



# Chapter 5

## System Integration Plan

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An integral part of the commuter rail service would be the integration with other freight service on the line, passenger rail service both on the line and connecting, and connecting bus services.

### **5.1 Freight Integration**

While the Springfield Line is an important passenger corridor and can become more so with provision of frequent commuter service during peak travel times, freight service remains an important consideration. The freight service is provided by short line carriers, operating over the line under contractual agreements with Amtrak, which owns the route. The simulations of passenger and freight service confirmed that freight service would need to be operated at times other than the prime commuter hours. Building a commuter and intercity service pattern with frequent trains in each direction make it impractical to run slower freight trains during the period from about 5:30 AM to 9:00 AM, and again from about 3:00 PM to 7:00 PM. Freight service often requires the trains to sit on the main line while switching cars into and out of industrial tracks, and unless the entire line is rebuilt as double track, too many conflicts will occur. However, there are opportunities to move freight over the line during the mid-day hours, particularly for through service between Springfield and New Haven or Springfield and Berlin that does not require switching en-route. After 7:00 PM, the railroad will only see occasional passenger train moves that can be operated together with freight service. Some shortline switching operations that now take place during the mid-day hours will need to be shifted to later time slots. This, of course, is a matter of negotiation between Amtrak and the short line freight carriers, and will need to be reviewed with industrial shippers along the line.

The track additions outlined for the implementation of the initial commuter service are those needed for dependable passenger operation during the busy morning and evening peak travel periods. If it is impossible to shift the local freight movements to a late evening time frame, additional trackage will be needed to accommodate those freight moves along with the planned passenger service.



## **5.2 Connecting Bus Services**

Bus connections would be provided to and from New Haven – Hartford – Springfield rail service at all of the stations included in the Recommended Action. Bus connections would be provided by modifications to existing routes, new routes that will be implemented as part of the New Britain – Hartford Busway, and one new route. The following sections provide an overview of all of these connecting bus services. For routes where alignment, span of service, or frequency changes would be made, those changes are also described.<sup>3</sup>

### **5.2.1 State Street and New Haven Union Stations**

In New Haven, all existing bus services are focused on downtown (see Figure 5-1). Most existing routes—all but five—also serve either Union or State Street stations. With New Haven – Hartford – Springfield rail, changes would be made to the three of the five routes to provide additional connections (see Figure 5-2). Frequency changes would also be made to three other routes to make connections more convenient. With these changes, six routes would provide connections at Union Station and eight routes would provide connections at State Street Station:

#### *State Street Station*

- C North Haven
- D Grand Avenue & D Dixwell Avenue
- F East Haven & F West Chapel Street
- G Shelton Avenue/East Chapel Street
- Q State Street/Edgewood Avenue
- Z Goffe Street/Sargent Drive
- Commuter Connection: Downtown NH (AM)
- Commuter Connection: Sargent Drive (AM)

#### *Union Station*

- B Whalley Avenue & B Congress Street
- J Whitney Avenue & J Kimberly Avenue
- M Washington Avenue/State Street
- Commuter Connection: Downtown NH (PM)
- Commuter Connection: Sargent Drive (PM)
- Coliseum Parking Shuttle

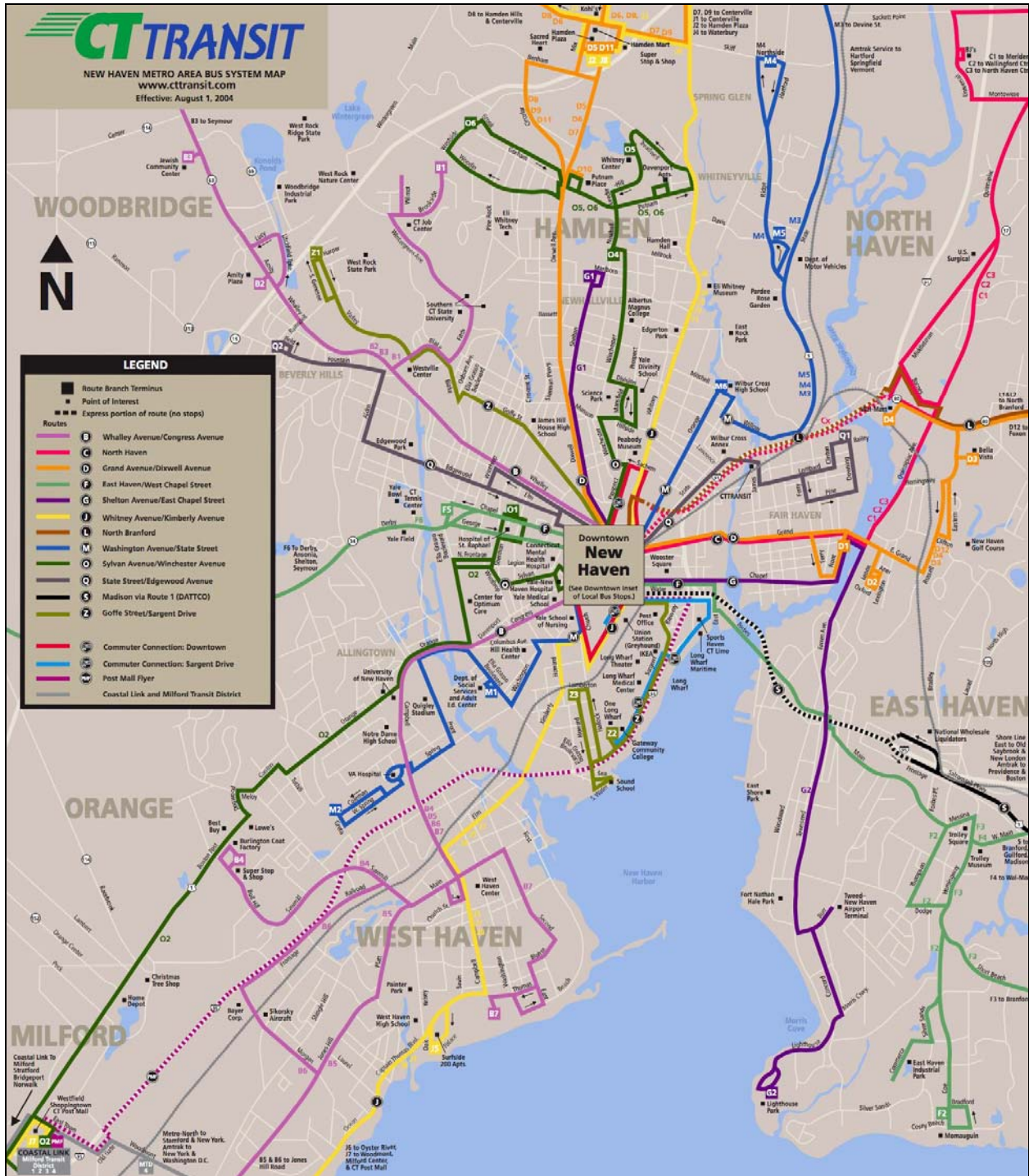
*B Whalley Avenue & B Congress Avenue* - Route B's four southern variations (B4, B5, B6, and B7) would be re-routed via Union Station. Since all southern variation trips are through-routed with northern variation trips (B1, B2, and B3), this change would provide connections to Union Station from both the north and the south.

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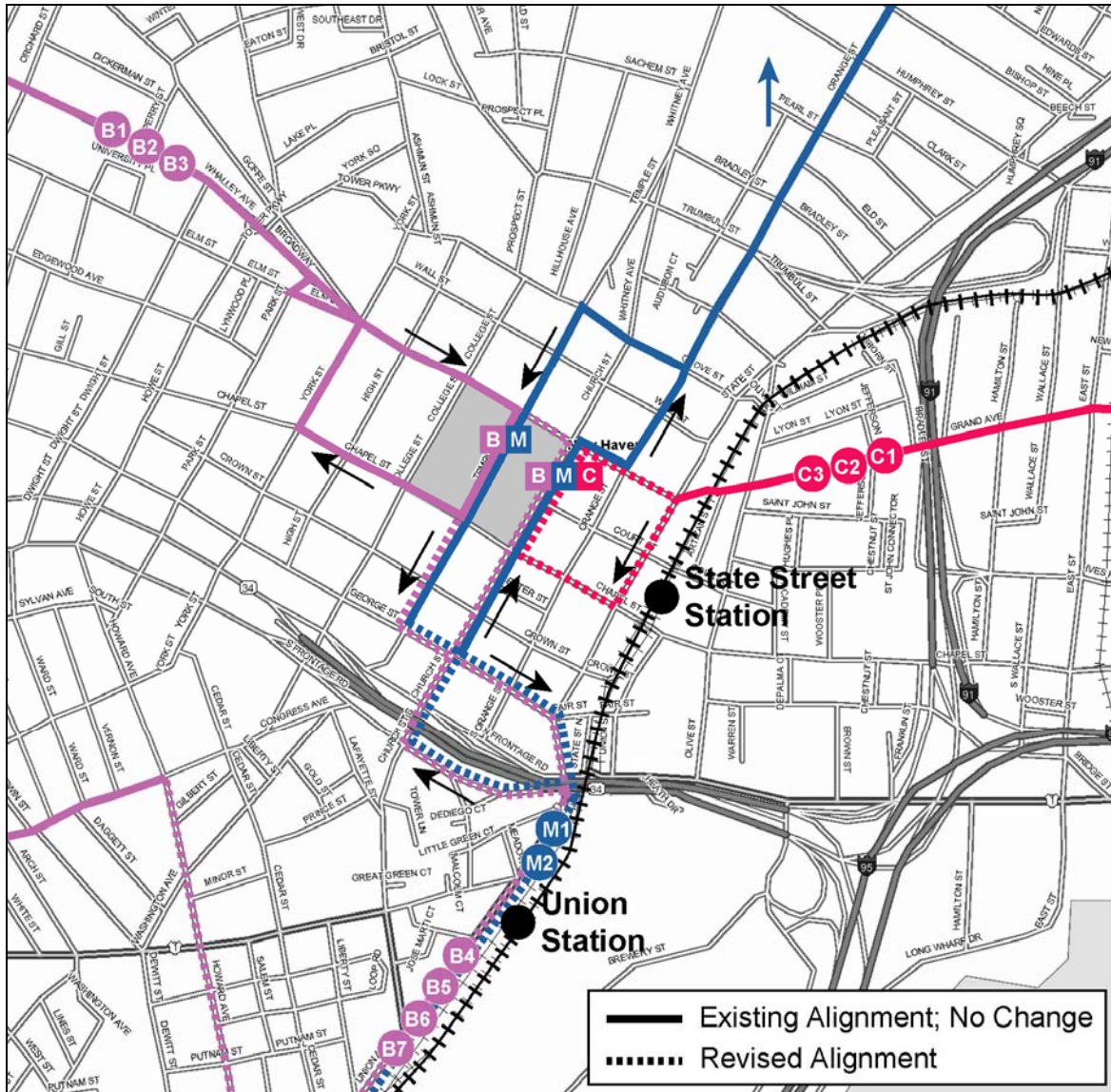
<sup>3</sup> Unless otherwise noted, spans of service and service frequencies would remain as at present.



Figure 5-1  
CTTransit New Haven Service



**Figure 5-2  
CTTransit New Haven Alignment Changes**



*Note: Only routes with revised alignments are shown.*

*C North Haven - CTTRANSIT-New Haven's Route C, which operates between Meriden and New Haven, would parallel the rail line in a number of areas but would be maintained in order to continue service to local stops between rail stations. However, a number of changes would be made Route C to simplify route operations, and to provide connections at Wallingford, North Haven and State Street stations:*

- All C1 service would operate between the Kohl's Terminus in Meriden and downtown New Haven. At Wallingford Station, to provide more convenient connections, the route would be revised slightly to operate into the station.



- All C1x service would operate between the Kohl's Terminus in Meriden and downtown New Haven.
- All C2x service would operate between Route 5 and Cedar Lane and downtown New Haven as a short-turn of C1x.
- All C3 service would operate as C3x between North Haven Station and downtown New Haven.

*D Grand Avenue/Dixwell Avenue* - Route D, which operates between East Haven and Hamden via downtown New Haven and Station Street Station, would continue to operate along its current alignment.

*F East Haven/West Chapel Street* - Route F, which operates between East Haven and Orange via downtown New Haven and State Street Station, would continue to operate along its current alignment.

*G Shelton Avenue/East Chapel Street* - Route G, which operates between East Haven and downtown New Haven via State Street Station, would continue to operate along its current alignment.

*J Whitney Avenue/Kimberly Avenue* - Route J, which operates between Hamden and New Haven, would continue to operate along its current alignment via Union Station.

*M Washington Avenue/State Street* - The M1 and M2 Washington Avenue variations of Route M, which operates between Orange and Hamden via downtown New Haven, would be re-routed via Union Station. Combined with the continued through-routing of these Washington Avenue variations with Street variations (M3, M4, M5, and M6), nearly all service would operate via Union Station.

*Q State Street/Edgewood Avenue* - Route Q State Street/Edgewood Avenue, which operates within New Haven via State Street Station, would continue to operate along its existing alignment.

*Z Goffe Street/Sargent Drive* - The Z1 variation of Route Z, which operates within New Haven, would be extended from State and Chapel Streets to State Street Station.

*Commuter Connection: Downtown New Haven* - The Commuter Connection Downtown New Haven route, which operates between the Union and State Street Stations and downtown New Haven, would continue to operate along its existing alignment.

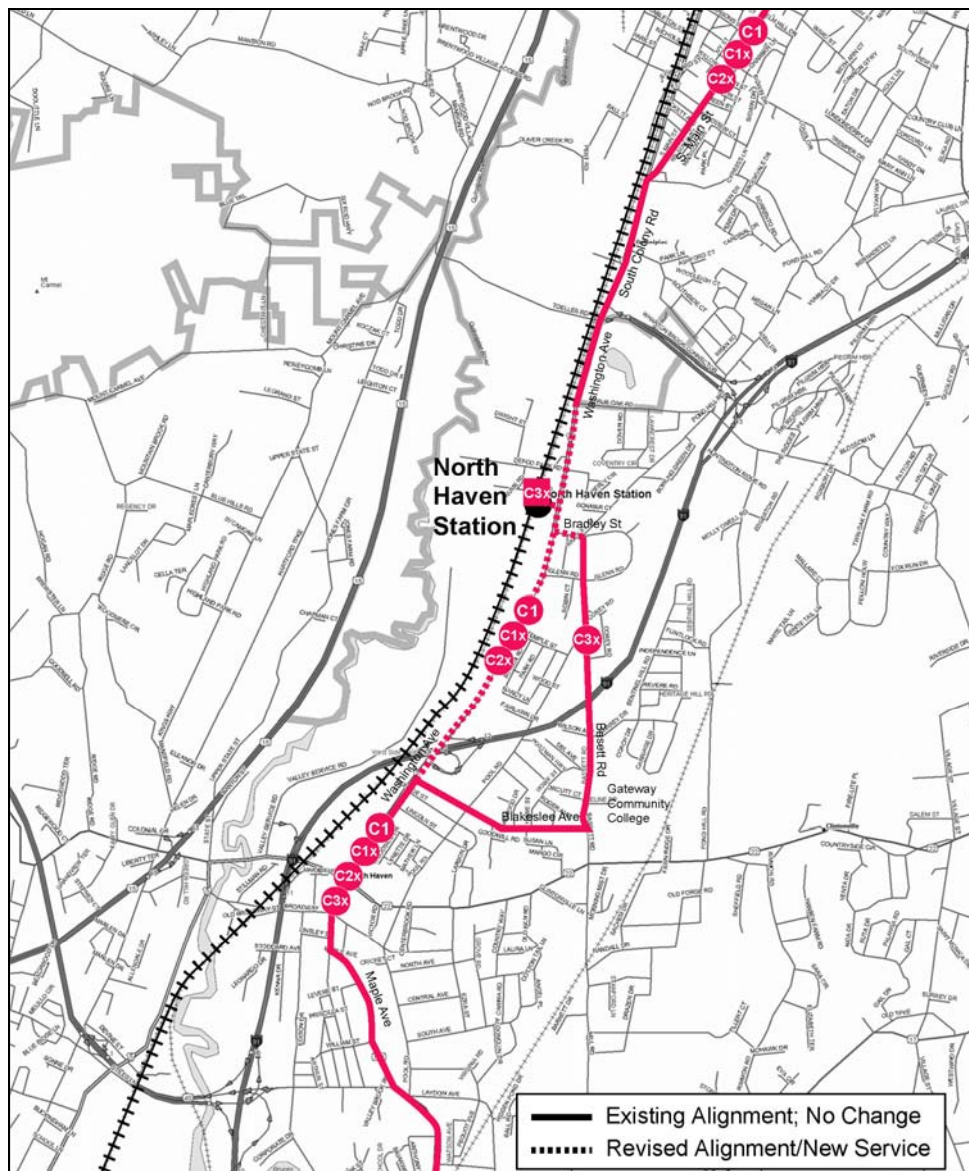
*Commuter Connection: Sargent Drive* - The Commuter Connection Sargent Drive route, which provides service between Union and State Street Stations and Gateway Community College, Long Wharf Maritime, and the Sport Haven, would continue to operate along its existing alignment.

*Temple Street Garage Parking Shuttle* - The Temple Street Garage Parking Shuttle, which is a shuttle between the Temple Street Parking Garage and Union Station for Union Station park and ride commuters, would continue to operate along its existing alignment.

### 5.2.2 North Haven Station

North Haven Station would be served by one route: CTTRANSIT's C North Haven. Changes to this route would be as described above in the New Haven Stations section. Service in the vicinity of North Haven station would be as shown in Figure 5-3.

**Figure 5-3**  
**Connecting Bus Service at North Haven Station**

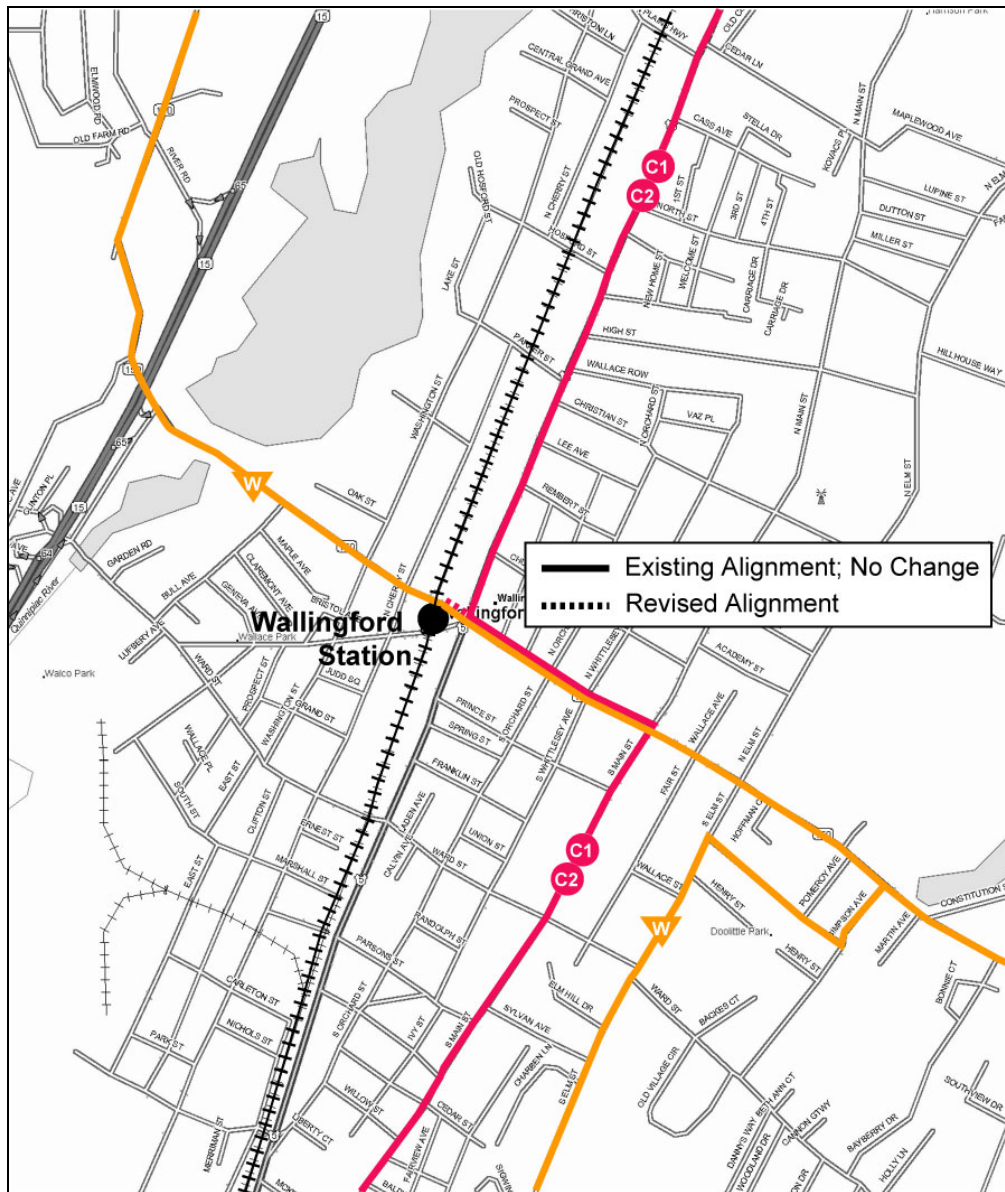


### 5.2.3 Wallingford Station

Wallingford Station would be served by two routes (see Figure 5-4):

- CTTRANSIT-New Haven’s Route C North Haven
- CTTRANSIT-Wallingford’s Wallingford route

**Figure 5-4**  
**Connecting Bus Service at Wallingford Station**



*C North Haven* - All Route C trips, which operate between Meriden and New Haven, would be routed via State Street Station. Additional changes, as described in the New



Haven Stations section, would also be made to simplify route operations, and to provide local connections at Wallingford and North Haven stations.

*W Wallingford Local* - CTTRANSIT-Wallingford's Wallingford Local route, which operates between Burke Heights and the Route 5 K-Mart shopping center via Wallingford Station, would continue to operate along its current alignment. With New Haven – Hartford – Springfield commuter rail, to provide peak period connections in both directions, the span of service would be extended to approximately 6:30 am to 6:30 pm. Service would continue to operate every 60 minutes.

#### **5.2.4 Meriden Station**

Meriden Station acts as the hub for CTTRANSIT-Meriden's three routes (see Figure 5-5):

- Route A Yale Acres
- B Kohl's – South Meriden
- C East Main Street – West Main Street

All routes would continue to operate without any alignment changes and would continue to serve Meriden Station. However, service would be extended to 6:00 or 6:30 pm to allow rail commuters to make pm peak connections. Service frequencies on Route C would also be improved.

*A Yale Acres* - Route A, which operates as a loop serving areas north of downtown Meriden including Yale Acres, Meriden Square, Westfield Shopping Town, and the Midstate Medical Center, would continue to operate along its existing alignment. Service currently operates every 60 minutes from 6:30 am to 4:30 pm. Current frequencies would be maintained, but to provide pm peak connections for commuters, service in the evening would be extended to add 5:30 pm and 6:30 pm departures.

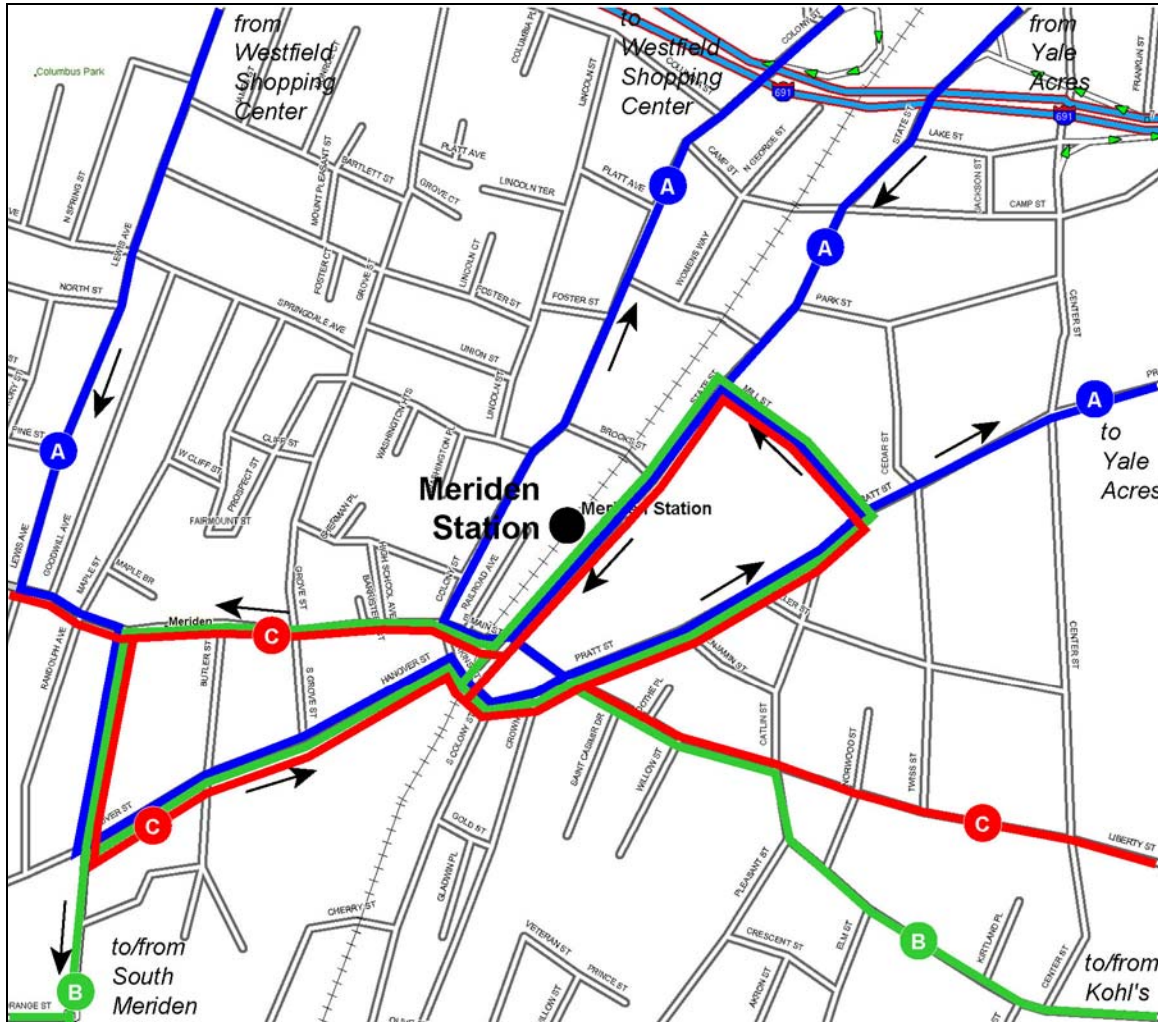
*B Kohl's – South Meriden* - Route B serves areas in southern Meriden Veteran's Memorial Medical Center (VMMC) West Campus as well as Kohl's Plaza. Connections can be made with CTTRANSIT's Route C North Haven at Kohl's Plaza. Service would continue to operate along this existing alignment. Service currently operates every 60 minutes from 6:30 am to 5:30 pm. Current frequencies would be maintained, but to provide pm peak connections for commuters, service in the evening would be extended to add a 6:30 pm departure.

*C East Main Street – West Main Street* - Route C operates along East and West Main Streets including stops at VMMC's East Campus and Centennial Plaza. There are two distinct segments to this route: one that operates along East Main Street, and another that operates along West Main Street. Service to East Main Street operates departs from Meriden Station every 45 to 75 minutes between 6:30 am and 5:30 pm. With New Haven – Hartford – Springfield rail, to provide pm peak connections for commuters, and more consistent headways, service would be reconfigured to operate every 60 minutes between 6:30 am and 6:30 pm. Service to West Main Street currently operates departs from



Meriden Station every 60 to 90 minutes between 8:00 am and 5:00 pm. With New Haven – Hartford – Springfield rail, to provide pm peak connections and more consistent headways, service would be reconfigured to operate every 60 minutes between 7:00 am and 6:00 pm.

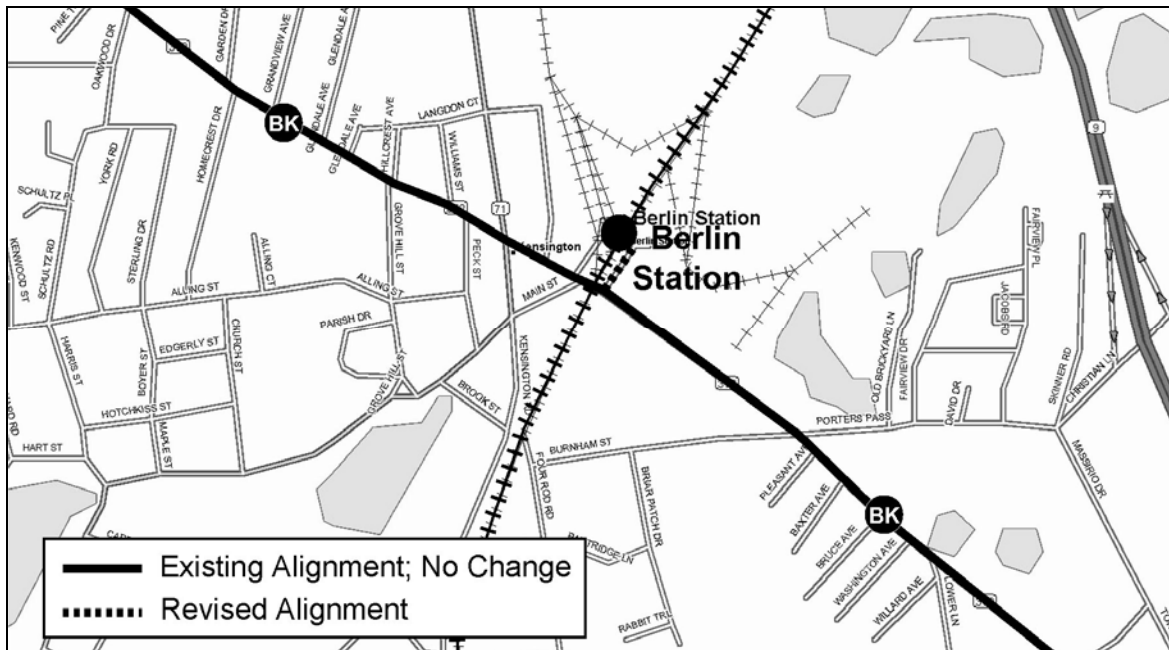
**Figure 5-5**  
**Meriden Transit District Meriden Station Service**



### 5.2.5 Berlin Station

Berlin Station would be served by one route: CTTRANSIT-New Britain's BK Berlin/Kensington route. Alignment, span of service, and frequencies changes would be made to provide these connections (see Figure 5-6).

**Figure 5-6**  
**CTTransit – New Britain Berlin Station Service**



*NBT BK Berlin Kensington/Berlin Turnpike* - CTTRANSIT-New Britain’s Route BK currently operates along Farmington Avenue straight past Depot Road near the proposed site for Berlin Station. With the New Britain – Hartford Busway, Route BK will be extended to Hartford via the busway. It will also be modified to eliminate the unproductive Basset/Ellis, Harris, and Worthington Ridge Loops in order to provide direct service between Webster Square Plaza, Kensington, Willowbrook Park and New Britain. The weekday service span will be extended to 5 am to 9 pm, and service frequencies improved to every 30 minutes during peak periods and every 60 minutes during off-peak periods.

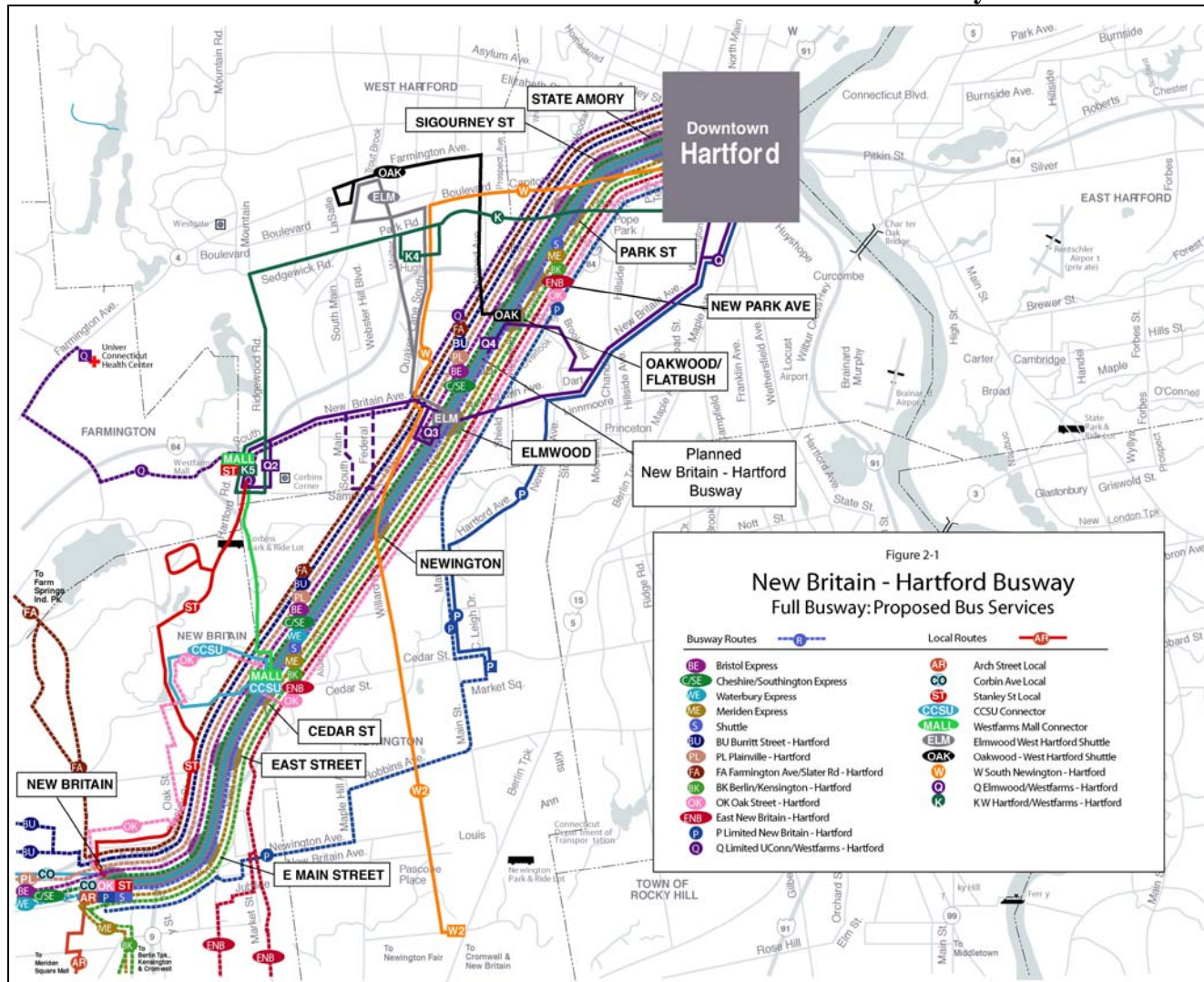
With the development Hew Haven – Hartford – Springfield rail service, and the development of Berlin Station, the route would also be modified to deviate off of Farmington Avenue along Depot Road to and from Berlin Station.

**5.2.6 Newington Station**

Newington Station would be served by CTTRANSIT’s W Capitol Avenue route, as well as by all services operating on the New Britain – Hartford Busway (see Figure 5-7):

- W2 Capitol Avenue/Veteran’s Hospital
- New Britain – Hartford Busway Shuttle
- BK Berlin/Kensington Local
- BU Burritt Street Local

**Figure 5-7**  
**Services associated with the New Britain – Hartford Busway**





- ENB East New Britain Local
- FA Farmington Avenue
- OK Oak Street
- PL Plainville Local

*W Capitol Avenue* - With the New Britain – Hartford Busway, the W2 Veteran’s Hospital variation of Route W, which will operate between Willard Avenue in Newington and Union Station via Newington Station. This change will extend local bus service into South Newington to serve apartment complexes on Willard Avenue, retail on the turnpike and employment on Louis Street. The part time variations to Fenn Road and Newington Center will also be eliminated. On weekdays, service will operate from 5 am to 11 pm, every 30 minutes during peak periods and every 60 minutes during the rest of the day.

*New Britain – Hartford Busway Shuttle* - The New Britain – Hartford Busway Shuttle will operate entirely within the New Britain – Hartford Busway, and will stop at all busway stations. Weekday service will operate from 5 am to 11 pm, with 15 minutes peak period headways and 30 minutes off-peak headways.

*BK Berlin/Kensington Local* - With the New Britain – Hartford Busway, CTTRANSIT-New Britain’s BK route will be simplified based on the findings and advice of the Statewide Bus System Study. The unproductive Basset/Ellis, Harris, and Worthington Ridge Loops will be eliminated to provide direct service between Webster Square Plaza, Kensington, Willowbrook Park, and New Britain. After the morning peak the route will be extended to include the 30 minute Wal-Mart, Home Depot, Lowes, Ames, Toys R Us loop. Service will also be extended to Hartford via the busway, with Route BK stopping at all busway stations. Weekday service will operate from 5 am to 9pm, every 30 minutes during peak periods, and every 60 minutes during the rest of the day.

*BU Burritt Street Local* - With the New Britain – Hartford Busway, CTTRANSIT-New Britain’s B Burritt Street route will be extended from downtown New Britain along the busway to Hartford’s Union Station. In New Britain, Route BU’s alignment will be the same as for the current NBT Route B. This route will stop at all busway stations. Weekday service will operate from 5 am to 9 pm, with 30 minute headways throughout the day.

*ENB East New Britain Local* - Route ENB East New Britain Local will be a new busway route designed to transport workers to jobs along John Downey Drive and to carry commuters from the East Street/Buena Vista corridor to jobs along the busway. The route will enter the busway at East Street Station, and then make all stops between there and Union Station. Weekday service will operate from 5 am to 9 pm, with 30 minute headways throughout the day.

*FA Farmington Ave Local* - With the New Britain – Hartford Busway, CTTRANSIT-New Britain’s F Farmington Avenue route will be extended from downtown New Britain along the busway to Hartford’s Union Station. This route will stop at all busway stations. In New Britain, Route FA’s alignment will be the same as for the current NBT Route F. Weekday service will operate from 5 am to 9 pm, with 30 minute headways throughout the day.



*OK Oak Street Local* - With the New Britain – Hartford Busway, CTTRANSIT-New Britain’s O Oak Street route will be modified and extended from downtown New Britain along the busway to Hartford’s Union Station. In addition, local service will re-routed away from Westfarms Mall to the busway at Cedar Street Station in order to provide access from northeast New Britain and to downtown New Britain via local streets. The unproductive Eddy Glover loop of the existing Oak Street service will also be eliminated. This route will stop at all busway stations except East Street. Weekday service will operate from 5 am to 9 pm, with 30 minute headways throughout the day.

*PL Plainville Local* - With the New Britain – Hartford Busway, CTTRANSIT-New Britain’s PL Plainville route will be modified and extended from downtown New Britain along the busway to Hartford’s Union Station. Alignment changes on the local portion of the route will be to simplify the route based on recommendation in the Statewide Bus Study. This route will stop at all busway stations. Weekday service will operate from 5 am to 9 pm, with 30 minute headways throughout the day.

### **5.2.7 Hartford Union Station**

Union Station would be Hartford’s major hub for New Haven – Hartford – Springfield rail service. At this location, bus service would be designed to provide connections to the ten highest ridership local routes, to other routes that already operate to, from, or via Union Station, and to planned New Britain – Hartford Busway routes:

CTTRANSIT-Hartford routes:

- A Asylum Ave/Hillside Ave
- B Silver Lane
- E Farmington Ave
- F Ashley St/Broad St
- K North Main St/Park St
- Q Vine Street/New Britain Ave
- T Franklin Ave/Blue Hills Ave
- U Wethersfield Ave/Albany Ave
- YM Burnside Ave/Manchester
- Z Tolland Turnpike
- S Granby Street/Garden Street

New Britain – Hartford Busway Services:

- BE Bristol Express
- CSE Cheshire/Southington Express
- WE Waterbury Express
- ME Meriden Express
- New Britain – Hartford Busway Shuttle
- BK Berlin/Kensington
- BU Burrill Street



- ENB East New Britain Local
- FA Farmington Avenue
- OK Oak Street
- P New Britain Limited
- PL Plainville Local
- Q UConn Limited

Of CTTRANSIT-Hartford's top ten ridership routes, three currently operate via Union Station. For the other seven, the Hartford terminal would be shifted to Union Station to provide connections to and from New Haven – Hartford – Springfield rail. In addition, CTTransit-Hartford's S route also provides service to the station. The necessary route changes are described below and shown in Figure 5-8.

*A Asylum Ave/Hillside Ave* - Route A, which operates between West Hartford and Wethersfield via downtown Hartford and Union Station, would continue to operate along its existing alignment.

*B Silver Lane* - Route B Silver Lane provides service between Manchester and Hartford. To provide connections at Union Station, Route B's Hartford terminal at Market Street would be relocated to Union Square.

*E Farmington Ave* - Route E Farmington Ave, which operates between Farmington and downtown Hartford via Union Station, would continue to operate along its existing alignment.

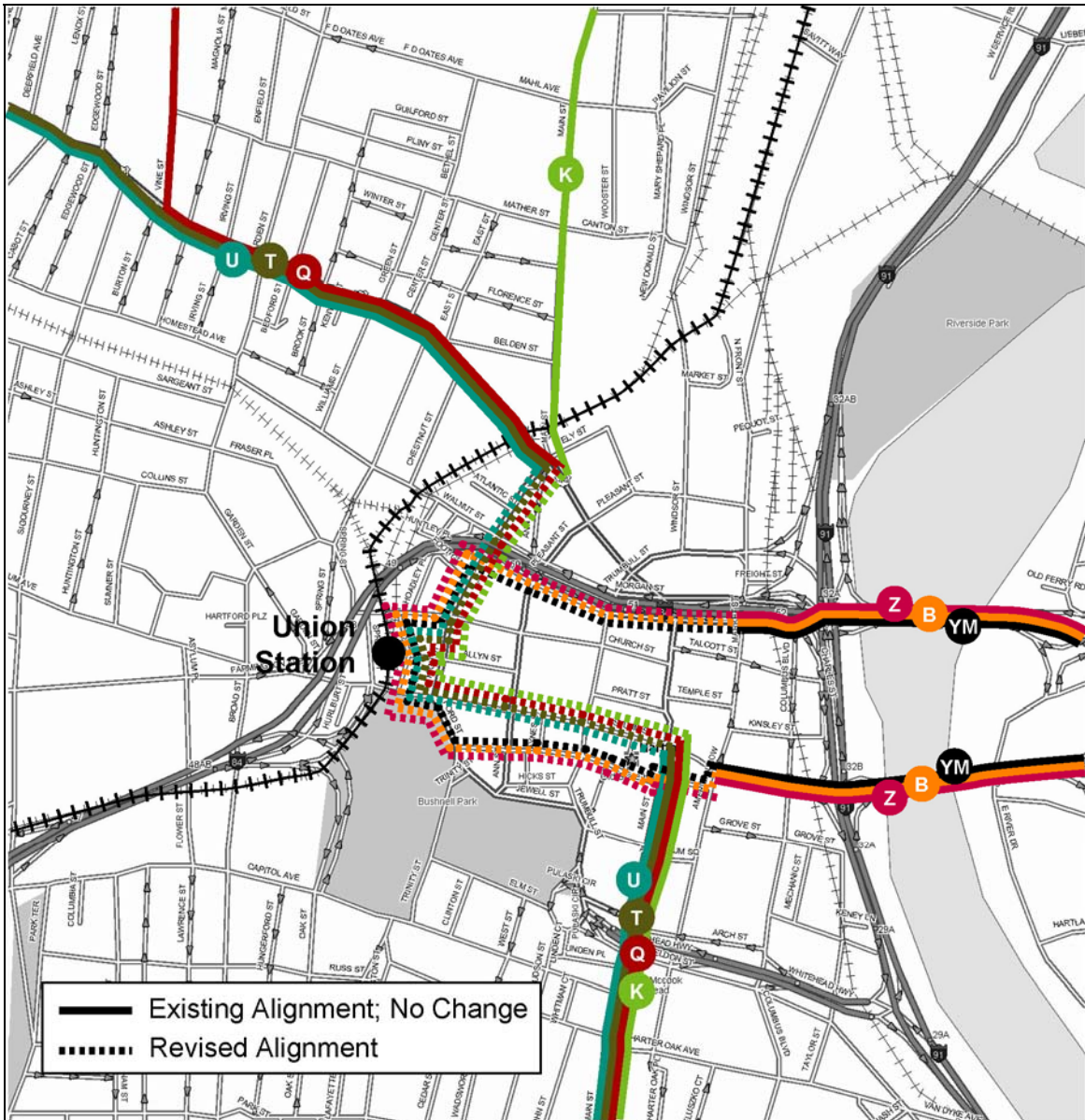
*F Ashley Street/Broad Street* - Route F, which operates between Hartford and Wethersfield via Union Station and downtown Hartford, would continue to operate along its current alignment.

*K North Main St/Park St* - Route K, which provides service between Farmington, West Hartford, Elmwood, Hartford, and Windsor, is one of CTTRANSIT-Hartford's highest ridership routes (carrying approximately 4,500 passengers per weekday). To provide connections to Union Station, Route K's inner terminal would be moved from Main Street to Union Station

*Q Vine Street/New Britain Avenue/Westfarms Flyer* - Route Q provides service between Westfarms Mall, West Hartford, downtown Hartford, and the Blue Hills area of Hartford. To provide connections to Union Station, Route K's inner terminal would be moved from Main Street to Union Station.

*T Franklin Avenue/Blue Hills Avenue* - Route T Franklin Avenue/Blue Hills Avenue operates between Bloomfield and Rocky Hill or Newington via downtown Hartford. As with Routes K and Q, to provide connections to Union Station, Route K's inner terminal would be moved from Main Street to Union Station.

**Figure 5-8**  
**CTTransit – Hartford Alignment Changes**



*Note: Only routes with revised alignments are shown.*

*U Wethersfield Ave/Albany Ave* - Route U operates between Wethersfield and Bloomfield via downtown Hartford. In the same manner as with Routes K, Q, and T, direct connections could be provided to and from Union Station by relocating Route U's downtown Hartford terminal from Main Street to Union Station:

*YM Burnside Ave/Manchester* - Route YM operates between Manchester with downtown Hartford via East Hartford. Service currently terminates on Market Street in downtown



Hartford. To provide connections to New Haven – Hartford – Springfield rail, Route YM would be extended to Union Station.

*Z Tolland Turnpike* - Route Z provides service between Rockville and downtown Hartford via Manchester and East Hartford, including stops at Buckland Hill Mall. All service currently terminates on Market Street in downtown Hartford. To provide connections to Union Station, Route Z would be extended to Union Station in a similar manner as Route B Silver Lane and YM Burnside Avenue/Manchester.

*S Granby Street/Garden Street* - Route S Granby Street/Garden Street has two variations, both of which operate north of downtown: S1 Granby Street – Seabury, and S2 Garden Street –Charlotte Street. S1 Granby Street – Seabury operates via Union Station, but S2 does not. Most peak period, peak direction S1 trips are interlined with S2 Garden Street trips, which provide connections to Union Station on those interlined trips. Most off-peak S2 trips are not interlined, meaning that direct connections to Union Station would not be possible on those trips.

All New Britain – Hartford Busway routes would operate to and from Hartford’s Union Station. These routes will be as follows (see also Figure 5-7):

*Express Routes*

- BE Bristol Express
- CSE Cheshire/Southington Express
- ME Meriden Express
- WE Waterbury Express

*CTTRANSIT-Hartford Routes*

- P New Britain/Newington Limited
- Q New Britain Avenue Limited
- W2 Capitol Avenue/Veteran’s Hospital

*CTTRANSIT-New Britain Routes*

- New Britain – Hartford Busway Shuttle
- BK Berlin/Kensington Local
- BU Burritt Street Local
- ENB East New Britain Local
- FA Farmington Avenue
- OK Oak Street
- PL Plainville Local

Descriptions of the CTTransit – New Britain routes were described previously in the Newington Station section. Descriptions of other New Britain – Hartford Busway routes are as follows:





*BE Bristol Express* - The Route 43 Bristol Commuter Express will be redesignated as BE Bristol Express<sup>4</sup> and rerouted to operate via the busway, and will operate the entire length of the busway. The route will stop in New Britain for trips destined for New Britain and to provide connections to other routes, and then operate express between New Britain and Aetna Station. Weekday service will be provided from 5:00 am to 11:00 pm, with 15 minute peak period headways and 30 minute off-peak headways.

*CSE Cheshire/Southington Express* - The Route 41 Cheshire/Southington Express will be redesignated as CSE Cheshire/Southington Express and rerouted to operate via the busway, and will operate the entire length of the busway. As with the BE Bristol Express, the route will stop in New Britain, and then operate express between New Britain and Aetna Station. Weekday service will be provided from 5:00 am to 11:00 pm with service every 30 minutes during peak periods and every 60 minutes during off-peak periods.

*WE Waterbury Express* - The WE Waterbury Express will be a new route designed to serve travel between Waterbury, New Britain, and Hartford. The Waterbury Express will make stops in downtown Waterbury, a park-n-ride lot east of Waterbury, New Britain and downtown Hartford. As with all New Britain – Hartford Busway express routes, Route WE will operate express from New Britain Station to Aetna Station.

*ME Meriden Express* - The ME Meriden Express will replace the existing Meriden route that operates via I-91 to Hartford with a more westerly routing using the Chamberlin Highway (Route 71) to New Britain. The new route will provide express service from downtown Meriden and Kensington to New Britain and Hartford. Weekday service will be provided from 5:00 am to 11:00 pm with service every 30 minutes during peak periods and every 60 minutes during off-peak periods.

*P New Britain/Newington Limited* - Route P New Britain/Newington Limited will be a new variation of the existing Route P service that will provide express service to Hartford from Newington. Weekday service will be provided from 5:00 am to 11:00 pm, with 30 peak period headways and 60 minute off-peak headways.

*Q New Britain Avenue Limited* - A new variation of the existing Route Q service, the Route Q express, will provide local service between UConn Medical Center, Westfarms Mall and Elmwood along the existing Route Q alignment, and then use the busway to travel to downtown Hartford. Weekday service will be provided from 5:00 am to 11:00 pm, with 30 minute peak period headways and 60 minute off-peak headways.

*W Capitol Avenue* - As described in the “Other CTTRANSIT Routes” section above, the W2 Veteran’s Hospital variation of Route W, which currently terminates at the Veteran’s Hospital, will be extended to the southern end of Willard Avenue in Newington, and the part time variations to Fenn Road and Newington Center will be eliminated. On weekdays, service will

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<sup>4</sup> The route nomenclatures used in this section are those used in the New Britain – Hartford Busway EIS.