (Please Print Clearly)

MORE PARKING SPACES AT ELMWOOD STATION 1

Thank you for your participation in this study. If you have any questions, please call the Connecticut Department of Transportation at (860) 594-2941.
(RE: DEIS/4 (f), March 2001)

Responses to Comments:

1. "Kiss and Ride" spaces will be offered for passengers to be dropped off and picked up by automobile, but no long term parking will be offered. Several factors influenced the decision not to provide parking at the Elmwood Station. The site has limited space available for this purpose. In addition, the Town of West Hartford has expressed concerns about increasing automobile traffic to the intersection of New Britain Avenue and New Park Avenue. As this station has a substantial residential and business presence within walking distance of the station, this station is anticipated to be primarily served by non-motorized transportation, and by feeder buses along New Britain Avenue.

New Britain-Hartford Busway

COMMENTS

Date: 4/3/01

The Connecticut Department of Transportation and Federal Transit Administration are interested in your ideas and comments on the proposed Bus Rapid Transit (BRT) Facility to address transportation needs in the Greater Hartford Region.

Please complete this self-addressed form (Please Print Clearly), and leave it with a Study Team Member this evening, or mail by May 18, 2001 (Postage Required).

Name: Cliff Parker
Address: 297 Glen St
City: New Britain, Ct State: Ct Zip Code: 06051

I have been informed about this study primarily through (Please select one)

__Newsletters __Public Meetings __Newspaper Advertisement
__Web Site __Radio News __Newspaper Article
__Friends/Neighbors ✓ Other: HRZ Briefing

COMMENTS: (Please Print Clearly)

As an avid cyclist I would recommend against the pathway beside the busway. It is not particularly attractive to the casual rider & is isolated. The experienced rider would prefer to be on the road & get improvement in std. surface roads 1

Thank you for your participation in this study. If you have any questions, please call the Connecticut Department of Transportation at (860) 594-2941.
(RE: DEIS/4 (f), March 2001)

Responses to Comments:

1. Refer to Response #6 to US EPA.

There are locations where the multi-use path will have to leave the busway right of way, but this is more because of space limitations than a desire to leave the corridor.

New Britain-Hartford Busway

COMMENTS

Date: 4.24.01

The Connecticut Department of Transportation and Federal Transit Administration are interested in your ideas and comments on the proposed Bus Rapid Transit (BRT) Facility to address transportation needs in the Greater Hartford Region.

Please complete this self-addressed form (Please Print Clearly), and leave it with a Study Team Member this evening, or mail by May 18, 2001 (Postage Required).

Name: Michael Ramos
Address: 225 Smalley St.
City: New Britain, CT 06063 State: ____ Zip Code: ____

I have been informed about this study primarily through (Please select one)

- ✓ Newsletters
- ✓ Web Site
- ✓ Friends/Neighbors
- ✓ Public Meetings
- ___ Radio News
- ___ Other ____
- ___ Newspaper Advertisement
- ___ Newspaper Article

COMMENTS: (Please Print Clearly)

My concerns are the close proximity of the bus line to my property. All of my windows (8) that face the bus line are bedroom windows. I would like that visibility from the bus line not be available. Putting in plenty of sound barriers and landscaping high enough for privacy would be a good start. 1

The intersection also raises a big concern. With the high rate of traffic and speed passing through Smalley St. the likely hood of accidents is a given. Posted speed limit is 25 mph, but very little do people obey this. And unfortunately not enough is done about it. Putting in the traffic light ahead of time I believe is a good idea. If not already thought of. 2

Thank you for your participation in this study. If you have any questions, please call the Connecticut Department of Transportation at (860) 594-2941.
(RE: DEIS/4 (f), March 2001)

Responses to Comments:

1. Mitigation of noise and visual effects will be provided where prudent and feasible. The at-grade busway crossing of Smalley Street next to Mr. Ramos' house requires sight lines that may preclude providing barriers along Mr. Ramos' property. It is a goal to mitigate the project's effects upon this property as much as possible.

2. The busway will create a low-volume intersection with Smalley Street. Signalization of the intersection is not anticipated to create traffic conflicts, and should serve to slow down traffic on Smalley Street.

26 March, 2001

Harry E. Strate, P.E., Vice President
Wilbur Smith Associates
135 College St.
New Haven, CT 06534

Dear Mr Strate:

Thank you very much for the intelligence relative to the author, corporate and personal, of the report studying the economic aspects of Bradley Field. I did contact Mr. McClellan, who promptly sent me not one, and not two, but three copies of the report via express mail, which arrived the next morning. While I can only speak for myself, it strongly appears that Mr. McClellan was proud of his work and eager to disseminate same.

In juxtaposition thereto however, I am still waiting for the minutes to the first and second busway committee meetings. As we discussed several months ago, for some unknown reason, this writer's name did not appear on the list of those wishing to be notified of such meetings until he raised hell (so- to- speak) with the Department of Transportation; this despite notifying whomever, both verbally and in writing, at the first meeting of the committee. Hopefully, these could now be dispatched with a little more alacrity.

In the intervening period in time, it has come to my attention that the Draft Environmental Impact Statement, for the above referenced busway, is now available. If would be helpful if the undersigned could receive an unabridged copy.

Thanking you in advance for your assistance, I remain

Sincerely yours,

Bradshaw Smith

Responses to Comments:

No response is needed for this page.

05/21/01 08:10 ☎860 594 3025 CT DOT NE 2 002/008

May 18, 2001

The Connecticut Department of Transportation,
Environmental Planning Division,

Mr. Edgar T. Hurle

My name is Bruno Teti, I own the property adjacent to the proposed busway entrance on 684 East Main Street, New Britain, CT. I also currently lease a section of the abandoned rail line from the CT DOT Rail Division. I would like some of my concerns addressed, answered and noted for the record.

I live in my home with my wife and two young children. We also have a dog which lives outside in a large pen on the border of the property near the proposed busway route. We enjoy a quality of life which is about to be changed for the worse by the busway. Some of the things we currently enjoy are backyard activities such as barbecuing, playing family lawn games, swimming in the pool and relaxing while enjoying the serenity of the neighborhood. My children ride their bikes and play around the block, on the side walks which cross the proposed entrances of the busway, with other neighborhood children. We have fruit trees and a large garden near the border of the proposed busway route.

One of the reasons we bought our home and invested in the community was it's location. The neighborhood is a quiet, friendly, peaceful and safe community. The abandoned rail line adds a rustic element which is home to numerous forms of wildlife not normally experienced in the city. Some of the wildlife includes at least one pair of hawks, cardinals, rabbits and occasionally deer. The rail line has grown into a rail lavish tree line sheltering us from the hot afternoon sun. As the breeze travels through these trees we experience a clean refreshing smell, pleasantly strong with the scent of the season.

Now we're going to have a busway in our backyard. Busses running 18 hours a day seven days a week. In addition to this the plan includes the addition of a traffic stop light directly in front of our home, making for the unpleasant sight and smell of stopped cars, trucks and busses in my front yard.

To quote the lyrics of a popular song "It's the end of the world as we know it".

I would like The Connecticut Department of Transportation to answer the following questions:

1. How will you assure the safety of our children, as they play, when these high speed busses come roaring through? | 1
2. How will you protect us from crashes at the intersection and along the busway? | 2

Responses to Comments:

1. All buses in the East Main Street area will be limited to 30 mph. All bus drivers will be trained in use of the busway and will be aware of locations with at-grade crossings.

2. All at-grade intersections (such as East Main Street) will be signalized, despite comparatively low traffic volumes. All intersections will be engineered to current standards for sight distances. The busway will contain protective barriers along its outside edges.

05/21/01 08:10 ☎860 594 3028 CT DOT NE 2 ☎005/008

3. How can you assure that my family won't develop illnesses from the increase in exhaust fumes from all the added traffic surrounding my property. | 3

4. How will we be protected from the added air and noise pollution without enclosing us in a stockade surrounding? | 4

5. How will the added pollution affect the harvest of my fruits and vegetables? | 5

6. My dog barks at noises and people. My dog will be barking all day and night now disrupting neighbors due to the busses and stopped vehicles. His quality of life will now be changed. How will this be remedied? | 6

7. How will you prevent increased vandalism, burglaries, dumping and graffiti, which is typical of this type of project as seen in the Pittsburgh Busway Project?

8. Who will be responsible for cleaning trash and graffiti from around the busway area? This is an area of debate in the Pittsburgh Busway Project, meanwhile the trash and graffiti remain because no one claims responsibility for the clean up. Let's assign responsibility up front. | 7

9. How will I be compensated for the decline in my property value? Property value declines are based on the Pittsburgh Busway Project. | 8

10. Is it in the plan to purchase properties near the busway? If so which ones.

Thank you,

Bruno Teti

Bruno Teti
684 East Main Street
New Britain, CT. 06051

Responses to Comments:

3. The Clean Air Act, which was amended in 1990, requires EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

The air quality impacts of the busway have been evaluated in the Draft EIS, and will not exceed the NAAQS primary standards. Other than buses using the busway (some of which will be diverted from other local streets), there are not anticipated to be substantial increases in traffic. The East Main Street intersection with the busway will have very low volumes, with little traffic delay, and minimal automobile emissions resulting from delay.

4. Visual treatments, such as textured surfaces, landscaping, etc. to soften their appearance would be considered for noise barriers if provided.

5. As noted in response # 3 above, the air analysis performed for this project demonstrated that it will not exceed primary NAAQS standards, which have been formulated for the protection of human health, and are more stringent than the secondary standards that would affect crops.

6. The busway project is aimed at human needs and as such, animal needs are not a significant concern.

7. ConnDOT will offer the opportunity for the public to provide input into the design of stations and the busway facility as a whole during the design phase of the project. Design will consider methods to minimize opportunities for vandalism. All of the communities, including local law enforcement, will work to minimize criminal activity such as vandalism, burglaries, etc. along the busway.

Refer to Response #3 to Town of Newington regarding maintenance and operations.

8. See next page.

Responses to Comments:

8. ConnDOT only compensates property owners for actual acquisition of property.

It is very difficult to quantify the effects of a transportation project affecting property values over time. Even in the absence of a transportation project, property value changes are a function of a myriad of influences: supply and demand of housing, economic conditions locally and nationally, changing performance of local schools, demographic shifts (more people retiring and demanding smaller homes, or more people having children and requiring larger homes), property tax burden, and many others. If houses were to decline or increase in value in the future, it would be almost impossible to determine how much of that change, if any, was specifically attributable to the busway project.

The Port Authority of Pittsburgh was contacted with regards to the effects of a busway in that city, which has been in place since 1996. Port Authority staff anecdotally believe that the busway has, at worst, had a neutral effect on property values in the immediate neighborhoods.

New Britain-Hartford Busway

COMMENTS

Date: 4/24/01

The Connecticut Department of Transportation and Federal Transit Administration are interested in your ideas and comments on the proposed Bus Rapid Transit (BRT) Facility to address transportation needs in the Greater Hartford Region.

Please complete this self-addressed form (Please Print Clearly), and leave it with a Study Team Member this evening, or mail by May 18, 2001 (Postage Required).

Name: G Thompson
Address: 260 Steele Rd
City: W. Hfd, Ct State: Ct Zip Code: 06117

I have been informed about this study primarily through (Please select one)

___Newsletters ___Public Meetings ___Newspaper Advertisement
___Web Site ___Radio News ✓Newspaper Article
___Friends/Neighbors ___Other: Union Group

COMMENTS: (Please Print Clearly)

Please put my name on the mailing list of the west side access study, as well as this project:

Geri Thompson
260 Steele Rd
West Hartford, Ct 06117

Thank you for your participation in this study. If you have any questions, please call the Connecticut Department of Transportation at (860) 594-2941.
(RE: DEIS/4 (f), March 2001)

Responses to Comments:

No response is needed for this page.

Richard E. Whitier
The Waterbury Central
Conn. and Hartford rail
service Association

45 Mohawk Road
Bristol, Ct. 06010

page one

To
Wilber Smith Aospciates
135 College Street
P.O.Box9412
New HavenCT.Ct.06534

Att. Edgar T. Hurle
Director of Environmental Planning

Subject;

New Britain-Hartford busway
State Project- 170-209
F.A.P. NO.Ct.-90-X328

Dear Sirs or Ladies & Gentlemen:"

After reading most of the pro-material Wilber Smith Associates in New Haven with enclosures all being in favor of a New Britain ~~of a New Britain~~-Newington-West Hartford toHartfor -ford busway I have many reasons why such a busway should not be constructed as follows and a rail line be built which would serve a much greater area with less miles of track to ~~[illegible]~~ be BUILT This plan would actually be an extension of the Bridgeport to Waterbury Metro North rail service to Hartford serving the inter -mediate cities of Plymouth(Terryville)a passing track, Bristol and Forestville with a passing track, Plainville, with at least one passing track and perhaps a second one at the Plainville New Britaintown line and to start with a detour over the Berlin branch from Ellis Street in New Britain where another passing siding is located to a connection to the AMTRAK MAIN FROM New Haven to Hartford-Springfield-Worcester and Boston. At the present time Guilford Rail System has freight train rights Berlin to Waterbury including a branch at Terryville and also In the Waterbury area and over Metro North South of Waterbu ry and way stations to Derby. New Britain to Hartford bus service is presently served by the former trolley "P" line through New-ington to Atwoods Corner where change to the Elmwood 'Q'line can be made thence downtown via New Britain Ave, Retreat Ave. and downtown adjacent to Hartford Hospital and other important places Lets face it Hartford is a dying city and the fancy busway stops proposed would be a target for defication by youthfull vandalism and there would have tobe snow removal provision in winter weather or closedowns,

1

2

continued on next page.

Responses to Comments:

1. This suggestion is beyond the scope of the project, which is to address congestion along I-84 west of Hartford. The Hartford West MIS evaluated rail options in the Hartford West area, both commuter rail and heavy rail. Commuter rail service between New Haven and Springfield (including Hartford) is going to be evaluated by the Connecticut Transportation Strategy Board.

2. Refer to Response #7 to letter to Bruno Teti, above.

Snow removal will be given a high priority on the busway to ensure that the facility remains dependable to passengers.

Richard E. Whittier
The Waterbury,Central
Central Connecticut
& Hartford Association
45 Mohawk Road
Bristol, Ct. 06010

page two

At least 5to 10 years ago there was a commuter rail proposal over this same right of way which would have continued west to the New Britain town line where I-84 crosses over the top of the present Guilford rail freight line with the assumption that would be commuters to Hartford could leave I-84 at the previous exit to this point and park their cars parked underI-84 and board the trains to Hartford over the same proposed busway as a rail line which would be joined to the present AMTRAK line at Newington Jct. This right of way contains six or 7 Street crossings in-cluding Church Street, another Street just East of downtown New Britain route 9 thence Smalley St. East Street and a double Street crossing adjacent to Pappas Dodge auto dealership. The way to go is steel flanged wheels on Steel rails whether it belight rail vehicles (modern version of trolley cars or commuter rail eitherwith overhead wire electric power or diesel power the latter compatible with Metro North and Guilford passenger trains and freight trains in this area. 3

Steel Flanged wheels on steel rails is the only way to go in all kinds of weatherwhich rubber tires cannot do. Take a look at what is going on in other areas of the country.Lets look at Pittsburgh,Pa. which Conn Dot has used as an example of successfull busways, They are now in the process of building a tunnel under one of the rivers feeding into down town Pittsburgh as a light rail(trolleytunnel. Also Pitts-Burgh has new light rail vehicles and is to rehabilitate several others light rail vehicles to a total of some 60 or 65 rail vehicles.Take a look around the United States and very few if any will be found in New England and nonein Connecticut. 4 5

Sincerely
Richard E. Whittier
Richard E. Whittier

Responses to Comments:

3. As noted above, commuter rail service was considered in the MIS within the Hartford West corridor, and a new emphasis is being made on studying commuter rail between New Haven and Springfield.

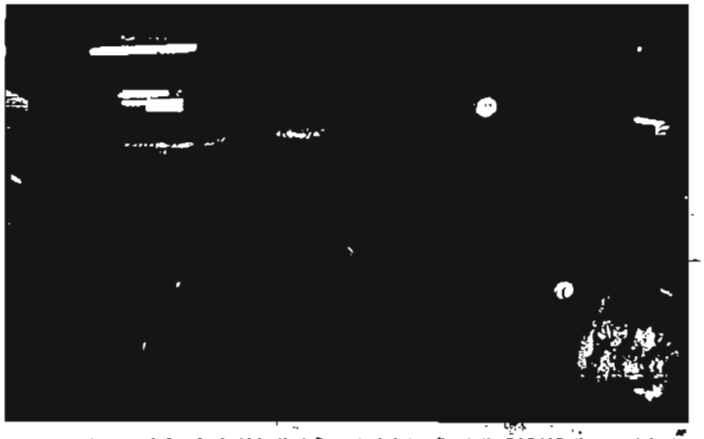
4. Pittsburgh has also opened a third busway in the year 2000. BRT can be upgraded to LRT in the future if ridership warrants it.

5. BRT is being planned, or recently has opened, throughout the United States, in over 15 cities. The FTA is providing support to 10 BRT Demonstration Projects across the country, including the New Britain – Hartford Busway.

'TO' WILBER SMITH ASSOCIATES

The Bristol Press
www.ctcentral.com
WEDNESDAY – December 27, 2000 Bristol, Connecticut

Searching for Traffic Solutions



Commuters wait on the platform for the Metro-North Commuter train to pull up to the Fairfield Station recently for the 6:56 a.m., stop on its way to Grand Central in New York City. Trains headed into the city may be packed with passengers during the peak period of commuting and further down the line there may be standing room only.

Trains seen as key to traffic relief

This is the third in the Associated Press's seven-part series "Gridlock State" about traffic problems in Connecticut.

By JOHN CHRISTOFFERSEN
Associated Press Writer

MILFORD — By pedal, by train and then by foot, the way Cluny Rogers commutes to work may hold some critical answers to reducing Connecticut's growing traffic congestion.

But Gary Amelka's commuting experience shows why the state's highways are increasingly a nightmare.

Rogers rides her bike to the train station in Stratford, where she takes the Metro-North train to Stamford and then walks to her job at Pitney Bowes. Amelka wants to take the train but says he is forced to drive on congested Interstate 95 while he waits — with thousands of other commuters — for a parking spot at train stations.

"How many more people would take (the train) if you could get a place to park?" Amelka said angrily.

While the traffic congestion issue is considered complex, many experts agree that a key part of the solution is getting more commuters to find an alternative to driving alone. The state recently hired a marketing firm to promote mass transit.

Rogers needs no marketing firm to persuade her to take the train. When she drove, her 26-mile commute could take 90 minutes or longer.

"It just got worse and worse," Rogers said. "Your energy level comes down from driving on the highway."

Rogers immediately noticed the difference when she started taking the train five years ago. Instead of battling other commuters, she reads on her way to work.

"The stress level when I got to work was good," Rogers said. "I get my exercise in there, too."

Commuters in other parts of the state have fewer options. Only about 4 percent of the work force in Connecticut uses mass transit.

Officials are studying a plan to run a bus service from New Britain to Hartford on a newly so

See GRIDLOCK, Page A2

Going nowhere – fast
GRIDLOCK STATE

the service would not generate enough riders. But officials want to reconsider the idea due to growing traffic.

"I think it's fair to say we'll

TAKE AN OTHER LOOK AT THE NEW BRITAIN-HARTFORD BUSWAY

In fact, there are growing concerns about crowding on trains. Crowding has become so severe on the New Haven line that conductors some times have trouble

consolidated to put some money into this fleet," Bettencourt said. "Until Connecticut concedes to rail service totally, it's not going to get better."

BETTER THAN ANY BUSWAY

GRIDLOCK: Trains seen as key

WATERBURY – BRISTOL – NEW BRITAIN EACH HAS MORE POPULATION THAN DOES FAIRFIELD

Responses to Comments:

No response is needed for this page.

New Britain-Hartford Busway

COMMENTS

Date: 4/4/2001

The Connecticut Department of Transportation and Federal Transit Administration are interested in your ideas and comments on the proposed Bus Rapid Transit (BRT) Facility to address transportation needs in the Greater Hartford Region.

Please complete this self-addressed form (Please Print Clearly), and leave it with a Study Team Member this evening, or mail by May 18, 2001 (Postage Required).

Name: SUSAN WILEY
Address: 26 Princeton St
City: W.H. State: CT Zip Code: 06110

I have been informed about this study primarily through (Please select one)

___Newsletters ___Public Meetings X Newspaper Advertisement
___Web Site ___Radio News X Newspaper Article
___Friends/Neighbors ___Other_____

COMMENTS: (Please Print Clearly)

Good idea – anything that isn't another highway would be a benefit.

How will you get folks in the HABIT of using it? The habit of the 2 mile car trip will die hard. 1

Stations MUST BE spotlessly clean & completely safe or folks with other alternatives will not use bus. 2

West Hfd. should consider making Flatbush one way, at least during peak traffic hours, to minimize disruption to residents. 3

Thank you for your participation in this study. If you have any questions, please call the Connecticut Department of Transportation at (860) 594-2941.
(RE: DEIS/4 (f), March 2001)

Responses to Comments:

1. Passengers will be encouraged to use the facility because it will have a high level of amenities, be time-competitive against travel on congested highways, be dependable, etc. The project is generally expected to serve trips longer than two miles in length.

2. Refer to Response #13 to Town of Newington.

3. Congestion on Flatbush Avenue is beyond the purview of this project. However, the West Side Access project, which, like the busway came out of the Hartford West MIS, will address congestion on Flatbush Avenue.

Date: Fri, 30 Mar 2001 12:09:57 -0500
Subject: busway
From: Macy Painter <mpainter@ntplx.net>
To: <nbhbusway@wilbursmith.com>

Regarding the NB to Htfd Busway: I support it.

The buses are naturals to connect with local buses and can 'leave the track' which trains cannot.

I wish it were imbedded in a DOT plan that spoke to all of the issues regarding transportation in the state. 1

I wish the buses were being described as having bike racks for those few who might wish to connect by bike rather than local bus. 2 I'm glad there is coordination with biking, walking, skating paths. The busway project and the 'Rails to Trails' concept can mutually push the project to each's advantage. 3

I would like clarification of the concern over lost businesses. How many of the business are complaining? Some citizens are concerned about this; the project seems more important; I haven't heard that the businesses are complaining. 4

Thanks-

R. L. Painter
22 Columbia
Hartford CT 06106

Responses to Comments:

1. Under the Clean Air Act amendments of 1990, all states must create a Transportation Improvement Plan (TIP) every two years that addresses improvements that will be needed to ensure progress towards meeting air quality goals. The New Britain – Hartford Busway is included in the current TIP.

ConnDOT and the new Connecticut Transportation Strategy Board are working on comprehensive statewide planning for transportation improvements. The Busway is also part of CRCOG's Regional Transit Strategy, which seeks to provide transit solutions for the whole Capitol Region, and includes two other busway corridors being investigated for the future (Griffin Line and Manchester corridor).

2. Bikes will be accommodated with bicycle racks at all stations. See Response #13 to CRCOG regarding bus bike racks.

3. Based upon widespread public support for the concept, a Multi-Use pathway will now be constructed as part of this project. The multi-use pathway could be constructed between downtown New Britain and Newington Junction, and between Park Street and Sigourney Street. In other areas along the corridor, consideration has been given to other routes that the multi-use pathway could follow off of the busway alignment, which could be constructed by the local communities. These routes are described in Section 2.3.3

4. Sections 3.8 and 4.12 discuss property acquisitions in detail. All owners of properties acquired would be compensated for their fair market value. In addition, relocation services would be offered to all displaced persons (owners and tenants) and businesses without regard to race, color or national origin in accordance with the Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970 and Chapter 135 of the State of Connecticut General Statutes.

From: "Audrey Putorak" <ostrid@msn.com>
To: <nbhbusway@wilbursmith.com>
Subject: busway
Date: Sun, 20 May 2001 06:10:17 -0400

To Mr Hurle:

To introduce myself, my name is Audrey Putorak, I live at 690 East Main Street in New Britain, I had been able to go to some of the meeting, but because I'm legally blind I'm not always able to go to all of them as I would like.

I would like to know how is this busway going to help our neighborhood? I see no way that it can. We already have gangs that meet in areas that are open late at night and have to no avail been able to disrupt them into going elsewhere. What guarantee do you have that this won't again be like the Pittsburgh busway area. 1

How do you expect us at 690 East Main Street to survive the pollution? You could say, Move but where does a person who needs to take a bus daily move to? There are only so many homes that are near enough for me to walk to safely to take and wait for a bus in the New Britain areas. I am not for this busway and it might already be too late to send this email but I too work and pay taxes so I should have the right to hear from you. 2 3

The pollution here at 690 East Main Street, with traffic and the city yard is more than enough to tolerate in the summer months, how much more will it be with the buses coming as often as every hour during the peak and once every 90 min. during down time.

Who's going to maintain the cleaning of graffiti? We have a terrible problem here. what about the garbage that people will throw on the street waiting for the buses? Who will be here to clean the area up on a daily basis? 4

Just because you're putting up a beautiful platform, as you call it what about in five years, how beautiful will it be then? And what about the rumors, if this busway doesn't work. Will it be turned into another highway? Can you guarantee me any of this? You can email me at ostrid@msn.com 5

Concerned
Audrey Putorak

Responses to Comments:

1. The busway will increase visibility of the neighborhood and the abandoned rail corridor that exists today. There will be an opportunity for the public to provide input into the design of stations and the busway facility as a whole during the design phase of the project. All of the community, including local law enforcement, will work to minimize criminal activity along the busway.

2. "Pollution", presumably meaning air pollution, has been evaluated in the Draft EIS, and will not exceed the NAAQS primary air quality standards. The East Main Street intersection with the busway will have very low volumes, with little traffic delay, and minimal emissions resulting from delay.

3. One major purpose of this project is to improve transit accessibility especially for persons dependent upon transit. The East Main Street busway station, several blocks from Ms. Putorak's house, will greatly increase her accessibility to shopping, health care, employment, etc. The busway stations will be fully accessible to persons with disabilities under the Americans with Disabilities Act.

4. Design will consider methods to minimize opportunities for vandalism. See Response #13 to the Town of Newington regarding maintenance.

5. The busway will remain an exclusive busway in transit use and will not be open to the general public. It is possible that with large ridership increases, ConnDOT may look to upgrade the corridor in the future to a LRT corridor if demand warranted.

To: nbhbusway@wilbursmith.com
Date: Wed, 16 May 2001 16:17:20 -0400
Subject: Go, Busway!! and, thanks
Message-ID:<20010516.161726.-36153.9.drabikuenkler@juno.com>

16 Dewey Avenue
Plainville, CT 06062

May 16, 2000

Dear Mr. Hurle,

1) Many thanks for all the detailed plans available locally, electronically, and in the newspaper (the Hartford Courant advertisement was my first contact).

2) I heartily support the busway. A train enthusiast, I have also seen how convenient a "rapid" service is in Cleveland.

3) Although the EIS material I read at the library lists CO emissions as the most serious pollution factor, I urge you to break from the image of noisy, stinky bus transport and promote quiet, smell-free buses right from the start of this project. Word will spread that the vehicles are appealing. People will be attracted to use them, and will like having them go through their communities. 1

4) My town of Plainville borders New Britain, and I am eager to have the busway there as a conveniently located alternative to driving I-84 to/from Hartford. The extended plans linking us with New Haven, Meriden, etc. are also exciting and would be useful to me.

Thanks and best wishes,

Geraldine D. Kuenkler (Mrs. A. Stephen Kuenkler)

Responses to Comments:

1. See Response #4 to US EPA.

From: RamosMch@aol.com
Message-ID: <94.126d34b6.27fbdcbb@aol.com>
Date: Tue, 3 Apr 2001 22:11:07 EDT
Subject: Michael Ramos
To: nbhbusway@wilbursmith.com

My name is Michael Ramos and I'm writing this letter in regard to the proposed bus line. Unfortunately I have not been able to make it to any of the public hearings or meetings yet. Now that I have sufficient notice of the hearings and meetings I can plan accordingly. I bought my house 2 years ago this past December, obviously not aware of the future plans they had for the vacant rail line the runs 20 feet from the side of my house and approximately 10 feet from my driveway. This is going to put more than a small damper on my privacy in terms of my 8 windows that face the proposed bus line and also the noise and pollution of the diesel busses that will run from 5 am till 12 PM, 7 days a week. A stop light will be put only a few feet from my driveway, this will be less than convient for myself and my tenants coming and leaving my property. This lack of privacy, noise and pollution of an estimated 25 buses or so an hour, stopping and going literally in front of my house and going to make it very hard for me to possible keep tenants. 1 2

If I may ask, how much privacy and sound is going to be cut down when the proposed sound walls and landscaping are put in place? When the buses are stopped at the light they are only 15 feet or so from my 8 windows, where is my privacy there. Will I have to keep all my shades pulled down year around to keep some sense of respect? I will be afraid what to do inside my own house knowing that there might be some 20 or so people looking inside my house when they are stopped at the light. If I may, the sound walls or landscaping, are you going to make it sufficient enough that no one can peer inside my house from the bus line. I kind of like the trees that are there and some, makes me feel like I'm still living in the country. 3

I'm not asking for miracles, just some privacy. Please take into consideration the close proximity of the proposed bus line to the side of my house and the excessibility of my driveway for myself and my tenants. Thanks for your time and hope to hear back from you soon.

Michael Ramos
225 Smalley St.
New Britain, CT, 06053

Responses to Comments:

1. Mitigation of noise and visual effects will be provided where prudent and feasible. The at-grade busway crossing of Smalley Street next to Mr. Ramos' house requires sight lines that may preclude providing barriers along Mr. Ramos' property. It is ConnDOT's goal to mitigate, the extent possible, the project's effects upon this property.

2. Noise and air quality issues were evaluated in the Draft and Final EIS documents. The air quality impacts of the busway will not exceed the NAAQS primary standards. Other than buses using the busway (some of which will be diverted from other local streets), there are not anticipated to be substantial increases in traffic. The East Main Street intersection with the busway will have very low volumes, with little traffic delay, and minimal automobile emissions resulting from delay. As noted above, noise impacts will be mitigated with barriers where possible. It should be noted that the current operating plan as evaluated in the EIS would have the busway operate from 6 AM to 12 Midnight daily, not from 5 AM as stated in the email. The hours may change as demand for service changes.

Date: Mon, 30 Apr 2001 16:47:57 -0400
To: nbhbusway@wilbursmith.com
From: Ivan Backer <ibacker@mail.trincoll.edu>
Subject: April 26, 2001 public hearing

Please forward this message to ConnDOT, since there is no email address on the website :

I attended the public hearing at the Capitol Community Technical College in Hartford on April 26. The meeting was advertised to begin at 6.00 PM. It began at 7.00 PM. I and others wasted an hour of our time by this misinformation. There was no reason for this since the materials on view did not take an hour to review and were covered in the presentation also. 1

In the future, please be more considerate of other people's time. Thank you.

Ivan Backer

Responses to Comments:

1. Advertisements published in local newspapers to promote the public hearings clearly indicated that an open-house forum would be held at 6:00 PM, with the formal hearing beginning at 7:00 PM.

From: "Rick Liftig" <srick@snet.net>
To: <nbhbusway@wilbursmith.com>
Subject: Busway Comments
Date: Tue, 8 May 2001 20:37:06 -0400

Enclosed are comments on the proposed New Britain Hartford Bus Rapid Transit System from Rick Liftig.

Rick Liftig
75 Foxridge Road
West Hartford, CT 06107
860-561-9825
srick@snet.net

Comments on the proposed New Britain-Hartford Rapid Transit Busway

"More lanes won't do it."

Graphic proof of this quote was abundantly in evidence when my family traveled to Southern California last year. Despite 16 lane highways crossing the landscape, traffic slowed to a crawl - one person per auto and few drivers in the diamond lane. If California, land of trends, ecology awareness and power shortages can't make its highways work, what reason do we have for trying to emulate them?

The Busway will not solve the transportation ills of Connecticut either - at least not for awhile. This project needs to be subsidized (much as our highways have been for 50 + years) and publicized to make it an attractive alternative. The commitment from the state has to be long-term. The legislature and Department of Transportation need to agree on this point from the start. 1

If the Department of Transportation can work with agencies within the state to encourage commuting by college students and state workers, a user base will be established. And, if this project is a success, others will follow.

My concern is primarily the Elmwood section of West Hartford. New Britain Avenue is a high-volume corridor in Hartford County. I hope that the busway will begin the transformation of the surrounding area into a "transit-oriented" district. It is in this area, that I believe that the State Department of Transportation can improve the traffic flow of New Britain Avenue. encourage pedestrian traffic and by working with the Town of West Hartford, enhance the neighborhood. 2

<continued on next page>

Responses to Comments:

1. ConnDOT is committed to making the New Britain – Hartford Busway a success over the long term. New busways being studied for the Griffin and Manchester lines demonstrate state and regional commitment to the concept. CCSU will be served by the New Britain – Hartford Busway, as will state offices in downtown Hartford.

2. Refer to Response #1 to Connecticut DEP.

One missing item is that there is no bicycle access to this station. As the use of alternate transportation means is one of the goals of the busway, I would like to suggest a bicycle path that would run adjacent to the Trout Brook. This would connect the busway to the rest of the town and provide further access for those who do not use an automobile. 3

Also, to decrease traffic at the corner of New Park and New Britain Avenue and increase pedestrian safety, I would suggest an alternate route for the 18 wheel trucks that must negotiate this area. Possibilities include a continuance of South Street to the North of New Britain Avenue which could dog-leg and cross under the busway. Or, if Trout Brook Drive was continued to meet up with New Park Avenue, congestion along New Britain Avenue would decrease. 4

As lovely as the idea of a transit-oriented neighborhood is, my fear is that without more extensive traffic changes pedestrians will be put at risk. 5

Concerning the feeder and collector routes, the Connecticut Company should consider smaller, trolley-like vehicles. The large vehicles presently used present a traffic hazard and are daunting to board. Because you have to climb into these buses, you cannot see into it before boarding. This presents some people with an element of fear. This is in counterpoint to the experience of boarding from a platform where entrance to the vehicle is akin to stepping into a room. This little psychological factor alone may account for some of the problems in trying to promote ridership on the buses. 6

As to the criticism that this is not the right plan, let me answer "But it is a plan." No other proposals have been forthcoming that would alleviate East-West traffic on the I-84 corridor. Commuter service between New Haven and Hartford will not achieve this and no one has volunteered to push mass transit from the Farmington Valley or Manchester area. It's a plan that is affordable and qualified for federal funding. Go for it and make it a success. 7 8

End

Responses to Comments:

3. The Town of West Hartford has been planning a Trout Brook Trail. This trail would run along Trout Brook from New Park Avenue up to Asylum Avenue. The New Park terminus would be a block north of the Elmwood busway station.

4. Truck routing through the Elmwood area is beyond the purview of this study. The West Side Access study is evaluating local accessibility concerns, more in the vicinity of Interstate 84.

5. Pedestrian improvements will be provided in the area surrounding the stations. The Elmwood Station will have stairs provided south of New Britain Avenue, thereby permitting access for pedestrians from the south side of New Britain Avenue without having to cross the street at grade.

6. Refer to Response #10 to CRCOG regarding types of buses. Low floor buses will be considered.

7. The Hartford West MIS studied a variety of ways to address congestion west of Hartford. The RAP that was selected included the busway, Westside Access project, and other improvements to improve congestion in the area on I-84 without adding capacity on I-84. Refer to Section 2.1 of the Draft EIS for more information.

8. As noted in response #1 above, a busway is being studied in the Manchester corridor, (as well as along the Griffin Line) to build off the initial line between New Britain and Hartford.

From: "Bruno Teti" <bteti@worldnet.att.net>
To: <nbhbusway@wilbursmith.com>
Cc: <bteti@att.net>
Subject: NBH Busway Project Comments
Date: Fri, 18 May 2001 13:11:44 -0400

May 18, 2001

The Connecticut Department of Transportation
Environmental Planning Division,

My name is Bruno Teti, I own the property adjacent to the proposed busway entrance on 684 East Main Street, New Britain, CT. I also currently lease a section of the abandoned rail line from the CT DOT Rail Division. I would like some of my concerns addressed, answered and noted for the record.

I live in my home with my wife and two young children. We also have a dog which lives outside in a large pen on the boarder of the property near the proposed busway route. We enjoy a quality of life which is about to be changed for the worse by the busway. Some of the things we currently enjoy are backyard activities such as barbecuing, playing family lawn games, swimming in the pool and relaxing while enjoying the serenity of the neighborhood. My children ride their bikes and play around the block, on the side walks which cross the proposed entrances of the busway, with other neighborhood children. We have fruit trees and a large garden near the border of the proposed busway route. 1

One of the reasons we bought our home and invested in the community was it's location. The neighborhood is a quiet, friendly, peaceful and safe community. The abandoned rail line adds a rustic element which is home to numerous forms of wildlife not normally experienced in the city. Some of the wildlife includes at least one pair of hawks, cardinals, rabbits and occasionally deer. The rail line has grown into a tall lavish tree line sheltering us from the hot afternoon sun. As the breeze travels through these trees we experience a clean refreshing smell, pleasantly strong with the scent of the season.

Now we're going to have a busway in our backyard. Busses running 18 hours a day seven days a week. In addition to this the plan includes the addition of a traffic stop light directly in front of our home, making for the unpleasant sight and smell of stopped cars, trucks and busses in my front yard.

<continued on next page>

Responses to Comments:

1. Please refer to Mr. Teti's identical letter in Section 6.4.6 for responses to all his points.

To quote the lyrics of a popular song "It's the end of the world as we know it".

I would like The Connecticut Department of Transportation to answer to the following questions:

1., How will you assure the safety of our children, as they play, when these high speed busses come roaring through?
2., How will you protect us from crashes at the intersection and along the busway?
3.. How can you assure that my family won't develop illnesses from the increase in exhaust fumes from all the added traffic surrounding my property,
4.. How will we be protected from the added air and noise pollution without enclosing us in a stockade surrounding?
5.. How will the added pollution affect the harvest of my fruits and vegetables?
6.. My dog barks at noises and people. My dog will be barking all day and night now disrupting neighbors due to the busses and stopped vehicles. His quality of life will now be changed. How will this be remedied? 1
7.. How will you prevent increased vandalism, burglaries, dumping and graffiti, which is typical of this type of project as seen in the Pittsburgh Busway Project?
8.. Who will be responsible for cleaning trash and graffiti from around the busway area? This is an area of debate in the Pittsburgh Busway Project, meanwhile the trash and graffiti remain because no one claims responsibility for the clean up. Let's assign responsibility up front.
9.. How will I be compensated for the decline in my property value? Property value declines are based on the Pittsburgh Busway Project.
10., Is it in the plan to purchase properties near the busway? If so which ones.

Thank you,

Bruno Teti
684 East Main Street
New Britain, CT. 06051
E-mail: bteti@att.net

Responses to Comments:

1. Please refer to Mr. Teti's identical letter in Section 6.4.6 for responses to all his points.

From: Tgr39@aol.com
Message-ID: <ba.14120dd8.2835e22b@aol.com>
Date: Thu, 17 May 2001 22:25:47 EDT
Subject: NB-Harford Busway Comments
To: nbhbusway@wilbursmith.com

Hi,

Please accept my attached letter as my comment on the busway. I have also mailed a copy but am submitting them electronically also,

Thanks you and please contact me with any questions.

Thomas G. Ronalter
95 Dover Road
New Britain, CT 06052-1915
860-223-1624

May 6, 2001

95 Dover Road
New Britain, CT 06052-1915

Mr. Edgar T. Hurle
Director of Environmental Planning
Connecticut Department of Transportation
2800 Berlin Turnpike
PO Box 317546
Newington, CT 06131-7546

Dear Mr. Hurle,

Please accept and consider this letter as my public comment concerning the proposed New Britain to Hartford busway(BRT).

For several years, I have followed the issue of the original Hartford West Major Investment Study and now the New Britain to Hartford BRT. I was impressed with the process and recommendations of the Hartford West MIS. I am an enthusiastic supporter of the creative reuse of the railroad right-of-way for transit use. About two years ago, I walked the tracks from New Britain to Elmwood to gain a greater understanding of the locations being considered for stations and the context of their placement. I applaud the recent statewide initiative relevant to transportation and associated efforts to restore options and balance to our lopsided transportation system.

<continued on next page>

Responses to Comments:

No response is needed for this page.

My comments are based on the Draft Environmental Impact Statement for the New Britain to Hartford Busway dated March, 2001. My comments will also reference the Capitol Region Council of Governments / Regional Transit Plan adopted by CRCOG on March 14, 2001. Although New Britain is not a member of CRCOG, all other towns affected by the BRT are. As such the BRT is discussed in the Regional Transit Strategy.

I fully support Alignment Option 1 that locates the BRT in the entire length of the abandoned rail right-of-way. I strongly prefer, and do most people I have asked, the now discarded option of using light rail. However, as the BRT is the chosen option I would urge DOT to adhere to the following concept referenced in the CRCOG Regional Transit Strategy (RTS). "The busways will be built to allow future conversion to light rail transit if increases in passenger volumes warrant a higher capacity system." 1 2

Alignment Options 2 and 3 both contort the intent, spirit and common sense of the busway concept. I urge you not to further consider either of these options. 1

New Britain needs a multi-modal transportation center to centralize and integrate all forms of "people movement". The planned downtown station is an excellent solution to this longstanding problem. My observation is that according to the preliminary drawings, too much of the site is occupied by the transportation center and associated parking, etc. I believe some land, other than air rights, should be left open for private development, preferably with Main Street frontage. 3

One of the greatest aspects of this project, whether directly part of this project or not, is the multi-use trail which can be included in the busway right-of-way from New Britain to the Newington junction. I would urge the consideration of development of the trail as part of the BRT project. It would seem advantageous to accomplish both at once. The Rail-To-Trials Conservancy, which advocates for and is developing a nation-wide network of rails-*to*-trails, has documented several dozen dual-use rails-*with*-trails that run side by side with mass transit. Such trails can and do work in many parts of the country and will work here. Thank you for the foresight to include this in the BRT planning. 4

<continued on next page>

Responses to Comments:

1. Alignment Option 1 was the alignment selected for the recommended action.

2. LRT was investigated for several corridors in the Hartford West MIS. The RAP that was selected in the MIS included a BRT system rather than an LRT system. There are a number of distinct benefits that BRT confers over LRT. Ridership was projected to be higher with BRT, primarily because it offers riders "one seat trips." With a fixed guideway associated with a train, many passengers need to find ways to get from their origin to the train station, and from the train station to their destination. This shortcoming is addressed with BRT, which can circulate in local neighborhoods and in destination areas such as Downtown Hartford, to bring passengers closer to where they get on and off the system. Furthermore, express bus services from areas beyond the immediate region (Meriden, Waterbury, Cheshire, Southington, Bristol) can capitalize on the busway's benefits, and in this fashion, a much larger area can be served than a single train line. In addition, BRT is several times less expensive than LRT, which requires capital outlays for new train stock, laying new track, etc. Therefore, BRT was found to be significantly more cost-effective. With provision of a high level of amenity as is planned at busway stations, the busway will offer many of the comforts, conveniences, and dependability of rail service, but in a more cost-effective manner.

Because of the promise of BRT to serve transit needs, the FTA is sponsoring demonstration projects for BRT in ten areas around the United States. The New Britain – Hartford Busway is one of the ten demonstration projects.

ConnDOT will follow the CRCOG Regional Transit Strategy, and would expect to convert the BRT system to LRT if increases in passenger volumes warrant a higher capacity system.

3. See next page.

4. See next page.

- Reduced impact on the Allen / East / St. Clair neighborhood and visitors relevant to visual impact due to the elimination of the unsightly overpass.

- Pathway can parallel the trenched busway and be located at grade level, thus further separating the busway / pathway and provides additional protection to path users

- Multi-use pathway can join the busway when entering the tunnel so as to avoid the dangers of the Allen / East / St. Clair intersection. *Note:* The California Office of the Rails-To-Trails Conservancy has completed a study in Spring 2001 on the use of tunnels along trails. Not surprisingly, it found that tunnels are safer for all trail users and easier to use for children, the elderly and the physically challenged.

- No effect on the intermediate access points on the BRT, since none of the trenched or tunneled busway intersections have been designated for intermediate busway access.

1. I realize this design modification requires a substantial increase in the funds to complete this project, compared to the existing / proposed budget. I would ask your consideration of several factors relevant to this funding issue.

Current year estimated cost for *Option 1* is from a low / high of $98.1 to $103.2 million.
Current year estimated cost for *Option 3* is from a low / high of $117.1 to $122.0 million.
(Ref. Page ES-30 Table ES-9 Summary of Costs to Build Busway(Current Year Dollars)

Rather than expend additional dollars on Option 3, I urge the diversion of those funds from route realignment to the trenched / tunneled enhancement I have advocated. 9

2. One of the interesting aspects of the CRCOG Regional Transit Strategy is its focus on the entire region. As such, it discusses other options in Greater Hartford including other potential busway projects along similar railroad rights-of-way. Specifically, it examines the following busway/ BRT projects: New Britain/Hartford, Griffin, Manchester and Rocky Hill. The following is excerpted from the CRCOG Strategy document.

<continued on next page>

Responses to Comments:

9. Alignment Option 1 is the Recommended Action.

Some random thoughts that I've had when considering the this project are:

Is there a conflict with a Springfield-Hartford-New Haven commuter/mass transit rail line? Would taking part of the right-of-way for the busway negatively impact the creation of that commuter line? In my opinion, that commuter line is an absolute "no brainer"!! It should have been built years ago - probably before all the tracks on that line were ripped up! And it should be the backbone of any regional transportation plan. A couple of years from now, I don't want to hear that the rail line couldn't be established because of the busway! **2**

In addition, a rail commuter line from New Haven to Hartford could meet more of the goals of the busway than the busway can. More "feeder" bus routes could be coordinated with the rail line than just along the New Britain to Hartford bus route (Berlin, Meriden, etc,) and many more "park and ride" lots could be built along the New Haven corridor than the New Britain-Hartford busway. When you add in the Springfield corridor, the benefits really exceed the busway.

In general, I think rail solutions are the future because they aren't impacted by traffic on the highways. Even an express bus will get caught in the same traffic jams as the cars. While the busway would be isolated, it appears to depend on feeder bus lines and routes that extend beyond the busway that would still be impacted by highway and local traffic. And think about the winter storms that cause buses to be so late because they can't make their return trip into Hartford which leads people to think they can't count on the bus when they need it the most. **3**

With a New Britain terminus, I just don't think that many people would leave I-84 out in Plainville and drive into New Britain to park their car and hop on the bus. Now a rail line that extended out to Plainville, Forestville and Bristol seems much more attractive especially with large commuter lots near I-84 and Route 72. I think that would be more likely to get people out of their cars then an express bus via the busway or drive into New Britain then park options the busway provides. **4**

I've read about a rail line of some nature to service the new UConn football stadium in East Hartford. To be most effective, you should be able to use it in conjunction with the busway or preferably the New Haven to Springfield commuter rail. That type of coordination is mandatory and just re-emphasizes the need for a regional transportation plan. It can be built in segments, but it has to be planned as one project. **5**

<continued on next page>

Responses to Comments:

2. Commuter rail in New Haven – Springfield corridor is in the planning stages and could interface with the busway at joint stations at Newington Junction and Union Station. The busway would not preclude provision of commuter rail service; no tracks are being removed. It is expected that the services would complement each other, as they have different functions; it is not reasonable to compare the benefits of one to the other.

Commuter rail is by its design meant for longer distance trips with much greater spacing of stops. BRT, on the other hand, is able to serve more frequent stops in shorter distances. BRT also offers the advantage of buses being able to leave the corridor and provide local circulation in neighborhoods or downtown Hartford, resulting in "one seat trips." Interfaces between the two services would enable commuter rail users, if implemented, to get very close to their destination if it is not near the commuter rail line.

3. Express buses using the busway would avoid any congestion on regional highways. Feeder buses would be scheduled to consider local conditions. Snow removal will be a high priority because dependability of service is of paramount importance to ensure ridership. Buses have historically been late in snow storms generally because of congested or unplowed city streets; these would generally be avoided on the busway. And it should be noted that if rail was implemented, in a winter storm, passengers destined for downtown Hartford would still need to get to their ultimate destination from Union Station in heavy snow. That would require either walking, or use of a bus, just like the busway would require.

4. New Britain is the western/southern limit of congestion in the Hartford West study area, and would be easily accessed by motorists. Express bus service using the busway would be provided directly from Bristol.

5. A busway is being considered for the Manchester to Hartford corridor.

Was reading yesterday about growth pains with the Washington, DC subway system. They can't keep up with the ever growing numbers of riders and will have to make some significant additions (splitting a segment that is currently shared by two lines, adding new lines, adding suburb to suburb lines, etc.) to the system to meet the projected number of riders. By the way, the original projection of riders was significantly underestimated. This reinforced my belief that rail (LRT, subway, trolley, etc) is the mass transit of choice for the majority of people who will be traversing multiple towns getting to and from their work location. 6

Over the past few weeks scanning the Internet I've read multiple articles singing the praises of rail based mass transit and multiple communities starting new systems or adding to existing systems. Examples are:

1. Extending lines North of Boston into New Hampshire

2. Extending the Burlington, VT line South to Middlebury and North to St. Albans (If Burlington, VT has a rail commuter line, doesn't that speak volumes about Hartford's need as well as the concern we should be having about mass transit and urban sprawl?!!!)

3. Extending a line East of St. Louis

4. More cars on the Washington, DC subway to reach the 8 car trains the original design called for.

5. Expansion in Dallas

I don't have a degree in Urban & Regional Planning, but it doesn't take an advanced degree to see the potential of establishing commuter lines along the rail beds that still exist. The Springfield-New Haven line already mentioned; the Valley Line from Hartford to Middletown, the spur from Hartford to Manchester, the Griffin Line with extensions to Bradley Field and Simsbury/Granby, the spur off the Amtrak line in Windsor Locks up to Suffield, the spur off the Manchester line from East Hartford up to South Windsor, the New Britain to Bristol spur, etc. Without building any new rail beds (other than the extensions to the Griffin Line), there appears to be a potentially viable commuter rail network already existing. 1 7

Wants Email?:

Wants US Mail?:
ON

Responses to Comments:

6. One initiative in Washington DC is construction of a BRT extension of Metro service along the Dulles Toll Road.

7. BRT could be easily upgraded to LRT in the future if increasing ridership levels justify the investment.

Date: Fri, 18 May 2001 09:45:44 -0400 (EDT)
Message-Id: <200105181345.JAA18160@pcnet1.pcnet.com>
To: dzang@wilbursmith.com
Reply-to: response@ctbusway.com
From: response@ctbusway.com
Subject: Busway Form Response
X-RCPT-TO: <dzang@wilbursmith.com>
X-UIDL: 242255173
Status: U

The following information was submitted on the www.ctbusway.com website comment form:

Name:
Denise A. L. Kerr

Email Address:
denise.kerr@po.state.ct.us

Phone Number:
860-525-1615

Address:
77 Mountford Street Unit 1W

City:
Hartford

State:
CT

Zip:
06114

First Visit?:
ON

Comments:
I am all for the new system because I live in Hartford but work in New Britain so this new system will be great. 1

Wants Email?:
ON

Wants US Mail?:

Responses to Comments:

1. One benefit of the busway is that it will greatly increase transit opportunities for "reverse commuters".

Date: Fri, 18 May 2001 11:14:34 -0400 (EDT)
Message-Id: <200105181514.LAA01439@pcnet1.pcnet.com>
To: dzang@wilbursmith.com
Reply-to: response@ctbusway.com
From: response@ctbusway.com
Subject: Busway Form Response
X-RCPT-TO: <dzang@wilbursmith.com>
X-UIDL: 242255178
Status: U

The following information was submitted on the www.ctbusway.com website comment form:

Name:
Mikki Aganstata

Email Address:
mikkimix@prodigy.net

Phone Number:
860-827-2631

Address:
70 Wilbur Street

City:
Hartford

State:
CT

Zip:
06106

First Visit?:

Comments:
It is imperative that CT build this busway. Traffic density and deplorable air quality has already degraded the quality of life in the greater Hartford area. I have lived in Hartford for more than 20 years and lived with the decline in the quality of life for more than ten years. More than ten years, I have commuted Hartford/New Britain on my bicycle as well as by car. I am now afraid to continue my bicycle commute.

<continued on next page>

Responses to Comments:

No response is needed for this page.

I also urge DOT to use the first option that will allow a multiuse trail to Newington Center. Certainly, the trail would benefit my interest, but it also connect with other trails being built in the future from Hartford and become part of the newtwork that CT needs so deperately. CT needs to clean up the air, cut commuting costs and eliminate traffic jams and heavy traffic in order to survive economically and to reclaim a better quality of life. The busway is the first positive step I have heard about. Please propose many more such positive steps. 1

Wants Email?:
ON

Wants US Mail?:

Responses to Comments:

1. Refer to Response #6 to the US EPA.

become a reality but also the construction of a new hotel might also become a reality.

The second aspect we've continuously looked at is retail development. We've made very large strides in filling up our retail space in downtown New Britain over the past fourteen months or so since I've been on board. We have a great partnership with both the City and the Chamber of Commerce and we've been able to make some very large strides in filling up retail. The addition of hundreds, if not thousands, of additional passengers and pedestrians into the downtown district on a daily basis, would greatly aid not only the development of the existing retail but also in the recruitment of new retail. 11

The third aspect that we've looked at is the development of housing within downtown. Young professionals such as myself, I believe, are really looking at downtowns as a new viable alternative for housing and I think a lot of people in America, particularly in my age bracket, are very fed up with the suburban sprawl and the lack of place, if you will, and I think that the busway could really benefit residential development in downtown. 12

The final aspect of development that we're looking at is that we're very late to be the growth of the Metro Hartford region and that this busway would really, would help that growth by eliminating congestion on the highways and, you know,

33

Responses to Comments:

11. Refer to Response #1 to Connecticut DEP.

12. Concur. Proximity to transit also may enable landlords to charge a higher rent, based upon general trends noted in other cities.

the growth of the region, the health of the region ~~and~~ in great respect, we're very intent upon that.

With that said, the only part that I would caution against within downtown is the development of the pedestrian bridge above Columbus Boulevard. Our retail shops are very dependent on pedestrian traffic and if that pedestrian overpass, if you will, were to be eliminated, I think that our retail would greatly benefit from that elimination. Thank you for your time. **13**

MR. CANCELLIERE: Thank you, Len, I'm sorry, Don. Our next speaker is Leonard Chaponis.

LEONARD CHAPONIS: Good evening. My name is Leonard Chaponis, C-H-A-P-O-N-I-S, and I reside at 4 Gun Hill Road in New Britain.

I worked for the Travelers in downtown Hartford for about 40 years. I took up the old Route 6 and Campbell Avenue to go into Hartford. I was happy when the I-84 came. I was happy when the Travelers came with flex hours which allowed me to go into work at 7 o'clock and leave at 3 o'clock and sort of avoid the mass traffic on I-84.

I'm thinking of the concept of this highway using an abandoned rail site from Hartford to New Britain. The tunnel ends in New Britain. I'm looking beyond New Britain, I'm looking into I-84 into Waterbury. I see a concept of taking a bus **14**

Responses to Comments:

13. ConnDOT will work with the New Britain business community as well as the general public during the design process to determine the best approach that ensures that pedestrian traffic is not isolated over Columbus Boulevard.

14. Express service to Waterbury, Bristol, Meriden, Cheshire, and Southington is proposed for the busway. Other regional express services may follow.

and putting auxiliary wheels on the front and the rear of the bus and using a bus to transfer people beyond New Britain to the stations in, shall we say Plainville, Forestville, Bristol, Plymouth and Waterbury. 14

I'm looking ten years beyond this. I'm looking at the year of 2010. I rode the Budd car into Hartford which stopped at Park Street and went to Waterbury. A bought diesel car, transported seats for 140 people into Waterbury from Hartford. With the proliferation of the building of I-84, the New Haven Railroad went bankrupt, the Lehigh Valley, the Reading, the Central of New Jersey, Erie Lackawanna and urban rail transport sort of disappeared.

Now, I see the concept that maybe some day the Budd cars may come back to New Britain and then we'd be a station in New Britain that runs from New Britain to Waterbury. And if this concept that the Budd cars come back, the drawback of the Budd cars is you had to go up three or four steps to get into the Budd car, but I can see the proliferation of railroad platforms equal to one and a half length of Budd cars which allow equal rapid access to the Budd cars.

Now, you cannot extend this busline into Waterbury. The only way you could extend this busline is by using the existing freight line that runs from Berlin into Waterbury. That's a light density line. To my recollection, there are only two spur tracks in New Britain. One serves the Harris building and one serves the 15

Responses to Comments:

15. New Britain is the end of the busway corridor because most regional highways further south and west do not experience as much congestion. Therefore, express regional services to Waterbury, Bristol, Meriden, Cheshire, and Southington will use regional highways (such as Routes 9, 72, and 84) from New Britain.

Stanley Works and in Plainville you have a site in there where they take in five coal cars, they load it with crushed stone and they ship it out on the railroad. The railroad is operated, I believe, by Springfield Transit Authority, and basically, I'm saying if this thing is going to happen, I see setting aside a station in New Britain where you can put in a platform for rail transit. This gives you the opportunity of walking off the platform into the Budd car, but with the buses you have now, you have to walk up steps into the bus, so basically, that's what I'm saying based upon my experience. **16**

I look at downtown Hartford. G. Fox is gone, Weissman's is gone, Sage & Allen is gone, the Marble Pillar is gone, Honiss Fish House is gone and basically the Civic Center is gone. When my wife and I go into Hartford to visit the Civic Center, we do take the existing busline into Hartford. Thank you very much.

MR. CANCELLIERE: Thank you.

MR. CHAPONIS: I'd like you leave you things here to consider, but basically the Budd car for your file. This is what ran into Hartford years ago. And this a concept of when I was in Korea in '50-'51 where we used these conversion kits on military vehicles Good luck!

MR. CANCELLIERE: Next speaker is William Millerik, 1 Court Street, William Millerik. Okay, we'll move on. Chris Edge...

Responses to Comments:

16. The busway could someday be upgraded to LRT service if ridership increased to a level that warrants this action.

CHRISTOPHER EDGE: Christopher Edge, 1 Court Street, on behalf of William Millerik and the New Britain Chamber of Commerce. William was unable to make it because of another engagement.

The reason I'm coming is on behalf of a number of issues in the City. The biggest thing the busway, I think, has is opportunities. Opportunities for people in New Britain and the Hartford areas for jobs. A lot of folks who currently do not have vehicles would have the opportunity to work, both coming into New Britain from outside or to go from New Britain to other places to work.

In addition, with the links made on the busway, there'll be new opportunities for schooling such as Central, Trinity, possibly other places in Central Connecticut and Hartford area where people may not have had the opportunities to get education. In addition, in New Britain economic development wise with the re-use of very important property which is the ITT Canon facility which is currently vacant, with a stop there and the traffic going through there, that could be a great way to revitalize the property. 17

From the Chamber side, the biggest issue businesses have at this point is the need for labor, skilled and unskilled. Right now a large portion of the workforce goes to one area or another. They'll drive to Hartford, they'll come to New Britain, but with the busway there's availability of taking folks who can be trained and

37

Responses to Comments:

17. The Recommended Action proposes that the East Main Street Station be sited next to the ITT Cannon site.

bring them to the businesses that need them. A lot of times there's nothing but the chance to get into the workplace and be trained from there.

The Chamber of Commerce is behind the busway. They believe there is quite a bit of potential economic development, both in the downtown area as well as the outlying areas. We would hope that, the one comment we would have is to take a look at the station which is currently put behind the Stop & Shop and see if that could possibly be altered to some degree for the fact that I think the land right in the area and the entire Route 9 corridor 175 comes across, is basically a terrible mess right now, both for traffic and other uses and we'd like to get some development in that area and I just wanted to thank you. 18

MR. CANCELLIERE: Daniel Silver.

DANIEL SILVER: Good evening. For the record my name is Deniel Silver. Last name is spelled S-I-L-V-E-R. My business address is 1 Liberty Square in New Britain.

If there's a reason I'm here tonight is to talk about cost of this project. I know from the impact study where we're talking about estimated high cost, depending on what option you're talking about, of $122 million or it could be $103 million, depends on the various options which would be selected. When this project first commenced, it was indicated to the public that we were talking about 19

Responses to Comments:

18. Because of the uncertainty of developing property owned by CCSU south of Route 175, the Cedar Street and East Street Stations are now proposed to serve CCSU. If CCSU is able to overcome the challenges of developing this area in the future, it is possible that a new busway station serving the area could be constructed in the future. In such a scenario, the Cedar Street station could be re-evaluated for its ridership potential and could be retained or redeveloped as appropriate.

Traffic in the Fenn Road/Cedar Street area was reevaluated in this Final EIS, based upon concerns raised by commenters. Refer to Section 3.9.1 for more information.

19. The current cost estimate is $145 million.

an 80% contribution from the Federal government and a 20% contribution from the State government. Since then I understand, and rightfully so, quite a bit of money has been spent on planning. 20

It has come to my attention and I'm sure it's come to your attention as well, and I wanted to state this for the record, that as a result of President Bush's current budget proposal to Congress, the proposal for expenditures in the is area according to the *New York Times* on Tuesday, April 10th, which was subsequently, the best of my investigation indicates as accurate, would indicate that the Federal government plans to reduce the contribution of the Federal government from 80% down to 50% which, obviously, immediately drew my attention that the cost of this project or the burden on the State of Connecticut would drastically increase. And as a result of that, I feel it's imperative that the planning body find out whether or not this particular funding source is gonna be accurate, is this projected to be adopted by the Congress, and whether or not the State of Connecticut that originally was talking about a 20% contribution is now prepared to come forth with a 50% contribution. And, before more taxpayers' dollars are spent in planning, we should know whether or not this is a viable project. 21

It's interesting to note that the reason for this decrease, according to the Secretary of Transportation, was that so there's no more negotiation about some

39

Responses to Comments:

20. Refer to Response #4 to the testimony of State Senator Bozek.

21. This project is proposed to be funded by a variety of state and federal sources.

projects get more monies and some projects get less monies but, to the contrary, all projects are to be treated equally. Then there's also the situation of whether or not the overall budget, forget the 80%, the 50%, will be maintained or whether or not it's gonna come in at a lower rate. There are some indications that the total budget for this area will be decreased in addition to the decrease in contribution by the State and Federal government, and I think this is a very imperative thing before more tax dollars are spent in planning for a project which may not be viable. I think the Legislature should be contacted, the Administration, to know whether or not this is, in fact, a major problem to this project. Thank you very much.

MR. CANCELLIERE: Thank you, Daniel. Gary Gineo...

GARY GINEO: My name's Gary Gineo, G-I-N-E-O. I reside at 22 Cottage Place. As far as Cottage Place, I don't know if any people realize how close this is to our property, okay? That's one of my major issues; noise is a major pollution, okay, smell everything else. 22

And also on the budget, I work right now on a DOT project and I had a day today where DOT made a mistake and it cost two operators, three laborers and a foreman an entire day's production, okay? So there's gonna be a lot of cost overrun on the job which are environmental issues and everything else. I think you need to plan, investigate a little more, spend a little more time in your investigation and

Responses to Comments:

22. The air quality impacts of the busway have been evaluated in the EIS process, and will not exceed the NAAQS primary standards. Other than buses using the busway (some of which will be diverted from other local streets), there are not anticipated to be substantial increases in traffic. The East Main Street intersection with the busway will have very low volumes, with little traffic delay, and minimal automobile emissions resulting from delay.

Noise impacts have been assessed, and ConnDOT is considering noise barriers as a mitigative measure to address impacts. ConnDOT will work with neighbors to install noise barriers.

continue this thing, you know, if you're gonna do it, you got to have outlets to Bradley Field, Adraen's Landing, Waterbury, wherever. You need to put that into your future planning. That's about all I have to say. 23

MR. CANCELLIERE: Thank you, Gary. William Forbes...

ATTY. WILLIAM FORBES: Good evening. I'm Attorney William Forbes, 17 Lennox Place, New Britain, Connecticut. Presently I'm the Chairman of the Fairview Cemetery Committee and it's in that capacity that I address you this evening.

The Fairview Cemetery Committee supports the concept of mass transit. However, our fiduciary responsibility is to require us to consider the impact this proposed busway, at least one of the plans, which would put the busway directly through the center of the cemetery and the impact it would have on the cemetery. It wasn't too long ago that the economic viability of this cemetery was in doubt and it's been the hard work of a number of individuals that have allowed us to operate in the black for the last few years. 24

Specifically, the committee has the following concerns. First of all, the proposed rail line passes extremely close to a number of existing grave sites, many of whom are veterans. And when I'm talking about close, I'm saying less than ten feet. 25

Responses to Comments:

23. Express bus service will serve Waterbury. Provision of planned BRT service along the Griffin Line to Bradley Airport is in the planning stages. Adraen's Landing will be served by the busway with downtown Circulator Service.

24. It should be noted that the original freight rail line predates the cemetery. So while the cemetery board notes that busway is routed "directly through the center of the cemetery", a transportation right-of-way has co-existed between the two halves of the cemetery through the cemetery's entire history.

25. The project is not anticipated to affect any graves as the railroad predated construction of the cemetery and all construction is expected to be limited to within the existing rail right of way, ConnDOT will assess during the design phase if further investigation is necessary.

Secondly, we have serious concerns about the final appearance of this project. And lastly, we have significant concerns about the effect of noise. Under the proposal as we understand it, buses will begin running at 6:00 a.m., they'll continue to run until midnight and the frequency is two to five minutes. This could significantly interfere not only with services conducted at grave sites, but it also could significantly affect our ability to sell lots to prospective individuals because there really is not going to be a quiet time of the day where we can bring people into the cemetery and, by the way, the office of the cemetery is located on site, and show them the grounds without having the traffic, the continued passing of buses, the smell, all these things can't help us compete with other cemeteries that do not have a busline running through. 26 27

Until more thought is given to these concerns, the committee really is opposed to the rail line going through our cemetery. Thank you.

MR. CANCELLIERE: Thank you.

MR. FORBES: Mr. Webb is here as well and he's indicated that he'll pass on his opportunity to speak.

MR. CANCELLIERE: Yeah, I don't have his name on the speaker list. Stephen Scholz...

Responses to Comments:

26. The Fairview Cemetery board will be actively contacted during the design process to determine appropriate ways to mitigate the visual effect of the busway on the project. Mature trees will be avoided as much as possible, assuming they are not invasive species. The busway will be depressed through the cemetery to mitigate the visual and noise effects of the facility.

27. The depressed busway and visual screening along the route will help mitigate noise.

STEPHEN SCHOLZ: Good evening. My name is Stephen Scholz. Last name is S-C-H-O-L-Z. I am a resident of New Britain, 36 Nicole Road. I've been a resident for 15 years. I have a son that's five years old and when we drive around town the first thing he asks me is are we going on the highway? That's because the highway scares him and I can understand why. There's a lot of cars traveling very fast. However, when I take him on a bus, and I have several times in New Britain, in Hartford, his reaction is quite alarming; he loves it, and for good reason. It's safe, it's fun for him, he can sit next to me and talk, enjoy the ride. Wouldn't it be great if our youth could come to appreciate mass transit in this State.

There are many skeptics when it comes time to establishing new methods, in this case for transportation. If you haven't read the papers lately, you would be missing the ever present message that without an adequate transportation infrastructure, Connecticut will be losing out in the future. New Britain, myself, I believe must endorse this plan for one simple reason. It is vital to our economic growth. It is vital for the cities and towns of Central Connecticut to be connected by some other means than highways for transportation for transporting people within the region.

A recent editorial in *The Herald* in opposition to the busway noted that the busway was "only transportation". Well, I say that it's all about transportation in a

43

Responses to Comments:

No response is necessary on this page.

nutshell. Without transportation alternatives New Britain will be losing out on a great opportunity. The possibility of encouraging growth, ridership, and economic development. Look at the prices for gasoline and parking. If people could get into New Britain easily from Hartford and other areas, without having to get into their own car, we would all benefit.

While there are some who believe this plan will never work, and there will be some impacts to those who might live next to the line such as noise which, hopefully, can be addressed, this busway is the start of a plan to link the surrounding towns to a central hub which is Hartford. It is essential that we start to address the transportation needs of this area. New Britain has great cultural programs, a world renowned museum, events throughout the year. This busway must just be the ticket for someone from Hartford to come visit our unique and proud city. I say give them the chance, build our busway as soon as possible. Thank you. 28

MR. CANCELLIERE: Thanks, Steve. Mr. O'Leary...

CON O'LEARY: My name is Con O'Leary and I'm representing Dick Judd who would be here tonight, the President of Central, but he has engagement at the University. I'll just briefly summarize his remarks and then submit them to you.

Responses to Comments:

28. Noise impacts have been assessed, and ConnDOT is considering noise barriers as a mitigative measure in certain areas to address impacts. ConnDOT will work with neighbors to install noise barriers and consideration of visual treatments, such as textured surfaces, landscaping, etc. to soften their appearance will be made.

Basically, he agrees with the concept. There are some issues, however, on the east side of the university that he feels should be addressed along with the busway. We made progress working with CRCOG and the Department of Transportation and others to prepare a study to address all of these projects and we realize they can't all take place at once, but he feels that they're strategically linked one to another and that the study will go a long way toward addressing them. 29

They include traffic problems coming off of Route 9, the intersection of Fenn Road and Route 175, access to the 175 acres of land owned by the university on the east side of the campus, location of a station on that land or the upgrading of the East Street Station, and so forth, all here in writing for you and we'd like you to take a look at it. Thank you.

MR. CANCELLIERE: Thank you. And our last speaker, Jeffrey Johnston. Is Mr. Johnston present? That was it for individuals who signed up on the speaker list. Anyone else who has a comment on the project this evening, raise your hand. Yes, sir?

MARY KAPALCZYNSKI: Good evening. Mary Kapalczynski. Last name is K-A-P-A-L-C-Z-Y-N-S-K-I. I'm a life long resident of Hartford and I'd like to congratulate everybody who's involved with this project. I'm very excited about it. Finally something major is happening in the Hartford area with the Adriaen Landing

Responses to Comments:

29. This letter, with more detailed descriptions of CCSU's concerns and ConnDOT's responses are found in Section 6.4.2.

project, the UCONN football stadium which is currently under construction. Finally a major transportation system is being planned and, hopefully, put into effect. I'm really looking forward to it.

In the last three years I was fortunate to travel to Europe; to Rome, London and Vienna, cities much larger than Hartford and New Britain combined. I never stepped foot in a car once. Used their mass transit systems and had a great time seeing the cities on my own.

I was a bus taker into Hartford for a number of years and I used to run the Hartford/New Britain local route which, if I remember correctly, took between 45 minutes to one hour and that was non-stop hard driving, hitting all the stops. Express route 10-15 minutes from downtown to downtown. This is a super idea, I wish you all the best and I hope this project continues. **30**

As far as the funding issue is concerned, I don't know if money has actually been appropriated. I was involved in purchasing Federal grants at one time and it was a use it or lose it situation. If the money was allocated for a project we either used it for the project. If it was not used it was returned and some agency or government was able to use it. So, the money is going to be spent no matter what. Let's spend it here in Hartford and New Britain, get some of our tax dollars to work here in our communities. Thank you very much. **31**

Responses to Comments:

30. Express busway service between downtown New Britain and Union Station in Hartford will take approximately 15 minutes.

31. Concur. The FTA has a demonstration project in 10 cities that are pursuing BRT systems, and funds are reserved for this program. Some locality will use the funds expressly for this purpose, so ConnDOT would like to secure them for use in Connecticut.

07/30/01 11:09 ☎860 594 3026 CT DOT NB 2 ☎002/007

1

HARTFORD BUSWAY PRIVATELY RECORDED TESTIMONY

Taken before Kevin Lombino, Notary Public/Stenographer of the State of Connecticut License No. 00191, at Pulaski Middle School, 757 Farmington Avenue, New Britain, Connecticut on April 24, 2001.

COPY

NIZIANKIEWICZ & MILLER

Responses to Comments:

No response is needed for this page.

07/30/01 11:09 860 594 3628 CT DOT NE 2 004/007

3

1 proposed to put in, one, if they were high
2 enough so people couldn't look in and
3 about the existing landscaping that is
4 there, how would that be affected with the
5 trees that are there, so much shrubbery
6 and also what they would do kind of after
7 the fact of putting in the sound barriers
8 and landscaping.
9 Nothing he said was definite that
10 they were going to do. He said that they
11 are -- the sound barrier he wasn't sure
12 how high it would stand. I suggested that
13 I hoped it stands high enough that it
14 blocks the view of anybody looking in my
15 property or especially the windows, the
16 bedroom windows.
17 And the other concern is the
18 intersection with the high rate of speed
19 and traffic that presently comes through
20 there that it's -- I believe it's going to
21 be a problem just because there is a lot
22 of traffic and I believe there is,
23 unfortunately, going to be a number of
24 accidents because of that. And, you know,
25 how is my access going to be coming in and

1

2

NIZIANKIEWICZ & MILLER

Responses to Comments:

2. All buses in the East Main Street area will be limited to 30 mph. All bus drivers will be trained in use of the busway and will be aware of locations with at-grade crossings. Mr. Ramos' driveway access will not be directly affected by the project. Occasionally, he may need to wait for westbound traffic to clear Smalley Street if he wishes to make a left turn out of his driveway and a bus is coming through on the busway. This should be a minimal wait.

1 out of my house? Obviously it's going to
2 slow me down quite a bit, inconvenience to
3 some extent but bearable. I am hoping 2
4 it's bearable, I don't know. We will
5 see. I think that's it.
6 THE SPEAKER: My name is Jeffrey
7 Johnson, J-E-F-F-R-E-Y, initial R,
8 J-O-H-N-S-O-N. Address is 38 Cottage
9 Place, New Britain.
10 What I have to say is, a proposed
11 busway through New Britain possibly could
12 be a good thing. To commit prime real
13 estate on Main Street to a project that
14 may or may not work needs more research.
15 The highway that preceded the busway has
16 been dealt with much controversy as far as
17 providing an economic boom, and buses were
18 supposed to solve our transportation
19 problem back then.
20 I definitely do not want this to run
21 through the east end. We have a viable
22 option to use our very expensive highway
23 that can get you to Hartford faster than 3
24 this would cutting through the east end of
25 our city.

Responses to Comments:

3. The alignment option that was selected as part of the recommended action is Alignment Option 1. Mr. Johnson is advocating selection of Alignment Option 2 or Alignment Option 3, neither of which were selected. Refer to Section 2.1 for more information on why Option 1 was selected.

07/30/01 11:10 ☎860 594 3828 CT DOT NW 2 006/007

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My key word for tonight is hindsight. I hope that our city council uses that with great measure. Let's not bisect a part of our city that does not need to be bisected. That's it.

NIZIANKIEWICZ & MILLER

Responses to Comments:

No response is necessary on this page.

C E R T I F I C A T E

I, KEVIN LOMBINO, a Shorthand Reporter and Notary Public within and for the State of Connecticut, do hereby certify:

That I reported the proceeding in the within-entitled matter, and that the within transcript is a true record of said proceedings.

I further certify that I am not related to any of the parties to this action by blood or marriage and that I am in no way interested in the outcome of this matter.

I witness, whereof, I have hereunto set my hand this, 25th day of April, 2001.

KEVIN LOMBINO, ARR
License No. 00191

Responses to Comments:

No response is needed for this page.

6.4.11 April 26, 2001 Public Hearing (Hartford)

- **Public testimony from nine persons**
- **Privately recorded testimony from two persons**

on the signup sheet. Please remember to limit your time so that we provide an opportunity to everyone who would like to comment on the project this evening.

For those of you who feel uncomfortable speaking publicly, we will be happy to remain here after closing this hearing to speak with you one-on-one on any issues that you may have. Another option would be to dictate your comments to a stenographer as I indicated earlier, or you could complete the comment form, it is on the back of your handout, and drop it into the collection basket on the table at the back of the hall. And lastly, you may fax, mail or e-mail any comments that you may have to the Department. Addresses, telephone numbers, e-mail addresses are all identified on the handout. And as you can see, there's a lot of options.

And having said all that, I'd like to call out the first name on the speaker list. Can I ask Gerry Maine to please come forward and make your comments?

GERRY MAINE: Good evening. I'm also one of those people who's uncomfortable speaking publicly, but I didn't have a choice tonight. My name is Gerry Maine. Gerry with a G, Maine like the state, M-A-I-N-E. I'm here tonight speaking on behalf of the City of Hartford.

The City of Hartford supports the New Britain/Hartford Busway. City staff is presently reviewing the Draft EIS and we'll have our detailed comments to you within the next few weeks. Development of a rapid transit busway is a positive

Responses to Comments:

No response is necessary on this page.

alternative to highway expansion in the region. We look at this line as a first of a system of dedicated busways as proposed in CROG's adopted regional transit strategy. Development of this busway and a busway transit system will have a major impact on Hartford and Hartford's residents where, according to the 1990 census, 38.5% of our households are without vehicles. Development of an efficient busway system will reduce the entire region's reliance on the automobile.

Merely building a busway, however, is not enough. It needs to be properly planned so that it's rapid, efficient, safe, comfortable and has a positive impact along the route in the neighborhoods. Stations need to be properly placed within our neighborhoods to maximize their benefit. Station area planning is an important aspect of the success of this route.

For its part, city staff has been meeting with CROG staff to discuss transit oriented development and how we, the city, can encourage it along the station areas. We are presently reviewing our zoning code to see how we can best affect development around the stations and are looking at possibly a transit overlay district as one of the possibilities. Station area planning should assure station stops are easily accessible, pedestrian friendly, safe, and that the stations themselves are architecturally compatible with their surroundings. 1

73

Responses to Comments:

1. Concur. The City of Hartford will continue to play an active role, along with neighborhood groups, businesses, and citizens, in TOD and Station Area planning in the design stage of the project.

One specific safety issue we're concerned about is with the platform settings. Opposite platforms are safer and more accessible and need to be incorporated whenever possible. If the physical limitations are so great that they can't be incorporated, then the split platforms need additional planning to ensure they're safe and accessible as possible. 2

The city staff have been meeting with DOT and the consultants from Wilbur Smith Associates from the onset of this process and are encouraged by the process to date. Our questions and concerns have always been dealt with and we feel we have a good relationship and appreciate the give and take that we've had so far. A lot of work still needs to be done to assure that the busway benefits the residents of the City and has a positive impact on our neighborhoods. We look forward to continuing our dialogue in creating the first piece of a regional busway system for the benefit of the region, our city, and our neighborhoods. Thank you.

MR. CANCELLIERE: Thank you. Did you want to leave a copy of that with us, Gerry? I'll take it. Next, Ruth Klue.

RUTH KLUE: Hi, Ruth Klue. My last name is spelled K-L-U-E. I'm from the Parkville neighborhood in Hartford and I'm a member of the Parkville Revitalization Association.

Responses to Comments:

2. Concur. Station refinements have been made in response to local concerns, both leading up to the Draft EIS and subsequent to its publication. The layout of stations now favor an "opposite" platform configuration in most locations. In this Final EIS, only the Newington Junction Station and Legislative Office Building Station have platforms offset from each other, primarily due to site limitations.

We would have more people here from Parkville tonight except there is a hoe-down fundraiser at Our Lady of Sorrows Church that seems to be taking most of the neighborhood, so I'm it tonight.

The PRA, Parkville Revitalization Association, has endorsed and is a strong proponent of the Hartford/New Britain proposed busway. We believe that the new busway will help spur revitalization efforts, provide much needed transit improvements and be an overall asset to Parkville, Hartford and to the region. We applaud these Connecticut Department of Transportation's and Capitol Region Council of Government's work to bring this long overdue improvement to the region.

The busway will help us build upon Parkville's vision as an urban, walking neighborhood. 42% of Parkville households have no car. Our residents need the busway for work, recreation and for visiting family who've moved to the suburbs. We have a large Portuguese population many of whose family members have moved to Newington. They're gonna be able to go back and forth without using cars.

The busway is also very, very important for youth who have no transportation options. The busway linked to Central Connecticut State University of New Britain is critical to the youth in our neighborhood. In fact, there is a

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Responses to Comments:

No response is necessary on this page.

billboard advertising CCSU across from the potential new Kane Street Station. However, our young adults have little access to CCSU now, and they would have if we had the busway.

On the other end of the spectrum, a member of the Parkville Senior Center lives in New Britain. She takes two buses each way, each way is an hour and a half, to travel the twelve miles between the Parkville Senior Center and New Britain. The busway would certainly make ties between Parkville and New Britain a lot easier.

Business people in Parkville have told us that they want quick access to downtown for meetings. The busway would have connections to the downtown circulator and the train, which I mention that's a real plus for our business community.

The Aetna Insurance station stop, though not in Parkville, is very important to Parkville residents because of jobs available there. The busway station needs to be as close as possible to Aetna, MassMutual and to Hartford Insurance, so that people in Parkville will want to take the busway and leave cars at home.

Of the twelve stations that are being planned for this busway, three of them are in Parkville, so we're greatly affected by what the planning is and we think in

Responses to Comments:

No response is necessary on this page.

Parkville the busway's wonderful. We see the busway as an important service and economic stimulus to our neighborhood.

MR. CANCELLIERE: Thank you. Would you also like to leave a copy of that with us? Okay. Tom Maziarz, please.

TOM MAZIARZ: Good evening. My name is Tom Maziarz, and that's spelled M-A-Z-I-A-R-Z. I'm speaking here tonight on behalf of the Capitol Region Council of Governments referred to earlier tonight and more commonly as CROG.

My comments will be brief since the Council of Governments or CROG is still reviewing the Draft EIS document itself. We intend to submit full detailed comments to you prior to the deadline of May 18th, which was mentioned earlier.

However, we want to go on record tonight in supporting the general concept of the busway in the Hartford/New Britain corridor and the Council of Governments has just adopted a regional transit strategy that calls for building a rapid transit system that is both regional in scope and based on the concept of bus rapid transit. The New Britain busway is the critical first piece of this system. We believe that the New Britain bus rapid transitway and the three other busways we hope will follow, will give us the rapid transit system we need in the region to promote a viable alternative to our congested highway system, to help reduce the spread of urban sprawl and to strengthen and redevelop our urban centers.

Responses to Comments:

No response is necessary on this page.

We also want to take the opportunity to thank the DOT for pursuing this project which we feel is a great opportunity to introduce rapid transit to the Hartford metropolitan area. Thank you.

MR. CANCELLIERE: Thank you, Tom. Mark Mitchell, please?

DR. MARK MITCHELL: Good evening, gentlemen. I'm Dr. Mark Mitchell. I'm a public health physician. I'm also President of the Connecticut Coalition for Environmental Justice and a member of the Hartford Environmental Justice Network.

We are, the Hartford Environmental Justice Network is supportive of the Hartford/New Britain busway. We are concerned about environmental justice. As you may know, in Connecticut, like in other states, the larger the percentage of people of color in a town, the more environmental hazards are located in that town. Hartford has the highest percentage of people of color and low income people in the state and has the highest amount of environmental hazards in the state.

Not only do we have the highest amount of environmental hazards, we also have high rates of environmentally associated diseases such as lead poisoning and such as asthma. An ongoing study of asthma in Hartford shows that after they've screened 8,000 of the 18,000 children in Hartford, that they have found that 41% of

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Responses to Comments:

No response is necessary on this page.

children have asthma and 48% of the Latino children have asthma as opposed to the statewide average of 6.6% and national average is 7.4% for children.

We're very concerned about the health effects of diesel and of the buses, the diesel buses that we have in Hartford. Diesel has been found to be much more toxic than previously thought. Not only is it associated with asthma, but it's also associated with premature death. Hartford is home to four bus depots and all of the buses in Hartford, as far as I know, are diesel and there are no alternative fuel buses being used in Hartford. 3

Hartford has a bus depot for Connecticut Transit and I believe it's the largest bus depot, maybe you can correct me, but the largest bus depot in the state for Connecticut Transit on I-91. Laidlaw Bus Company, which is the largest school bus company has their depot on North Main Street and Dattco has a depot on Albany Avenue and, I don't remember the name of the company, has a depot on New Park Avenue, and so we're very concerned about the concentration of buses and of diesel buses and, as I said before, all buses in Hartford are diesel as far as we know. 3

Our main concern with the Hartford/New Britain busway is that it use alternative fuels. Alternative fuels have been proven to be effective. The U.S. Postal Service has a large portion of its fleet of trucks using natural gas. All UPS

Responses to Comments:

3. Refer to Response #4 to US EPA regarding "clean fuels."

It should be noted that the project will contribute to an overall regional reduction in Vehicle Miles Traveled, and this will also have air quality benefits to Hartford at the regional level.

trucks are natural gas and in Hartford, the Hartford Yellow Cab, more than 80% of their cabs are natural gas. So, we believe that it can be done and it's being done around the country. There are alternative fuel buses being used around the country and it's been proven over and over again. Yellow Cab says they save a substantial amount of money over the long term with maintenance once they switched to the natural gas.

The other things that we're also concerned about are that the buses have the connections to the other buses in the City. I live in the South Green neighborhood and am Chairman of the South Green Neighborhood Revitalization Association and at South Green over 60% of our residents do not have automobiles and so are very reliant on buses, and I think that it's important that there be good connections between a busway and the current system of buses and that those will continue to be improved. 4

We're also concerned about the bikeway. We're happy to see a proposal to have a bikeway, at least part of the way, along the busway and, again, we think that that emphasizes the need for alternative fuels. We do not want to have bicyclists pedaling behind diesel buses on a busway. Thank you. 5

MR. CANCELLIERE: Thank you, Dr. Mitchell. Valentine Doyle...

Responses to Comments:

4. The busway will offer intermediate access points that will allow connections from other local areas. Feeder buses will also bring passengers from other areas of the city. New BRT corridors being studied for the Griffin Line and Manchester corridor would also add to the system.

5. Refer to Response #6 to the US EPA.

VALENTINE DOYLE: Good evening. I'm Valentine Doyle, spelled D-O-Y-L-E. I live in Hartford. I'm a member of the Hartford Environmental Justice Network.

I have a bunch of different concerns. One of them is definitely the same as Dr. Mitchell's about the feeder buses. I looked at the map and there's no way I could get to any station on that busline without taking a bus to downtown which, of course, is the only place all our current buses go. And a busline that you have to drive to seems to me to lose half its point, so I really hope that this is coordinated with a comprehensive improvement of our present pathetic bus system in Hartford. I don't know whether it's equally pathetic in New Britain, but if it is, I hope you work on that too. 6

I don't know what the fare will be. Can you transfer to this busway paying a Hartford bus fare or do you have to pay extra? I don't know how it works. Thank you, you don't have to pay extra. 7

I didn't hear anything about these stations, a lot of which are up on overpasses, about their being accessible to the disabled. How would I get down from that thing if I were in a wheelchair? Could I do it? There are elevators, okay. 8

And I feel as strongly as Dr. Mitchell about our air quality. There's no way we can, there's no one way to clean it up, there are a hundred ways. We have to do

Responses to Comments:

6. New BRT corridors being studied for the Griffin Line and Manchester corridor would add to the system. Feeder and local collector bus routes are to be re-routed to maximize use of the busway.

7. All fares would be the same as for the rest of the system.

8. All stations will be fully accessible as required under the ADA.

all of them. And one of them is changing our buses and a good way to start would be to have clean buses on the busway. I hope that would expand to clean buses in the whole system. I visited New Delhi in India recently. I've never seen worse air. I coughed every time I went out anywhere near traffic because of the little three-wheeled auto rickshaws there that run on diesel fuel. That's not the whole problem but it's a big part of it. New Delhi has made the commitment to change those thousands of auto rickshaws to natural gas. I saw several converted ones. If New Delhi can do it, can Hartford and New Britain also do it or are we gonna be outdone? 9

MR. CANCELLIERE: Thank you. John Phelan...

JACK PHELAN: My name is Jack Phelan, P-H-E-L-A-N. I live at 4 Chapman Street in Newington and I have several concerns that I spoke before the meeting about, but regarding the areas of noise abatement and visual quality, I live about 50 feet from the area where the busway is gonna pass and probably 150 feet from Newington Junction.

I coincidentally just realized that probably a good part of the reason that I think my area, where our house is, is the only historic designation along the busway. I own The Pillars, which is famous for being the house that Arsenic and Lace was, the novel was based upon, the deaths in the basement, etc. It was

Responses to Comments:

9. Refer to Response #4 to US EPA regarding "clean fuels."

It should be noted that the project will contribute to an overall regional reduction in Vehicle Miles Traveled, and this will also have air quality benefits to Hartford at the regional level.

astonishing to me that after reviewing the study, that the area in front of my home was not designated for noise reduction abatement. I learned that there is a complicated Federal studies with different variables and numbers and with a lot of different criteria which I don't know the basis of, but basically the fact that up to 270 buses will be running within an area with probably a 100 to 150 residents living within a 100 to 300 feet of this, it's shocking that there wasn't a recommendation for noise reduction. I've also reviewed the other areas that called for noise reduction and I saw a great similarity and it's just baffling to me why the area in front of my house was not designated. 10

The second, my second concern is the visual quality. It's great to talk about, you know, improving transportation and much to the benefit of the suburbs but those of us that are kind of bordering a city/urban type environment should also get some treatment for visual upgrade and I think that across the state that the State Department of Transportation does a terrible job of landscaping and I think, I brought some pictures along of the area of the busway, I can't blow them up as fancy as you've done in the back, but maybe you can tell me how to do this, but this is basically the area that I live across from the Newington Junction with this cement monstrosity, graffitied walls, garbage. You're welcome to review all these pictures, but I mean, my area is a historic district and there wasn't any call for any kind of 11 12

Responses to Comments:

10. Mr. Phelan's neighborhood was evaluated in the Draft EIS for noise impacts, and based upon his request, it has been re-evaluated for the Final EIS to determine impact based upon FTA criteria. Refer to Sections 3.1 and 4.1 for more information.

11. Mr. Phelan's photographs are found at the end of this testimony section.

12. The State Historic Preservation Office determined that there would be no effect on the historic resources in the Newington Junction Multiple Resource Area, contingent upon ConnDOT giving SHPO the opportunity to review and comment upon preliminary design plans with respect to the railroad station building that will be relocated on-site.

landscaping. And one of the comical things is that the rendering of Newington Junction station in the back calls for landscaping actually in front of my house but, you know, I was told that was just an architectural rendering, so probably when the architect went out to take a look, he thought there should be some kind of landscaping, but I guess you people got to come up with it, so I hope you reconsider the viewpoints, those two viewpoints that you've taken in the first study and work with me to, you know, see the light and do something about these two issues. **13**

MR. CANCELLIERE: Thank you, Jack. That was the last name on the speaker signup sheet and I'll be happy to recognize anyone who did not sign up to speak. If you would just raise your hand, I'll recognize you. Yes, sir.

IVAN BACKER: My name is Ivan Backer, B-A-C-K-E-R. I'm a resident of Asylum Hill in Hartford. I don't have a statement and I'm not in favor or opposed but I do have three concerns and I hope that you can clarify them. One is, is the location of the Sigourney Street station already decided or is there room for an adjustment? Because as it stands now, it's in an isolated area, it's not gonna be very safe, it's gonna be a long walk to the Aetna for which it is intended and it's not gonna do anything for the neighborhood because development around there is not gonna occur, so I'm wondering is that a firm decision? It is not? **14**

Responses to Comments:

13. Architectural renderings attempted to show station concepts as accurately as possible. It should be noted that they were concepts of how the area could look, and were not meant to reflect current reality with regards to landscaping and other site features. A landscaping plan will be formulated to address the need for improved landscaping around stations, and Mr. Phelan and others from his neighborhood be offered an opportunity to provide input into the appearance of stations and landscaping during the design phase.

14. This station has been altered since the Draft EIS, both in concept design and in location. Aetna has proposed to expedite the reconstruction their parking structure on the east side of Sigourney Street in order to accommodate a busway station within the structure. (See Aetna letter and Section 2.4.10 for more information). It will be more visible from Sigourney Street and more centrally located to serve Aetna employees.

MR. HURLE: For the record this is Ned Hurle from DOT. We're gonna continue to work on that station and try and get it as proximate to Aetna as possible.

MR. BACKER: There's a lot of concern in the neighborhood about that location. The second thing that I didn't hear was any coordination with the downtown circulation project. I'm on the community advisory board of that and we've always assumed that there would be a tie-in to the busway but I didn't hear anything from you about that.

TIM SORENSON: Tim Sorenson, Wilbur Smith. Absolutely we've been coordinating with the downtown circulator. We've been in constant contact with the Greater Hartford transit district and they're providing two points of egress from the busway that will allow the busway buses to circulate on the local streets. The first is at Flower Street where we'll have an at grade intersection which will allow it to go north to Farmington Avenue or south to Capitol Avenue and hit the circulation route that, as far as we understand it, is proposed. And the second is, we've made adjustments to the exit to Union Station to Church Street so it leaves Union Station at Church Street and hit the downtown circulation. In fact, all of our ridership projections are based on a downtown circulation loop maybe either from Flower Street or Church Street and heading to the east side of the downtown corridor.

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Responses to Comments:

No response is necessary on this page.

MR. BACKER: My third concern is about the financing. You have a figure of $100 million dollars for it and then on the next page you talk about an operating deficit. Is there a commitment from the State to subsidize the operating deficit a 100%?

SPEAKER: Yes.

MR. BACKER: And how sure can you be that the $100 million dollars, which I also assume is coming from the State, is gonna cover the cost when there's still so many unanswered questions?

MR. HURLE: Again, this is Ned Hurle from DOT. The construction funding will be shared with the Federal Transit Administration, hopefully, in an approximately 80%, 20% ratio, or working out to be an 80-20%. So, it's not just State money that's gonna be involved.

MR. BACKER: Does that include the construction of the stations?

PETER BUTLER: Yes. It's for the full project. And in terms of your other concerns about operating and maintenance expenses, that is something that we'd work with all our grantees on for any new infrastructure improvements. That they'd have the wherewithal not only to construct a new facility but also able to demonstrate to us that they have the wherewithal to come up with the annual

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Responses to Comments:

No response is necessary on this page.

operating maintenance cost associated with those improvements. And just for the record, my name is Pete Butler from the Federal Transit Administration.

MR. CANCELLIERE: Can I have your first name, please, I missed that.

MR. BACKER: Ivan, I-V-A-N.

MR. CANCELLIERE: Thank you very much. Anyone else a show of hands? Sir, in the back, yes.

MARK KAPALCZYNSKI: Good evening. Mark Kapalczynski. Last name K-A-P-A-L-C-Z-Y-N-S-K-I. A resident of Hartford. I live just a few blocks from here.

A couple of concerns that I have with the current cost of gasoline and projected cost of gasoline, this project to me can't come too soon, especially at the moment, I'm a reverse commuter and I see the traffic out on 84 coming into Hartford and it's just bumper to bumper from the Hartford/West Hartford line all the way out to Farmington and probably beyond, so I see this as being a great help to the situation.

According to your diagrams here, you have three proposed stations for Flatbush Avenue. I've got concerns with two of the proposed locations. Number one is the one on New Park Avenue, halfway between Flatbush and Oakwood. I think it will impact the Coastal Tool Store that's located there. One of the finest

15

Responses to Comments:

15. The location selected for the Flatbush Avenue station as part of the Recommended Action is Option G-3, on the north Side of Flatbush Avenue.

suppliers of tools and most extensive supplier of tools in the Hartford area. I'd hat to see that disappear. Your second proposal is where the current Dunkin' Donuts and Shell station is located. Again, a fine Dunkin' Donuts in this part of town. As we all know, it's essential to life in the business community, I'd hate to see that go. That only leaves one and in the current terms it's "the weakest link, goodbye". 16

I don't know if you have any plans or currently taking names for charter members or sign up but if you have any specials on a one-year ticket, I'd love to sign up. Thank you very much.

MR. CANCELLIERE: Thank you. Anyone else? Yes, sir...

JOE WASSERMAN: My name is Joe Wasserman. I'm with the Capitol Region Conference of Churches in Hartford, Connecticut. It's real important that we move towards mass transit and this is really, I'm happy to see, I think the people of the Conference of Churches are happy to see this type of direction in terms of mass transit.

We would hope you would consider buses that move on either natural gas or fuel cells, the technology is basically similar, so we could, you know, breathe healthier air and begin to move in that direction. Thank you. 17

MR. CANCELLIERE: Thank you, Joe. Anyone else? Seeing none, I will close tonight's hearing. On behalf of Commissioner James F. Sullivan, I'd like to thank

Responses to Comments:

16. This location is the location selected in the recommended action. The layout of this station has been modified since the Draft EIS was published to respond to comments received. The Shell gas station would remain on the site. The Dunkin' Donuts store may have the opportunity to be reconstructed in an outbuilding on the site as a Transit Oriented Development.

17. Refer to Response #4 to the US EPA.

3

P R O C E E D I N G S

MS. WILSON: My name is Donielle Wilson, D-O-N-I-E-L-L-E, Wilson, W-I-L-S-O-N and I'm with ConnetiCosh, Connecticut's Counsel on Occupational Safety and Health an my reason for being here today is to say that I think the Hartford/New Britain Busway is a great idea, it's a great plan, but only if the buses that are going to be used -- the old buses that are going to be used, I would like to see them and even as an organization, we would like to see them -- if it's old buses, we would like to see them retrofitted with filters, with emission filters so that they will burn clean fuel. Of these new buses, we would like some new state-of-the-art clean bus fuel being used in the buses. 1

All of this is because I feel it's an environmental issue, particularly it triggers asthma for the elderly and for the youths -- children. I think we'd like to see something done along those lines and there are a lot of people out there that are feeling that way and we really -- we think it's a great thing, but we would like to see those changes made to the plan, and that's it. Thank you.

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Ph: (860) 291-9191 Fax: (860) 528-1972

Responses to Comments:

1. Refer to Response #4 to US EPA.

4

1 MR. PHELAN: My name is Jack
2 Phelan, P-H-E-L-A-N. The address is Four Chapman
3 Street, Unit D, Newington, Connecticut 06111.
4 I'm here tonite to express my concern
5 over the executive summary of the New Britain
6 Hartford Busway dated March 2001. I take issue
7 with it's findings in recommendations. I am the
8 owner and resident of Four Chapman Street which is
9 directly adjacent to the proposed busway and very
10 close to the proposed Newington junction.
11 Actually, I own the historic house with
12 the two large pillars which is about 50 feet from
13 the proposed busway. What makes my comments even
14 more important, is I realized that I'm in an
15 area -- in the only area of historical 2
16 significance on the entire proposed busline.
17 I was surprised to find that the study
18 did not identify this area as being impacted from
19 the noise or visual standpoint. I have spoken
20 with Mr. Douglas Zang of Wilber Smith Associates
21 who is the Senior Environmental Studies Manager
22 and he explained the very scientific criteria for
23 evaluating the area for noise reduction.
24 I take issue with the findings because
25 it's based upon formulas with certain variables 3

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Responses to Comments:

2. The State Historic Preservation Office determined that there would be no effect on the historic resources in the Newington Junction Multiple Resource Area, contingent upon ConnDOT giving SHPO the opportunity to review and comment upon preliminary design plans with respect to the railroad station building that will be relocated on-site.

3. Mr. Phelan's neighborhood was evaluated in the Draft EIS for noise impacts, and based upon his request, it has been re-evaluated for the Final EIS to determine impact based upon FTA criteria. Refer to Sections 3.1 and 4.1 for more information

5

1 that don't take into account actual reality. The
2 reality is that up to 278 buses will be passing
3 within 50 feet of my property. This might not
4 indicate a need for noise reduction barriers
5 because of some formula, but no one can tell me
6 that this is not going to creat a great deal of
7 noise.
8 The other thing that I'm surprised, is
9 that two other areas that I have visited and are 3
10 similar to my situation, Cottage Pace in New
11 Britain and Cornerstone Condominiums on East
12 Street are noise reductions are proposed for those
13 two areas.
14 My question is what can be done to
15 reconsider some noise control barriers for this
16 area and realize that mathematical formulas are
17 not precise. How can 278 buses within 50 feet of
18 my property not create a hardship.
19 In addition, the executive study does not
20 think the visual quality will be impacted. I have
21 brought along several pictures that show the area 4
22 where the busway is going to go by as graffiti
23 filled, greats amount of litter, lack of
24 landscaping, etc., and I'll leave some pictures.
25 I was surprise to learn that at the

Responses to Comments:

4. Design will consider methods to minimize opportunities for vandalism.

Refer to Response #13 to the Town of Newington.

6

1 hearing tonite that my area was designated an area
2 photograph and was the only area photograph on
3 display because it is in a historic area. How can
4 an historic area be located across from such an 2
5 eyesore.
6 I also looked at the artist renderings of
7 Newington Junction and the architect in his water
8 color actually displayed putting landscaping along
9 Chapman Street on the other side from the bus 5
10 station, He obviously thinks that this area does
11 need landscaping and I hope that in the next study
12 that landscaping along Chapman Street and the
13 busway is included.
14 It is ironic that you might be spending
15 thinking upwards of a million dollars on the
16 Newington Junction which can't be seen from the 6
17 roadway, but the pictures I show you -- I've
18 included are seen by hundreds of people every day.
19 I am going to say active and vigilant in
20 my pursuit of the inclusion of visual and noise
21 reduction along the Chapman Street corridor. 7
22 Please stay in contact with me, My phone number
23 is 236-9988. Thank you.
24
25 (Statement concluded)

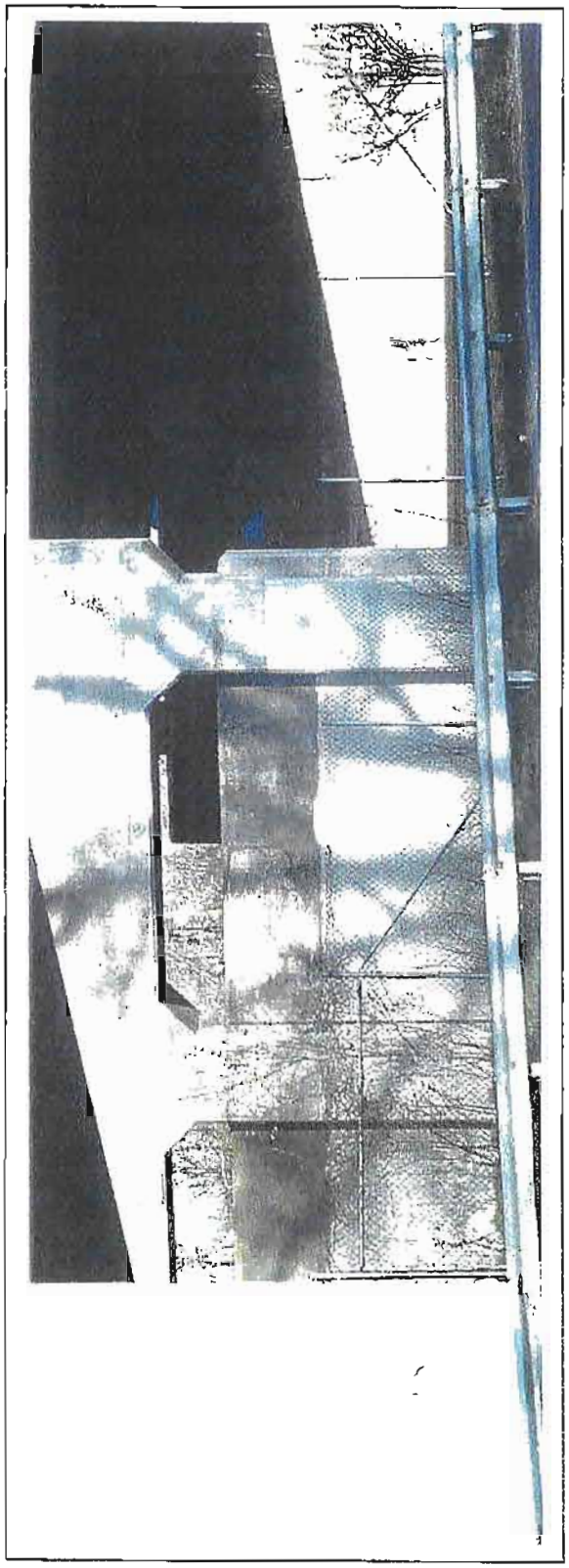
NIZIANKIEWICZ & MILLER REPORTING SERVICES
972 Tolland Street
East Hartford, Connecticut 06108
Ph: (860) 291-9191 Fax: (860) 528-1972

Responses to Comments:

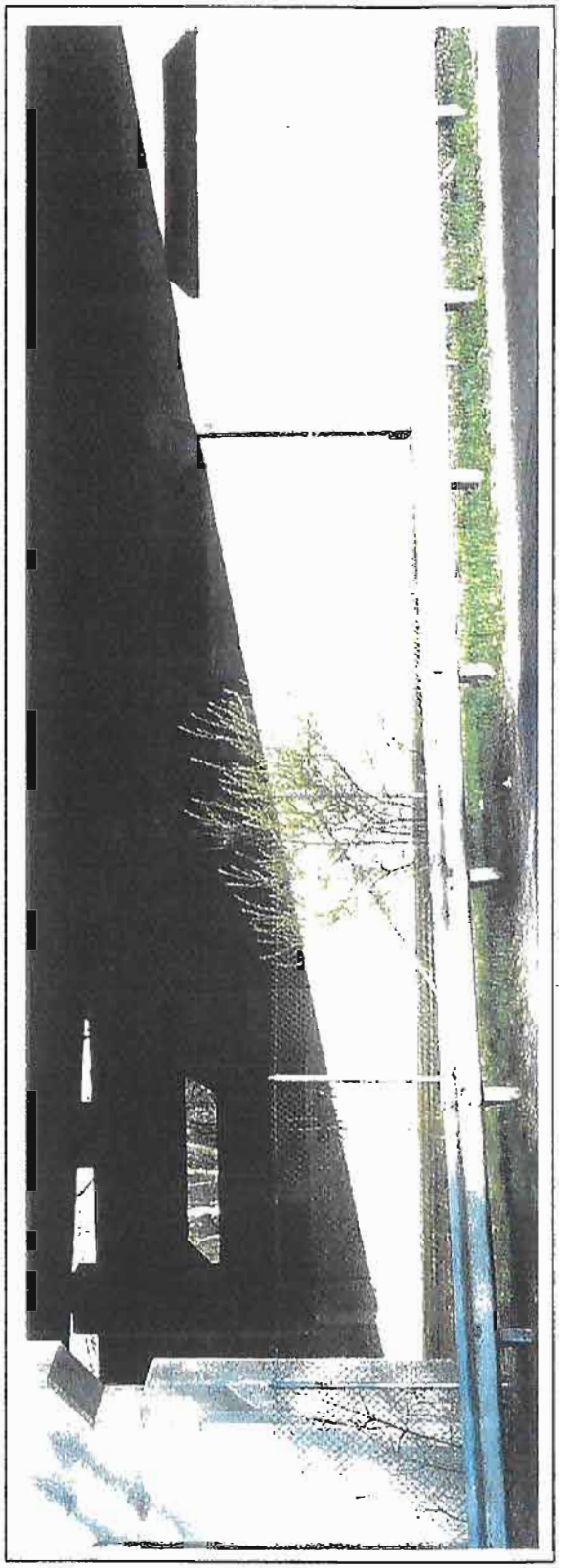
5. Architectural renderings attempted to show station concepts as accurately as possible. It should be noted that they were concepts of how the area could look, and were not meant to reflect current reality with regards to landscaping and other site features. A landscaping plan will be formulated to address the need for improved landscaping around stations, and Mr. Phelan and others from his neighborhood be offered an opportunity to provide input into the appearance of stations and landscaping during project design.

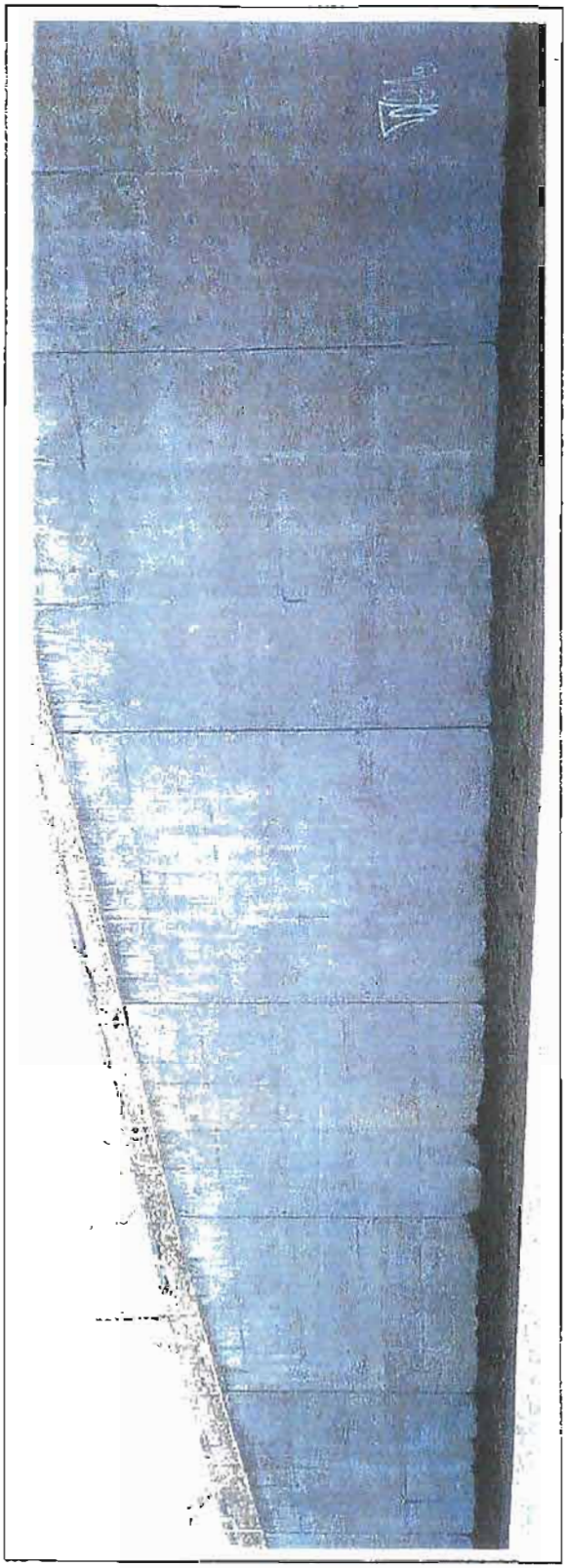
6. The Newington Junction Station will have signage and other elements to increase its presence on Willard Avenue.

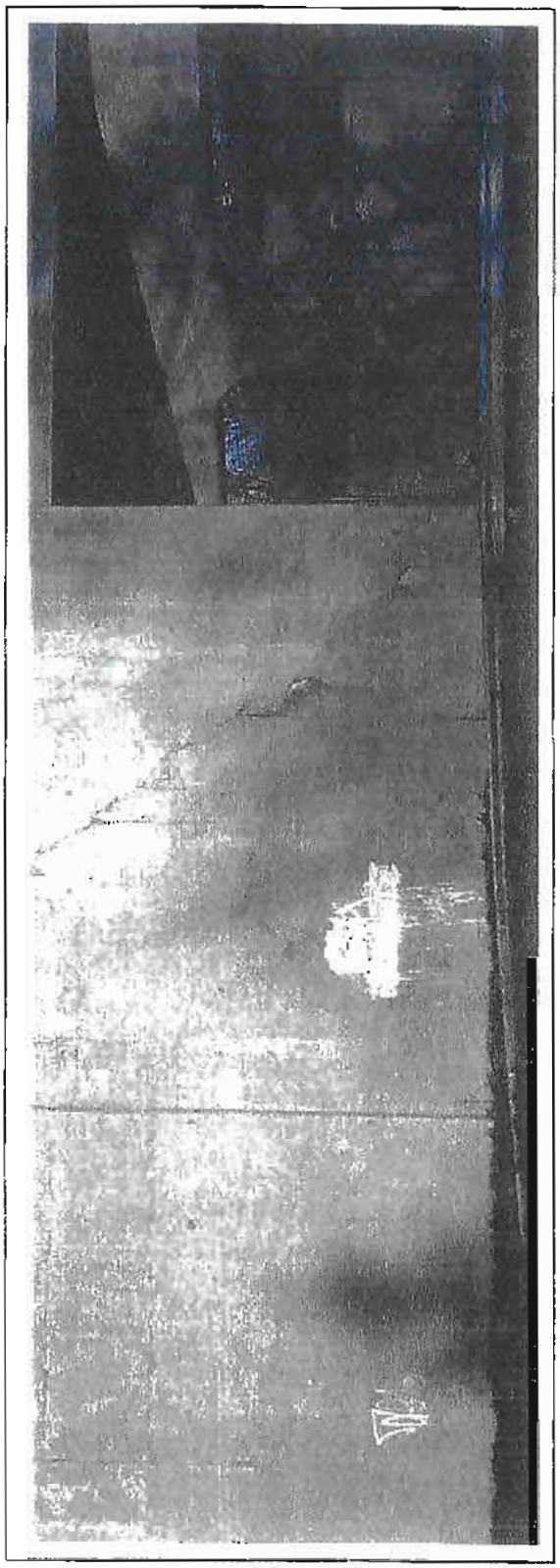
7. ConnDOT will actively seek public input to address these concerns during the design phase, and encourages Mr. Phelan to participate in this input.



View from front lawn of Jack Arthur's house 4 Chapman ST "Pillars"
Historic area – 50' from busway







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Chapter 7
Glossary And Acronyms

4(f)—See Section 4(f)

6(f)—See Section 6(f)

AC—See Advisory Committee

ACHP—see Advisory Council on Historic Preservation

ADA—Americans with Disabilities Act of 1992

Advisory Committee (AC)—A varied group of representatives from different stakeholder agencies and municipalities that helped steer the development of this EIS. See section 6.2 for more information.

Advisory Council on Historic Preservation—Federal agency that oversees historic and archaeological preservation issues

Alignment—The location that the busway roadway would follow (e.g., along the abandoned and active rail right of way, within the Route 9 median, etc.)

APE—See Area of Potential Effect

Area of Potential Effect (APE)—For a proposed action such as this project, area within which the proposed action could create impacts (direct or indirect) to cultural resources (historic and archaeological resources)

Arterial roadways—Primary roadways, such as expressways, divided roadways, or other facilities, generally higher-speed roads, that are meant for longer-distance (rather than neighborhood-level) travel

At-Grade Crossing—A location where the busway would cross the traffic lanes of a cross street or access point, requiring some form of traffic control, like a signal

Berm—A raised, linear piece of land, such as that land on which the abandoned rail line sits.

Best Management Practices—Construction methods that would minimize environmental impacts, such as using siltation fences that would minimize sedimentation in streams

BMPs—see Best Management Practices

BRT—see Bus Rapid Transit

Brownfield site—A previously contaminated industrial property that is, or could be, a site of reuse, allowing environmental remediation to first take place and return of the site to economic and community usefulness.

Build Alternative—A scenario where the proposed action (construction of the busway) would be taken

Bus Rapid Transit—A transit facility that will provide an exclusive bus-only roadway, and stations, similar to a subway, except using buses and asphalt instead of trains and tracks

Busway—see Bus Rapid Transit

CAL3QHC—An air model for determining concentrations of pollutants at a particular receptor location

Capital Investment—Equipment that would need to be purchased for the busway to operate, such as the buses themselves

Capitol Region Council of Governments (CRCOG)—The Metropolitan Planning Organization for the Hartford region, which includes the study area towns of Hartford, West Hartford, and Newington.

CCRPA—See Central Connecticut Regional Planning Agency

CCSU—Central Connecticut State University

Central Connecticut Regional Planning Agency (CCRPA)—The Metropolitan Planning Organization that includes the study area city of New Britain and surrounding communities.

CERCLA—Comprehensive Environmental Response Compensation and Liability Act, a federal act governing hazardous materials

CMAQ (Congestion Mitigation and Air Quality)—A program of the FHWA for funding transportation improvements that improve air quality.

Compressed Natural Gas (CNG)—An "alternative fuel" for powering buses, which is cleaner than current diesel technology, requiring special buses, and special equipment for fueling and maintenance.

CNG—see Compressed Natural Gas

Collector Bus Service—Would circulate on local streets within a community, then access the busway, then use the busway to get to the destination and circulate around destination.

Conformity—See State Implementation Plan

CO—Carbon Monoxide

ConnDOT—Connecticut Department of Transportation

CRCOG—See Capitol Region Council of Governments

CT Transit—The transit provider for the Hartford and New Britain Area

Cumulative Impacts—Effects from an action's incremental consequences when added to other past and reasonably foreseeable future actions (40 CFR 1508.7).

Cultural Resources—Historic or Archaeologically important resources

Culvert—A pipe or conduit used to convey drainage water under a roadway or railroad

dBA—A-Weighted decibels, a measure of noise levels

DATTCO—A provider of charter bus services, contracted out by the State of Connecticut to run regional express services

DEIS—see Draft Environmental Impact Statement

DEP—Connecticut Department of Environmental Protection

Diesel-Electric Hybrid—A type of bus engine technology that teams an electric and diesel motor for greater fuel efficiency and lower levels of emissions than current diesel-only technology.

Draft EIS—see Draft Environmental Impact Statement

Draft Environmental Impact Statement (Draft EIS or DEIS)—This document, required under the National Environmental Policy Act of 1970, which is a full-disclosure evaluation of the environmental and social impacts of a proposed action. After a public review period and public hearing, a Final Environmental Impact Statement will be issued, which

indicates a preferred Alternative, and refines the work performed in the Draft Environmental Impact Statement where necessary.

E & S—Erosion and Sedimentation [Control Plan]

ERNS— Emergency Response Notification System

Express Bus Service—Originate in outlying towns and make limited stops on the busway. Examples would be current express buses originating at Park and Ride lots in Meriden, Bristol, Cheshire, and Southington, as well as potential new services from Waterbury

Feeder Bus Service—Would not actually use the busway itself, but would take passengers to the busway stations where they can transfer to other services on the busway

FEMA—Federal Emergency Management Adminstration

FHWA—Federal Highway Administration

FTA—Federal Transit Administration

Grade separation—An overpass or underpass to avoid an at-grade crossing of transportation facilities (for example, a busway overpass of a cross street).

Hartford West Major Investment Study (MIS)—Published in July 1999, a study that evaluated ways to address congestion on Interstate 84 and other transportation needs within the Hartford West corridor. See Chapter 1 for more information.

Heavy Rail—A transit system for longer-distance commuter trips, using heavier rail cars such as used in Metro North or Shore Line East service in Connecticut

High Occupancy Vehicle (HOV) Lanes—Lanes on a highway dedicated for use only with high occupancy vehicles, meaning carpools or buses

HOV—See High Occupancy Vehicle Lanes

Intelligent Transportation Systems (ITS)—A technology-based system for monitoring and maximizing traffic operations. For the New Britain – Hartford busway, the ITS system would include sensors for electronically tracking locations of buses, electronic control of at-grade crossings, and variable message signs at stations.

Intermediate Access Point—A location where buses can enter or exit the busway somewhere in the middle of the route.

ITS—See Intelligent Transportation Systems

Jersey Barrier—A vertical concrete barrier, varying in height, found in the median of many roadways, to keep traffic from crossing into opposing lanes of traffic

Kiss and Ride—A situation where a transit passenger is driven to or picked up at a station by someone else in an automobile. The automobile is only at the station temporarily for drop-off or pick-up.

LOB—Legislative Office Building (an office building in Hartford)

L_{dn}--Represents an average noise level evaluated over 24 hours in which a 10-dBA penalty is assessed to the nighttime hours between 10 PM and 7 AM. This penalty is assessed to account for a resident's increased sensitivity to noise during the nighttime hours.

L_{eq}—The steady-state noise level during a given amount of time (typically one hour) that has the same acoustic energy as the fluctuating noise levels that occur during that time period.

Level of Service (LOS)—A measure of roadway congestion, on a scale from A (lowest) to F (greatest).

Light Rail Transit—A type of rail transit for shorter distances than heavy rail, using lighter vehicles and operating in a mixed or dedicated right of way, like a modern day streetcar

LOS—see Level of Service

LRP—Long Range Plan, a transportation plan produced by MPOs (in the case of this project, Capitol Region Council of Governments and Central Connecticut Regional Planning Agency)

LRT—See Light Rail Transit

LUST—Leaking Underground Storage Tank

Major Investment Study—See Hartford West Major Investment Study

MDC—Metropolitan District Commission, provider of water and sanitary services for the Hartford area, covering the study area towns of Hartford, West Hartford, and Newington

Mesoscale—A level of air modeling that focuses on a larger, regional area. See also "Microscale."

Metropolitan Planning Organization (MPO)—A regional body, which directs planning efforts (including transportation) for a regional collection of municipalities. In this project, there are two MPOs: Capitol Region Council of Governments (CRCOG), which covers the cities/towns of Hartford, West Hartford, and Newington [among others], and Central Connecticut Regional Planning Agency (CCRPA), which covers the city of New Britain

[among others].

Microscale—A level of air modeling that focuses on a localized area, such as a single intersection. See also "Mesoscale."

MIS—see Hartford West Major Investment Study

Mitigation—An action to offset an adverse impact caused by a project. For example, impacts to wetlands can be mitigated by constructing replacement wetlands, noise impacts can be mitigated through construction of a noise wall, etc.

MOBILE5b—An air model used for determining pollutant emission rates from vehicles

MPO—See Metropolitan Planning Organization

Multi-Modal—A description of different transportation modes served. Different modes encompassed by the term "multi-modal" include pedestrians, bicycles, bus transit, rail service, taxis, regional coach buses, etc.

Multi-Use Trail or Path—A dedicated trail that would accommodate pedestrians and bicycles, but no motorized vehicles

NAC—See Noise Abatement Criteria

NAAQS—National Ambient Air Quality Standards, set by the US Environmental Protection Agency

National Register of Historic Places—See Section 5.1 of the Draft EIS.

Neighborhood Revitalization Zone (NRZ)—A community group in the cities of New Britain and Hartford

New Starts—An FTA process for ranking proposed transit facilities on a national level for prioritizing funding

NHS—National Highway System, a program of funding for FHWA

No-Build Alternative—A scenario that assumes that no actions are performed within the study area other than projects that are currently programmed or routine maintenance and operation of the existing transportation system.

NO_2—Nitrogen Dioxide, a precursor of Ozone

NO_x—Nitrogen Oxides, precursors of Ozone

NPL—National Priorities List, or "Superfund" sites

NRHP—National Register of Historic Places.

NRZ—See Neighborhood Revitalization Zone

NWI—Nation Wetlands Inventory

Off-Peak—See Peak Hour

Offset platforms—A station design where platforms are not directly opposite each other.

Operational Plan—An overall plan for transit service in the region, based on different scenarios.

OPM—Connecticut Office of Policy and Management

Opposite platforms—A station design where platforms are directly opposite each other.

PAH—Polycyclic Aromatic Hydrocarbons, hazardous products of fuel combustion

Palustrine—Isolated wetland areas (not associated with a particular stream or lake)

PCB—Poly-chlorinated biphenyls, chemicals found in electrical transformers

Peak-Hour—The periods of the day with the highest travel demand. For the purposes of this project, peak hour was defined as 7:00 AM to 9:00 AM and 4:30 PM to 6:30 PM on weekdays. "Non-Peak" or "off-peak" periods would be times outside of peak hour.

ppm—Parts Per Million

RAP—see Reasonable Alternatives Package

RCRA-- Resource Conservation and Recovery Act, a federal act governing hazardous materials

RCSA—Regulations of Connecticut State Agencies

Reasonable Alternatives Package (RAP)-- Groups of actions or strategies including roadway improvements (new lanes, High Occupancy Vehicle [HOV] lanes) and transit improvements (commuter rail, light rail, and busways on various routes) evaluated in the Hartford West MIS.

Receptors—In the context of noise or air quality, an affected property that has been monitored or modeled to determine noise or air pollutant levels.

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Chapter 10
List of Preparers

Table 10.1-1
List of Preparers – Federal Transit Administration

Name/Title/Education	Years and Area of Experience	Draft EIS Responsibility
Richard Doyle Regional Administrator	31 years Transit Planning, Development and Management	Lead Agency
Peter Butler Director, Office of Planning & Program Development	13 years Transit Planning and Development	Lead Agency

Table 10.1-2
List of Preparers – Connecticut Department of Transportation

Name/Title/Education	Years and Area of Experience	Draft EIS Responsibility
Edgar T. Hurle Director of Environmental Planning	28 years Environmental and Transportation Planning	Project Manager
Judith S. Cantwell Assistant Director of Environmental Planning	29 years Environmental and Transportation Planning	All aspects
Stephen V. Delpapa Transportation Supervising Planner	28 years Environmental and Transportation Planning	Administrator, Consultant Agreement, All aspects
Michael A. Sanders Transit and Ridesharing Administrator	24 years Public Transportation	Amtrak Negotiations, Bus Operations, Service Design
Sandy Bartenstein Transportation Planner	9 years Public Transportation	Amtrak Negotiations, Bus Operations, Service Design
Maureen M. Shea Transportation Planner	9 years Public Transportation	Amtrak Negotiations, Bus Operations, Service Design

Table 10.1-3
List of Preparers – Wilbur Smith Associates

Name/Title/Education	Years and Area of Experience	Draft EIS Responsibility
Harry E. Strate, P.E. Vice President B.S., Civil Engineering, Iowa State University	30 Years Transportation Planning and Engineering	Principal-In-Charge, Oversight of EIS Production, Public Involvement
Timothy P. Sorenson, P.E. Senior Transportation Engineer B.S., Civil Engineering, Valparaiso University	14 Years Transportation Planning and Engineering	Project Manager, Oversight of EIS Production, Public Involvement, Conceptual Engineering
Douglas K. Zang Senior Environmental Studies Manager B.A., Biology, Grinnell College	13 Years Environmental Planning and Impact Assessment	Management, Preparation and Review of EIS; Public Involvmement, Web Site Composition
Noemi L. Horn Environmental Planner B.S. City and Regional Planning New Mexico State University	6 Years Transportation and Environmental Planning	Document Production and Public Involvement
Karl E. Watkins, E.I.T. Transportation Planner Bachelor of Civil Enginneering, Georgia Institute of Technology	5 Years Transportation Engineering and Planning	Design of Stations, Horizontal Alignment, Geographic Information Systems, Graphics Preparation, Quantities, Public Involvement
Sharat Kalluri, P.E. Transportation Engineer M.S., Transportation Engineering, University of Connecticut; B.S., Civil Engineering, Regional Engineering College, Tiruchirapalli, India	6 Years Traffic Engineering and Transportation Planning	Development of Alternative Busway Routings, Alignments and Travel Times; New Britain Station Concepts, Traffic Analyses, Public Involvement
Christopher Van Zanten, E.I.T Roadway Designer B.S. Civil Engineering, University of Connecticut	2 Year Civil Engineering and Environmental Design	Vertical Alignment, Cross-sections
Chandra Parasa, E.I.T. Transportation Analyst M.S., Transportation Engineering, University of Oklahoma; B.S., Civil Engineering, Osmania University, Hyderabad, India	6 Years Transportation Planning and Traffic Engineering	Geographic Information Systems Analysis and Graphics Preparation
Rita Shamas Roadway Designer B.S., Civil Engineering, University of Technology, Baghdad, Iraq	2 Year Civil Engineering and Transportation Planning	Station layouts
Dean L. Pierce, AICP Senior Planner M.S., Natural Resource Planning, University of Vermont; B.A., American Studies, Hamilton College	17 Years Natural Resource Planning	Web Site Development and Maintenance
Kevin Gross, P.E. Senior Project Manager, Structures B.S., Civil Engineering, Temple University	19 Years Bridge Engineering	Bridge Engineering

Paul H. Smith, P.E. Senior Associate B.S., Civil Engineering, Lowell Technological Institute	30 Years Roadway and Signal Design	Busway Design
Phil DeLeon, P.E. Senior Transportation Design Engineer B.S., Civil Engineering, University of Connecticut	26 Years Civil Engineering and Transportation Planning	Busway Design
Jill M. Gorneau, E.I.T. Transportation Engineer B.S., Civil Engineering, University of Nebraska	5 Years Civil Engineering	Busway Design
Jim Donovan Landscape Architect Master of Landscape Architecture, University of Illinois, B.S. Architecture. University of Detroit,	22 years Landscape Architecture	Context Sensitive Design

Table 10.1-4
List of Preparers – Fitzgerald and Halliday

Name/Title/Education	Years and Area of Experience	Draft EIS Responsibility
Linda Perelli Wright Principal Planner Master of Landscape Architecture, Utah State University; B.S., Wildlife Resources, University of Idaho	17 years Environmental Planning and Impact Assessment	Water Resources, Prime And Unique Farmlands, Threatened and Endangered Species
Kenneth M. Livingston Planner M.S., Envir. Science, State Univ. of New York; B.S., Envir. Science, Univ. of New Hampshire; B.S., Political Science, Univ.of New Hampshire	7Years Environmental Planning and Impact Assessment	Data Collection and Mapping of Natural Resources and Hazardous Materials
Steven M. Bedford, Ph.D. Principal Planner Ph.D., Architecture, Columbia University; M. Philosophy and M.A., Columbia University; B.S., Building Sciences, Rensselaer Polytechnic Institute; B.A., Rensselaer Polytechnic Institute	18 Years Architectural Investigations and Cultural Resource Impact Analysis	Section 4(f), Section 6(f), and Section 106 Evaluation
Marianne M. Latimer Principal Planner B.A., Envir. Science, State Univ. of New York; IRIS Program: Ground Water Hydrology, Wright State University	21 Years Environmental Planning and Impact Assessment	Hazardous materials.

Table 10.1-5
List of Preparers – KM Chng Environmental

Name/Title/Education	Years and Area of Experience	Draft EIS Responsibility
Richard M. Letty Senior Noise Consultant M.B.A., Marketing, Northeastern University, M.S., Aeronautics, M.I.T., B.S., Engineering Physics, Merrimack College	29 Years Noise Consulting	Noise Project Manager
Thomas Herzog Senior Noise Consultant M.B.A., Finance, Boston University B.S, Physics, Hamilton College	14 Years Experience, Noise Analysis	Noise Monitoring and Modeling
Timothy J. Lavelle Air Quality Consultant M.S., Civil Engineering, Texas A&M, B.S., Biology, Fairfield University	11 Years Experience, Air Quality Modeling	Air Quality Modeling

Table 10.1-6
List of Preparers – S/L/A/M Collaborative

Name/Title/Education	Years and Area of Experience	Draft EIS Responsibility
John P. Beveridge, AIA M.Arch. Harvard Graduate School of Design B.S., B.Arch. Rensselaer Polytechnic Institute NCARB Certified	33 years experience in a general architectural practice in a large (150 person) multi-discipline firm.	Principal In Charge and Studio Leader, provides architectural oversight of project process requirements and coordinates staff assignments.
Roy E. Cook, AIA B.Arch. University of Nebraska	30 years experience in architecture, planning/design of educational facilities and masterplanning /feasibility studies.	Project Manager, provides day-to-day architectural project management responsibilities within the Studio and in coordination with Wilbur Smith Assoc.
Christopher D. Williams, AIA B.Arch. Cornell University NCARB Certified	27 years experience in architectural design and graphics.	Project Graphics/Conceptual Designer, provides the architectural concept design studies and rendered images.
Gregory J. Bergmiller B.S. Arch. Boston Architectural Center Associate Degree in Architecture Hartford State Technical College	14 yrs. residential design/construction. 10 yrs. design, graphic artwork, commercial design & CA & documents.	Architectural Graphics Designer and provides graphic enhancement and layout/delivery support.

Table 10.1-7
List of Preparers – KKO and Associates, Inc.

Name/Title/Education	Years and Area of Experience	Draft EIS Responsibility
David O. Nelson KKO Project Manager/Principal Planner M.C.R.P., Transportation, Harvard University B.A., Sociology, Bates College	25 Years Experience Transportation Systems Analysis, Transportation Planning, Public Transit	Transportation - Transit Related; Operating Expense, No Build and TSM Conditions, Build Conditions, Transit Operations Plan, Construction and Operating Costs
Geoff Slater Senior Planner B.S., Civil Engineering, University of Massachusetts	21 Years Experience Transit Analysis, Operating Practice, Transit Service Planning	Transportation Planning - Transit Related- Bus Operations
Yawa Duse-Anthony Planner M.S., Industrial Engineering, University of Massachusetts B.A., Mathematics, Colby College	2 Year Experience Transportation Planning and Analysis	Transportation - Transit Related; Operating Expense, No Build and TSM Conditions, Build Conditions, Transit Operations Plan, Construction and Operating Costs

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Appendix A

Conceptual Stage Relocation Survey

[On following pages]

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WILBUR SMITH ASSOCIATES

CONNECTICUT DEPARTMENT OF TRANSPORTATION

CONCEPTUAL STAGE RELOCATION SURVEY

Project:	*170-2009*
Route Number:	*New Britain-Hartford Busway*
Federal Project Number:	*CT-90-X328*
Towns:	*New Britain / Newington /West Hartford / Hartford*
Date:	*August 7, 2001*

Description of project:

This project involves the construction of an exclusive busway rapid transit system between New Britain and Hartford with appropriate stations. There is no relocation required in New Britain.

A. Displaced households:

Families:

None

Owners:

None

Tenants:

None

Minority families:

None

Average income level families displaced:

None

Number of elderly families:

None

Number of large families:

None

B. Divisive or disruptive effect on the community:

There will be some traffic congestion in New Britain, Newington, West Hartford, and Hartford during the construction phase of this project.

C. Impact on neighborhood and housing where relocation is likely to take place:

There will be little impact on the neighborhood and housing in the local community.

D. Displacement other than residential and the economic effect on the community:

Businesses:

Eleven (11) businesses – (1) martial arts school, (1) wholesale distributor, (1) heating & cooling company, (2) tool shops, (1) car wash/gas station, (1) doughnut shop, (1) auto oil & lube center, (1) plumbing supply company, (1) auto dealership, & (1) auto service shop

Names of owners:

Roman & Maria Lubniewski, Estate of Thomas E. Bond, Estate of Margaret Bond, Lemos Properties LLC, Bruce M. Bedrick, Charles S. Leventis, Carmelo Rivera, Michael Abvocino, & Morris Schiller Trustee

Names of Tenants:

D & D Precision Tool Co., R & R Precision Tool Co. Inc., Branko International Inc., Advance Plumbing & Heating Inc., Ying Yang Tai Chi Academy, Mr. Auto Wash, In and Out Oil & Lube Center, Dunkin' Donuts, Allied Plumbing Supply Inc., A+Auto Service, & Ann's Auto

Community impacts due to displacement other than residential:

There will be little impact on the immediate community due to the proposed project.

E. Relocation property availability:

The following information was obtained through the local MLS service:

For Sale	*Price Range*
1 Former Gas Station Site (West Hartford)	*$100,000*
1 Former Auto Repair Shop Site (West Hfd.)	*$500,000 (2 Bldgs.)*
4 Industrial/Office Buildings (Hartford)	*$ 175,000 - $750,000*
3 Industrial/Office Buildings (Newington)	*$ 195,000 - $650,000*
1 Retail Building (Newington)	*$195,000*
2 Vacant Industrial Land Sites (Newington)	*$285,000 & $295,000*
1 Vacant Industrial Land Site (Hartford)	*$470,000*

For Lease	*Lease Range*
Industrial/Office Space (Hartford)	*$6.00/sf to $6.75/sf net*
Industrial Space (Newington)	*$3.00/sf to $7.00/sf net*
Industrial/Retail Space (Newington)	*$4.75/sf to $7.00/sf net*
Retail/Office Space (Newington)	*$7.00/sf to $11.00/sf net*
Retail Space (West Hartford)	*$4.95/sf to $7.50/sf net*

As a result of this study, it has been determined that there is a sufficient number of commercial and industrial properties for lease in Newington, West Hartford, and Hartford. However, there is a very limited number of commercial and industrial properties for sale in these areas.

F. Relocation advisory services available:

The Connecticut Department of Transportation will administer the relocation program for this project. Rights of Way personnel are thoroughly conversant with Title III, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. The purpose of Title III is to encourage and expedite acquisition by agreement, to avoid litigation, to assure consistent treatment for owners, and to promote public confidence in the many Federal and Federally assisted acquisition programs.

G. Proposed action to remedy insufficient relocation housing:

None needed

H. ***Results of consultation with local officials, social agencies and community groups regarding impact on the communities affected:***

In conversations with local and town officials, they were of the opinion that the proposed improvements would benefit the community in easing congestion and improve traffic flow.

CONCEPTUAL SURVEY PROCEDURE AND DATA SOURCES

The foregoing report is based on visual inspection, community sources, and readily available secondary sources, consistent with instructions in the Federal Aid Highway Manual, Transmittal 221, November 4, 1976, volume 7, Chapter 5, Section 1. Roger Judson, Office of Rights of Way, Department of Transportation, State of Connecticut, obtained the information serving as the basis for this which was reviewed by Lawrence W. Orvis, Office of Rights of Way.

Lawrence W. Orvis, Division Chief	8/8/01 *Date*
Roger Judson, Property Agent 2	8-7-01 *Date*

Appendix B

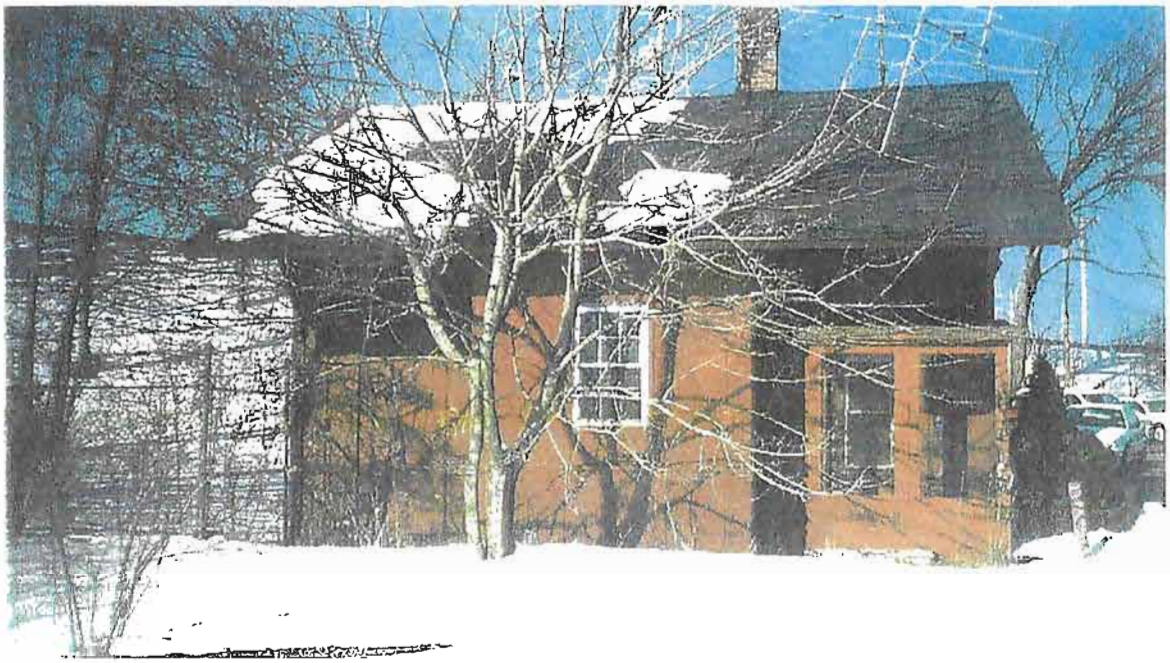
Background Materials for Cultural Resource Evaluation

B1. NEWINGTON JUNCTION AREA

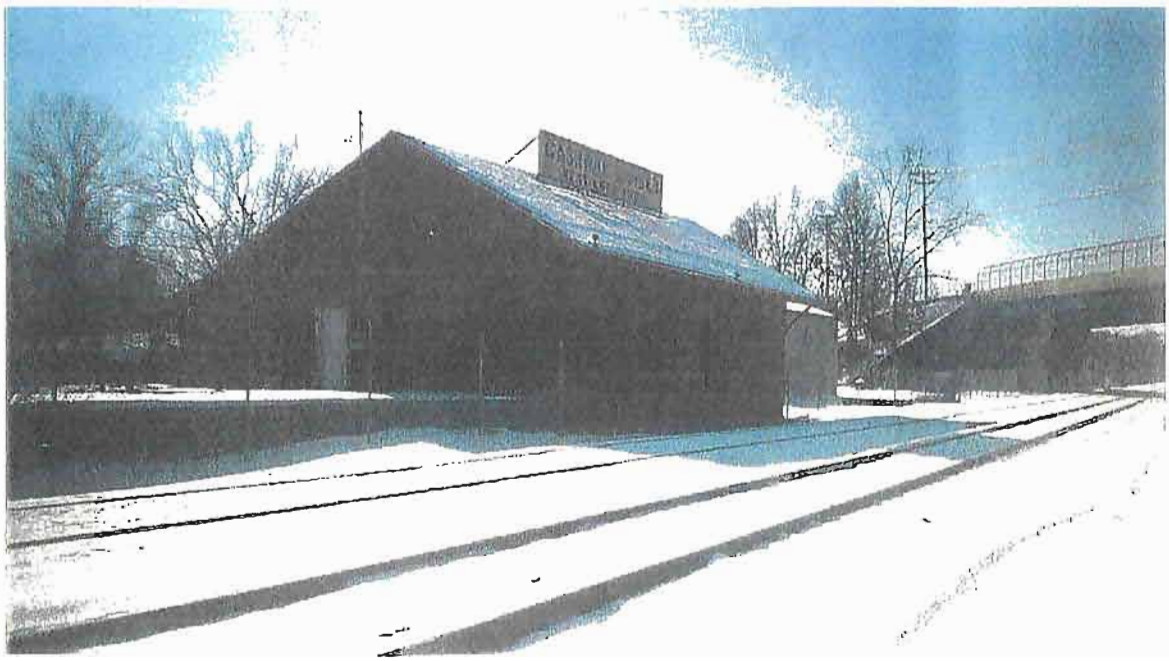
View to North

View to South

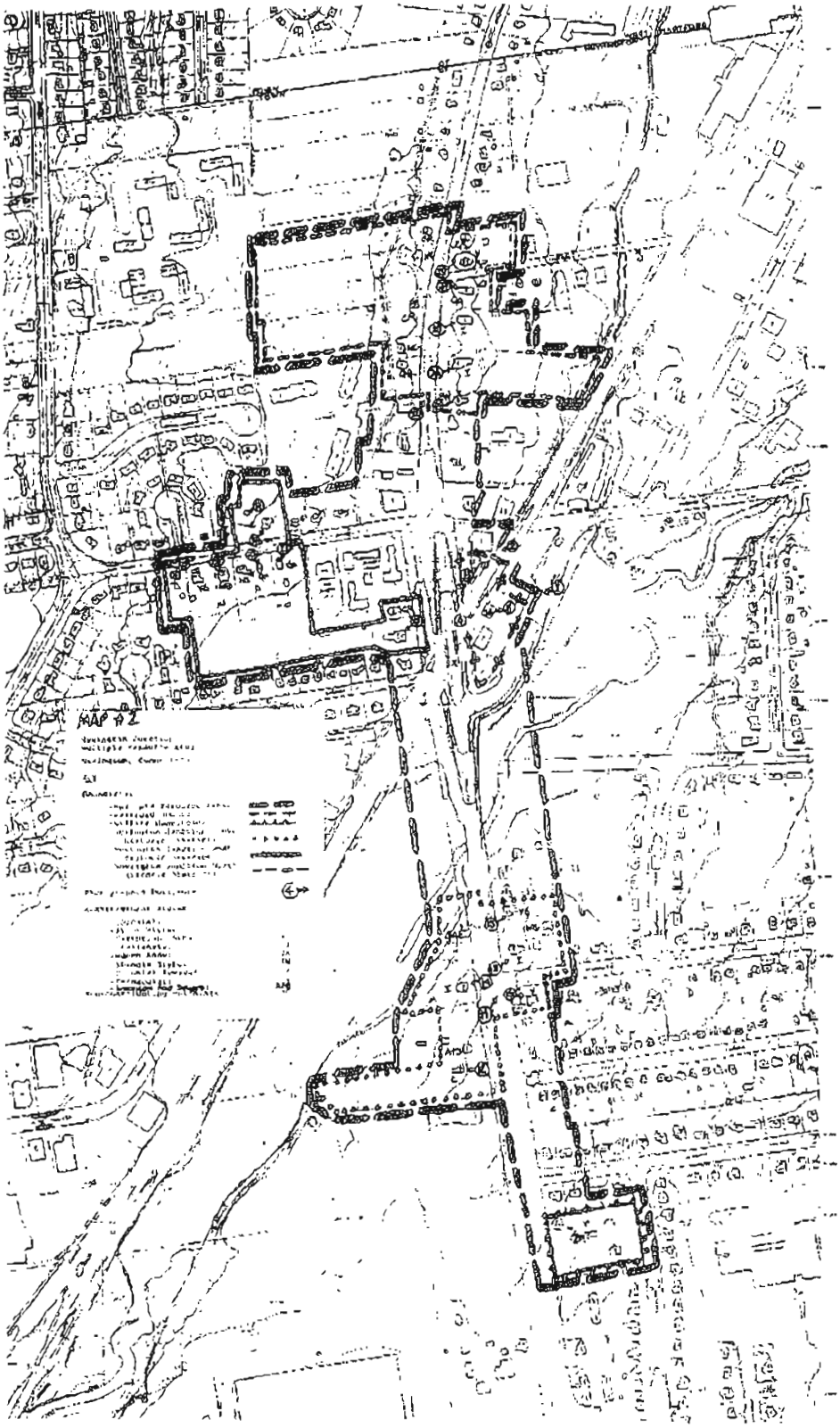
View to Southwest



View to North



Cashway Lumber Building



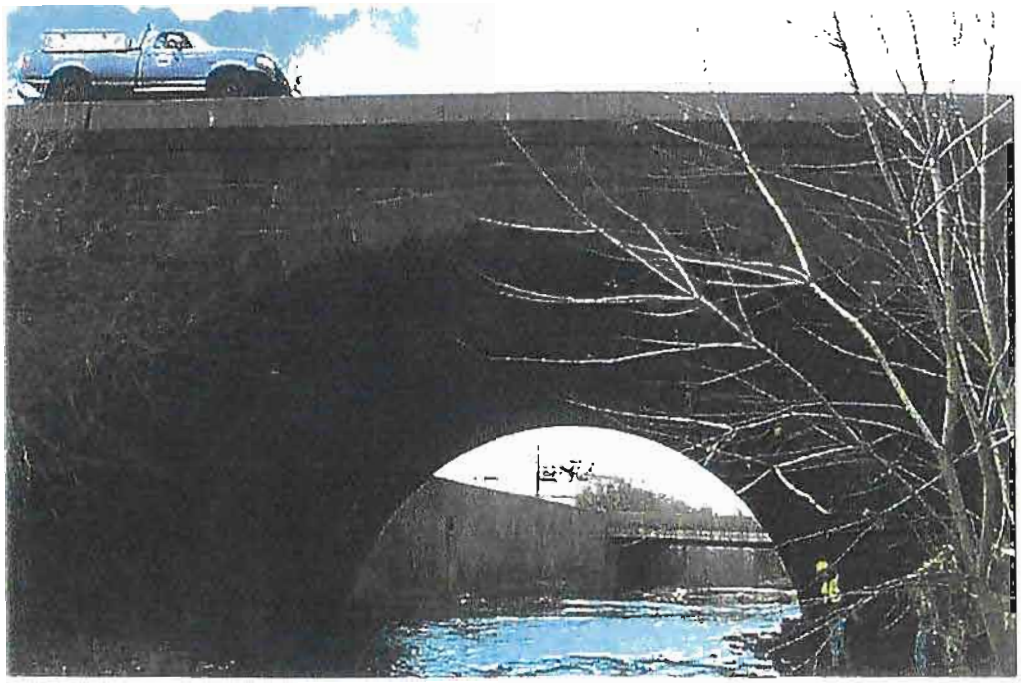
Newington Junction Multiple Resource Area Map

B.2 AMTRAK BRIDGE OVER TROUT BROOK

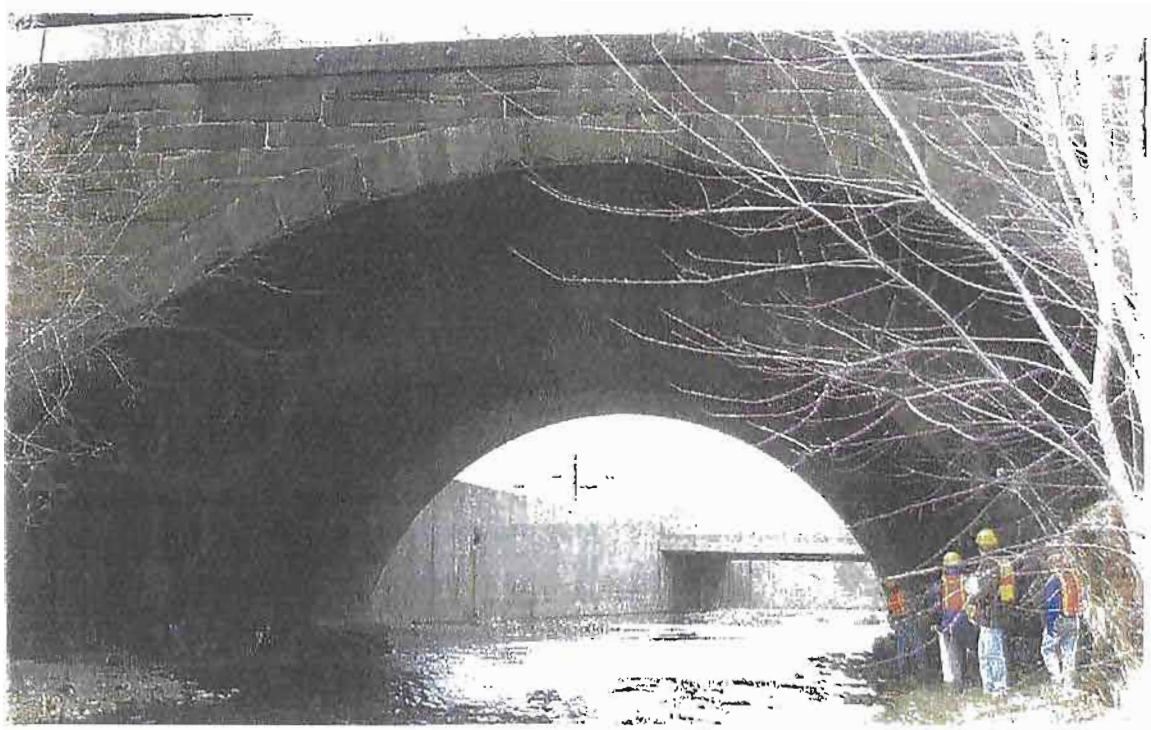
View to West

View to East

Underside Close-up View of Concrete and Brick Arches



View of Trout Brook to West



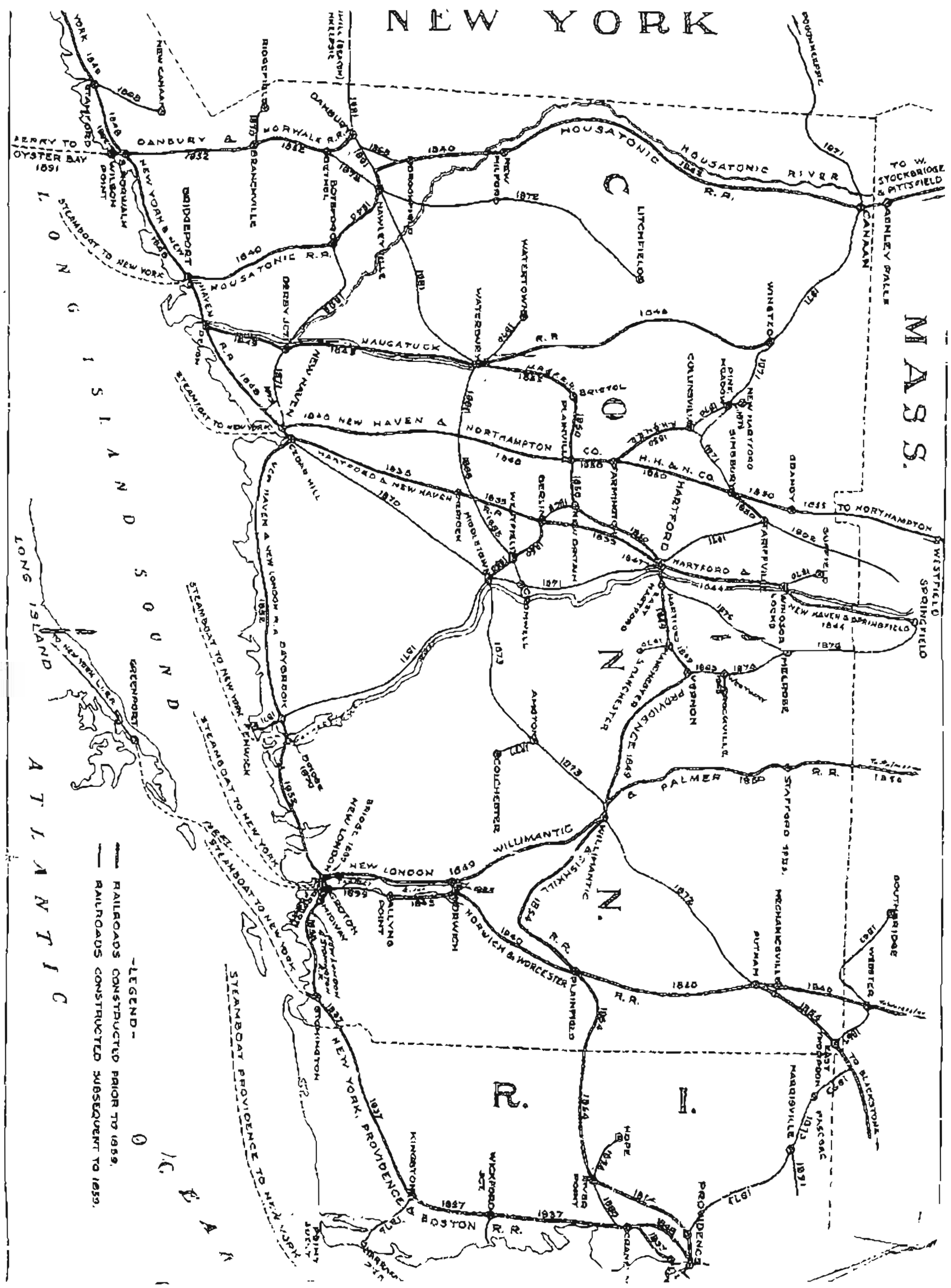
View of Trout Brook to West

B.3 AMTRAK CULVERT OFF CAPITOL AVENUE (WITHIN I-84/SISSON INTERCHANGE)

View to North

View to South

B.4 RAILROADS OF CONNECTICUT



MAP OF CONNECTICUT, SHOWING THE RAILROAD ROUTES AND THE DATES OF THEIR OPENING