



TOWN OF WALLINGFORD TRANSIT STUDY

Final Report



In association with:



June 2012

WALLINGFORD BUS RIDERSHIP AND ROUTING STUDY | FINAL REPORT

South Central Regional Council of Governments and the Town of Wallingford

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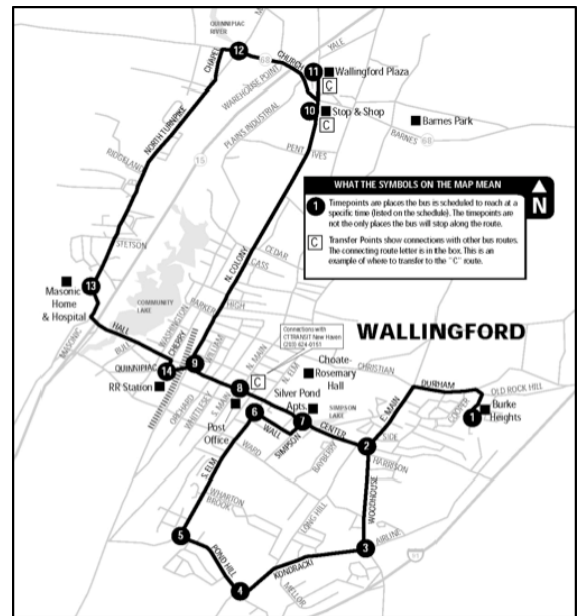
EXECUTIVE SUMMARY

The South Central Regional Council of Governments (SCRCOG) in association with the Town of Wallingford retained Nelson\Nygaard Consulting Associates and KMJ Consulting, Inc. to identify opportunities to improve the usefulness and effectiveness of the existing fixed-route transit services within Wallingford.

Wallingford is currently served by two fixed routes, both of which are operated by CTTransit, a division of Connecticut Department of Transportation (ConnDOT). One route, the Wallingford Local (WL) Route provides a double-loop of service exclusively within the Town of Wallingford, and provides local connectivity primarily for Wallingford residents. The Town of Wallingford provides approximately \$60,000 annually to ConnDOT as a subsidy for the operation of the Wallingford Local route. The Wallingford Local route is a low-ridership route that nonetheless serves an important identified need within the community. The other route, the C Route, is a regional transit route connecting northern Wallingford with New Haven.

The primary goal of the study was to determine whether changes to the existing Wallingford Local Route could make the route more effective. Potential changes to the C Route were proposed for future consideration by CTTransit but are not the focus of the study.

Figure 1 Existing Wallingford Local Route



STUDY PROCESS AND MAJOR FINDINGS

The study consisted of the following steps:

Assessment of Local Need for Service, including:

- Examination of past studies and reports
- Feedback from local stakeholders, including representatives of human service groups and other local agencies
- Mapping and analysis of Census demographic data
- Mapping of locations of major local destinations for transit riders

The Town of Wallingford has a number of important destinations and residential communities that would benefit from service. In general, the existing route serves most of these areas, but there are also opportunities to provide better service to additional communities, including the residential neighborhoods southwest.

Evaluation of Existing Services. During this step, both the Wallingford Local Route and the C Route were examined to determine how well they address the need for service within the community. This included a study of ridership, operations, productivity, transfer opportunities, and service design for both routes, as well as a set of potential options for improvement. Data for this evaluation came from a number of sources, including a survey of riders and a count of rider boardings and alightings, both administered in September of 2011. Based on this evaluation, the Wallingford Local route is a low-productivity service that is heavily subsidized, but serves an acute need for transit for the riders who do use the service. Among the key issues for the route are its large one-way loops that result in large areas where service is circuitous and provided in one direction only, and its inability to meet its posted service schedule (which had not been revised since 2003) in current traffic conditions.

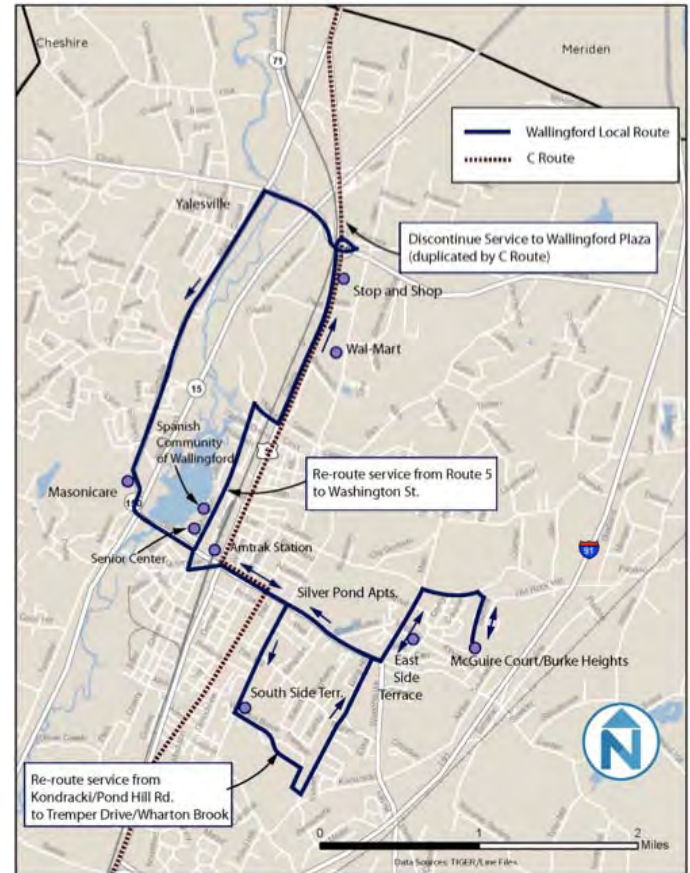
Creation of Service Alternatives and Selection of a Preferred Alternative. Based on the analyses conducted up to this point, two potential alternatives to the existing design of the Wallingford Local Route were considered. The first alternative scenario, called "Serving the Strongest Markets," focused on providing more direct, bi-directional service where the need for transit is most concentrated. The second concept, called "Targeted Change," focused on making smaller, strategic changes to the existing route without significantly altering the route's overall design. Town of Wallingford staff and Mayor William Dickinson met to discuss the options and ultimately selected the "Targeted Change" scenario as the preferred option.

Public Meeting and Final Design. To gather feedback from the community and vet the proposed service changes, a public meeting was held on May 8, 2012. Based on feedback received, the route was modified slightly to address several operational issues. The final proposed route design, which is relatively similar to the existing route but has several "tweaks" to make the route more useful is shown at right. Ultimately, the proposed route differs from the existing route in three ways:

- Service to Wallingford Plaza would be discontinued to save time and because it is also served by the C Route
- Service along Route 5 would be shifted one block westward (along Washington Street) between Center Avenue and North Plains Highway to serve the Wallingford Senior Center and the Spanish Community of Wallingford to reduce duplication with the C Route
- The loop of service at the southern end of the route (currently serving Kondracki Lane, Pond Hill Road and Woodhouse Avenue) would be changed to serve South Elm Street, Tremper Drive and Long Hill Road in order to more closely serve a high-need community and to save running time

This Final Report compiles the evaluation process previously laid out in two Technical Memoranda, and presents the final results and recommendations of the study.

Figure 2 Proposed Service Redesign



STUDY OVERVIEW

The Town of Wallingford, located in south central Connecticut along the Quinnipiac River between Hartford and New Haven, is home to more than 45,000 residents. The Town has demonstrated an ongoing commitment to providing transit services to its residents and visitors through partial sponsorship of a local bus transit route (the "Wallingford Local" route) provided by Connecticut Department of Transportation (ConnDOT). An additional route, the CTTransit "C" Route, connects the northern end of Wallingford with New Haven. SCRCOG and the Town would like to ensure that services are as effective as possible, and provide the most relevant service for residents of Wallingford.

The South Central Regional Council of Governments (SCRCOG) in association with the Town of Wallingford retained Nelson\Nygaard Consulting Associates and KMJ Associates to identify opportunities to improve the attractiveness and usefulness of the existing transit services to the local community. This project, the Town of Wallingford Bus Ridership and Routing Study ("the study") will focus on the available public transportation services offered by Connecticut Department of Transportation (operating at CTTransit) and evaluate how to best improve the existing service structure so that it effectively responds to local needs and offers residents a realistic, efficient transportation alternative. The study reflects close collaboration with the Town, SCRCOG, and local stakeholders. Funding for the study was provided by Connecticut Department of Transportation through the Federal Transit Administration. The study began in May 2011 and concluded in June 2011.

This final report summarizes the findings and technical work conducted as part of the Bus Ridership and Routing Study, including the analysis of Wallingford's service, service area, and results from outreach efforts. It also presents a series of recommendations and lays out additional recommendations to support the service redesign. The final report is organized into chapters immediately following this introduction:

- **Chapter 1: Overview of Existing Services** – describes the existing system and other community transportation services.
- **Chapter 2: Community Profile and Market Analysis** – provides an overview of the Wallingford service area, including a demographic analysis of population, employment and transit dependent markets, as well as major community destinations.
- **Chapter 3: Analysis of Existing Fixed Route Service** – analyzes the productivity and performance of Wallingford area transit services. This section also identifies preliminary opportunities for service improvements.
- **Chapter 4: Development of Service Redesign Concepts** – discusses the process of developing two alternative service concepts that were designed to improve service in different ways, and the selection of a preferred alternative for advancement in the study.
- **Chapter 5: Recommended Service Design** – contains a summary of recommended service improvements, route design, and ridership impacts.
- **Chapter 6: Conclusions and Implementation** – identifies strategies that will support the operation of transit services within Wallingford.

Additional detail on stakeholder and public input are included in Appendices A and B.

1 OVERVIEW OF EXISTING SERVICES

COMMUNITY OVERVIEW

The Town of Wallingford is located along the Quinnipiac River in northern New Haven County in Connecticut. The Town is bordered by Meriden and Middlefield to the north, Durham and North Branford to the east, North Haven and Hamden to the south, and Cheshire to the west. The center of Wallingford is about five miles south of Meriden center and about thirteen miles north of New Haven center. The Town is situated approximately 25 miles south of Hartford and 15 miles north of New Haven, two of the largest cities in Connecticut, and forms part of the Hartford-New Haven-Springfield corridor. Its location within the region is advantageous, since both cities can be easily accessed via either US Route 5 or Interstate Highway 91. In addition to these roadways, Wallingford is traversed by US State Highways Route 15 (Wilbur Cross Parkway), Route 68, Route 71 and Route 150. The Town is also divided by Amtrak rail tracks running north/south in close parallel to Route 5. The Town has a total land area of approximately 39 square miles.

OVERVIEW OF EXISTING SERVICES

The Town of Wallingford is served by a variety of transportation services. These include:

- Two fixed route transit services provided by CTTransit (a division of ConnDOT): the Wallingford Local Route (a local circulator providing service within Wallingford) and the C Route (a regional transit route connecting northern Wallingford with New Haven)
- ADA complementary paratransit service provided by CTTransit
- The Regional Rides program, a dial-a-ride transit service available to adults over the age of 60 and individuals with disabilities, provided by Greater New Haven Transit District
- Human service transportation provided primarily by local community service organizations
- Amtrak regional train service

The Wallingford Local route is designed as a local circulator route, connecting downtown Wallingford with employment, community services, housing, grocery and retail stores, and medical services. The route forms two large loops, one of which serves the area northwest of downtown Wallingford, and one of which serves the area southeast of downtown. The Wallingford Local route operates Monday through Friday.

The CTTransit C Route provides inter-community service along a route that primarily runs parallel to I-91 and U.S. Route 5, connecting Wallingford at its northern end with North Haven and New Haven to the south. The C Route operates Monday through Sunday, but only serves Wallingford on Monday through Saturday. Transfer points between the two are identified on both the Wallingford Local and C Route maps; however, the schedules of the two routes do not facilitate convenient transfers. An additional summary of transfer connections between the C route and the Wallingford Local Route is provided in Figure 24.

Fares on both the Wallingford Local route and the C Route are \$1.25 per ride or \$11.25 for a 10-ride ticket for adults. Seniors and persons with disabilities pay \$0.60 or purchase a 10-ride ticket book for \$5.40. Youth aged 5 to 18 pay cash fare of \$1.00 or use a 10-ride ticket for \$9.00. Unlimited ride passes can be

purchased for 3 days (\$7.50), 5 days (\$11.25), 7 days (\$15.00), and 31 days (\$45.00). Transfers to other routes are free.

Wallingford Local Route

The Wallingford Local Bus route operates weekdays from 9:00 AM to 4:35 PM, with departures scheduled every hour from the center of Wallingford village (see Figure 3); Figure 4 shows the timetable for the route. It is the primary service available to the general public for circulation and travel within the Town of Wallingford. The route and schedule has not changed since October 2003.

The Wallingford Local Bus Route essentially forms two large loops emanating from downtown. The route begins at Burke Heights, the location of a subsidized housing development, exiting via Durham Road and East Main Street; it then makes a loop south via Woodhouse Avenue, Kondracki Lane, Pond Hill Road, and South Elm Street, then travels to downtown via Center Street. The northern loop follows North Colony Road to shopping facilities at Wallingford Plaza and returns to downtown after a loop via Church Street, North Turnpike Road, and Hall Avenue, serving the Masonicare Health Care Center on the way back to downtown.

Figure 3 Wallingford Local Route Map

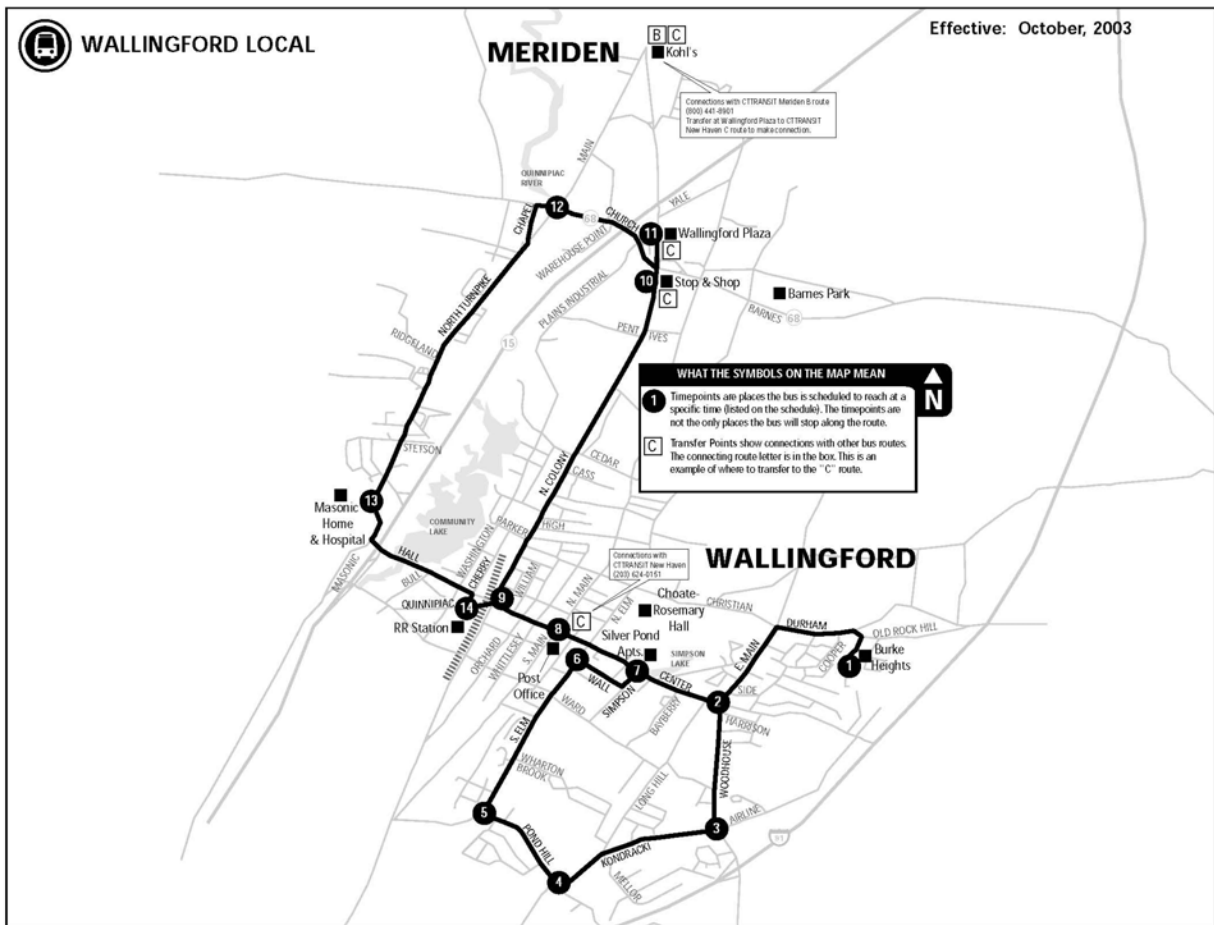


Figure 4 Wallingford Local Route Schedule, Effective October 2003

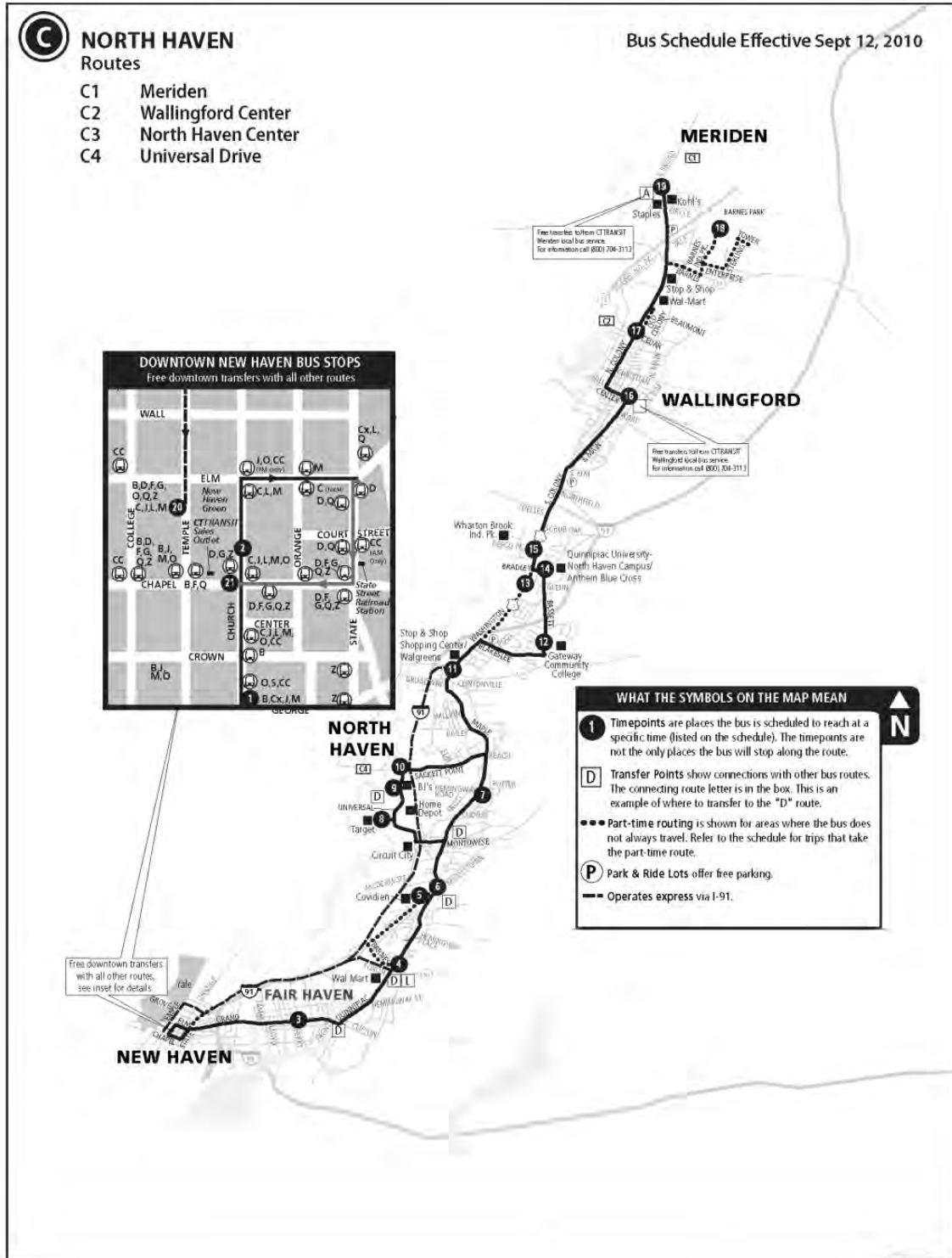
WEEKDAY SERVICE																
No Saturday or Sunday Service																
Burke Heights > Center Street > RR Station > Burke Heights																
1	2	3	4	5	6	7	8	9	10	11	12	13	14	8	2	1
Burke Heights McQuire Court	E. Center & E. Main	Woodhouse & Kondracki	Kondracki & Pond Hill	Pond Hill & S. Elm	S. Elm & Wall	Center Street Silver Pond Apts.	Center & N. Main	Center & North Colony	Stop & Shop	Wallingford Plaza	Church & North Tpk.	Masonic Home & Hospital	RR Station Quinnipiac Avenue	Post Office Center Street	E. Center & E. Main	Burke Heights McQuire Court
LV	LV	LV	LV	LV	LV	AR	LV	LV	LV	LV	LV	LV	LV	LV	LV	AR
9:00	9:04	9:06	9:07	9:09	9:12	9:14	9:18	9:20	9:25	9:30	9:35	9:40	9:45	9:47	9:50	9:55
10:00	10:04	10:06	10:07	10:09	10:12	10:14	10:18	10:20	10:25	10:30	10:35	10:40	10:45	10:47	10:50	10:55
11:00	11:04	11:06	11:07	11:09	11:12	11:14	11:18	11:20	11:25	11:30	11:35	11:40	11:45	11:47	11:50	11:55
12:00	12:04	12:06	12:07	12:09	12:12	12:14	12:18	12:20	12:25	12:30	12:35	12:40	12:45	12:47	12:50	12:55
1:00	1:04	1:06	1:07	1:09	1:12	1:14	1:18	1:20	1:25	1:30	1:35	1:40	1:45	1:47	1:50	1:55
2:00	2:04	2:06	2:07	2:09	2:12	2:14	2:18	2:20	2:25	2:30	2:35	2:40	2:45	2:47	2:50	2:55
3:00	3:04	3:06	3:07	3:09	3:12	3:14	3:18	3:20	3:25	3:30	3:35	3:40	3:45	3:47	3:50	3:55
4:00	4:04	4:06	4:07	4:09	4:12	4:14	4:18	4:20	4:25	4:30	4:35

Timetable notes:
 = PM
 .. = No service is provided to that timepoint.
 Timepoints are shown on the map as ● and are listed at the top of the timetable.

CTTransit C Route

The CTTransit C Route as a whole operates between the Kohl's shopping center and New Haven and North Haven (see Figure 5). Within Wallingford, the route operates along North Colony Road, Center Street, South Main Street and South Colony Road. The route as a whole operates from 5:20 AM to 11:40 PM on weekdays, from 5:20 AM to 11:40 PM on Saturdays, and from 7:24 AM to 8:43 PM on Sundays. Service patterns on the route vary widely, however, and service through Wallingford is therefore more limited. The route operates through Wallingford between 6:00 AM and 7:00 PM on weekdays, between 9:30 AM and 5:30 PM on Saturdays, and not at all on Sundays. Service frequency varies throughout the day with buses arriving in Wallingford at intervals of between 19 and 62 minutes. In addition, the bus route provides limited service to the Barnes Industrial Park (three inbound and two outbound trips per day) and, although not shown on the map, to the Wharton Brook Industrial Center (two inbound and four outbound trips per day).

Figure 5 CTTransit 'C' Route



PARATRANSIT SERVICES

Paratransit services refer to curb-to-curb or 'dial-a-ride' transportation service. Services are typically operated in lower density environments that can not support regularly scheduled fixed-route services and/or for travelers needing a higher level of service. Paratransit services are designed as door-to-door service and reflect client travel times, but trips usually must be booked in advance, so while they provide a more convenient service in some respects, using them requires advance planning. The following paratransit services are available within Wallingford:

- **ADA Complementary Paratransit Service:** Under the provisions of the Americans with Disabilities Act (ADA), complementary paratransit service must be available for individuals unable to use fixed route service. This service is available for ADA eligible individuals beginning and ending their trip within $\frac{3}{4}$ of a mile of fixed route service during the operating hours of regular service. ADA also sets the fares as for complementary paratransit service as not more than twice the adult cash fares. Under ADA, complementary paratransit service must be provided in conjunction with the Wallingford Local and CTTransit C routes. Northeast Transportation provides complementary paratransit service in Wallingford. Fares are \$2.50 one way or \$5.00 round trip per passenger. Medical attendants or personal care aides ride free.
- **Social Service Agency Client Service:** Several community service agencies provide transportation services to their clients or other passengers referred to them by other agencies (see Figure 6). In general, the only eligibility requirement for these services is that the rider is a member/client of the agency or is eligible to receive services from the agency. The programs offered by these agencies are described in more detail in a later section in this report.

Taken together, there are a significant number of services provided by the social services agencies. Agencies suggested that many of the local trips could be made by the Local Bus if the routing were changed to provide better access to these agencies and their programs, particularly along North Plains Industrial Road/Washington Street. For example, Senior Center Staff suggested that if the Local Bus served the Senior Center, ridership on the Local Bus would increase. Further, Housing Authority staff commented that if the Wallingford Local route traveled through the major senior residential areas instead of passing by tangentially, ridership would increase.

- **Regional Rides Program:** The Regional Rides Program (RRP) is provided by the Greater New Haven Transit District (GNHTD) and provides transportation to individuals over age 60 and those with a disability as defined under the Americans with Disabilities Act (ADA) regulations. Individuals must be residents of a participating community, of which Wallingford is one. Rides must be within the boundaries of these towns and are curb-to-curb; the disability status of a passenger does not affect these rules. Eligibility for the program is determined by GNHTD. Riders participating in the program on the basis of a disability are screened for eligibility once every three years via an in-person interview process. Older adult riders are screened by sending a facsimile of their driver's license.

According to GNHTD, effective December 24, 2010 through July 1, 2011, rides are available every day from 5:00 AM to 11:00 PM, although service hours are based on funding availability. Riders may book rides one to seven days in advance; there is no same day service available. Calls to reserve rides are taken seven days a week from 11:00 AM to 5:00 PM. The current cost per one-way trip is \$ 2.50, which can be paid in cash or GNHTD vouchers. However, GNHTD reported that the number of trips made on the service in Wallingford was not large.

Funding for the program is provided through the Connecticut State Municipal Grants Program, which is allocated to towns based on geographic size and population and funds a range of programs, among which is a program to provide transportation for older adults. Because coordination among programs is encouraged, GNHTD encourages towns within its region to

channel their funding to them, and GNHTD provides the rides. Funding channeled from Wallingford for this service in FY2009 and 2010 was \$53,637 (annual figure).

Figure 6 Community Service Agency Transportation Services

Agency	Vehicle Type and Number	Trip Frequency	# of Riders or Trips	Destinations
Master's Manna	3 Vans	By appointment	167 trips per month	Non-emergency Medical, including trips to Hartford
	1 Van	24 -7 basis	15 to 18 trips per month	Any destination
SCOW	1 Van	~3 trips per week	~24 trips per month	Close to downtown
Dry Dock	1 Van	1 or 2 trips per day	1 or 2 trips per day	Non-emergency medical and other purposes
Boys and Girls Club	1 Van	Weekdays	12 students	From school to Club
Wallingford Senior Center	Two 18-Passenger Buses and one 12-Passenger Bus	M-F 8:15 AM to 4:00 PM	1,500 per year	Fixed schedule grocery/retail store shopping; travel to Senior Center for off-site residents; other trips as space permits

Note: Service was also previously provided by the Visiting Nurses Association of Wallingford, which has since gone out of business during the course of this study.

INTER-CITY SERVICES

Amtrak operates 8 trains per day between Wallingford and Springfield, MA to the north and New Haven, CT to the south. Trains operate between the hours of 8:53 AM and 8:44 PM northbound and 7:09 a.m. and 8:41 p.m. southbound at varying intervals on weekdays, Fridays, Saturdays, and Sundays.

No inter-city coach bus services operate in Wallingford. The nearest location for such service is in New Haven.

The Springfield-Hartford-New Haven corridor is a planned commuter/regional rail corridor. The project is currently in the environmental assessment phase, and rail service is projected to begin in 2016. Project milestones are currently estimated to take place as follows (although this is subject to change):

- Completion of Environmental Assessment: completed early 2012
- Completion of Preliminary Engineering: mid-2012
- Completion of Final Design: March 2013
- Completion of Construction: end of 2015
- Service Commences: 2016

Currently, the Town of Wallingford has selected a preferred location for the Wallingford train station, at Parker Street at Cherry Street. This location has not yet been finalized but will be submitted for consideration by ConnDOT.

2 COMMUNITY PROFILE AND MARKET ANALYSIS

An essential aspect to planning and designing effective public transportation service is understanding the predominant markets for travel and the populations that are most in need of travel options. While people travel for a variety of reasons, most trips are made between home and work, or home and services – for example, shopping, medical clinics and hospitals, community or social services, and to visit friends and family. To understand these patterns, the study team analyzed demographic data to understand where people live (trip origins) and at the location of major destinations and places of employment to understand where people travel (trip destinations). Additionally, to understand the specific needs of the Wallingford community, the study team held a stakeholder roundtable session to gather feedback on the most important issues and concerns to the community. This session is summarized in this chapter, with more detailed notes presented in Appendix A.

Population and Population Density

As of the 2010 US Census, Wallingford had a total population of 45,135 residents and total density of 1,157 persons per square mile, or 1.81 persons per acre. This represents a slight increase from 2000, when the population was 43,026 and 1,102 people per square mile (1.72 persons per square acre). There were 17,306 housing units at an average density of 443.5 per square mile or 0.7 housing units per acre. Downtown Wallingford has the highest population density, averaging 11.9 persons per acre, while the eastern portion of Wallingford, the lowest density area, averaged 0.65 persons per acre. Study Area Demographics

The market for public transportation users is typically divided into two primary groups:

- “Discretionary” riders who have adequate resources and abilities to operate a private vehicle but choose to use transit because it offers them comparable convenience and/or because of other personal lifestyle and value choices; and
- Transit dependent riders who use public transportation services because they lack the resources to own or maintain a private vehicle, or are unable to operate a private vehicle. Transit dependent individuals are typically characterized by age (older adults age 65 or over and youths under age 18), disability status, income, and households without a vehicle.

Figure 7 highlights relevant Census data for the years 2000 and 2010, and Figure 8 shows population density within Wallingford (2010 Census).

STUDY AREA DEMOGRAPHICS

The market for public transportation users is typically divided into two primary groups:

- “Discretionary” riders who have adequate resources and abilities to operate a private vehicle but choose to use transit because it offers them comparable convenience and/or because of other personal lifestyle and value choices; and

- Transit dependent riders who use public transportation services because they lack the resources to own or maintain a private vehicle, or are unable to operate a private vehicle. Transit dependent individuals are typically characterized by age (older adults age 65 or over and youths under age 18), disability status, income, and households without a vehicle.

Figure 7 Census Demographic Figures

	2000 Census		2010 Census (unless otherwise noted)		Change 2000-2010	
	Total	Percent of Total	Total	Percent of Total	Total	Percent of Total
Total 2000 Population	43,026		45,135		2,109	5%
Total 2000 Housing Units	17,306		18,945		1,639	9%
Females	22,294	52%	23,373	52%	1,079	5%
Males	20,732	48%	21,762	48%	1,030	5%
Under Age 18	10,326	24%	9,478	21%	-848	-8%
Age 65 & Over	6,546	15%	7,436	16%	890	14%
Persons with Income < 150% of Poverty Level	3,371	8%	5,165*	11%*	1,794	53%
Vacant Housing Units	609	4%	913	5%	304	50%
Persons with a Disability	5,879	14%	3,670**	81%**	-2,209	-38%
Total 2000 Occupied Housing Units	16,697	96%	18,032	95%	1,335	8%
Occupied Housing Units with Zero Vehicles	946	6%	573*	3%*	-373*	-39%*
Employment (percentage of population 16+)	26,890	79%	24,761*	67%*	-2,129	-8%

* - ACS 2010 5-year estimate data

** - ACS 2010 3-year estimate data

While both of these markets are important for public transportation services, each has distinct service needs, preferences, and priorities. Our broad assumption is that there are no definitive demographic characteristics that are linked with discretionary riders, because for these travelers, using public transportation is a choice. Instead, we understand discretionary rider travel patterns by looking at the

overall demand for travel, which is largely influenced by the location of employment and activity/service centers.

Transit dependent riders, on the other hand, are more easily identified by demographic characteristics that typically indicate challenges associated with operating a private vehicle, such as age, abilities, and income. For purposes of this analysis, we examine the overall population density, the proportion of older adults, persons with disabilities, persons with low income throughout the study area. The following analysis highlights the spatial distribution of these populations across the Town of Wallingford and maps each target population as a number of persons per square mile (see Figure 8 through Figure 13). Data is presented on the Census block tract level and is drawn from Census 2000 data. Because density of these populations closely corresponds with overall density in the Town, the distribution patterns are similar. Based on these data, the following patterns can be observed:

- Population density is highest in the middle of Wallingford surrounding the downtown area. The highest density areas are directly northeast and southwest of the intersection of Center Street and Colony Road. Other areas of higher population density include Yalesville (immediately south and west of Routes 68 and 15) and the area bounded by Center Street, Kondracki Lane, Elm Street and Woodhouse Avenue.
- The distribution of households without access to an automobile follows a similar pattern. An additional area of concentration is located north of Center Avenue; this area is the site of much of the Choate Rosemary campus, and so this concentration is possibly due to student responses. Other areas of concentration include the area just north and west of downtown; the area bounded by Woodhouse Avenue/East Main Street, Durham Road and I-91; and the western corner of the Town, near the borders of Hamden and Cheshire.
- Persons with low incomes and persons with disabilities are generally located in a similar pattern to the above, except that the concentration in the Choate Rosemary area is not as high.
- Older adults are located across the densest parts of Wallingford. Two areas where older adults tend to live include the entire area south of Route 68 and west of Route 15 within Wallingford, and the greater downtown Wallingford area, particularly between Colony Road and I-15 within approximately one mile of Center Street.
- Youths are particularly concentrated in the vicinity of downtown Wallingford, in the Center/Kondracki/Elm/Woodhouse area, and in Yalesville.

Overall, it is clear that there are two areas in which concentrations of likely transit users are located: in the vicinity of downtown Wallingford, particularly between the railroad tracks and I-91; and south of Route 68 and west of Route 15. Current service provided by the Wallingford Local Route is designed to serve these areas, and fairly closely matches the areas of highest need.

Figure 8 Population Density and Locations of Moderate-Income Housing

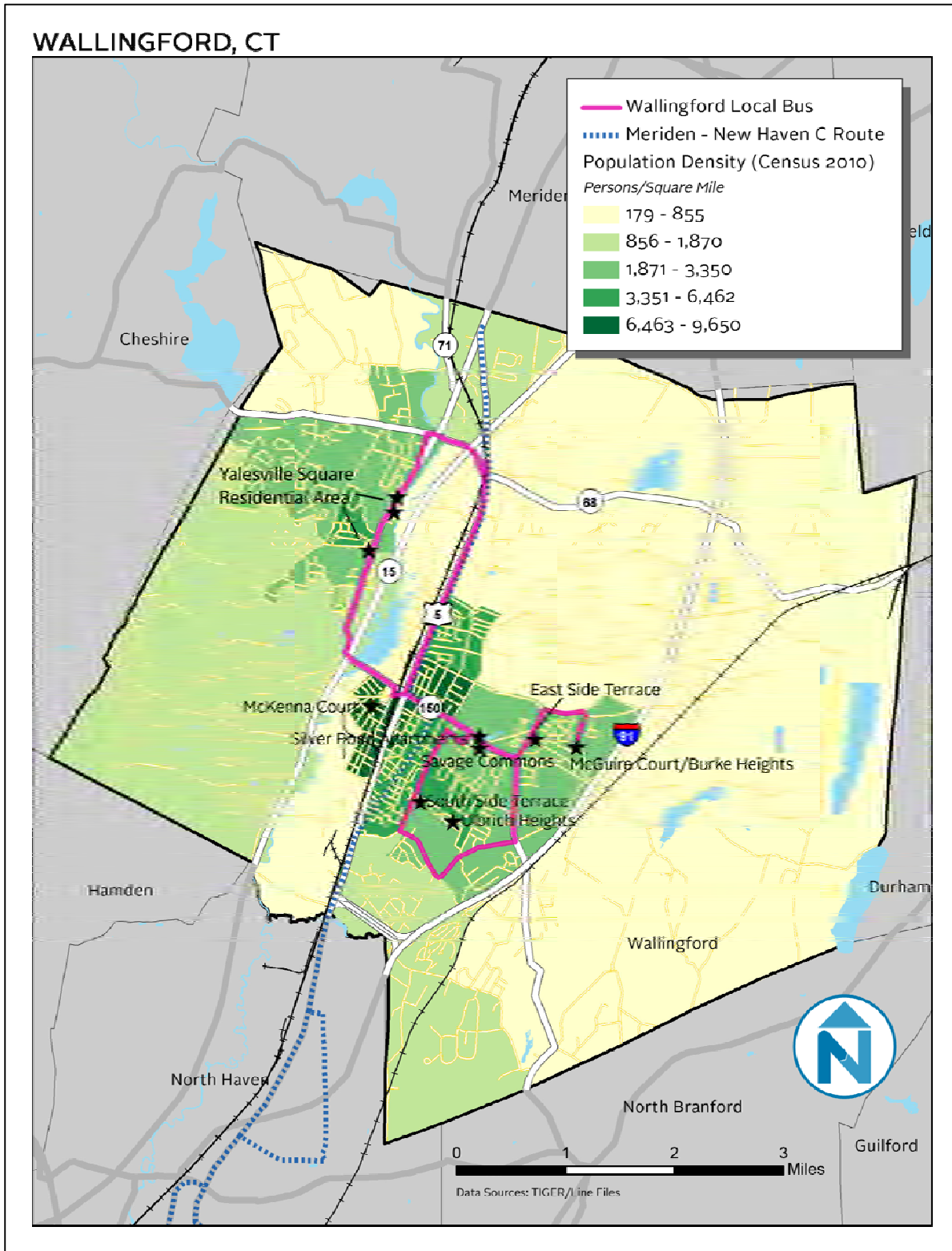


Figure 9 Households without Access to a Vehicle

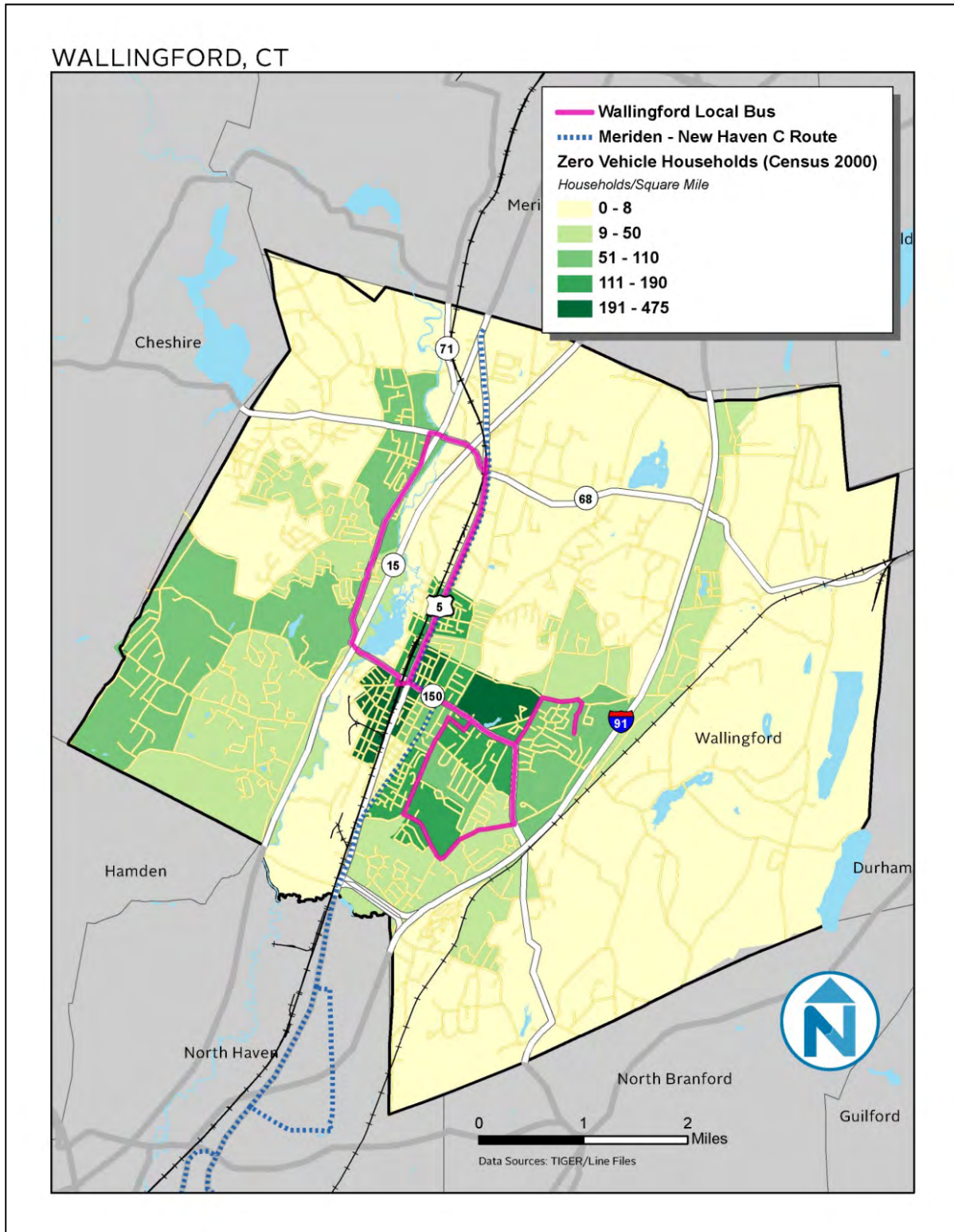


Figure 10 Persons with Low Income

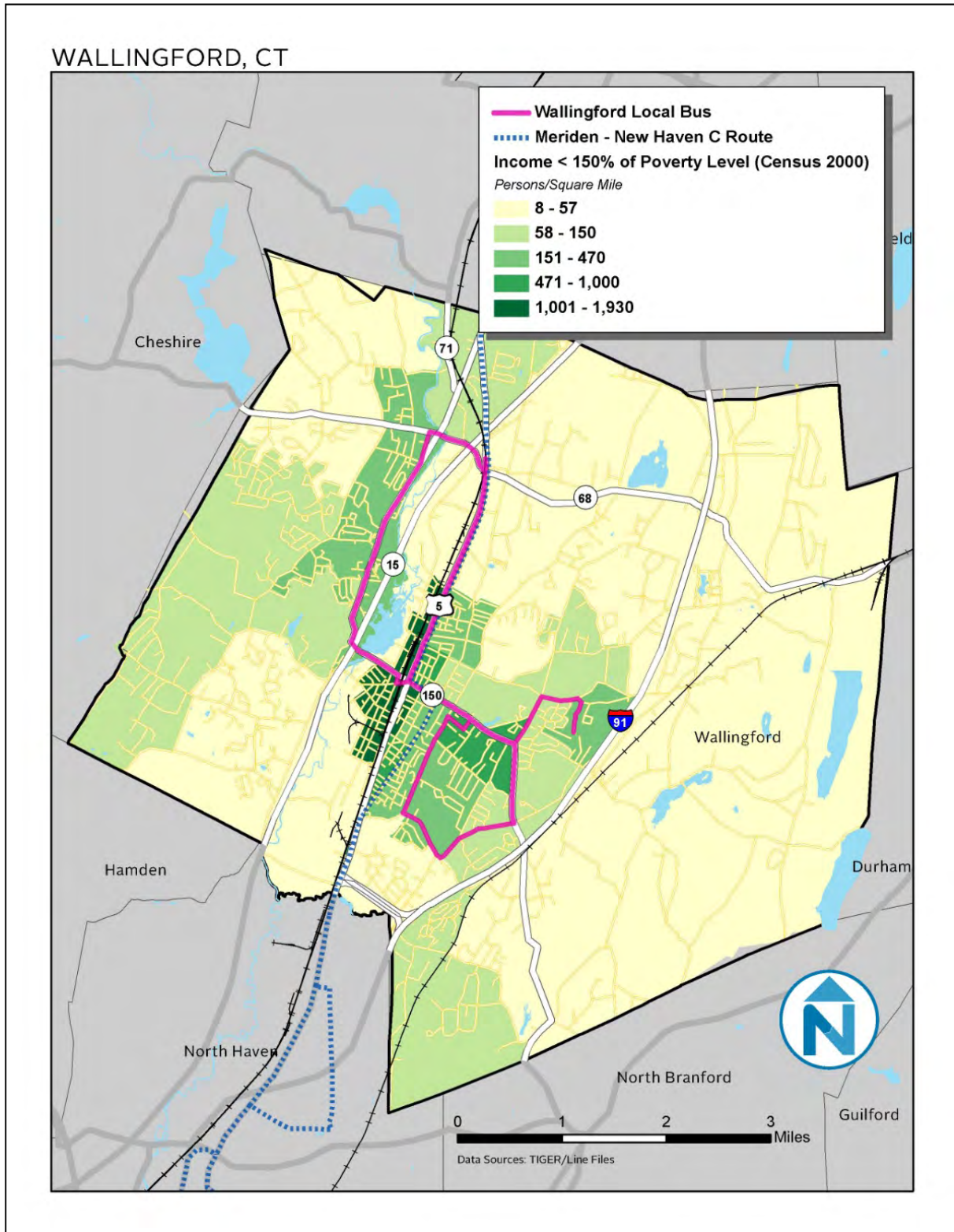


Figure 11 Persons with Disabilities

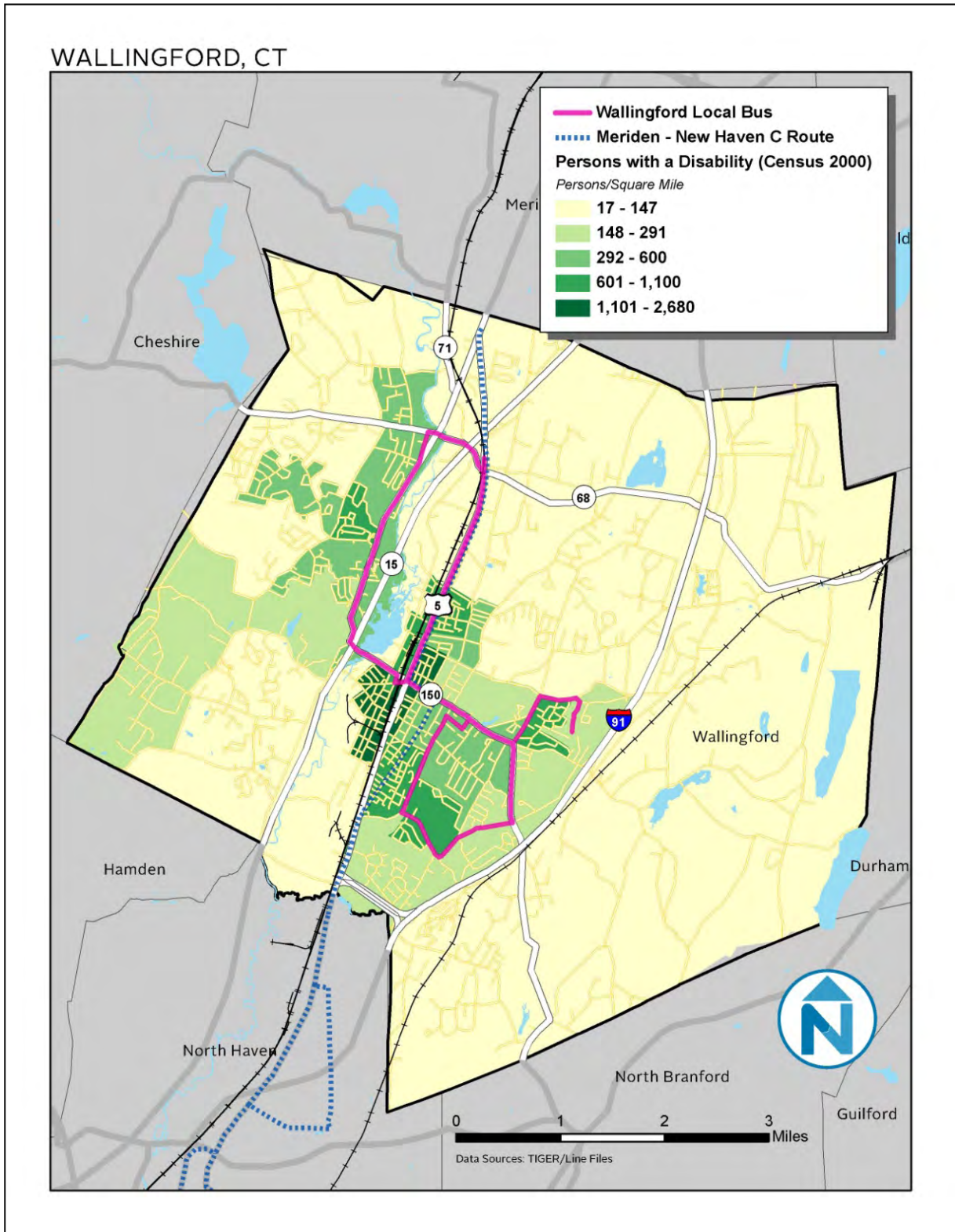


Figure 12 Older Adults

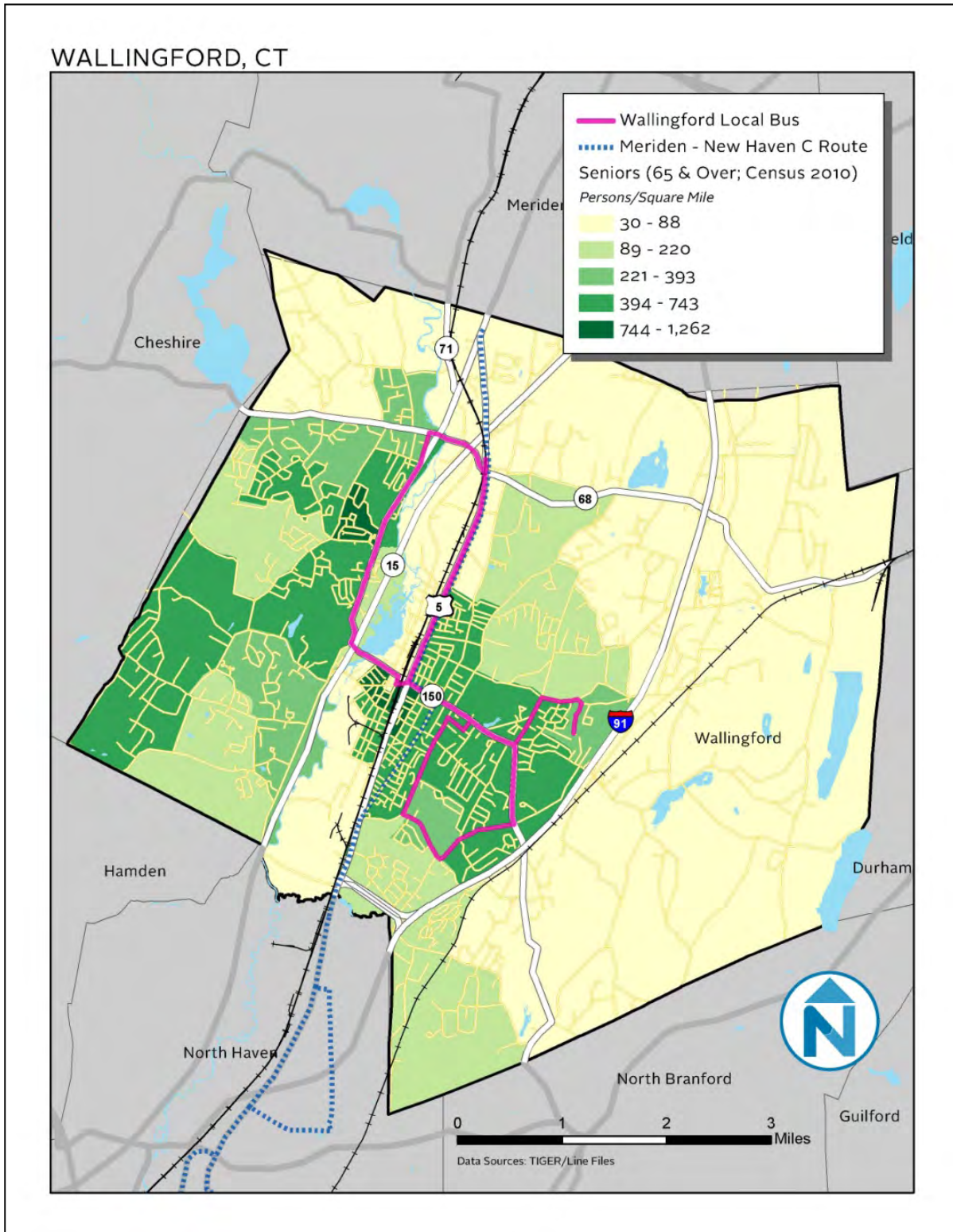
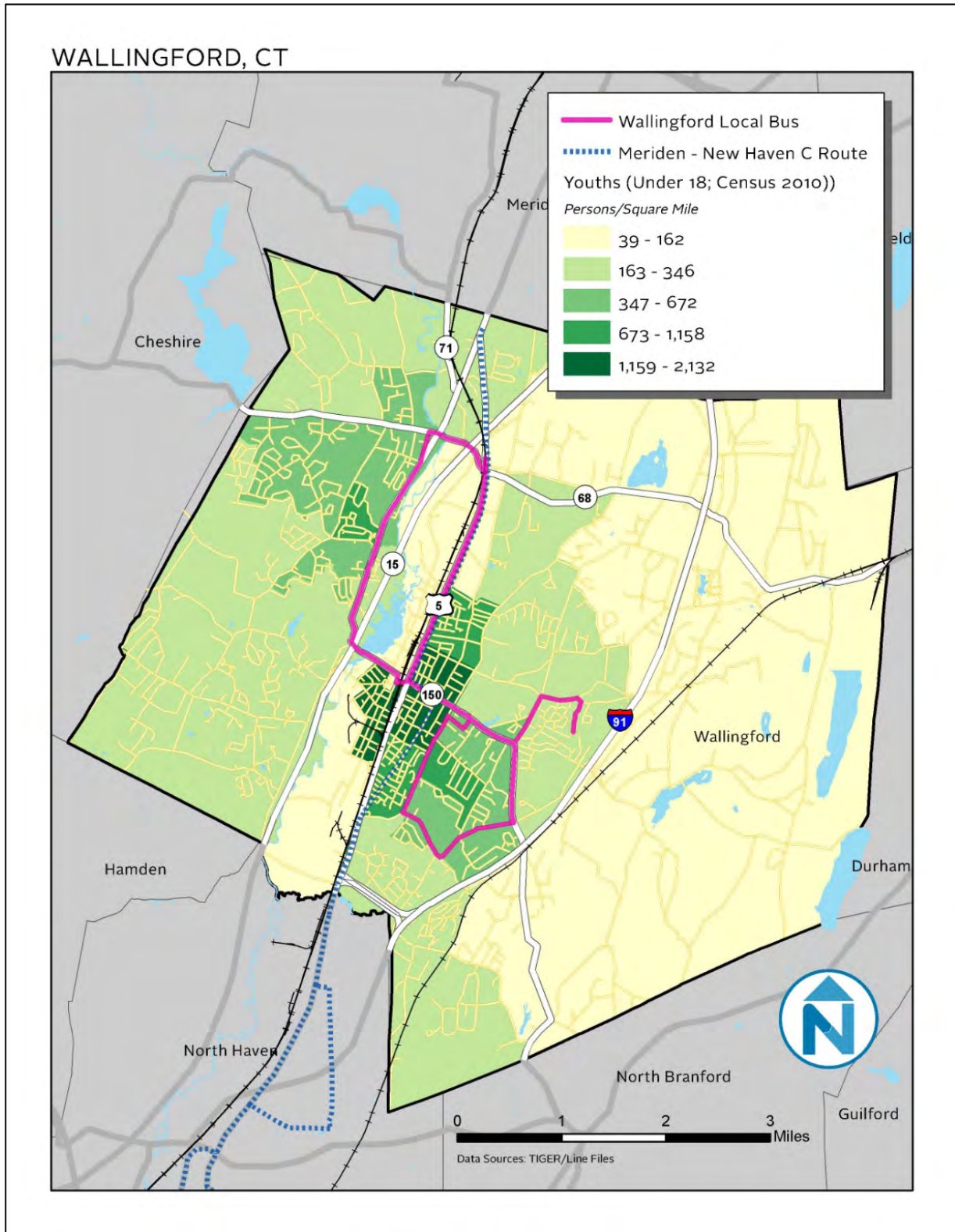


Figure 13 Youths



DESTINATIONS

Transportation infrastructure is almost always closely aligned with trip generators such as employment, shopping, and service centers. Areas with higher populations and employment densities are more easily served by public transportation, in part because high density areas have a larger market for travel. In small town settings, public transportation can also be successful by providing connections between areas with high concentrations of transit dependent households and employment or service sites, such as hospitals and shopping malls. Figure 14 indicates a number of key destinations within Wallingford. The discussion below lists major destinations by category.

Community Service Agencies

The following community service agencies, located within Wallingford, provide services or programs that would be patronized by likely transit riders (see Figure 15). Some of these agencies provide transportation directly to their clients, as described previously in Figure 6.

Housing

The Wallingford Housing Authority provides and maintains rental housing units for moderate income and older adult residents. The units are located at the following locations:

- Ulbrich Heights (moderate income housing - 44 units)
- Ulbrich Heights extension (moderate income housing - 88 units)
- East Side Terrace (aka Burke Heights) (older adult housing - 30 units)
- South Side Terrace (older adult housing - 40 units)
- McGuire Court (older adult housing - 50 units)
- McKenna Court (older adult housing - 30 units)
- Savage Commons (older adult housing - 35 units)

Shopping/Grocery

There are a cluster of food and retail stores in the northern part of Wallingford along North Colony Road including:

- Wal-Mart
- Shop Rite
- Wallingford Plaza, including Stop and Shop
- Town Line Plaza and Park Plaza Shopping Centers, including Kohl's and numerous retail stores

North Colony Road in general has a large amount of strip retail development, although much of it is automobile related.

Employment

Wallingford has diversified its commercial and industrial base over the past decade, attracting high technology industries and medical services. Wallingford's traditional employment center has been downtown Wallingford; the area remains a center of government and other local services and retail. However, other employment zones have also emerged as the city has diversified and become more dispersed, including numerous industrial parks in the northern areas of Wallingford and along South Turnpike Road. According to Wallingford Chamber of Commerce, major employers and employment clusters within Wallingford include Masonicare Health Care Center; Bristol-Meyers Squibb research and

development; Cytech; the Barnes Industrial Park area, including the Fosdick Fulfillment Center, a Verizon call center, and Thurston Foods Distribution Center, among others; and clusters of businesses on North Plains Industrial Road and Research Parkway.

Although Wallingford has an employment base, many workers commute out to other areas. In 2000, out of a total employed labor force of 22,436 Wallingford residents, a total of 7,365 employees (or 33%) worked in Wallingford. Other major commute destinations included New Haven (2,210 employees, or 10%), Meriden (2,110, or 9%), and North Haven (1,490, or 7%).¹ Meriden is also the largest source of commuters to Wallingford (4,212), followed by New Haven (1,259).

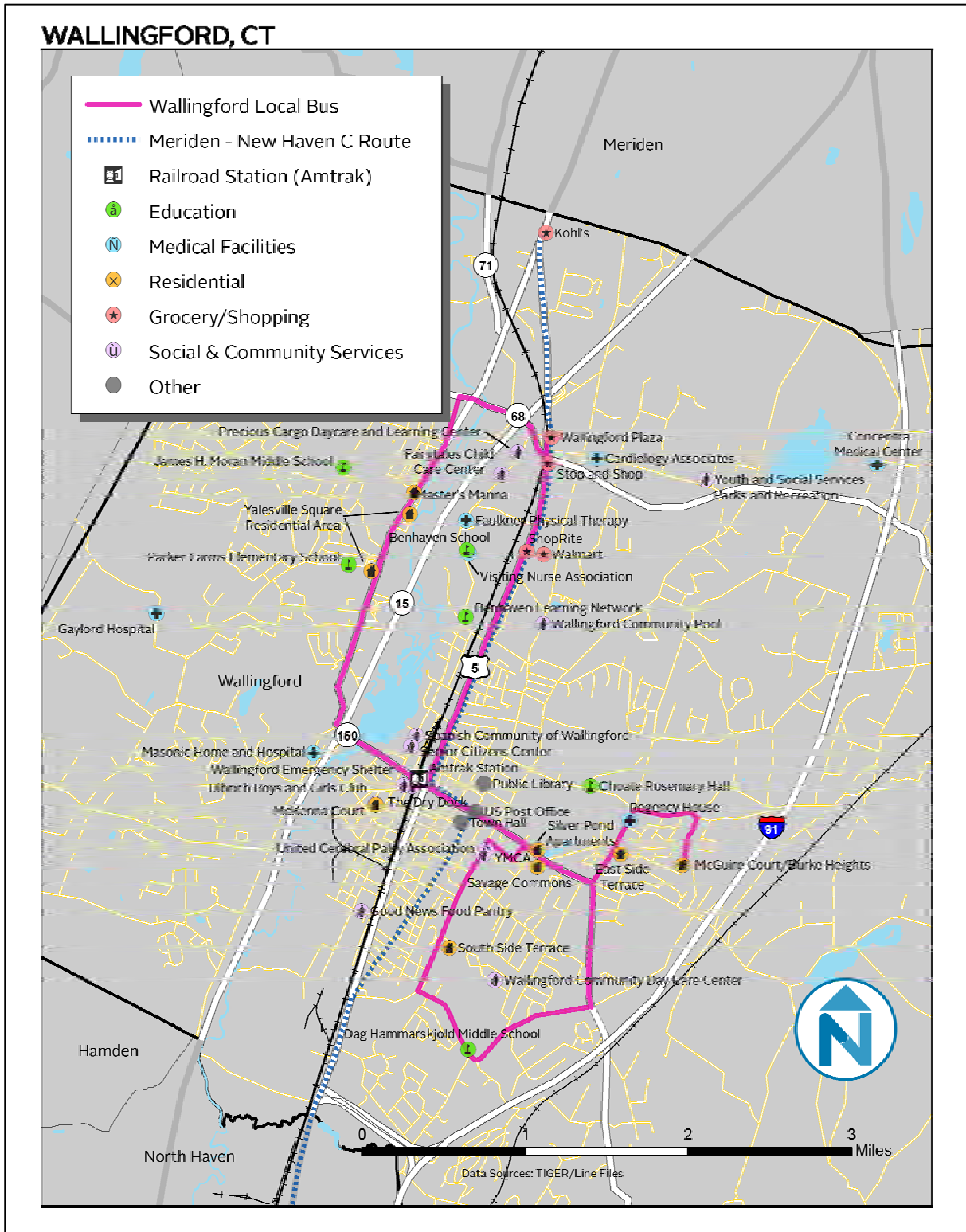
In general, while employment locations are often key destinations for transit riders, it is unlikely that riders using the Wallingford Local route use the service to get to work due to the route's hours of service (9:00 AM to 4:35 PM), which do not span an entire typical work shift of eight hours. Therefore, given the current service parameters, employment locations are not major trip attractors on the Wallingford Local route.

Medical

Wallingford has numerous medical facilities, including general practice and specialty medical care facilities. Most of these are smaller in scale; however there are three facilities that may particularly be destinations for riders. These include Masonicare Home and Hospital, which has general medical and long-term care facilities, and Gaylord Hospital, a medical facility that provides services for individuals with specialized medical needs.

¹ Connecticut Economic Resource Center, 2010 Wallingford Profile; US Census 2000

Figure 14 Key Community Transit Destinations



WALLINGFORD BUS RIDERSHIP AND ROUTING STUDY | FINAL REPORT
 South Central Regional Council of Governments and the Town of Wallingford

Figure 15 Community Service Agencies

Name	Description/Services	Clientele
The Dry Dock	Programs and services aimed at individuals recovering from substance addiction in a safe and sober environment.	1,300-1,400 individuals recovering from drug and alcohol dependence
Master's Manna	Large community service agency providing a range of services to low-income individuals and families, including a food pantry, clothes closet, soup kitchen, and non-emergency medical and dental clinic. There are also a number of families living onsite in tents. Master's Manna recently relocated to North Plains Industrial Road from their previous location on North Colony Road; as of late 2012, the organization will again relocate to a new location on Beaumont Road near Walmart.	Low-income individuals and families; 3,750 total clients, most living in Wallingford or Meriden
Parks and Recreation Department	Hundreds of program offerings for seniors, teens, youth preschoolers and other populations. Some of the activities occur at the Parks and Recreation Department located on Fairfield Boulevard; many of the activities take place at sites distributed across the Town.	Anyone can participate; programs geared toward youth, older adults
Spanish Community of Wallingford (SCOW)	SCOW provides a variety of services to the Spanish speaking community in Wallingford. Its services include: employment services; transportation to and from doctors, hospitals, Social Security and other appointments, as well as language interpretation services; advice concerning consumer protection, food stamps; and referrals to other agencies for special needs.	Spanish speaking community; 200-300 families in need of transportation
Ulbrich Boys and Girls Club	The Ulbrich Boys and Girls Club provides social and educational activities that cater to all youth based on physical, emotional, cultural and social needs and interests. The Club offers weekday after-school and some weekend programs.	Youth; 12 students currently using van service
United Cerebral Palsy Association of Southern Connecticut	The United Cerebral Palsy Association of Southern Connecticut provides services, advocacy and programs to increase the independence, productivity, and participation of people with cerebral palsy and other neuromuscular disabilities. Its offerings include counseling, treatment programs, advocacy, and educational/vocational programs.	Individuals with cerebral palsy
Wallingford Community Day Care Center	The Wallingford Community Day Care Center is a child day center and early learning program sponsored by the Town of Wallingford. It provides programs to infants, toddlers, and preschool and school age children. Programs are fee-based but subsidies are available based on income, and no children are turned away based on inability to pay.	Families, including low-income families

WALLINGFORD BUS RIDERSHIP AND ROUTING STUDY | FINAL REPORT

South Central Regional Council of Governments and the Town of Wallingford

Name	Description/Services	Clientele
Wallingford Emergency Shelter	The Wallingford Emergency Shelter provides temporary housing, meals, and related services to people in need of assistance due to crisis situations.	Families and individuals in crisis situations
Wallingford Family YMCA	The YMCA provides recreational, educational, sports and healthy living programs for the Wallingford community.	Anyone
Wallingford Public Library	The Wallingford Public Library contains a collection of books, magazines, newspapers, video and audio tapes, compact discs, and other resources. In addition, the library also provides internet access and access to additional books and resources at libraries across Connecticut and the United States.	Anyone
Wallingford Senior Center	The Wallingford Senior Center provides services and programs for older adults of the Wallingford community. A wide variety of programs are available, including recreational and educational programs, social events, and day trips, among others.	Older adults

STAKEHOLDER COMMENTS

To understand the specific needs for transit service among the most likely rider communities within Wallingford, the project team met with area stakeholders to gather insight into local needs for transit services. For the purposes of this study, stakeholders are considered individuals with an interest in public transportation service. At the outset of the project, Town of Wallingford and SCRCOG staff helped identify a list of stakeholders who could provide insight into the specific need for transit service. A Stakeholders Meeting was held at the Wallingford Town Hall on June 16, 2011. Project team staff led an interactive discussion with stakeholders in attendance who represented regional, municipal, social service agencies, and the general public. Additionally, several stakeholders were surveyed individually. A list of stakeholders interviewed and a summary of comments received can be found in Appendix A. Major comment topic areas included:

- Transit Need and Access
- Community Service Organizations
- Service Hours and Days
- Fares
- Marketing of Service
- Other Issues

Overall, stakeholders indicated a number of prevalent concerns and ideas for transit service within Wallingford. These included:

- Transit is a vital service for many members of the community, but currently does not provide enough service and omits some key destinations that riders would likely want to access.
- There is a need for expanded service, including evening and weekend service, to reach some activities.
- Primary users of transit include older adults, people with low incomes, people with disabilities, and people accessing community services.
- Service is desired along North Plains Industrial Road to reach community service agencies that have located in this area within the last 5 to 10 years.
- Several of the agencies are currently providing transportation to their clientele, but generally cannot meet all the demand for service.
- Downtown Wallingford continues to be an important destination for transit riders.
- Walking conditions in some areas of Wallingford are challenging, in particular along Route 5, which makes bus access difficult.
- Transit is currently primarily used for non-work purposes, partly due to limited service hours.
- Regional connections, such as to New Haven, are very difficult for riders to make, and take multiple bus transfers with inconvenient schedules.

Overall, stakeholders expressed their support for services and for amending the Wallingford Local bus to better serve the needs of the Wallingford community.

PREVIOUS STUDIES AND PLANS

Past planning efforts can provide useful insight into the nature and level of demand for transit services. Conclusions of past planning studies may still be pertinent, and their contents will be explored throughout the course of this study.

Wallingford Bus Transit Evaluation and Assessment (1996)

The Wallingford Bus Transit Evaluation and Assessment was prepared by Connecticut Department of Transportation (ConnDOT) in August, 1996. The study reviewed employment figures, residential densities, retail zones, income and auto ownership, and ridership on the Wallingford Local route. At the time the study was conducted, the route provided service on an alignment and schedule that is effectively identical to the Wallingford Local route today.

Specific conclusions outlined by the study were:

- A one-day ridership count showed 61 boardings on the survey date.
- The majority of major transit trip generators are currently being served by the Wallingford Local bus service.
- Relatively low population densities, high household incomes, and few zero-car households are demographic characteristics which are not supportive of fixed route bus service in Wallingford.
- CTTransit and Wallingford Local bus service are duplicative and compete for ridership in a weak market area.
- Extension of the Wallingford route to the northernmost shopping centers along Route 5 would probably attract additional riders, though it would likely reduce ridership on the CTTransit route.
- Modification of the Wallingford Local Bus service to operate as a route-deviation service to replace current fixed route and ADA complementary paratransit service could reduce overall operating costs by \$125,000.
- High operating costs and low ridership make termination of the Wallingford Local Bus service an option which must be considered.

Based on the analysis of the data reviewed, the report generated two major route and service modification options. The first option was the termination of the Wallingford Local Bus service because of low ridership and high operating costs. The second alternative was to change the fixed route system to either a route deviation system or a demand response system using smaller buses. In a route deviation system, the route would primarily follow the existing fixed route but deviate on request to pick up riders on demand, generally within a limited radius (1/4 mile or 1/2 mile) of the fixed route. The route would also be extended to the retail area at the Meriden – Wallingford town line (Town Line Shopping Center).

Envision Wallingford (2005)

Another major planning effort, *Envision Wallingford 2015*, which is the Town of Wallingford's Plan of Conservation and Development, was issued by the Town in 2005. While not specifically a transportation study, the Plan recommends several strategies which encourage and support bus transit. Some of these strategies include:

- Building of sidewalks for enhanced pedestrian connections

- Construction of multi-unit housing which increases population density
- Construction of affordable and elderly housing

SUMMARY OF NEED FOR SERVICE

Based on the data described in this chapter, the following findings regarding the need for transit service in Wallingford emerged:

- There is a strong need for services among a relatively small portion of the Wallingford community – those with the fewest means and limited ability to drive. While the number of people who need access to this service is somewhat low, the need for services for these riders and potential riders is acute.
- Demographic data indicates that the areas with the highest concentrations of transit dependent riders are located in the vicinity of downtown Wallingford, particularly between the railroad tracks and I-91; and south of Route 68 and west of Route 15. Current service provided by the Wallingford Local Route is designed to serve these areas, and its service areas fairly closely match the areas of highest need on a broad basis.
- By contrast, other areas of Wallingford, including the northeastern and southeastern areas of town, have a relatively low concentration of likely transit users as well as relatively low density, and do not represent strong markets for transit.
- Transportation services are currently being provided by community service agencies in locations and at times when fixed route bus services do not operate. Approximately 20 trips per day are made by the collective agencies described earlier in this report. While this service satisfies a portion of the overall need, not all residents in the community may be aware of services or able to make needed trips using these services. All of those agencies providing transportation service reported turning down riders, so the demand is apparently greater than the ability to provide the trips. Additionally, while these services (along with ADA complementary service and the Regional Rides program) provide tailored curb to curb service, they also require advance planning and therefore generally offer less flexibility.
- Over time, a number of important community destinations for transit dependent riders have located along North Plains Industrial Road. More recently, however, two of those services – Master’s Manna and Visiting Nurses Association – have relocated or gone out of business, respectively. This corridor was a key area of evaluation for its potential to support transit services during this study, but the relative need for service has diminished.
- Stakeholders expressed a strong need for services, particularly for access to daily life needs including medical trips and shopping/groceries. While there also appears to be a need for transit service to employment, the existing Wallingford Local route does not provide service at times that allow access to workplaces during the traditional workday, and therefore the level of need for this service is difficult to determine.
- Older adults have a high need for travel and are one of the largest population groups that have limited access to private automobiles. There are several services that offer transportation to this group, including the Wallingford Senior Center and the Regional Rides program provided by Greater New Haven Transit District.

- Stakeholders also expressed concern that the hours and days of service limit the ability to access some activities, including evening and weekend activities and programs provided by Master's Manna and Drydock.
- Stakeholders expressed concern at the difficulty of making regional connections using transit, including to the nearest major service and work market, New Haven. Depending on the destination, connections may require three or more bus transfers. Planning services that integrate with future planned regional rail services in the New Haven-Hartford-Springfield corridor will be a necessity in the future.

3 ANALYSIS OF EXISTING FIXED ROUTE SERVICE

WALLINGFORD LOCAL BUS

Route Description

The Wallingford Local is a one-way looping circulator route that provides local service within the Town of Wallingford (see Figure 16). The alignment consists of two large loops connecting to Center Street, the primary east-west corridor in downtown Wallingford. Beginning in the eastern part of Wallingford at Burke Heights/McGuire Court Housing, the route operates via Durham Road and East Main Street until Center Street. At the intersection of Woodhouse Avenue and Center Street, the Wallingford Local begins its first loop around the area southeast of downtown. It travels along Woodhouse Avenue, Kondracki Lane, Pond Hill Road, South Elm Street, Wall Street, and Simpson Avenue before returning to Center Street. From there, the route proceeds west along Center Street through downtown Wallingford, and turns north on North Colony Road/Route 5; this is the beginning of the second loop. The Wallingford Local travels north on North Colony Road for slightly over two miles, serving Walmart, Stop & Shop, and Wallingford Plaza. It then backtracks slightly from Wallingford Plaza to Church Street, where it continues west. Finishing the loop, the route operates south along North Turnpike, turns through the Masonicare Home and Hospital, and then turns east to return to downtown via Hall Avenue, which continues as Center Street. It then heads directly to Burke Heights/McGuire Court Housing via Center Street, East Main Street, and Durham Road. Major destinations along the route include:

Housing

- McGuire Court (aka Burke Heights)
- East Side Terrace
- Masonicare Home and Hospital
- Savage Commons
- Silver Pond Apartments
- South Side Terrace
- Yalesville Square area housing

Community Services

- The Drydock
- YMCA
- Wallingford Adult Education Learning Center (at the Wallingford Railroad Station)

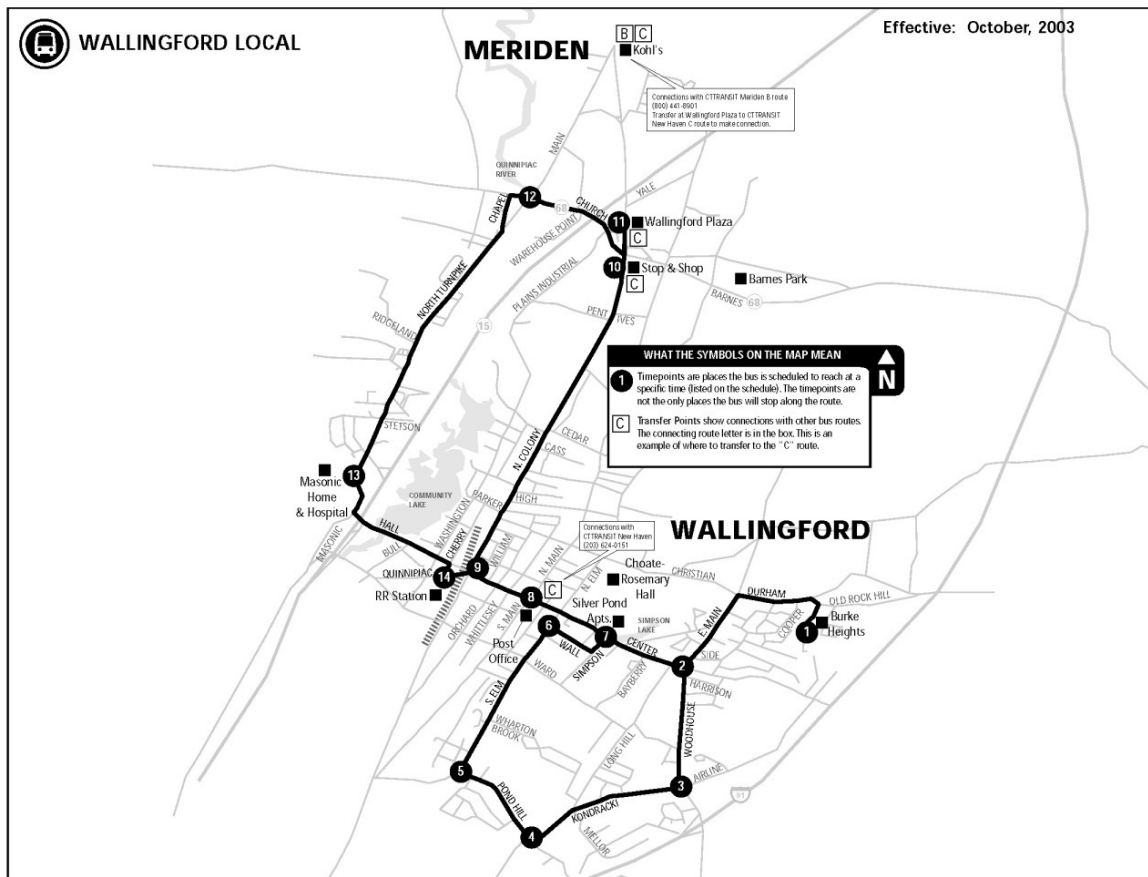
Shopping

- General retail along North Colony Road
- ShopRite
- Stop and Shop
- Wallingford Plaza (Big Lots, Family Dollar, Holiday Cinemas Stadium 10, Friendly's, Humphrey's, and Wallingford Bowl)
- Walmart

Other Local Destinations

- US Post Office
- Wallingford Amtrak station
- Wallingford Town Hall

Figure 16 Wallingford Local Route Map



Ridership and Operations

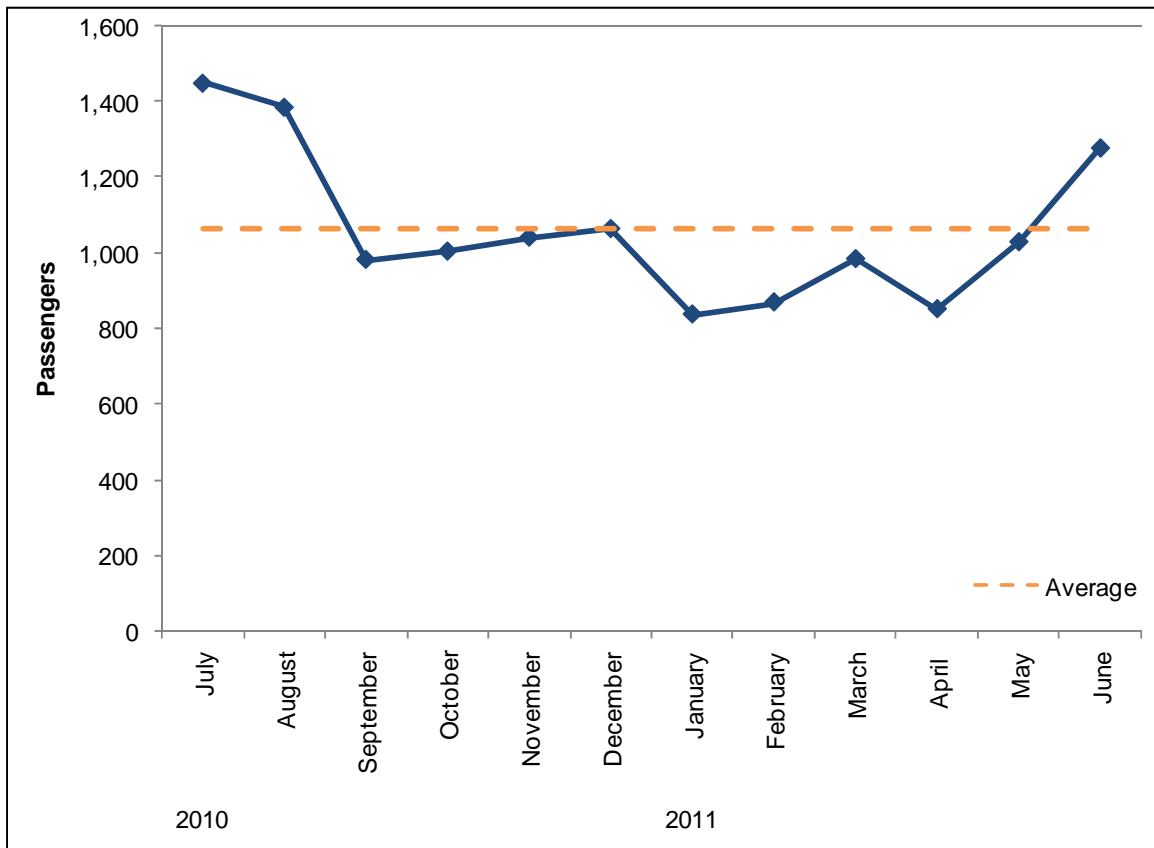
The Wallingford Local uses a combination of fixed stops and a "hail and ride" system. There are designated waiting areas and passenger shelters at several locations in downtown Wallingford, including one at Wallingford Town Hall, two on Center Street on either side of Main Street, two at Center Street at Colony Road, one at Silver Pond Apartments, one at Tremper Drive at Elm Street,

and one at Burke Heights/ McGuire Court Housing. In addition, riders can hail the bus at any location along the route and the bus will stop to pick up passengers wherever it is safe to do so.

The Wallingford Local departs from Burke Heights/McGuire Court Housing every hour on the hour from 9:00 am until 4:00 pm, ending service at 4:35 pm. The route provides eight trips per day: three in the morning and five in the afternoon. The last trip ends early at Church Street and North Turnpike (instead of Burke Heights/McGuire Court Housing) and returns to the garage. Because the route takes approximately one hour to complete from end to end, the service is operated with a single bus and driver. Only five minutes of recovery time – time provided for the bus to recover from travel delays – is provided on the route.

Between July 2010 and June 2011, the Wallingford Local carried 12,775 passengers, or an average of 1,065 passengers per month (see Figure 17). During this period, there were 49 passengers per day and 6.2 passengers per trip.

Figure 17 Monthly Ridership (July 2010 - June 2011) on the Wallingford Local Bus

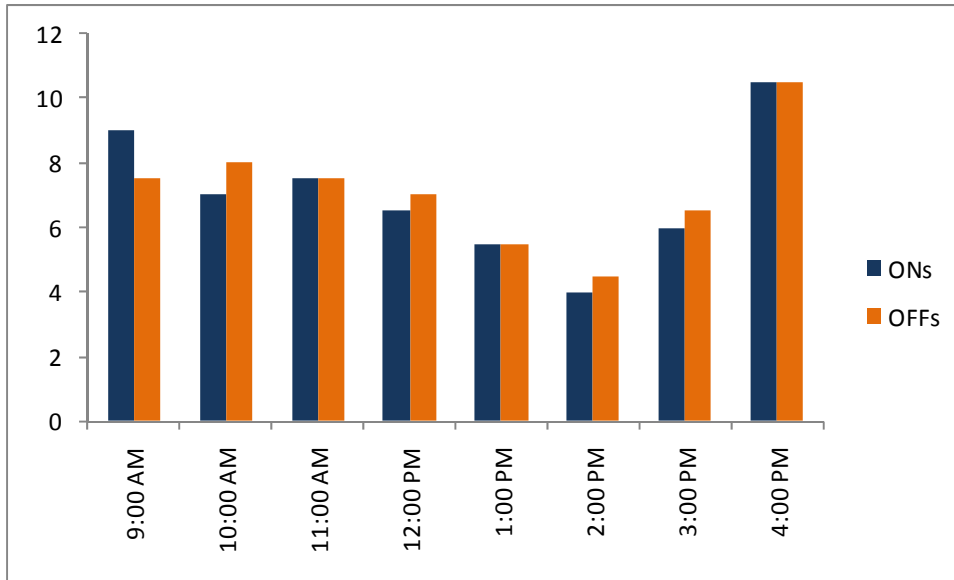


Generally, ridership on the Wallingford Local route is highest during the summer months and lowest during the winter and early spring months; fall months are around the average. This is an indication that student patronage on the route is likely not high. This finding is supported by CTTTransit data on boardings by fare type which shows that 33.4% of riders are seniors or persons with disabilities as compared with 8.9% of riders aged 5 to 18.

On September 29th and 30th, 2011, a ridership count was conducted on the Wallingford Local Route; this count tabulated riders by trip and by stop location. According to this count, ridership is highest on the first and last trips of the day, and lowest in the early afternoon (see Figure 18).

However, ridership on the last trip of the day is heavily influenced by a spike in ridership generated by an off-schedule trip serving Fosdick Fulfillment Center, which accounts for 9 out of the 10.5 average riders on that trip, as described further below. This ridership is not directly attributable to the normal operation of the Wallingford Local route. However, the data does indicate that there is demand for service earlier in the morning.

Figure 18 Wallingford Local Route Ridership by Time of Day



*Note: Ridership on the last trip of the day is heavily influenced by riders on an off-schedule trip between the Fosdick Fulfillment Center, which accounts for 9 out of 10.5 average daily riders on that trip.

Ridership activity on the Wallingford Local route is somewhat concentrated at several locations (see Figure 19). Key stops and areas include:

- Downtown Wallingford (a total of 24.5 boardings and alightings per day including both directions of travel)
- ShopRite (near Walmart) (18.5 boardings and alightings per day)
- Burke Heights/McGuire Court Housing and the leg of the route connecting to it along East Main Street/Durham Road (15 boardings and alightings per day)

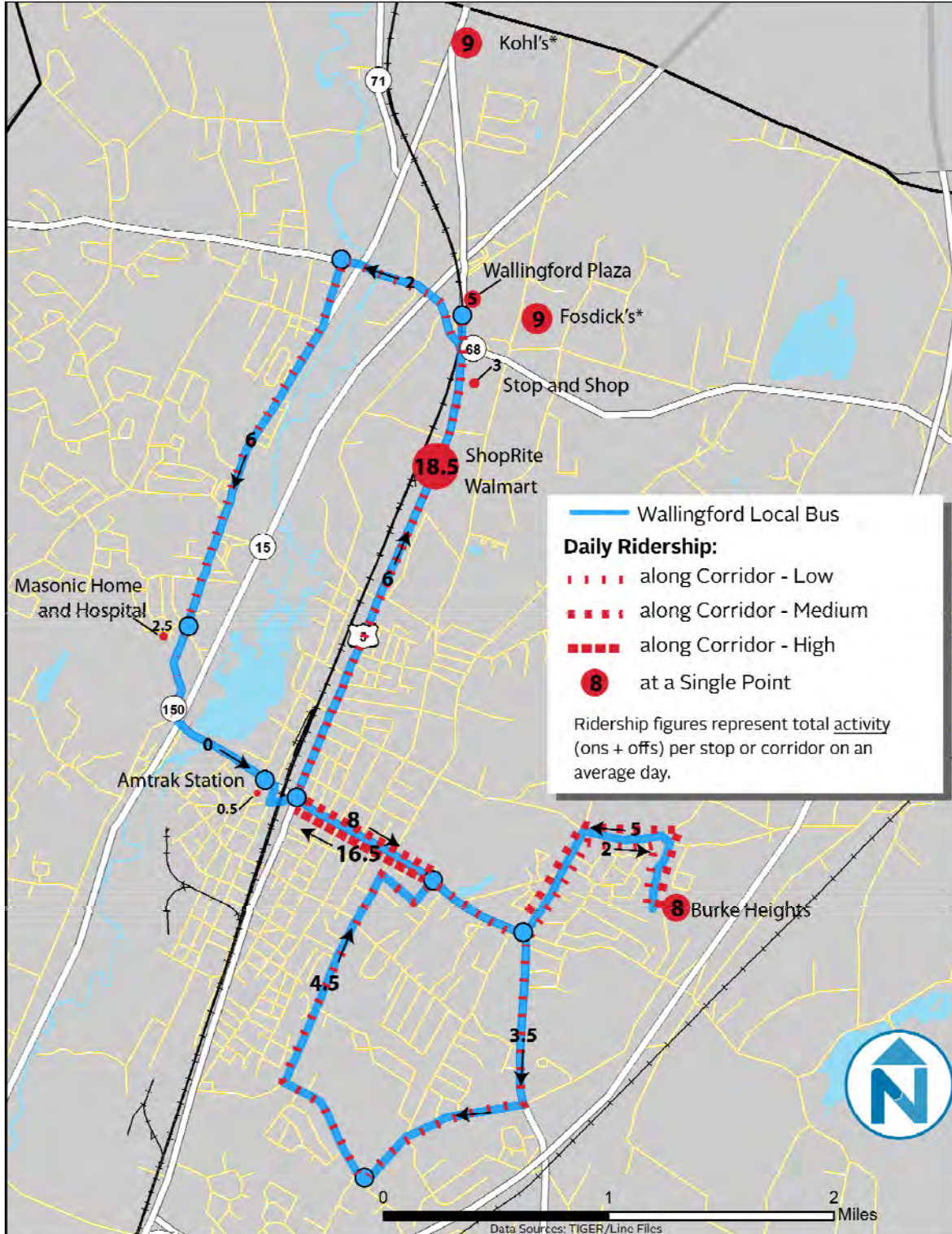
As shown in Figure 19, there is also ridership activity at two stops that are not actually located on the Wallingford Local Route’s official route alignment: nine boardings at the Fosdick’s Factory, and nine alightings at Kohl’s in northern Wallingford. As previously mentioned, these nine passengers are workers from the Fosdick’s Factory. Northeast Transportation has made an informal arrangement with Fosdick’s to provide a special off-schedule end-of-day trip for Fosdick’s employees leaving the work site; Northeast Transportation reports that the number is sometimes higher or lower.² This trip provides service from Fosdick’s to Kohl’s, where the riders can catch the A Route bus departing from Kohl’s to downtown Meriden. Since the last official Wallingford Local route trip ends at Church Street and North Turnpike Road³, and returns to its

² Note: At 4:35, a trip on the C Route also serves the Barnes Industrial Park/Fosdick Fulfillment Center in the opposite direction, but it only provides service to southbound riders (to New Haven/North Haven) and not to riders bound for Meriden.

³ As listed on the public timetable. In reality, it appears that the last trip goes out of service after Wallingford Plaza.

garage in Waterbury, this bus ends its official service day near the Fosdick's Factory area, and can therefore easily append this trip onto the end of the service day.

Figure 19 Wallingford Local Route Ridership by Stop



Productivity and Performance Measurement

The evaluation of the Wallingford Local route included an analysis of service productivity and performance. Service performance data listed below and described in the previous section are based on service inputs, outputs and consumption. *Service inputs* are summarized as total annual operating costs, while *service outputs* include revenue service hours and revenue service miles. *Service consumption* includes ridership and farebox revenues. The performance data is then expressed in terms of three performance indicators commonly used in the transit industry, which can be categorized as follows:

Cost efficiency. These indicators are the ratios of *service inputs* to *service outputs*, and measure the efficiency of resource allocation within the agency.

Cost effectiveness. These indicators are the ratio of *service inputs* to *service consumption* and measure how well the service is utilized by the community.

Service effectiveness. These indicators are the ratio of *service consumption* to *service outputs* and measure how well the capacity of service is being utilized by the consumer.

An assessment of how well fixed-route services have performed with regard to the three categories of performance indicators (cost efficiency, cost effectiveness, and service efficiency), as well as changes in these factors over time, is discussed below.⁴

Figure 20 Wallingford Local Route Productivity in August 2011 Compared with Concord, NH

	Indicator Type	Wallingford Local*	Concord, NH (2009)
Operating Costs		\$17,169.82	\$52,923**
Total Vehicle Miles		3,948	11,353**
Revenue Vehicle Miles		3,041.8	
Total Vehicle Hours		184	795**
Revenue Vehicle Hours		172.5	
Passengers		1,211	8,541**
Operating Costs/Total Vehicle Mile	Cost Efficiency	\$4.35	\$4.66
Operating Costs/Total Vehicle Hour	Cost Efficiency	\$93.31	\$66.61
Operating Cost/Passenger	Cost Effectiveness	\$14.17	\$6.20
Passengers/Total Vehicle Mile	Svc. Effectiveness	0.31	0.75
Passengers/Total Vehicle Hour	Svc. Effectiveness	6.58	10.75

*Data was only available for one month of service.

**Note: These figures are annual figures divided by 12 months.

⁴ This analysis utilizes a number of data sources. As previously mentioned, on September 29th and 30th, 2011, a ridership count was conducted on the Wallingford Local Route. Additionally, during this period an on-board survey of riders was conducted; the results of this survey are analyzed in Appendix A. Additionally, CTTransit and the Town of Wallingford have provided performance and cost data. Not all data are available for both routes since data sources differ, and data reported from different sources may differ slightly even for the same route.

The Wallingford Local route averages 0.31 passengers per total vehicle mile and 6.58 passengers per total vehicle hour (see Figure 20). A peer productivity case study can be found in Concord, New Hampshire, where a system of four routes serves a population of approximately 42,000 and operates in a similarly mixed small urban/suburban environment. Figures for both agencies are shown in the table. By comparison, service in Concord performs at a much higher level in terms of passengers per vehicle hour and per vehicle mile, operating cost per passenger, and operating cost per mile (although costs have likely risen since 2009, the period for which Concord figures are available). However, in terms of operating cost per total vehicle mile, Wallingford performs slightly better than Concord.

Figure 21 provides an overview of the costs and revenues for the Wallingford Local Bus in FY2011. The farebox recovery ratio for the route – the revenue generated by passenger fares divided by the total operating costs – is 6.5%. This is fairly typical of transit in a small town such as Wallingford. On an annual basis, after accounting for fare revenue, the Wallingford Local route is subsidized at the rate of \$15.15 per passenger, which is very high.

Figure 21 Wallingford Local Bus Operating Costs in FY 2011

	Wallingford Local
Total	
Operating Costs	\$203,030.02
Passenger Fare Revenue	\$13,069.80
Passengers	12,775
Average Monthly	
Operating Cost per Passenger	\$16.18
Farebox Recovery	6.5%
Subsidy per Passenger	\$15.15

Performance Measurement – Vermont Comparison

Performance measurement allows an objective examination of effectiveness of services and allows operators and public officials to more effectively track service output, cost effectiveness, and service efficiency. In the case of Wallingford, while data is collected on an occasional basis, there are currently no transit operator performance standards set as goals.

To provide a useful comparison, it is instructive to examine the case of Vermont, which has established a statewide set of performance measures based on the type of transit service provided by each individual transit agency within the state. These performance measures help to determine whether or not service will be funded by the state. The Wallingford Local Route provides a type of service that most closely matches the "Small Town" service type described in these standards. For Small Town operations, performance standards are based on boardings per mile (see Figure 22).

Figure 22 Vermont Service Standards for Small Town Routes (2010)

Vermont Performance Standards for Small Towns (2010)		
Rating	Cost per Passenger	Passengers per Revenue Hour
Acceptable	\$11.52	5.2
Successful	\$5.76	10.4
Wallingford	\$15.89*	7.02**

*Based on Annual data

**Based on August 2011 monthly data

The Wallingford Local route has a cost of \$15.89 per passenger, which would receive an "unacceptable" rating, and carries an average of 7.02 passengers per revenue hour, which would receive an "acceptable" rating. However, by comparison with many Vermont systems, Wallingford has a relatively small offering of local transit services, which decreases the overall permeation of transit in the local area and limits ridership. Nevertheless, the Wallingford system has a low productivity overall, and a high subsidy per rider, comparable to that of a dial-a-ride system.

Rider Survey

On September 29th and 30th, 2011, a survey of riders was administered on the Wallingford Local route. A full analysis of the results is included in Appendix B. Key survey findings included the following:

- Almost a quarter of respondents live in the Downtown Wallingford area; other respondents are distributed throughout the Wallingford Local Route service area.
- Approximately half of riders are under the age of 45; more than a third of riders are aged 65 and over.
- Only 6% of riders always have access to a car; the vast majority of riders never or sometimes have access to a car.
- Very few riders use the Wallingford Local route on an occasional basis; 88% of respondents ride at least 2 times per week.
- The most popular reported sources for information are the bus driver, and posters or printed schedules. Other important sources of information included friends and family, and the CTTransit website.
- The vast majority of riders -- 70% to 84% -- reported walking to or from the bus at one or both ends of the trip. Connecting to or from the C route was also listed for as many as 23% of trips.
- Downtown Wallingford, Walmart, Stop and Shop, and ShopRite were the most frequent destinations that riders use the route to access.
- Few riders had ideas about additional areas or locations that the route should serve. However, respondents ranked more frequent service as the most important improvement, followed by weekday evening service and weekend service. These preferences were echoed in the write-in suggestions offered by riders.

Service Design

The Wallingford Local route is intended to provide community circulator service to residents of Wallingford. Implicit in the service design is also that the route is targeted towards transit dependent riders. The route connects residential units (including higher density and multi-family housing, low income housing and older adult housing) with community services and shopping. The route's schedule does not serve traditional commuters well since the schedule would not support an eight-hour shift. Ridership data does, however, suggest that some riders are using it for part-time employment and/or for one way travel to or from their work trip.

The current service closely matches the areas of highest transit need and reaches many important destinations. However, to connect these destinations, the route follows a circuitous path through numerous neighborhoods. While covering a large part of the area, the service design increases travel times.

Service Challenges

The Wallingford Local faces a number of service challenges, including a challenging operating environment and budgetary factors. These include:

- **Reliability and Scheduling:** Currently, to keep costs low, the route is scheduled with only five minutes of recovery time for a one-hour service. A general rule of thumb for transit scheduling is to leave at least 10% of the route's total travel time for recovery; this gives the driver time to make up for delays as well as a short break at the end of the route. Scheduling has not been revised since at least 2003, during which time numerous changes in the service area have taken place, including a likely increase in traffic. The route commonly runs about 5 minutes behind, but it has been observed to be running 10 to 20 minutes or more behind during one sample day. If service is not reliably on time, riders cannot count on service getting them to their destination in a timely manner, thus eroding riders' ability to count on using the service.
- **Operating Environment:** Wallingford is a challenging operating environment for transit services. Development is generally low in density, except in downtown Wallingford. Combined with the fact that transit destinations riders would wish to visit most are dispersed throughout the town, this means that local transit service in Wallingford must either omit some destinations, or else travel on a long path between destinations.
- **Multi-Modal Connections:** All transit riders are also pedestrians and need to walk or roll to the bus route. Much of the Wallingford Local route's path travels through areas without continuous sidewalk connections. Also, some areas of the route are lined by businesses with wide and/or frequent access driveways, which results in a less pleasant walking environment. The pedestrian environment in Wallingford therefore poses a barrier to using transit services.
- **Hours and Days of Service:** The limited hours of service (and to a lesser extent, limited days of week of service) are a likely barrier to attracting riders. However, because transit ridership is relatively low, it is also difficult to provide expanded hours of service, resulting in a catch-22.

Service Change Opportunities

As a result of investigations into the performance of existing service, the following strategies emerged as potential opportunities to improve service:

- **Provide service along Washington Street/North Plains Industrial Road:** Currently, the Wallingford Local and the C Route both provide service along North Colony Road between Center Street and Wallingford Plaza (although the Wallingford Local route travels in only one direction). Numerous community service agencies are located along the Washington Street/North Plains Industrial Road corridor, and providing service to this corridor could generate ridership.
- **Provide bi-directional service along entire route:** Traveling out and back along the same street makes the route easier to understand and use and reduces travel times. Doing this would mean either reducing the service frequency or reducing the service area.
- **Provide a midday service break:** By giving the driver a thirty to sixty minute break, the Wallingford Local could extend its service hours by an equal amount, effectively extending the service day at no extra cost. This allows for the Wallingford Local to still retain just one driver to operate the bus and to begin service earlier in the day (to address higher demand for service in the morning). It would also allow the bus to correct its schedule at midday, and for a driver lunch break. To do this, a bus layover location would need to be found, as the Burke Heights/McGuire Court Housing area is not an appropriate layover location.
- **Coordinate services with the C Route:** Transfer times between the Wallingford Local route and the C route are very long. The proportion of riders connecting between the C Route and the Wallingford Local route is significant, and as many as a quarter of riders connect to the C route from the Wallingford Local route; timing the two services to operate in coordination would facilitate easier transfers between the routes and increase convenience.
- **Provide flex route service:** Instead of operating fixed-route transit, the Town may consider restructuring the route as a flex service. At a subsidy rate of more than \$15.00 per passenger, productivity on the Wallingford Local route approaches the typical levels observed on dial-a-ride service. A flex route service could have the potential to better serve customers. In flex-route service, the route must hit specific timepoints along a route, but is otherwise free to pick up and drop off customers upon request, typically within a ¼ mile radius of the route or within a defined service zone. Customers may request an off-route pickup by phone reservation, which is then communicated to the driver. Flex service offers a higher degree of service customization at a comparable cost to fixed route service, and balances many of the benefits of both fixed route service and dial-a-ride service. An example of Flex service design in Rhode Island is shown at right.
- **Weekend service hours:** The rider survey conducted identified this as a top priority for riders among all the potential service improvements.
- **Longer service hours and more frequent service:** Both these improvements could capture travelers going to/from work and allow riders to attend recreational events and activities in the evening. They would also increase the convenience of riding transit. These were both identified as second level priorities among current users.

- **Additional driver:** On-time performance and reliability, while not identified as a top priority among current users, could help improve how transit is viewed within the town and generate additional riders.

CTTRANSIT C ROUTE

Route Description

The Town of Wallingford is approximately 5 miles north of North Haven and 14 miles north of New Haven, which is the second largest city in the state of Connecticut. Additionally, a large shopping center, with shops such as Kohl's and Staples, is located about 4 miles north of downtown Wallingford. With easy access to all of these destinations via I-91 or U.S. Route 5, Wallingford's advantageous location within the region gives residents access to shopping, employment, health care, and other services, but many of these destinations are difficult to reach for people without access to a car.

The CTTransit C Route is an inter-city fixed route service that connects northern Wallingford with North Haven and New Haven to the south via Wallingford (see Figure 23). Service operates via Wallingford between 5:20 am and 7:07 pm on weekdays and between 8:45 am and 6:13 pm on Saturdays. Sunday service is also provided, but no C Route service on Sundays serves the Wallingford area. The total end-to-end trip time is approximately 60 to 70 minutes (Kohl's in northern Wallingford to New Haven). A trip from downtown Wallingford to New Haven takes approximately 45 to 60 minutes.

Service Patterns on the C Route

In total, the CTTransit C Route provides 26 southbound and 24 northbound trips per weekday. Of these trips, there are 19 unique southbound and 15 unique northbound service patterns. This is very high, and results in service that is overly complex and means that riders are highly dependent on using printed schedules to understand whether the bus they are boarding will serve the stop where they need to get out.

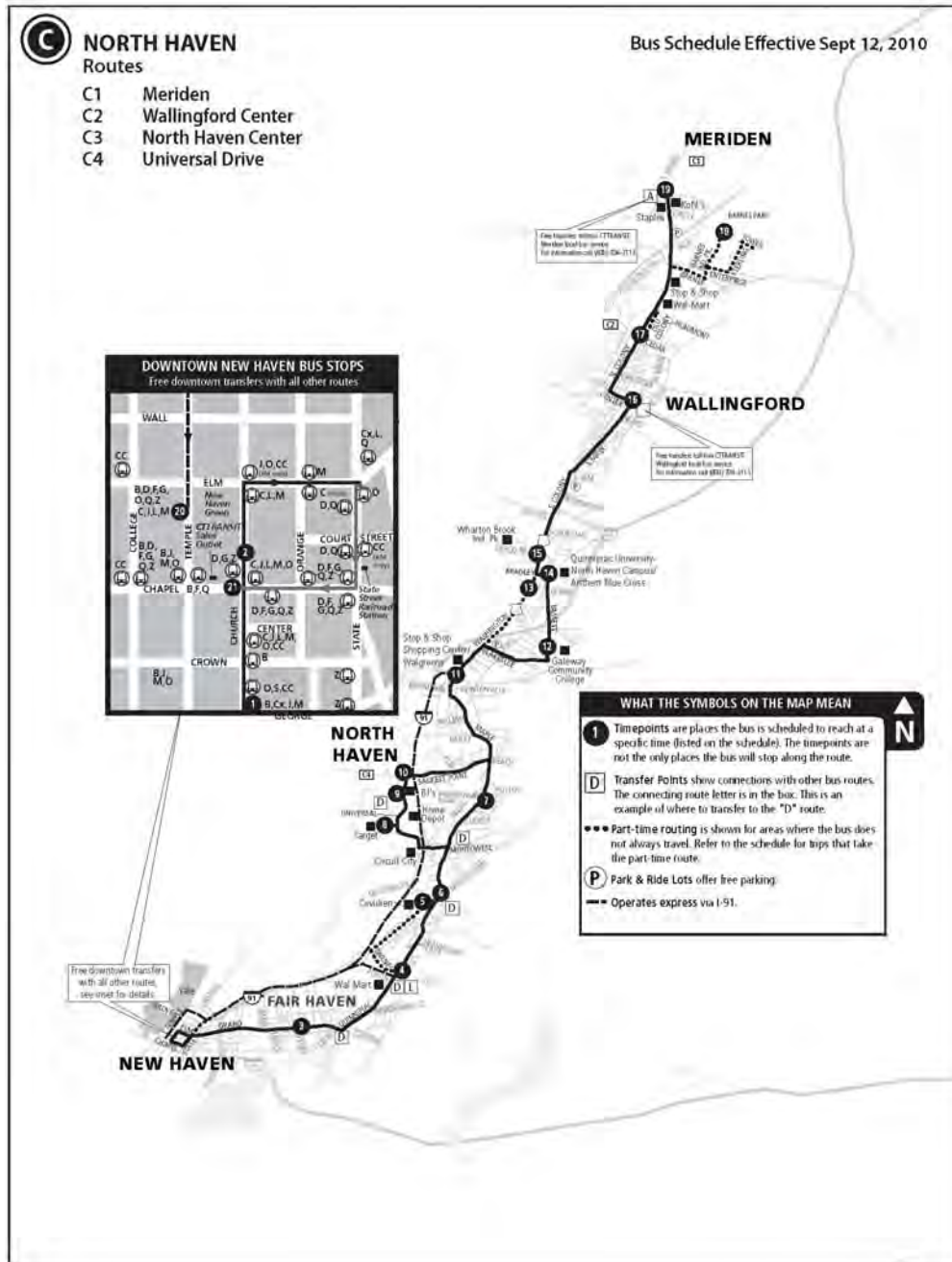
The C Route operates with multiple service patterns throughout the day; not all patterns serve Wallingford. The most common operating pattern serving Wallingford begins at Kohl's in northern Wallingford. From Kohl's, the route proceeds along Route 5/North Colony Road until the intersection of North Colony Road and Center Street. From there, the route operates through downtown Wallingford, following Center Street east until South Main. The C Route then continues south on South Main Street before returning to operate southbound along Route 5/South Colony Road. From this point, the route utilizes multiple different variants, including an express route along I-91, to reach North Haven and New Haven. The second primary variant in Wallingford begins at Barnes Industrial Park instead of Kohl's and then turns onto Route 5. There are some trips each day that serve both Kohl's and Barnes Industrial Park and some that serve neither, instead starting at North Colony Road and Cedar Lane. Of the trips that serve Wallingford, there are ten different one-way variants.

Major destinations along the route within Wallingford include:

- Barnes Industrial Park (2 southbound and 3 northbound trips per day)
- Kohl's and Staples
- ShopRite
- Stop and Shop
- Spanish Community of Wallingford (SCOW)

- US Post Office
- Wallingford Senior Center
- Wallingford Amtrak station

Figure 23 CTransit C Route



- Wallingford Town Hall
- Walmart

Major destinations along the route outside of Wallingford include:

- Anthem Blue Cross
- BJ's
- Gateway Community College
- Home Depot
- Quinnipiac University - North Haven Campus
- Target
- Wharton Brook Industrial Park (two trips per day)
- North Haven High School
- Rite Aid
- Sunny Side Up Early Care Learning Center
- Connecticut Natural Food Mart
- Bishop Woods School

Transfer Connections

Currently, there are three officially designated transfer points along the C Route and Wallingford Local (although other transfer points are possible along North Colony Road with flag stop service):

- Main Street & Center Street
- Stop & Shop along North Colony Road
- Wallingford Plaza along North Colony Road

The Wallingford Local leaves Burke Heights/McGuire Court Housing every 60 minutes on the hour, and has a total roundtrip travel time of 55 minutes. During the midday period in which the Wallingford Local operates, the C Route operates in the southbound direction to New Haven every 60 minutes leaving Kohl's at :52 past the hour (and serving downtown Wallingford at :06 after the hour). In the northbound direction, a bus departs downtown New Haven every 60 minutes at :25 past the hour (arriving in Wallingford at :21 after the hour). The C Route takes 14 minutes to reach downtown Wallingford from Kohl's and between 45 and 60 minutes to reach New Haven. This combination of departure times and cycle times results in a poorly coordinated system, regardless of transfer point, and means that users often have a long wait between buses. See Figure 24 for examples of transfer wait times riders could expect when connecting between the C Route and the Wallingford Local route. The buses often miss one another by just a few minutes.

Additionally, at Kohl's, C Route riders can transfer to the CTTransit A Route, which provides local service within Meriden; the A Route provides service on an hourly schedule. These services are generally well-timed to meet so that riders can transfer between services with a less than ten minute wait.

Ridership and Operations

Figure 25 provides an overview of the C Route's schedule. Headways (time between trips) vary throughout the day but is more consistent during the midday (between about 8:00 am and 2:00 pm), and primarily operates every 60 minutes during this period.

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Figure 24 Example Wait Times for Passengers Connecting between the C Route and Wallingford Local Route

Leave from...	Arrive at Main St. & Center St.	Transfer to...	Arrive at...	Transfer Wait Time (h:mm)	Travel Time (h:mm)	Total Trip Time (h:mm)
Downtown New Haven • <i>C Route: 10:25 am</i>	→ 11:21 am	• <i>Wallingford Local: 12:18 pm</i>	Masonic Home & Hospital → 12:40 pm	0:57	1:18	2:15
Downtown New Haven • <i>C Route: 1:25 pm</i>	→ 2:21 pm	• <i>Wallingford Local: 2:47 pm</i>	Burke Heights/ McGuire Court → 2:55 pm	0:26	1:04	1:30
Kohl's (Route 5) • <i>C Route: 12:52 pm</i>	→ 1:06 pm	• <i>Wallingford Local: 1:47 pm</i>	Burke Heights/ McGuire Court → 1:55 pm	0:41	0:22	1:03
Masonic Home & Hospital • <i>Wallingford Local: 9:40 am</i>	→ 9:47 am	• <i>C Route: 10:21 am</i>	Kohl's (Route 5) → 10:35 am	0:34	0:21	0:55
Masonic Home & Hospital • <i>Wallingford Local: 10:40 am</i>	→ 10:47 am	• <i>C Route: 11:06 am</i>	Downtown New Haven → 12:07 pm	0:19		1:27
Burke Heights/ McGuire Court • <i>Wallingford Local: 2:00 pm</i>	→ 2:18 pm	• <i>C Route: 3:06 pm</i>	Downtown New Haven → 4:04 pm	0:48		2:04

The C Route carries approximately 23.1 passengers per trip along the entirety of its route.⁵ On weekdays, 28% of riders who board the C Route do so at a stop within Wallingford. As illustrated in Figure 26, the highest ridership period for the entire C Route is during the AM and Midday hours. Figure 25 illustrates that the highest ridership within Wallingford is during the midday. Since the route is not specifically oriented to serve commuter markets, this is reasonable. On Saturdays, the C Route carries an average of 17.6 passengers per trip.⁶ On Saturdays, 26 percent of C Route riders board within Wallingford.

Figure 25 CTTransit C Route Schedule Statistics (Wallingford only)

	Span of Service	One-Way Trips*		Headway (minutes)
		Southbound	Northbound	
Weekdays				
AM Peak	5:20 am - 8:30 am	4	6	19 - 59
Midday	8:30 am - 2:30 pm	6	6	60 - 70
PM Peak	2:30 pm - 5:30 pm	4	5	19 - 60
Off Peak	5:30 pm – 7:07 pm	3	1	27 - 43
All Day	5:20 am – 7:07 pm	17	18	19 - 70
Saturdays	8:45 am – 6:13 pm	6	6	72 – 108

*Trips within each time period are based on the trip's departure time.

Figure 26 CTTransit C Route Ridership – Outbound and Inbound

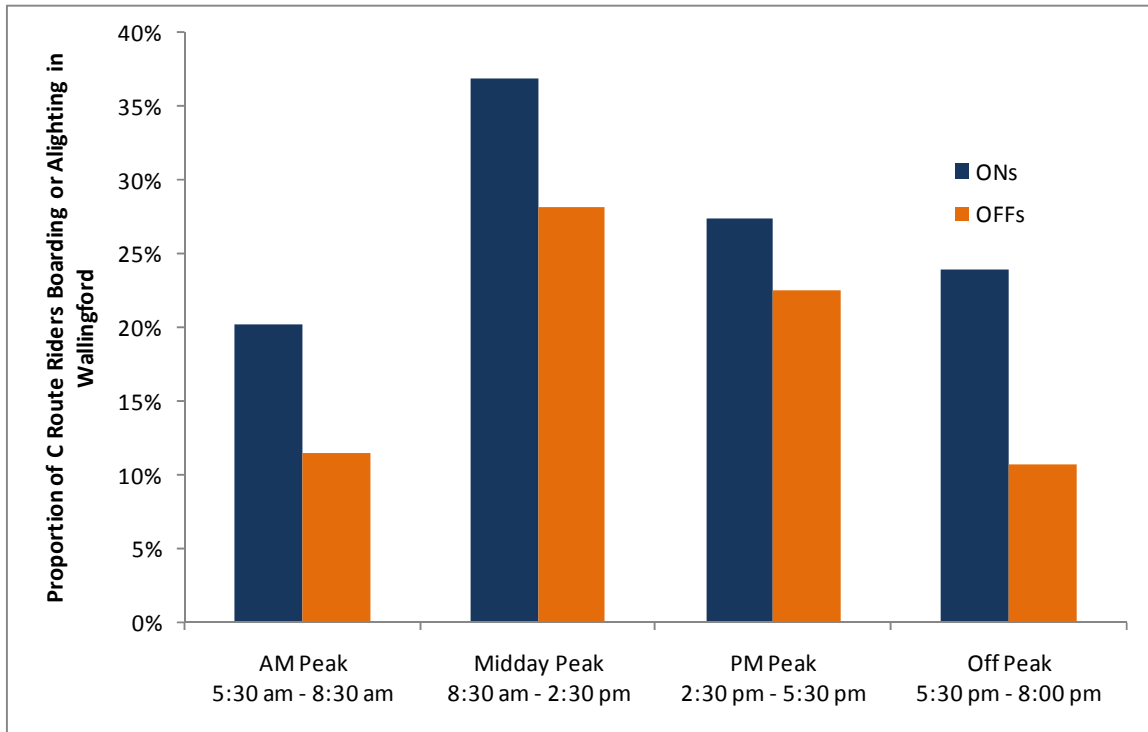
	Ridership⁷	Ridership per Trip
Weekdays	1,156	23.1
AM Peak		8.4
Midday Peak		7.8
PM Peak		5.8
Off Peak		1.1
Saturdays	369	17.6

⁵ Based on a sample of 21 inbound and 21 outbound trips conducted from January 2011 through May 2011. A cautionary note that this data was collected over a long sample period and does not represent a full day of service, so may not be fully accurate. There are 50 total C Route trips on weekdays, but the data contains a sample of only 42 trips.

⁶ Based on a sample of 10 inbound and 8 outbound trips conducted from September 2009 through May 2011. A cautionary note that this data was collected over a long sample period and does not represent a full day of service, so may not be fully accurate. There are 21 total trips on Saturdays, but the data was over a sample of only 18 trips.

⁷ See Notes 5 and 6.

Figure 27 Proportion of C Route Riders who Boarded or Alighted in Wallingford



Productivity

Productivity on the C Route is relatively high compared with the Wallingford Local route (see Figure 28). The route averages 1.19 passengers per total vehicle mile and 18.7 passengers per vehicle hour. Weekday and Saturday productivity are relatively similar, suggesting that service levels are well matched to the demand on each day.

Service Design

The C Route is designed as an inter-city connector and serves this function fairly well. However, the many variants add a great deal of complexity to the service and make it difficult to understand and use. Of the trips that serve Wallingford, there are ten different variants. This creates a confusing schedule wherein virtually every trip serves a slightly different set of stops along the route to North Haven and New Haven. Combined with the irregular trip headways and departure times, users of the C route are completely dependent on using a printed schedule, and some riders are likely deterred from using the service.

Figure 28 CTTransit C Route Productivity in 2010-2011

	Indicator Type	C Route - Weekday	C Route - Saturday
Operating Costs		\$1,302,735.69	\$101,127.80
Total Vehicle Miles		237,690.6	18,620.7
Total Vehicle Hours		15,045	1,144
Passengers		281,010	26,936
Farebox Revenue		\$239,982.54	\$23,003.34
Operating Costs/Total Vehicle Mile	Cost Efficiency	\$5.48	\$5.43
Operating Costs/Total Vehicle Hour	Cost Efficiency	\$86.58	\$88.40
Operating Cost/Passenger	Cost Effectiveness	\$4.64	\$3.75
Net Cost/Passenger	Cost Effectiveness	\$3.78	\$2.90
Passengers/Total Vehicle Mile	Svc. Effectiveness	1.19	1.45
Passengers/Total Vehicle Hour	Svc. Effectiveness	18.7	

Note: Data provided by CTTransit. Note that figures for CTTransit C Route consider total (rather than revenue) vehicle miles and hours due to data availability, which differs from the Wallingford Local route analysis.

Performance Measurement – Vermont Comparison

As previously described, Vermont provides a useful set of service standards by which route performance could be compared. The C Route is closest to the "Urban" service type (e.g. Chittenden County Transit Authority in Burlington, VT), for which performance standards are based on boardings per mile (see Figure 29).

Figure 29 Vermont Service Standards for Urban Routes (2010)

Vermont Performance Standards for Urban Routes (2010)		
Rating	Cost per Passenger	Passengers per Revenue Mile
Acceptable	\$7.78	0.87
Successful	\$3.89	1.74
C Route	\$4.64	1.4

The C Route has a cost of \$4.64 per passenger, which would qualify as "acceptable" and carries an average of 1.4 passengers per revenue mile, which would also qualify as "acceptable". In general, the C Route is a productive service, and service levels are reflective of the demand for service (including weekend service and late weeknight service).

Service Change Opportunities

- **Operate Service with Consistent Headways:** Currently, weekday and Saturday service operates on erratic headways throughout the day. At midday, service operates at more consistent headways, but still operates with variant patterns, so service may not serve a rider's stop on a given trip. If service was operated with consistent headways, it would be easier for riders to understand and use.
- **Reduce number of service variants:** The C route operates with 34 unique service patterns (out of 50 trips) on its weekday schedule. This results in very complex service that is difficult for riders to understand and use. In general, service variants should only be offered if there is a compelling reason to do so, and the number of riders inconvenienced by the variation is less than the number of riders added by providing the variant service. If possible, service should be consolidated to operate with a single set of service patterns.
- **Coordinate services with the Wallingford Local:** Transfer times between the Wallingford Local route and the C route are very long. The proportion of riders connecting between the C Route and the Wallingford Local route is significant; timing the two services to operate in coordination would facilitate easier transfers between the routes and increase convenience. This would involve matching the Wallingford Local route's schedule to that of the C route (since the C route is scheduled based on its broader service area).
- **Consider Operating Service to Downtown Meriden:** Service currently operates to the Kohl's store in northern Wallingford near the border of Meriden. While there is demand for service to this stop, downtown Meriden would likely provide an even stronger destination. In spite of close proximity between Meriden and Wallingford, riders from Wallingford must transfer two or three times to reach destinations within the Meriden area. If C Route service operated to a central downtown transfer location within Meriden, riders all along the route would benefit from increased access.

SERVICE IMPROVEMENT OPPORTUNITIES

Both the Wallingford Local and C Route are productive routes that meet a clear need in the community. The routes face similar challenges that limit their effectiveness. These challenges include the local operating environment, but also their service design as well as the way the routes are designed to work together.

As discussed, the Wallingford Local route is a circulator route that operates between neighborhoods and activity centers within the Town of Wallingford. The C Route, on the other hand, provides inter-city service to larger nearby communities. This service design is well conceived, but less well executed. As a result, the services are redundant and uncoordinated. This creates several opportunities to improve the effectiveness of both individual routes as well as the combined system.

In subsequent chapters of this report, the study team will develop a series of service improvement strategies that offer potential to improve the individual routes as well as the way the work together. At this point in the analysis, however, the focus is on identifying service concepts that will be further articulated with specific strategies. These concepts include:

- Use the C Route as the a “trunk” line, or the north-south backbone of local transit services. This concept means the only the C Route will operate on Route 5 through Wallingford and the Wallingford Local Route will be oriented towards local circulation and connections to the C Route. The two routes will also be scheduled to facilitate transfers.
- As a trunk line, the C Route would be changed so that the operating schedule and routing are consistent, clear and simple. While this change may result in a slightly smaller service area, the quality of service overall will be greatly enhanced. Subsequent service strategies will identify alignment options and proposed schedules through the Wallingford area.
- Operate the Wallingford Local route on an independent corridor and eliminate overlap with the C Route. The route should be redesigned so that it provides more direct service that is easier to understand and use. Service changes should also reflect operating conditions and be timed so that it is can run on a consistent and reliable schedule. Similar to the C Route, the next steps involve developing service alignment and schedule options for the Local route.
- Implement a 30- to 60-minute driver break on the Wallingford Local Route. This change will not only give the driver a chance to take a break, it will also allow the route to recover from any delays and it will extend the span of service slightly.
- Support changes with improved marketing and information systems.

4 DEVELOPMENT OF SERVICE REDESIGN CONCEPTS

SERVICE REDESIGN CONCEPTS

Based on the results of study analysis activities conducted during the first phases of the study, the project team designed two potential service redesign concepts. These concepts were developed to present two different approaches to redesigning transit services in Wallingford for consideration. Concept 1, "Serving the Strongest Transit Markets," focused on providing service where the largest concentrations of likely transit riders live -- including individuals with low incomes, persons with disabilities, youths, older adults, and households without a vehicle -- as well as to major destinations that riders would likely wish to access, including new service along Washington Street/North Plains Industrial Road. It also provided more direct, bidirectional service that is more convenient for riders. Concept 2, "Targeted Change" focused on maintaining a relatively consistent level of service to areas of Wallingford that already have service, reducing duplication with the CTTransit C Route along Route 5, and providing enhancements that would allow the route to stay on schedule more easily. The two concepts are shown in Figure 30.

SELECTION OF PREFERRED SERVICE CONCEPT

Based on the two service design concepts presented, Town of Wallingford staff and Mayor William Dickinson met to select a single proposed service concept. The two options were reviewed, and Concept 2 was chosen as the Preferred Alternative service concept, primarily due to its provision of service on the west side of Route 15 along North Turnpike Road. The final proposed service concept is shown in Figure 31. This concept was advanced as the proposed service design concept for further community feedback.

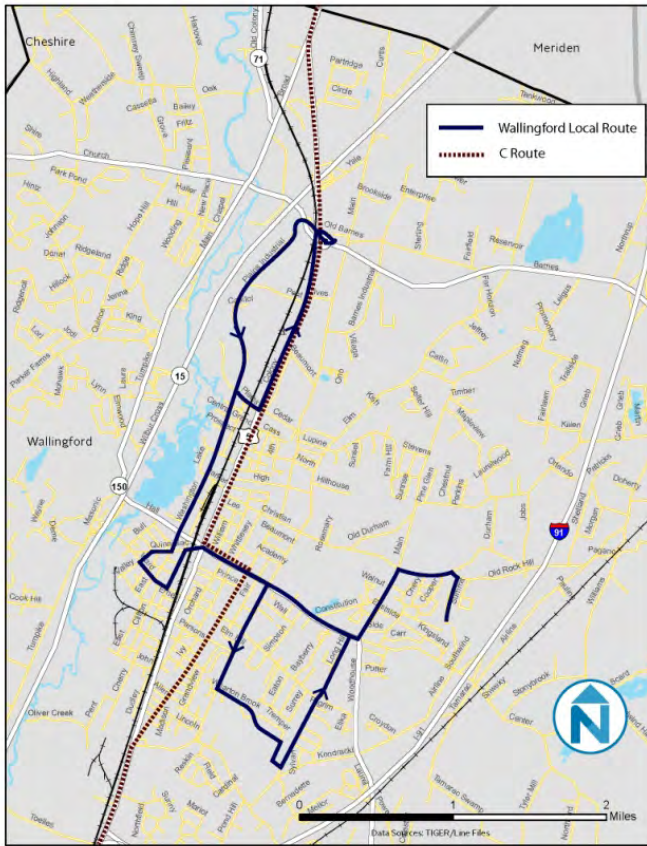
COMMENTS ON PROPOSED SERVICE CONCEPT

On May 8th, 2012, a public meeting was held to take comments on the proposed service redesign concept. Information about the meeting was sent to local newspapers, and advertisements were placed on both the Wallingford Local Route bus and the C Route buses. In total, eight individuals attended the meeting, including representatives of Master's Manna, Spanish Community of Wallingford (SCOW), Northeast Transportation, Town of Wallingford, South Central Regional Council of Governments (SCRCOG), and the Connecticut Department of Transportation. The following comments and discussion items were recorded.

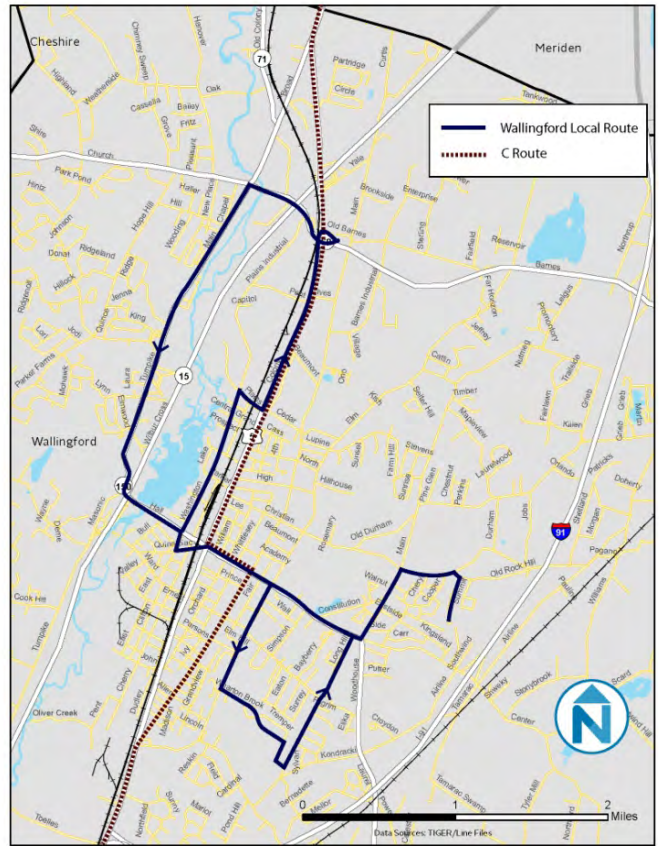
- Master's Manna is currently in the process of moving to a new location in the vicinity of Beaumont Road, ideally by the start of the school year
- Concern about lack of service to Parks and Recreation and Youth and Social Services

Figure 30 Service Redesign Concepts

Concept 1: Serving the Strongest Transit Markets



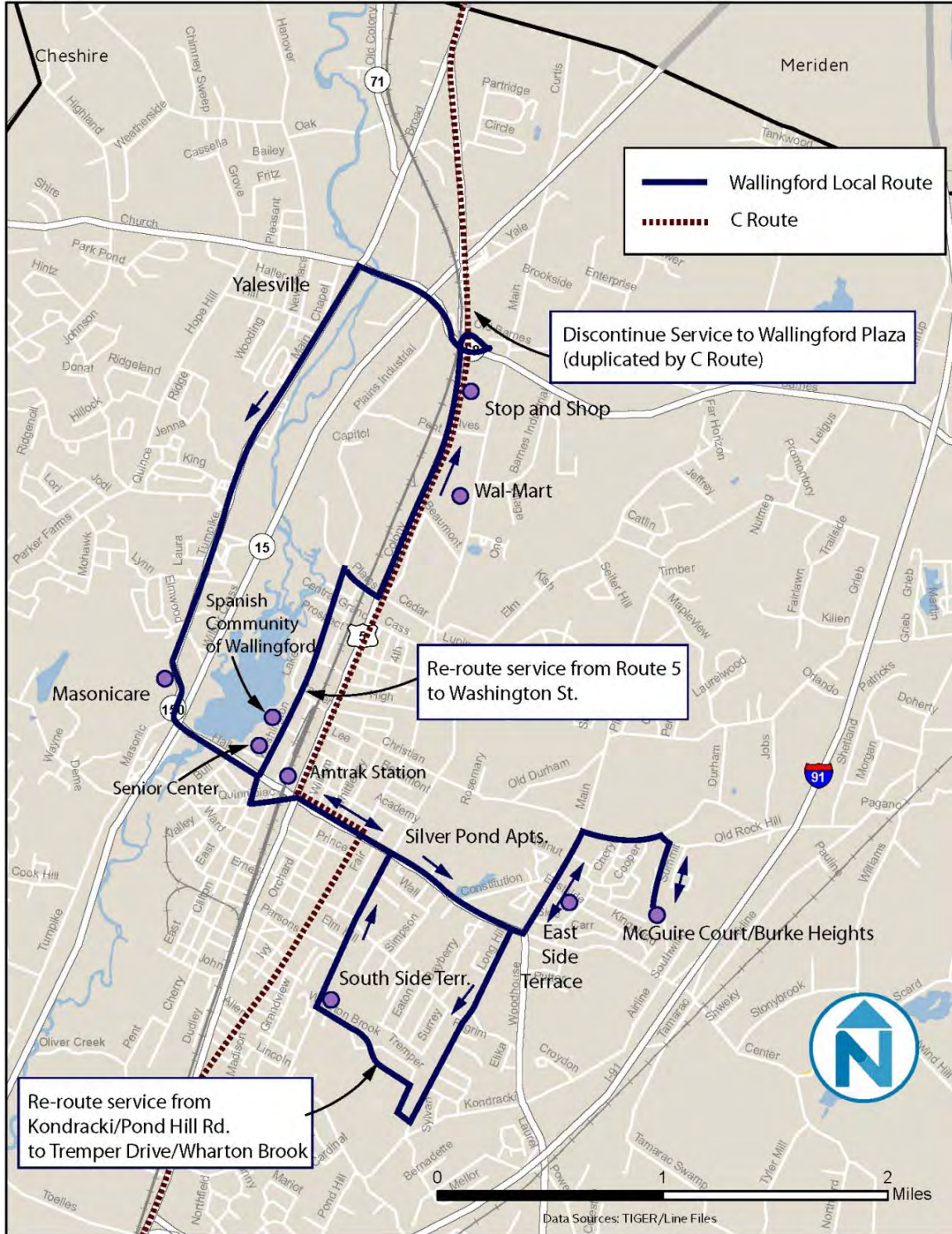
Concept 2: Targeted Change



- An individual from Village Green, a nursing home on Kondracki Lane, contacted project team members to raise a concern about removing service from that street
- Still a desire for service on North Plains Industrial Road
- Service changes near Silver Pond Apartments could be an issue
 - The bus shelter is on the north side of the street, and the shelter would have to be moved to the south side
 - There is a pedestrian crossing present at that location, however
 - Would it be possible to reverse the direction of travel in the south-eastern loop?
- Evening service - is it possible to shift some of the service from a weekday?
- Route is not useful to workers due to hours of service
- Concerns about hours of service, including no service prior to 9:00 AM, after 4:00 PM or on weekends
- Operational issues:
 - Outbound travel is slow; inbound is where time can be made up
 - Would it be possible to only enter one of the two plazas (Shop Rite and Stop n Shop)?
 - Some delays in service, particularly at traffic light to enter Route 5 from North Plains Highway
- Would it be possible to co-share rides using school buses to provide more service options?

- Overall support for the service and small changes proposed
- Once changes are selected, implementation could be within 4-6 weeks of final plan

Figure 31 Proposed Service Concept



5 PROPOSED FINAL SERVICE DESIGN

Based on the comments received during the public meeting, within the limitations of the resources available to operate the Wallingford Local Route, the project team considered possible final refinements to the route redesign. Figure 32 shows the Preferred Alternative service design. The following considerations were made during the revision process.

Service to Silver Pond Apartments

Silver Pond Apartments is a major transit destination on the Wallingford Local Route. Currently, service is provided in two directions by way of a loop through Wall Street and Simpson Avenue. A bus stop and (or with a) shelter is located on the north side of the road. In the proposed service design shown to the public, the bus shelter is no longer served. The possibility of moving the shelter was considered, but would incur a cost and inconvenience; it does not appear that there is ample room to move the shelter to the south side of the street, even with an easement. Therefore, the preferred alternative retains the loop through Wall Street and Simpson Avenue to provide bi-directional service to Silver Pond Apartments.

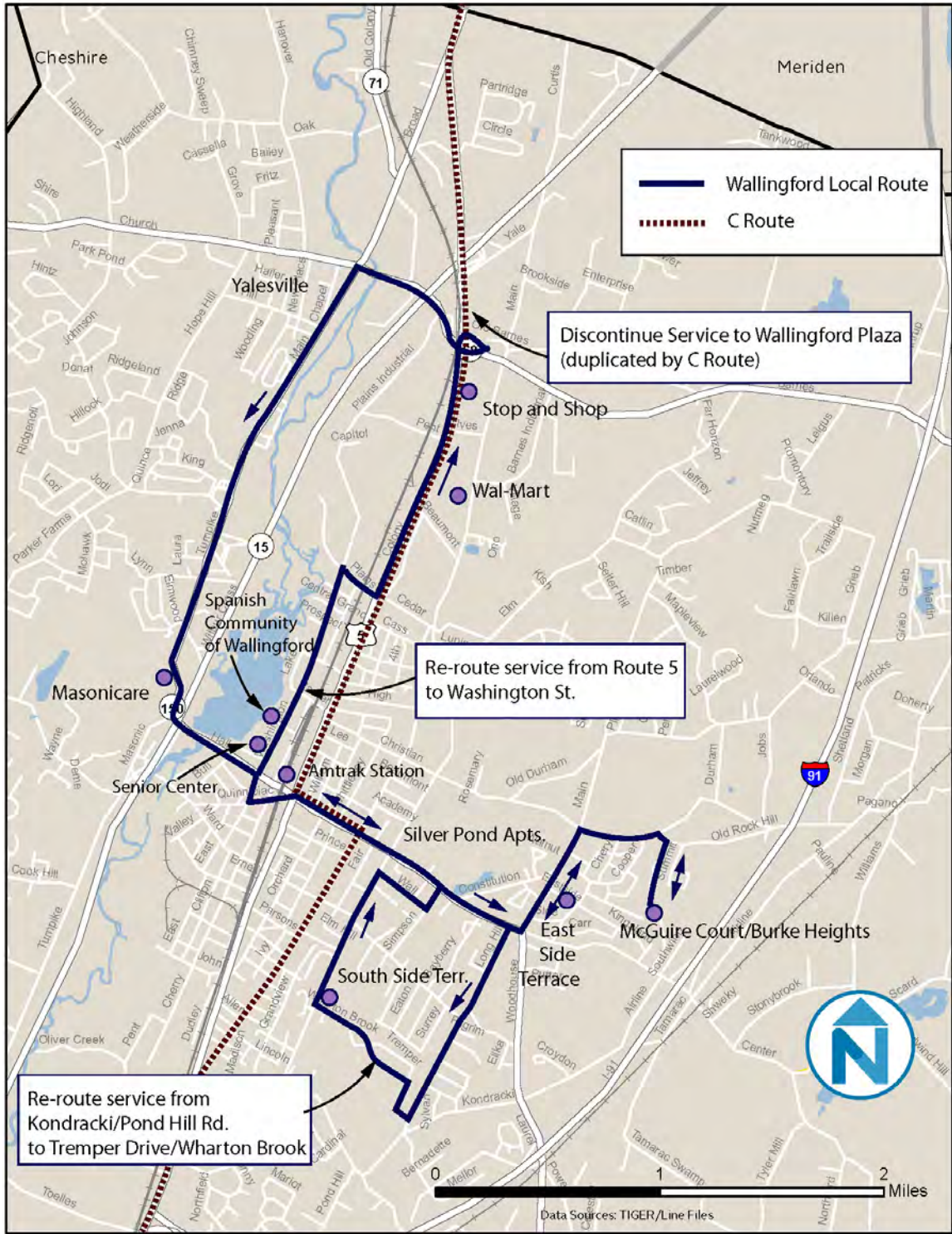
Hours of Service

Among the key comments from the public meeting was the difficulty in providing hours of service that would meet the needs of riders, including the need to travel to work and the need to access services on weekends and weekday evenings. One of the key challenges is that the total amount of available funding cannot be increased. Therefore, any change in the total number of hours of service provided would not be feasible. Shifting service from a weekday to a weekend in order to provide weekend service is not recommended, as it would result in inconsistent service.

Earlier in the study, the project team considered the possibility of using a midday break in service to allow the overall weekday daily span of service to be extended by the same amount. For example, if a one-hour break in service could be provided at midday, service could be operated one hour later in the evening (or earlier in the morning). However, it was determined that this would potentially violate union regulations regarding the limits on total workday hours, and result in the need to add overtime hours, which would result in a cost increase. It was therefore deemed infeasible within the constraints of the study.

The limited hours of service are nonetheless an important challenge that was cited frequently during the study. Expansion of the hours of operation of the route is an important priority for future expansion if additional funds become available.

Figure 32 Preferred Alternative Service Design



Service to North Plains Industrial Road

Providing service to North Plains Industrial Road was a key issue that was examined extensively during the study. The two most active destinations along this corridor are Master's Manna and the Visiting Nurse Association (VNA). There are also a number of smaller destinations, such as two child care centers and a physical therapy center. VNA has recently gone out of business and Master's Manna is relocating within the next year to Beaumont Street; therefore, the major anchor destinations in the corridor are no longer present. Service to North Plains Industrial Road could be considered in the future if more likely transit destinations move in to the corridor, but for the time being, no longer represents a major transit service target location.

Service to Shopping Plazas

Northeast Transportation has conducted initial timings on the proposed route design and determined that the route's schedule, while better than today, will still be a challenge for drivers to meet. One proposed option was to remove front-door service from one of the two shopping plazas (Shop Rite and Stop n Shop) that are currently served. This was considered, but would pose an inconvenience for riders at locations that generally have a great deal of ridership. It is therefore recommended that front-door service to these plazas be maintained.

FINAL SERVICE DESIGN

Taking into account all revisions, the proposed final service design of the preferred alternative route differs from the existing Wallingford Local Route in three ways:

1. Service to Wallingford Plaza just north of Route 68 is discontinued to reduce duplication with the C Route and to save time.
2. Service is shifted one block west onto Washington Street on the southern portion of Route 5; service is provided for a short distance on Quinnipiac Street in both directions.
3. The southern loop of service is shortened to serve Tremper Drive and Long Hill Road rather than Woodhouse Avenue and Kondracki Lane; a jog to serve Silver Pond Apartments in two directions is eliminated.

PROPOSED SERVICE SCHEDULE

Given that the level of available funding will remain relatively constant in the future, it is not feasible at this time to expand the hours of service. The recommended route would operate hourly, departing every hour on the hour from McGuire Court Apartments, during the same hours of service as today: 9:00 AM to 4:35 PM. (The last trip terminates mid-route at Church Street and North Turnpike Road.)

The route has been timed preliminarily by Northeast Transportation, and it is believed that the proposed routing changes will allow the route to save some time and maintain its service schedule more easily. However, the exact schedule specifications must be determined prior to implementation. The following conceptual service schedule, which is almost identical to that provided today, is recommended (see Figure 33). No impacts on vehicle or driver hour requirements are projected.

Figure 33 Proposed Service Schedule

Leave McGuire Court/Burke Heights
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM*

*Terminate at Church Street and North Turnpike Road at approximately 4:35 PM

Timing of Route

Among the issues considered in developing the proposed route schedule was the opportunity to coordinate scheduling of the Wallingford Local route with that of the C Route. Based on the changes proposed, however, the Wallingford Local route will not have sufficient layover time to develop timed connections with the C Route. Coordinated timing is especially difficult in this case, as there is likely travel demand for connections between the Wallingford Local route and both the C Route’s northbound and southbound directions of service, which do not pass through Wallingford Center at the same time. Currently, northbound C Route service passes through Wallingford Center at approximately 21 minutes after the hour, and southbound service passes through at 6 minutes after the hour. Even if one direction was selected for timed transfers – for example, if the Wallingford Local route was timed to meet seamlessly with only southbound service to New Haven – in order to provide seamless transfers, the Wallingford Local route would need to lay over at the transfer location between the two routes in order to provide connections for both passengers transferring from the C Route to the Wallingford Local route and passengers doing the opposite. This is not possible given the current schedule, which has fairly lean layover time. For these reasons, while timed transfers are desirable, they are not currently feasible given the structure of the route.

BENEFITS OF PROPOSED CHANGES AND ESTIMATED RIDERSHIP IMPACTS

Given that the proposed changes to the route are relatively limited in scale, the estimated ridership increase resulting from the changes is relatively light. The key benefits of the changes include:

- Service that adheres to its schedule more closely (more reliable service)
- Service to new locations: SCOW and the Senior Center
- Service directly along Tremper Drive, a dense Wallingford Housing Authority development

These changes will likely result in a ridership increase of about 10%, or 5 riders per day more than the existing 49 riders per day.

6 CONCLUSIONS AND IMPLEMENTATION

Although the final service redesign represents a relatively limited revision of the existing Wallingford Local route, the proposed changes balance the need to maintain some level of coverage to the majority of the existing areas served with the need to provide service that can meet its schedule and serve important community destinations. The changes proposed generally represent a relatively minor set of changes and could likely be implemented within a relatively short timeframe of two to three months. Implementation needs that impact this timeframe are the need to re-time the route, publish and promulgate new schedules, and conduct driver rescheduling.

SERVICE FUNDING

The Wallingford Local Route is currently funded through a partnership between ConnDOT and the Town of Wallingford. The Town provides \$60,000 annually to ConnDOT for the operation of the service. This level of Town funding has not increased since at least 2002. However, annual operating costs for the route have increased over time. In FY 2011, the net operating deficit (operating costs less fare revenues) totaled \$192,284. The service redesign assumes that funding levels will remain steady.

OUTREACH AND MARKETING

The Wallingford Local route is branded through the CTTransit logo and color scheme which appear on the buses and bus stops. Marketing also includes maps and schedules, a page on the CTTransit website, a rider call-in number, and service information on Google Transit. These strategies are reasonable and effective, but one of the key issues cited by stakeholders during the outreach process was a lack of information about service, there is an opportunity to improve existing systems and attract support for the services. Given that the Wallingford Local route primarily caters to transit dependent riders, an effective outreach strategy will closely target this market.

The objective of the outreach strategy is to increase support for and awareness of transit services in the broader community. Outreach strategies can also help Jacksonville Transit open new markets and develop partnerships that will directly and indirectly lead to increased use of transit. Part of the challenge of the existing service is that, while the route is very important within the Wallingford community, for ConnDOT it is also a single, low-ridership route among a very large system of services throughout Connecticut. A marketing and outreach strategy that brings together both parties will be most successful at increasing the role of the service within the community and promoting ridership.

Potential steps associated with developing a marketing and outreach strategy include:

- Designate a Town of Wallingford staff person as a transit community liaison. This liaison would:
 - Maintain relationships with key community service groups (such as SCOW, Master’s Manna, the Wallingford Senior Center, the Department of Parks and Recreation, and the Wallingford Housing Authority) to disseminate information about the transit route.
 - Maintain a community agency contact list for distribution of transit map and schedule materials on a regular basis
 - Serve as a point of contact for local concerns and suggestions about transit services
- Provide new rider training sessions hosted by ConnDOT. These sessions would be focused on target transit rider markets such as older adults and persons with disabilities. Sessions could also be used to train human service agency representatives, who could in turn relay that knowledge to their clients.
- Develop introductory “how to ride the bus” materials for community groups that can be provided to individuals.
- Post information about transit services in key community locations, such as grocery stores, community centers, Masonicare, housing developments, and Town Hall.
- Provide route information at bus stops – this can range from a simple decal on the bus stop sign to a full schedule and/or map of the route or routes serving the bus stop. Pasting a decal with the route number on the bus stop sign can provide confirmation to first-time or occasional riders that they are at the correct location to catch a particular route. More detailed route information is often attached to a bus stop pole (particularly at heavily used stops) to provide an extra layer of information and assurance to waiting passengers.

ACCESS AND CONNECTIONS

For transit to be successful, pedestrians must be able to easily access the service and easily walk when they get off the bus or train. One of the challenges for building transit ridership in Wallingford is the inconsistent level of pedestrian infrastructure needed to make walking to the bus stop safe and convenient. Therefore, one of the key strategies that could be used to make transit more successful is the provision of improved pedestrian amenities and conditions.

- Provide sidewalks in the vicinity of all transit bus stops and along the route of the Wallingford Local route.
- Reduce vehicular roadway lane widths to no more than 11 feet per lane and never require pedestrians to cross more than three lanes without a protected refuge.
- Rededicate any reclaimed roadway space to provide or widen sidewalks, crosswalks, paths, and bike lanes.
- Guide motorized modes to operate at appropriate speeds and along appropriate routes for each location the community.
- Include street furniture (e.g. benches) and design features (e.g. human-scale street lights) without blocking traveler’s “desire lines” (paths which travelers use, whether designated or not).
- Adhere to the requirements of the Americans with Disabilities Act. Reduce the number of conflict points between motorized and non-motorized modes. Where conflict points are unavoidable, ensure non-motorized modes have clearly delineated pathways and drivers are aware of their responsibility to share the road.

- Increase road and path connectivity, with non-motorized shortcuts, such as paths between cul-de-sac heads and mid-block pedestrian links.
- Provide bicycle parking and amenities (bike racks, bike access routes) to connect with bus stop locations.

FUTURE SERVICE DESIGN CONSIDERATIONS

The proposed rerouting via North Plains Highway is intended to reduce duplication with the C Route along North Colony Road and provide service to destinations along Washington Street. However, the left turn from North Plains Highway onto North Colony Road has a long light that will delay service. An alternative routing would be to travel east via Parker Street. This would have the added benefit of providing service closer to the proposed rail station on the Springfield-Hartford-New Haven line at that location. However, currently, the light on Parker Street is similarly long, and given that construction may interrupt service while the station is being developed, it is recommended that North Plains Highway is used in the near term.

In general, given the impacts of construction related to the future rail line and the introduction of new rail service that will result in more frequent gate closures, it is likely that the routing of the Wallingford Local Route in the vicinity of Washington Street will need to be re-evaluated in 2016.

If additional funding becomes available in the future, there are opportunities to consider enhancing the route. The following emerged during the course of the study as key priorities for future expansion:

- Longer hours of service on weekdays, particularly during the evenings
- Weekend service
- Service to additional destinations and neighborhoods, including the neighborhood southwest of downtown Wallingford
- More frequent service
- Bi-directional service to the route's existing service areas

APPENDIX A

Stakeholder Comments

STAKEHOLDER COMMENTS

The following comments were collected during a Stakeholders' Meeting on June 16, 2011, as well as individual interviews with stakeholders and others. Stakeholders interviewed included:

- Dry Dock
- Greater New Haven Transit District
- Master's Manna
- Residents of Wallingford
- South Central Regional Council of Governments
- Spanish Community of Wallingford (SCOW)
- Town of Wallingford Engineering Department, Planning and Zoning Department, and Town Staff
- Ulbrich Boys and Girls Club
- Visiting Nurse Association of Wallingford
- Wallingford Senior Center
- Wallingford Chamber of Commerce
- Wallingford Housing Authority
- Wallingford Youth and Social Services Department

TRANSIT NEED AND ACCESS

- It's difficult to get to work using transit, especially to out of town destinations such as New Haven, or when people have multiple jobs in different communities. Several stakeholders noted the difficulty of getting between towns.
- It is difficult to get to some community meetings and activities
- The bus route was established in 2003 and hasn't been modified since. The service area has changed dramatically since then
- McKenna Court is not on the bus route, but should be
- Routes should go through housing developments, not just between them. In particular, the route should loop through the Wharton Brook housing development. Maybe even as far as Lewis Circle at Wharton Brook.
- There are numerous social service agencies along North Plains Industrial Road, including Ben Haven School, Master's Manna, SCOW, Wallingford Senior Center, and VNA. Several stakeholders indicated that if service was provided in this area, ridership would increase.
- The Town's Recreation Department activities on Fairfield Boulevard are difficult to access since they are not on the bus route
- There is no way to get students to Boys and Girls Club after school by the bus
- There is no service to community swimming pool
- There is no service to Gaylord Hospital
- Route 5 is not covered well by CT Transit C Route. There is a need to serve Big Y, Dairy Queen, and Dialysis Center. People walk down Route 5, which is dangerous.

- Medical parks on Barnes Road need service
- Public schools need service for parents to attend school meetings
- Senior Center needs to be served
- The Department of Social Services is in New Haven and is difficult to access
- Wallingford Emergency Shelter - cutoff time is 7PM
- There is a growing population of non-drivers in Wallingford for whom service would be useful.
- Service to the Parks and Recreation department on Fairfield Boulevard would be useful for riders.
- Service to any of the medical parks and doctor's offices are a need.
- Service to schools is needed.
- The C route omits important stops since it does not stay on Route 5, including YMCA, shopping destinations, and Stop and Shop.
- The Kennedy Center in Bridgeport provides travel training for CTTransit.
- Students from Choate Rosemary Hall, middle schools and high schools may possibly use the bus, but stakeholders also stated that this was not clear or was doubtful.
- The Tracy area in the northern part of Wallingford could be a transit supportive area.
- Employment clusters and employers with a large number of jobs that would potentially be transit-supportive areas to serve include Research Parkway, Masonicare, Cytec, Verizon, Fosdick Fulfillment Center, Thurston Foods Distribution Center, and North Plains Industrial Road.
- North Colony Road is a strip of auto dealerships and fast food, and is not particularly transit supportive.

COMMUNITY SERVICE ORGANIZATIONS

Master's Manna

Note: As of Fall of 2012, Master's Manna will relocate to a new location on Beaumont Road. The comments below were recorded during Summer of 2011, when Master's Manna was located on North Plains Industrial Road.

- Master's Manna serves low and moderate income housing residents with a variety of services, including a food pantry, clothes closet, soup kitchen, and non-emergency medical and dental clinic. There are also a number of families living onsite in tents.
- Master's Manna provides a medical clinic every Thursday, which serves 3,751 clients, or 120 to 152 families daily.
- It is difficult to get to the site, which is on N. Plains Industrial Road. Program participants have to walk over a mile from the nearest bus stop to the facility on Plains Industrial Road, which is over a mile to the facility.
- MM moved from North Colony Road to its current site. Master's Manna served 100 families at its old facility on North Colony Road on the existing bus route. Now there are 37 families who can't get to their new facility.
- MM provides transportation services for its clients using four vans.

- Three are used for non-emergency medical trips to Hartford, primarily, and provides an average of 167 rides per month to destinations all over the state.
- One van serves all trip purposes and carries 15 to 18 riders per month, and will serve trips 24 hours per day, 7 days per week.
- MM will provide service to Gaylord Hospital when needed. They report that the cost of providing van services is high.
- MM estimates that there would be a minimum of 50- bus riders per day if the bus served their facility, and would be willing to incorporate bus pass subsidies into their program.

Spanish Community of Wallingford (SCOW)

- SCOW provides a range of social services for the Spanish-speaking community in Wallingford.
- SCOW has one van and one driver and serves 200-300 families in need of transportation to immigration, attorney, and medical appointments, as well as for non-medical emergency needs. They try to keep destinations served to within a close radius of their location. Interpreters are generally required due to the clientele served.
- Trips must be booked two weeks in advance to allow for scheduling, and service is dependent on availability. SCOW provides an average of three rides per week and turn down requests for rides regularly.
- SCOW sometimes refers clients to Master's Manna for transportation needs when they cannot provide for them.

Drydock

- Drydock is an alcohol recovery and 12-step program aimed at helping persons recovering from drug and alcohol dependence to productive society. Their services include They have a client base of about 1,300-1,400 people.
- Drydock operates a van used for non-medical emergency trips, and other trips as needed by clients. They serve about 1 to 2 trips per day.

Boys and Girls' Club

- Boys and Girls' club provides recreational and educational programs for young people.
- Boys and Girls Club has one van which picks up at schools for service to the Club. The van carries 12 children daily from the Dag Hammarskjold School, and there is a charge to riders for the van service. Boys and Girls Club sometimes turns down requests for additional service.

Wallingford Senior Center

- The Wallingford Senior Center provides services and programs for older adult residents of Wallingford.
- The Senior Center provides a shuttle service for its clients.
 - The service uses three buses – two leased 18-passenger buses and one 12-passenger bus owned by the Center.

- The vans provide trips to medical appointments and trips to and from the Senior Center for clients living offsite. The vans also provide trips to local grocery stores on a fixed schedule, including Stop and Shop, Shop Rite, and Walmart/Kohl's. If there is availability, the service will also provide trips for other purposes, such as hair appointments and so on.
- The service, which is open to Wallingford residents aged 60 and older, operates Monday-Friday 8:15 a.m. to 4:00 p.m. and carries 1,500 riders per year.
- Van assistants are provided on the buses. Many of the bus riders use a wheelchair or mobility device.
- An increasing number of long-distance trips are being served. However, trips outside of Wallingford are not provided.
- Senior Center staff feel that if the bus provided service to the Senior Center, it would generate ridership. Service during evenings and weekends would be a priority need.
- Staff report that senior residents live everywhere in town, but there are concentrations at the Silver Pond Apartments and at the trailer parks on Main Street.

Youth and Social Services

- Youth and Social Services has numerous programs in operation around Wallingford, but does not feel that any of their sites are particular destinations for transit users. They reiterated the importance of access to the other community services described in these comments, however.
- YSS is supportive of transit and could help to advertise changes to service and availability of services, including using billboards, community access television, and other methods. They would be interested in different options for bus pass subsidies and other ways of supporting transit.

Visiting Nurse Association

Note: As of spring 2012, Visiting Nurse Association is no longer in operation in Wallingford. Their comments were recorded during the June, 2011 stakeholder meeting and their comments are therefore presented here.

- VNA provides community health care and home health care services for Wallingford residents.
- VNA has 35 to 40 clients who need service regularly to its Plains Industrial Road. VNA provides no transportation services of its own, but will sometimes refer clients to services provided by Wallingford Senior Center.
- VNA provides car seats for parents' cars.
- Staff noted that their clients occasionally provide transportation to each other, which is not an ideal solution.

SERVICE HOURS AND DAYS

- No late night service for Master's Manna Friday night dinner event is available.
- No weekend service is available to get to Town activities

- Need weekend and evening hours service with connections to Middletown and New Haven -- current lack of evening and weekend service is a problem. Several stakeholders indicated that service on weekends would be beneficial. Saturday service to Drydock is needed.
- Late night service would be useful.
- Limited hours of service (9:00 a.m. to 4:30 p.m.) are a challenge.
- The low frequency of service makes using transit difficult.
- Drydock and Master's Manna are the only two community services with heavy weekend programs.

FARES

- What are the fares charged on the bus?
- Adult fare is \$1.50; Senior (over 65) and disabled fare is \$0.65.
- 10-ride ticket is \$4.50 for seniors/disabled passengers.
- SCOW clients are willing to pay fares.
- Dry Dock charges no fares and accepts donations.

MARKETING OF SERVICE

- Need better marketing of existing services to the Housing Authority's residents. Offered to provide such information as available.
- Should share information on route changes with stakeholders and monitor service periodically.
- Is bus information getting out to public? Yes, but could do a better job to attract new riders.
- Is any entity doing travel training? Yes, The Kennedy Center in Bridgeport, CT provides such training on a state-wide basis.
- Riders know the system and are aware of services. However, new residents often do not have needed information.

OTHER ISSUES

- Some seniors shouldn't be driving. Transit could be an option for them.
- Are stakeholders receptive to using a smaller vehicle on the bus route? Yes, but the bus would have to accommodate bicycles and strollers.
- Need to be careful about rerouting to not disadvantageously affect current riders.
- McKenna Court housing has a bus stop in front of it that is not served by a bus route.
- GNHTD did a pilot program using a flexible route in North Branford providing feeder service to fixed route buses. Not successful.
- The CTTransit C Route will undergo a schedule change in August. Will it run later?
- The C route takes too long to get to New Haven. Is it a viable means of travel? Yes, because it is the only transit alternative.
- Do we need to conduct a rider survey?

- Can bus assistants be provided? Not in scope of study at this point. Drivers often lend a hand.
- The Railroad station stop always has riders waiting for service; it's a popular stop.
- Service design should be simple and easy to use.
- Modifications on the Wallingford C route are forthcoming - what will be the impacts?
- The new style of buses used on the WL route are good.
- There are few designated bus stops on the route. Passengers flag down the bus along the route.
- There is a safety issue of folks walking on Route 5 at night.
- There is no taxicab service in Town.
- Commuter rail is coming in a few years, and that needs to be kept in mind.

APPENDIX B

Analysis of Wallingford Local Route Ridership Survey

ANALYSIS OF RIDERSHIP SURVEY RESULTS

On September 29th and 30th, an on-board ridership survey was conducted on the Wallingford Local Route. The survey was distributed to riders on all trips during the day, and ultimately 35 surveys were returned. A copy of the survey distributed is provided at the end of this appendix.

CHARACTERISTICS OF SURVEY RESPONDENTS

The rider survey asked three questions about the characteristics of the survey respondents themselves; these included:

- Residence location
- Age
- Access to a vehicle

Of the riders surveyed, most reported that they lived in either Downtown Wallingford (8 riders/23%), Yalesville/North Turnpike (6 riders/17%), southeast of downtown (5 riders/14%), or at the Marcus Cook Park area/Burke Heights (5 riders/14%) (see Figure 34). Other locations cited by riders included North of Downtown/North Main Street (2 riders), Doolittle Park/Wharton Brook/Southwest of Downtown (2 riders), and Masonicare Home and Hospital (1 rider). Additionally, six riders noted that they lived in locations not listed on the survey; of these, five specified locations (see Figure 35).

Figure 34 Where do you live?

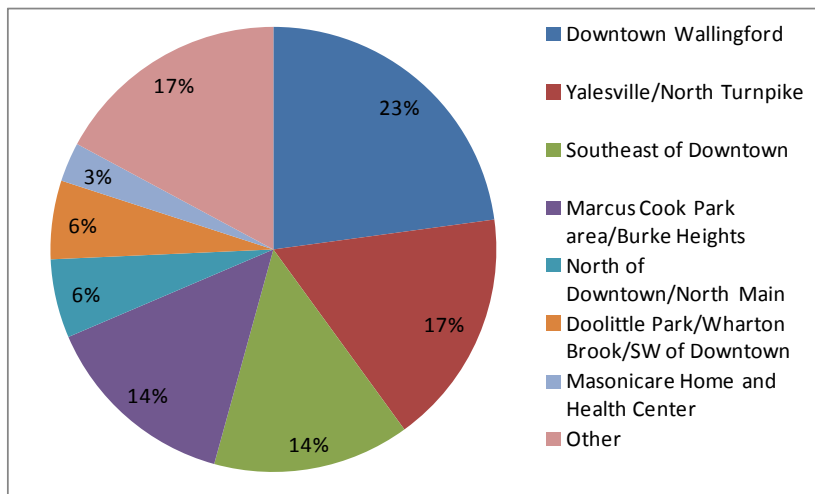
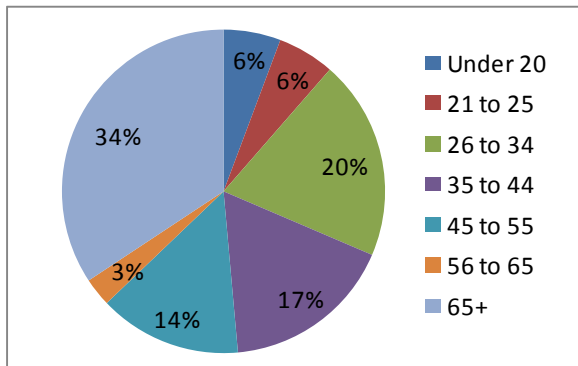


Figure 35 Residence Locations Specified by Riders as "Other"

Area	Number of Responses
Meriden	2
Hartford	1
Bristol	1
Florida	1

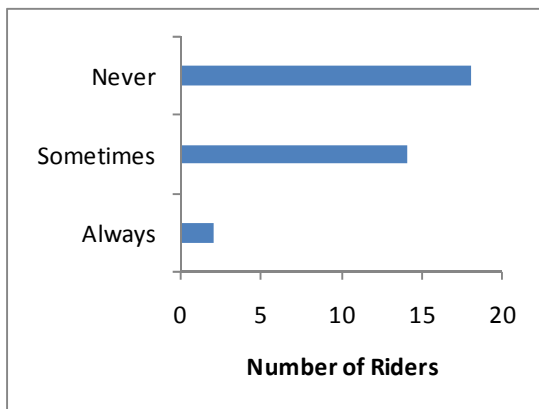
Riders were asked what age category they are in. Approximately half of respondents are age 44 or under, and half are age 45 or over (see Figure 36). More than one third of respondents are age 65 or over. Riders under age 20 only accounted for 6% of respondents; however, if children are riding, it is likely that a parent filled out the survey and did not include them within the count, so the number of youths sampled is possibly lower than in reality. However, farebox data reported by CTTransit indicates that only about 9% of riders are between the ages of 5 and 18, so this number may be relatively representative.

Figure 36 Please tell us your age category.



Riders were asked whether they have access to an automobile. Most respondents (18 riders, or 53%) reported that they never have access to a car, while 14 riders (43%) reported that they sometimes have access. Only 2 riders (6%) reported that they always have access to a car.

Figure 37 Do you have access to an automobile?



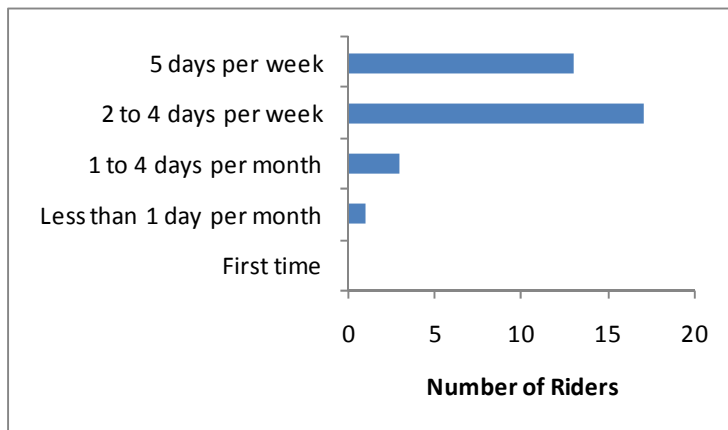
Travel Behavior

The rider survey asked five questions about respondents' travel behavior; these included:

- Frequency of ridership
- How the rider got to the bus stop from their origin
- How the rider will get from the bus stop to their destination
- Where the rider gets information about services
- Typical travel destinations and purposes

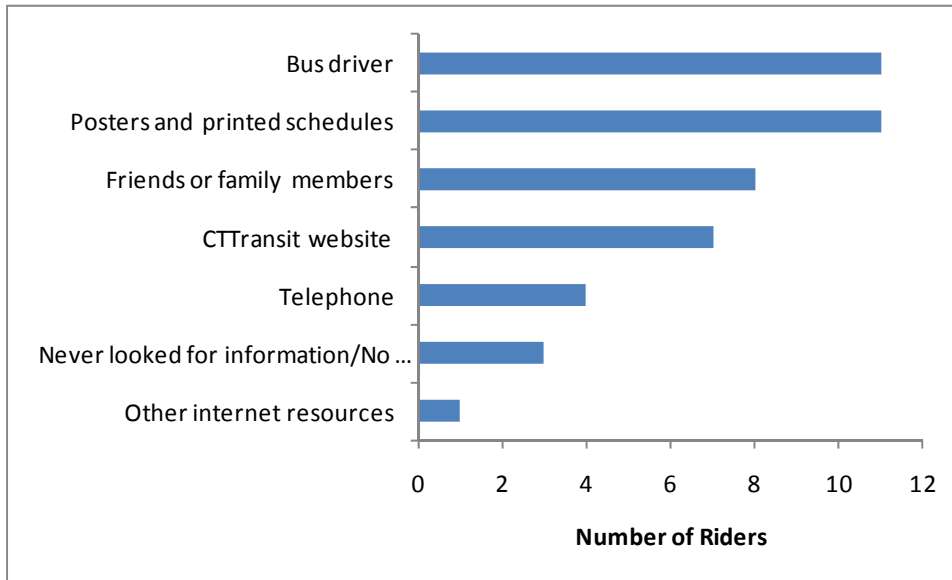
Riders were asked how often they usually ride the Wallingford Local route. The vast majority of riders stated that they ride between 2 and 5 days per week (see Figure 38). In total, 17 riders (exactly half) ride 5 days per week, and 13 riders (38%) ride 2 to 4 days per week. In other words, very few riders use the Wallingford Local route on an only occasional basis, and most ride regularly.

Figure 38 How often do you usually ride the CTTransit Wallingford Local bus?



Riders were asked how they typically get information about transit services; respondents were able to make more than one choice (see Figure 39). The most common answers were from the bus driver (11 riders) and posters and printed schedules (11 riders), followed by friends and family members (9 riders) and the CTTransit website (7 riders). Four riders stated that they get information by telephone, and one used other internet resources. Three riders have never looked for information or have no opinion.

Figure 39 Where do you currently get information about the Wallingford Local bus?



Two questions asked about how riders get to the bus from their point of origin, and how they get from the bus to their destination (see Figure 40 and Figure 41). The vast majority of respondents indicated that they walk to and/or from the bus stop; this was the case for 27 riders (84%) traveling to the bus, and 23 riders (70%) traveling from the bus. For those walking, the average walk time to or from the destination was 6 to 7 minutes, and ranged from less than one minute to up to 30 minutes.

A total of 3 riders (9%) indicated that they use the CTTransit C Route to get to the bus, and 7 riders (21%) indicated that they connect to the CTTransit C Route to reach their final destination, indicating that the connection with the C route is important. Accounting for some riders who indicated using the C route on both questions, as many as 23% of Wallingford Local Route riders connect to the C route on some part of their trip.

Figure 40 How did you get to the bus stop to board this bus today?

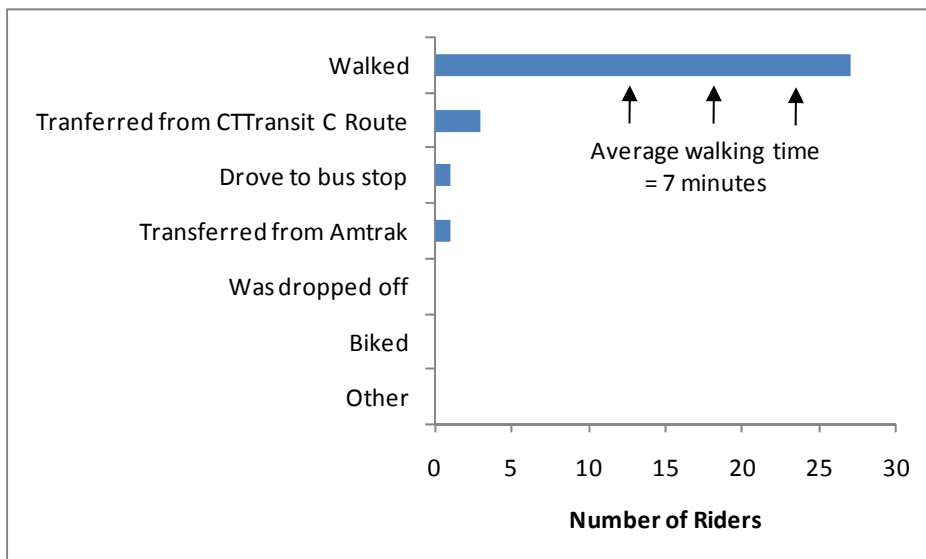
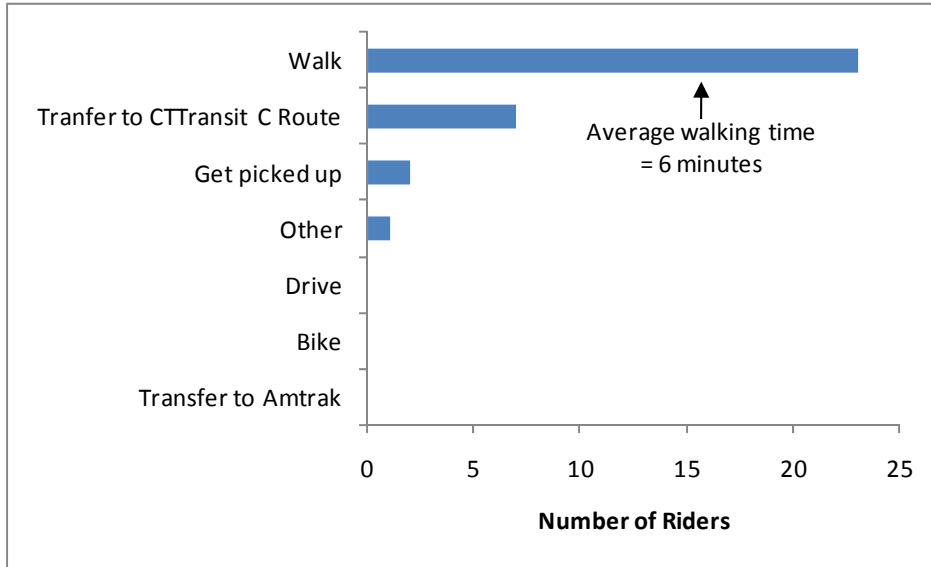
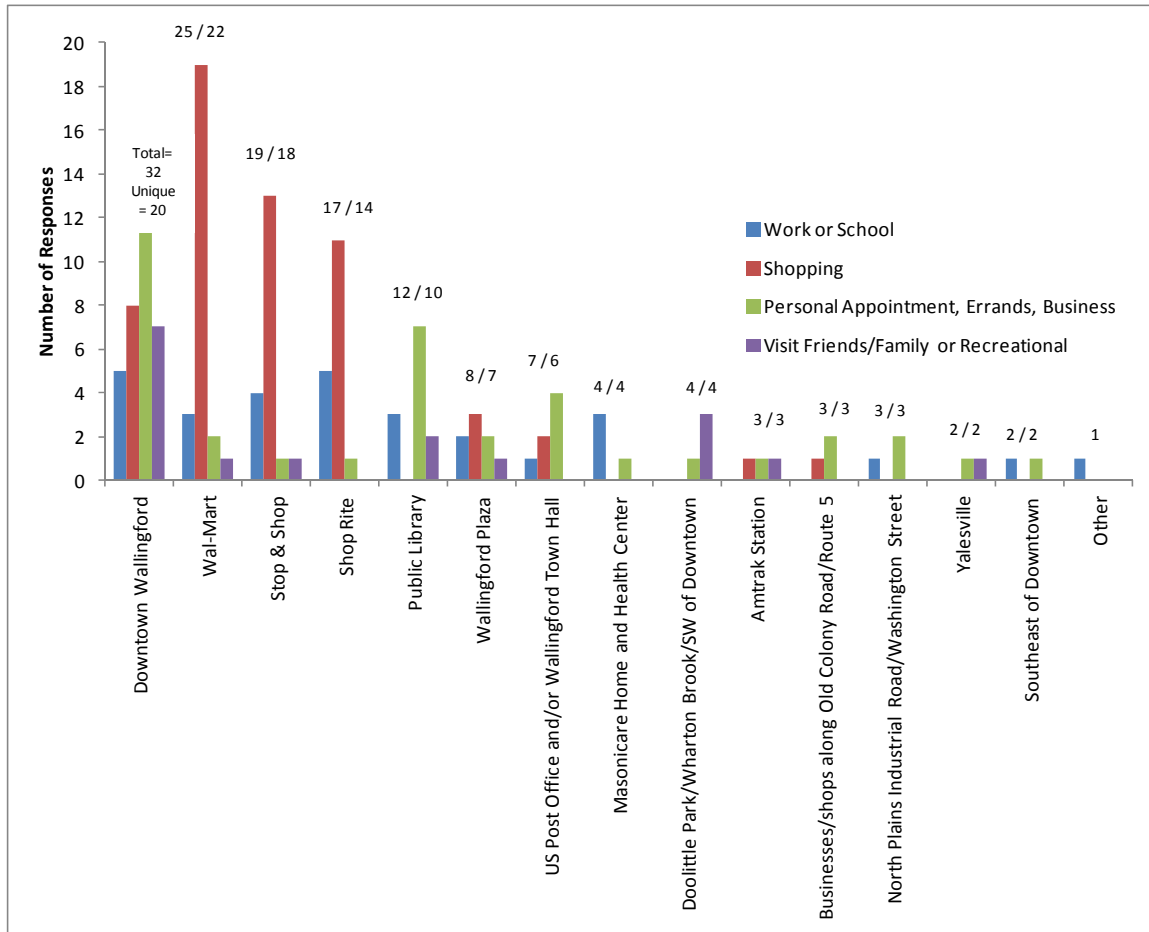


Figure 41 How will you get from this bus to your destination today?



Question 10 asked riders, "Please tell us a little bit about how you travel on weekdays. Please select locations that you typically travel to and check the main reasons for your travel to that area. Please check all that apply." Figure 42 shows the distribution of responses to this question. As shown, the first numbers above the bar graphs indicate the total number of times each destination was checked off as a destination, including instances where respondents indicated the destination for more than one trip purpose. The denominator is the number of respondents who indicated that location for one or more trip purposes. The most frequent destinations included Downtown Wallingford (32 total responses / 22 respondents) and Walmart (25 total responses / 22 respondents). Stop and Shop and Shop Rite were also top destinations.

Figure 42 *Weekday travel behavior and trip purposes*



Service Improvement Priorities and Ideas

Respondents were asked to list ideas for new service areas for transit. Most respondents did not answer this question; the responses of those who did are listed in Figure 43.

Figure 43 Are there any other places or areas NOT currently served that you wish the bus went to? Where?

Additional Service Areas	Number of Responses
Hamden	1
Kohl's	1
Local factories	1
Master's Manna	1
John St. area	1
Downtown Meriden	1
Further on Route 5	1

Users of the Wallingford Local Bus were asked to rank five potential service improvements on a scale from one to five, with five being the highest and using each number only once. Respondents' generally had a difficult time answering this question, and responses were variable and inconsistent, with some respondents using a number more than once, some checking off which ones were important to them, and some only writing in a number for one or two options. Only 11 out of 35 respondents correctly answered the question, and 5 did not respond at all. Because of the variation in other types of answers and difficulty understanding the meaning of some responses, it was not possible to include those responses in the final tabulation.

Of those who correctly answered the question, the highest priority service enhancement was more frequent service, followed by weekday evening service. Improving reliability of service and serving more destinations were not ranked as high priorities. Figure 44 shows respondents' rankings of the potential service improvements.

Figure 44 Ranking of Service Improvement Priorities

Possible Service Improvements	Ranking
More frequent service	1 (most important)
Weekday evening service	2
Weekend service	2
Go more places	4
Improve reliability	5 (least important)

Finally, respondents were asked: "Please tell us how the CTTransit Wallingford Local Bus might change services to encourage you to start riding the bus or riding it more often? For example, would you be more likely to ride the bus if there were more frequent service, longer weekend or evening service, better information, etc." A total of 18 respondents provided ideas. Of these, 10 asked for weekend service, six asked for evening service, and four asked for more frequency. All of the comments with the exception of three regarded one or more of these improvements. The following comments were received; these responses are not paraphrased, and are as written by respondents:

- There should be weekend service. I am reasonably mobile and can walk but many senior citizens are stuck on Saturdays and Sundays.
- I ride fairly often, weekend service would be great, Saturday if possible.
- Evening services. Wallingford bus driver is a good bus driver.
- The bus driver is good ok, And he get(?) at for being good driver
- I would like to ride the bus if there were more frequent service. On weekend. Thank you
- I would start riding the bus more often if there were evening and weekend services because there are things and events I need to attend and the bus service facilitates these errands.
- Weekends
- Yes. Frank is the best! And other drivers
- More frequent service weekend example: Sunday; I need the service. Thank you
- Longer evening service and weekend/Sunday service

- Run as long as "C" Bus does on weekdays. I don't mind that the service starts at 9. I would like the service to be advertized on your (*illegible*) to make the (*illegible*)
- More frequency, weekend service please
- Weekend services
- Evening service is well better for me because I working every night. Maybe to 5 am till 9 pm is fine.
- I don't see anything wrong with the service. It's pretty good.
- Have weekend services, Saturday & Sunday
- Longer hours
- More frequent service would be better. I don't ride unless I am called into work and have no other means of transportation at the time. I am speaking on behalf of what I hear from others who are more frequent riders.