

URS

MEETING REPORT

Client: CTDOT
Job Number: 171-366
Project Name: Central Connecticut Rail Study
Issue Date: June 6, 2013
Location: CTDOT Training Center
Newington, CT

Central Connecticut Rail Study Alternatives Development Workshop May 13, 2013 – 9:00 AM to 12:00 PM

A technical workshop for the Central Connecticut Rail Study (CCRS) was held on May 13, 2013 at the Connecticut Department of Transportation (CTDOT) Training Center in Newington. The purpose of this workshop was to discuss the operational and technical aspects of the preliminary long list of alternatives for the CCRS and to refine/finalize the long list of alternatives to move forward for further evaluation. The following is a report of this meeting:

Agenda:

1. Introductions
2. Study Overview and Meeting Purpose
3. Alternatives Review
 - a. No Build
 - b. Transportation System Management (TSM)
 - c. Build
 - i. Bus Rapid Transit (BRT)
 - ii. Light Rail Transit (LRT)
 - iii. Heavy Rail
 1. Commuter Service
 2. Intercity Service
4. Station Locations
5. Next Steps

Presentation and Discussion:

Mr. Andy Davis of CTDOT opened the workshop by giving an overview of the CCRS. He explained that this study focused on the rail corridor owned by PanAm between Waterbury and Berlin. This study must consider a host of alternatives if the CTDOT intends to seek funding for improvements in the corridor in the future. The purpose of the workshop is to look at technical issues surrounding the three build alternatives: bus rapid transit, light rail transit, and heavy rail as well as at potential station locations. Policy issues regarding these alternatives will be discussed at the upcoming Study Advisory Committee (SAC) meeting in June.

Stephen Gazillo from URS Corporation then took over the presentation, giving a brief overview of the regional context of the Study Corridor in terms of both passenger and freight rail service. He also gave an overview of the overall CCRS schedule, explaining that immediate next steps will be to hold SAC and public meetings to present the outcomes from this workshop and then to evaluate alternatives over

the summer. After a brief overview of the no-build and transportation system management (TSM), Mr. Gazillo moved on to an overview of the build alternatives, giving the following highlights:

Bus Rapid Transit (BRT)

- This would be an extension of CTfastrak and would offer service via a dedicated bus right-of-way (ROW) from Waterbury to New Britain.

Where is the BRT station in New Britain?

- At the corner of Columbus and Main Streets.

How would ESPN link into this service?

- Route 229 offers the closest link to the corridor. Shuttles would need to run between ESPN and the corridor, though it is unclear at this point whether shuttles would be run by CTTRANSIT or be offered directly by ESPN.

Would this alternative link directly to CTfastrak?

- Yes. Thus, there is the potential for a one-seat ride. This alternative would also be compatible with existing express routes (such as those serving Cheshire and Southington), which could feed into the ROW.

Can the busway run to the train station in Waterbury?

- The dedicated busway ROW will need to terminate north of the station. Once off the ROW, most buses will go to the Waterbury Green, which is the main bus pulse point in the city. Some buses, however, will service the rail station in order to offer a direct connection.

Light Rail Transit (LRT)

- Service along existing right-of-way on separate, newly constructed tracks
- Modern streetcar service could include a combination of in-street running and dedicated right-of-way
- Conceptual Headways: 5-minute peak / 30-minute off-peak / Hourly weekend
- Vehicle Types:
 - Alternative 2A: Electric
 - Alternative 2B: Diesel

Heavy Rail

- Restore bidirectional passenger rail service
- Diesel rolling stock along refurbished/rebuilt trackage owned by Pan Am Railways
- High-level platforms
- Track Construction Alternatives:
 - Alternative 3A: Single track, bridge replacement
 - Alternative 3B: Single track, bridge rehab
 - Alternative 3C: Double track, bridge replacement
- Commuter Service
 - Bidirectional service between Waterbury and Berlin
 - Connections:
 - Metro-North Waterbury Branch (Waterbury)

- Future NHHS commuter rail service (Berlin)
- CTfastrak (New Britain)
- Conceptual Headways: 30-minute peak / hourly off-peak / two-hourly weekend
- Possible service segments:
 - Waterbury to Bristol Waterbury as an extension of the Waterbury Branch
 - Bristol and Berlin as a connection to Hartford via the NHHS line
- Intercity Service
 - Bidirectional service between Hartford and Bridgeport along Waterbury Branch, Pan Am trackage, and NHHS
 - Conceptual Schedule:
 - Every three hours from 6 AM to 10 PM
 - Service between Waterbury and Bridgeport following Waterbury Branch schedule
 - Service between Berlin and Hartford and between Berlin and New Haven following NHHS schedule

Mr. Gazillo then went through engineering plans for Alternative 1 (BRT) and Alternative 3C (Heavy Rail, double-tracked with bridge replacements).

For the double-tracked alternative, will double platforms be necessary?

- Up-and-overs would be required in Bristol and Berlin.

For double-tracked heavy rail, are the freight crossings a concern like they are for the BRT alternative?

- No. The installation of switches would be able to address the concern. The flyovers would be necessary for BRT and electric LRT.

Are there concerns with fitting LRT in the tunnel? Does diesel LRT include a crash wall?

- There are some concerns about fitting LRT through the tunnel. This is especially true of the electric version of the alternative which would require overhead catenary and a crash wall. A crashwall is not necessary for the diesel alternative, as the LRT would share tracks with the freight service.

Denton County, Texas received a waiver to run lightweight vehicles on heavy rail. This could be a good case study for reference.

- The Study Team will look into this.

The BRT and LRT are similar to what the MBTA has with the Orange Line. Crash walls may not be enough of a separation. It should also be noted that either of these alternatives would largely be denying access to one side of the track. If a customer is not online at the time of construction, installing a flyover after the fact will be more challenging and expensive.

Amanda George from URS then walked through some points of concern within the Study Corridor.

Terryville Tunnel

- BRT would require land acquisitions and in-street running. CTDOT has a hard time instituting service on new ROWs, so it's likely that the vehicles would need to stay on existing roads. The ramps would require

- As discussed earlier, LRT would be a tight fit. Diesel would likely fit, as it would share a track. The electric alternative likely would not fit due to the separated track, crash wall, and catenary.

Bristol Horseshoe

- This area includes several at-grade crossings. It is mostly a concern for the BRT alternative, which would widen the existing ROW.

Was the corridor originally double-tracked?

Yes. However, some of the remaining single-track has moved from its original location

Are there any height restrictions in the corridor?

- Heights are limited to 18'3 by a bridge in New Britain. There is some concern about clearance in the Terryville Tunnel if the line were to be double-tracked.

Berlin Station

- The main issue about how to situate this station is the number of available slots to Hartford.
- Is it better to have a platform on a curve or stick with the existing plan?
- Another option is to rule-out direct service to Hartford and/or New Haven and just have a shuttle between Berlin and Waterbury.

Mr. Gazillo then discussed the options for other station locations.

Waterbury

- Service would operate at the existing rail station.
- There is a need to figure out train storage, but that is a policy issue.
- Bus connectivity to the Waterbury Green is an important consideration

Would there be a need for a second platform?

- Given the limited service on the existing Waterbury Branch, there could potentially only be a need for one platform. In this scenario, one train would leave and then another would pull in to pick up passenger. *(Follow-up: upon further review, cross-platform transfers will be necessary for trains connecting from CCRS to the Waterbury Branch, thereby necessitating a second platform at Waterbury. The Study Team will add a second platform there in concept plans)*

Would CTDOT open the tunnels or continue to operate above them?

- Decisions like this will be based on the operations plan for service.

Plymouth

- Option 1:
 - West of the Terryville Tunnel at Arthur Industries site (rural location)
 - Identified by the Town as an option.
 - Platform would need to be located at end of site to address curve concerns.
- Option 2: East of the Terryville Tunnel
 - Would likely be preferable in terms of population – close to west end of Bristol, which has a dense population with limited car access.

What about stormwater at these stations?

- Stormwater concerns have not been considered at this point. However, stations will need to be designed to include filtration ponds.

Bristol

- Option 1: Separate parking across the tracks from Renaissance Downtown development.
- Option 2: Utilizes Renaissance Downtown parking structure
- Option 3: Uses land slated for Renaissance Downtown

For Option 1, why does the cross section show an up-and-over instead of an underpass? This option includes a lot of stairs that would have limited use and could attract homeless people.

- The Study Team will consider an underpass. However, an up-and-over would offer more visibility and an increased sense of safety and security. It should also be noted that the tunnel in Westport was very challenging in terms of excavation and was therefore more expensive.

Plainville

- Option 1: Close to Unionville and Tunxis Community College, but not walkable
- Option 2: Near police station
- Option 3: Walkable to GE
- Option 4: New Hamilton Pond, with hazardous contamination concerns

Most of downtown Plainville is in a flood zone.

Need to consider parcel data and availability.

What are the parking lot sizes based on? It will be important to consider the redevelopment potential of sites. Too much parking will not make an area development-friendly.

- At this point, parking is based on a baseline of approximately 200 spaces per station. Once ridership modeling has been done, parking lot sizes may be adjusted based on projected ridership.

New Britain

- Across from CTfastrak station with a cross-platform connection between rail and bus service
- No parking is considered for this station, as no parking has been designed for any CTfastrak station.

CCRP is conducting a parking utilization study. This could be used to demonstrate the availability of parking in garages within walking distance of the CTfastrak station.

There is potential for parking at the New Britain station. The waste storage area could be used. Also an area that had been set aside for TOD is being returned to the City.

- The Study Team will look into these options.

Berlin

- Option 1:
 - Offers connections to both New Haven and Hartford

- Messy layout with a platform on a curve
- Is it worth it for one thru train each day?
- Option 2:
 - Shuttle service between Waterbury and Berlin
 - There could be northbound service to Hartford without a stop in Berlin

There is potential to redesign the track in an S-curve to accommodate service in a more simplified way.

- PanAm prefers curves of less than 12°.
- Alex Lu will send a graphic explaining this option

Mr. Gazillo concluded the presentation by outlining the next steps of the CCRS:

- Alternatives Development & Evaluation
 - Ongoing
- SAC Meeting #2
 - June 5, 2013
- Public Meetings
 - June 17 and 20, 2013
- SAC Meeting #3
 - Winter 2013

Additional Discussion

BRT could be run outside of the rail ROW. One option could be to run it along Greystone Road to Route 8 into Waterbury. This wouldn't be a dedicated ROW, but it would operate on streets with limited traffic.

Another option for the New Britain station could be across Main Street from the CTfastrak station.

A second Waterbury station should be considered in Waterville. Such a station would have park-and-ride potential for people currently driving in to get onto the Waterbury Branch. This would only be ideal if service on the corridor offers a seamless connection to Waterbury Branch service.

Attachments:

1. List of Attendees
2. Meeting Handout – Preliminary Long List of Alternatives
3. Meeting Handout – Environmental Evaluation Criteria

Attendees:

Name	Agency
Rob Aloise	Capitol Region Council of Governments
Jennier Carrier	Capitol Region Council of Governments
Francis Pickering	Central Connecticut Regional Planning Agency
Carl Stephani	Central Connecticut Regional Planning Agency
Peter Dorpalen	Council of Governments of the Central Naugatuck Valley
Sam Gold	Council of Governments of the Central Naugatuck Valley
Sam Bellucci	CTDOT
Andy Davis	CTDOT
Jon Foster	CTDOT
Keith Hall	CTDOT
David Head	CTDOT
Molly Parsons	CTDOT
Lisa Rivers	CTDOT
Alex Lu	Metro-North Railroad
Roger Bergeron	PanAm Railways
Syd Culliford	PanAm Railways
Stephen Gazillo	URS Corporation
Amanda George	URS Corporation
Tim Holland	URS Corporation
Cara Radzins	URS Corporation

URS

MEETING HANDOUT

Client: CTDOT
Job Number: 171-366
Project Name: Central Connecticut Rail Study
Meeting: Alternatives Development
Workshop
Date: May 13, 2013

Preliminary Long List of Alternatives

No Build Alternative

- Base scenario for the CCRS corridor if no transit improvements are implemented
- Assumes that only planned projects with committed funds will be constructed.
 - *CTfastrak*
 - Improvements to existing and implementation of new express bus service between Hartford, New Britain, and Waterbury
 - New Haven, Hartford, and Springfield (NHHS) commuter rail
 - Stop at the Berlin rail station.

Transportation System Management (TSM) Alternative

- “Best that can be done” to optimize facilities and operations without a major capital investment
- Operational upgrades to existing transit services and low-cost physical improvements
- Would complement improvements identified in *CTfastrak* and NHHS programs and include enhanced bus service connecting Waterbury, Plymouth, Bristol, Plainville, New Britain and Berlin

Build Alternatives

Alternative 1: Bus Rapid Transit (BRT): Extension of CTfastrak into CCRS Corridor

- Extend CTfastrak from New Britain through Plainville and Bristol to Waterbury
- Construction of a dedicated busway that would provide a one-seat ride



New Britain CTfastrak Station

Alternative 2A, 2B: Light Rail Transit (LRT)

- Service along the existing right-of-way but using separate, newly constructed tracks
- Modern streetcar service could include a combination of in-street running and dedicated right-of-way
- Conceptual Schedule:
 - 15-minute headway during AM and PM peak
 - 30-minute headway during off-peak
 - Hourly service on weekends
- Vehicle Types:
 - Alternative 2A: Electric
 - Alternative 2B: Diesel



Alternatives 3A, 3B, 3C: Heavy Rail

- Restore bidirectional passenger rail service
- Diesel rolling stock along refurbished/rebuilt trackage owned by Pan Am Railways
- High-level platforms
- Vehicle Types:
 - Locomotives
 - Coaches
- Track Construction Options:
 - Alternative 3A: Single track, bridge replacement
 - Alternative 3B: Single track, bridge rehab
 - Alternative 3C: Double track, bridge replacement

Commuter Rail Service: Waterbury - Plymouth - Bristol - Plainville - New Britain - Berlin

- Bidirectional service between Waterbury and Berlin along existing Pan Am trackage
- Connections:
 - In Waterbury to the Waterbury Branch service operated by Metro-North
 - In Berlin to future NHHS commuter rail service
 - In New Britain to CTfastrak
- Conceptual Schedule:
 - 30-minute headway during AM and PM peak hours
 - Hourly service during off-peak hours
 - Service every two hours on weekends
- Possible service segments:
 - Waterbury to Bristol Waterbury as an extension of the Waterbury Branch
 - Bristol and Berlin as a connection to Hartford via the NHHS line
 - Slower speeds due to curves, grade crossings, and track geometry



Intercity Passenger Rail: Hartford - Berlin - New Britain - Bristol - Waterbury - Bridgeport

- Bidirectional service between Hartford and Bridgeport along Waterbury Branch, Pan Am trackage, and NHHS
- Conceptual Schedule:
 - Every three hours from 6 AM to 10 PM
 - Service between Waterbury and Bridgeport would follow Waterbury Branch schedules
 - Service between Berlin and Hartford and between Berlin and New Haven would follow NHHS schedules



URS

MEETING HANDOUT

Client: CTDOT
Job Number: 171-366
Project Name: Central Connecticut Rail Study
Meeting: Alternatives Development
Workshop
Date: May 13, 2013

Environmental Evaluation Criteria

The long list of alternatives will be screened with a set of evaluation criteria that will identify which alternatives should be eliminated from further consideration. Among these first round of evaluation criteria are critical environmental constraints. To this end, the long list of alternatives will be evaluated based on their potential impacts to the following environmental conditions:

- Water Resources
- Threatened and Endangered Species
- Farmland
- Cultural Resources
- Land Use
- Environmental Justice
- Noise
- 4(f)/6(f) Lands
- Air Quality
- Visual Resources
- Hazardous / Contaminated Soils