

KFH GROUP

OPERATIONAL ANALYSIS, SYSTEM PLAN, AND FUNDING ALTERNATIVES FOR THE CHITTENDEN COUNTY TRANSPORTATION AUTHORITY

Final Report

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**Prepared for the
Chittenden County
Metropolitan Planning Organization**

PLAN SUMMARY

Over the past year, the Chittenden County Transportation Authority (CCTA) and the Chittenden County Metropolitan Transportation Organization (CCMPO) have been preparing concepts for improving transit services in Chittenden County. The CCTA Systems Plan and Operational Analysis is intended to redesign the transit system and the Transit Funding Alternatives Analysis explored the alternative funding mechanisms to generate the funds to support the new design. This report summarizes both the systems plan and funding alternatives. Implementation of the new service concept will also require institutional changes needed to expand services beyond the current CCTA member communities -- this aspect has not yet been studied.

The purpose of these projects was not to make minor changes to the existing CCTA route structure. Such changes were addressed in the recent Short-Range Transit Plan (SRTP). Rather, these projects looked at the broader picture -- exploring a vision of what services CCTA would need to operate to optimize efficiency (how well resources are used) and effectiveness (how well services meet the needs of residents in the greater Burlington region).

STUDY GOALS

The overall study goal was to develop the ideal transit system to meet the needs of Chittenden County residents in the greater Burlington area, given the current and projected land-use pattern, travel behavior, population growth, and demographic patterns. The study began by looking at improving the use of current resources, while serving *existing areas within the existing budget*.

However, after examining where people live and where they need to go, it was difficult to design an optimum system for the region that is confined to the current CCTA service area. Meeting the study goal and designing a system that is effective means expanding the service area and developing a route structure (including routes, frequencies, service types, transfer opportunities, and linkages to other modes) beyond CCTA member boundaries.

The overall service concept includes services for all of Chittenden County and is not limited by the current organizational/funding structure. In the constrained service concept which includes only those services in the CCTA member communities (keeping within current operating budget funding levels), the optimum service design is compromised dramatically. Because it became clear that the optimum transit system for the region reaches beyond the CCTA service area, the funding study reviewed proposed options for funding the local share of the CCTA operating budget, identified additional potential sources, provided additional detail, and developed recommendations regarding future funding.

REVIEW OF CURRENT CCTA SERVICES

CCTA provides a number of different public transportation services to citizens of its service area in Chittenden County. Its member communities include Burlington, South Burlington, Essex, Winooski, and Shelburne. All of its services are operated within these towns, except for a segment in Colchester, ridesharing services, and for some Medicaid trips.

The menu of services includes fixed-route transit service, the Americans with Disabilities Act (ADA) paratransit, Medicaid transportation, and ridesharing services. There are nine fixed routes, most operating on half-hour headways. Seven of the nine meet at the downtown Cherry Street Terminal, with the Essex

Center and College Street Shuttle routes connecting at other points.¹ Buses pulse at the Cherry Street Terminal at quarter of and quarter after the hour.

Total ridership on the fixed-route for FY 1998 was 1.6M passenger trips. Almost 775,000 bus-miles of service were provided in FY 1998, in 71,400 vehicle revenue hours. The system's annual budget for FY1998 was \$4.14M.

CCTA Governance and Member Responsibilities

The CCTA was created by Charter in February 1973. The CCTA Charter defines CCTA's mission, how CCTA operates, and what it can (and cannot) do. CCTA has the authority to purchase, operate, or provide for land transportation and has all the powers incident to a municipal corporation in Vermont. CCTA has the authority to operate within all of Chittenden County -- and may even operate in the municipalities in adjoining counties if those municipalities join the authority. Members include those municipalities which elect to join CCTA by a majority of its voters.

¹Until recently, the North Avenue Direct Connect (NADC) routes also connected at other points along the North Avenue Route.

CCTA prepares an annual budget of estimated expenses (operating, capital, and debt service²) and revenues (not including member assessments). Contributions needed from member municipalities are assessed using a fairly complicated formula, which has a significant impact on CCTA's opportunity to create new innovative services or expand to new towns. The structure of the formula means that any new service must achieve a 50 percent or greater annual revenue return for the service to be included in the regular assessment -- without being in the regular assessment, the service is not eligible for Federal/state subsidies.

CCTA Performance

The SRTP performed an in-depth evaluation of CCTA performance, both independently and with respect to peer transit agencies. The plan drew a number of conclusions which are discussed and expanded upon below:

- ? **Ridership** - In FY98, CCTA fixed routes served 1.57 million passenger trips (not including ridesharing). Ridership on the ADA paratransit service has been increasing dramatically from 3,400 rides in 1993 to a projected 16,000 rides in 1999.
- ? **Costs and Revenue** - The FY99 operating budget for CCTA is \$4.6M (including \$437,000 for capital debt and local matches). The FY99 budget includes \$4.07M for fixed routes, \$197,000 for ADA paratransit, \$240,000 for Medicaid brokerage, and \$109,000 for ridesharing. In FY99, CCTA expects the fixed routes to cover 30 percent of its operating cost from farebox revenue and another five percent in other operating revenue. The remaining costs are covered through a variety of Federal, state, and local subsidies.
- ? **Coverage** - Persons living within one quarter mile of a transit route are considered to be served by transit. Within the CCTA service area, the total population within this transit service shed was 65,872 persons (1990 Census data). This means that more than 81 percent of the

²The cost of the debt service must be included in the annual budget of the authority and allocated among member municipalities along with operating expenses.

residents in the member municipalities live within walking distance of a CCTA fixed-route. It also means that about 50 percent of the total County population has access to fixed-route services. Widening the transit shed to a half mile on either side of the route increases the coverage in the CCTA service area to 78,930 or almost 98 percent of the member jurisdiction population.

CCTA is already both effective and efficient when compared to its peers. The SRTP found that CCTA performs as well as or better than its peers (in terms of passenger miles per vehicle mile, passenger trips per vehicle hour, operating cost ratio, the subsidy per passenger trip, operating cost per passenger, and operating cost per hour). Further, the number of trips per capita is exceptionally high, indicating the high levels of service being operated. Overall, in the first eight months of FY98, the system provided almost 23 trips per revenue vehicle hour and 2.1 trips per mile.

TRANSIT NEEDS AND POTENTIAL

The following analysis laid the ground work for the development of a service design for CCTA. The analysis identified populations which are most likely to use transit and where they reside, potential land uses that are now or could be potential transit destinations in the next five years, and travel patterns for both choice and transit dependent riders.

Service Area Description

Situated along Lake Champlain in northwestern Vermont, Chittenden County encompasses approximately 540 square miles and in 1990 was home to 131,761 persons. By 1995, the population had grown to an estimated 140,086 and is projected to continue growing into the next century. Of the 131,761 persons residing in Chittenden County in 1990, 80,950 persons or just over 61 percent resided within the CCTA service area. Though it accounts for 61 percent of the population, the CCTA service area, which includes Burlington, South Burlington, Winooski, Essex and Essex Junction, and Shelburne covers only 92.1 square miles or about 17 percent of the County.

Areas with High Transit Needs

The following areas were identified as having the highest relative need based on the population segment in question:

- ? The CBD of Burlington
- ? The North Avenue corridor in northern Burlington
- ? The Village of Milton as well as the eastern part of the Town of Milton
- ? Northern Williston
- ? The Village of Richmond
- ? Southeastern Colchester (St. Michael's College/Fanny Allen Campus/Fort Ethan Allen area), northeastern Colchester, and the Malletts Bay area of Colchester.

Thus, while Burlington and Winooski have the greatest relative transit need, areas of Essex Junction, South Burlington, Milton, Colchester, and Williston do as well -- the last three not being in the CCTA service area.

Coverage by Current CCTA Routes

Most of the major destinations in the region are served by the CCTA fixed routes, with the exception of employment and shopping in the Tafts Corner area in Williston, the Exit 16 shopping and employment area in Colchester, and apartments/mobile home complexes in southeastern Colchester and Malletts Bay. With a few exception, all of the human service agencies and medical facilities identified are on the CCTA route (although the agencies at the Fort Ethan Allen and the Fanny Allen medical campus are

outside the CCTA member communities). Most of the major shopping is served by CCTA routes, with the exception of the growing shopping in the Tafts Corner area.

However, many of the industrial parks are outside the CCTA service area, including areas along Williston Road in Williston and I-89 on the Colchester/Milton border. Also, there are a number of high density housing facilities outside the CCTA service area, primarily in southeastern Colchester and the Malletts Bay area. While only Burlington and Winooski rely on CCTA routes for pupil transportation, all schools inside the CCTA service area have CCTA fixed-route bus service available. Obviously, schools outside the CCTA service area are not served.

Potential for New Riders

As an indicator of where **choice or new** transit users might ride transit, the study looked at overall trip making in the region, including all modes (auto, transit, bike, and pedestrian). Data from the regional travel demand forecasting model³ were used. The travel demand model indicates that there are a total of over 77,000 p.m. peak person trips⁴ taken in the County. Unlike many cities which have less active downtowns, the data indicate that most interzonal trips radiate in a pattern to and from the City of Burlington. In general, most trips are either to or from Burlington (24,900 trips) or within the City (9,600 trips). Over 6,800 person trips are exclusively within the downtown area. In general, all the corridors now served by the CCTA fixed routes have significant travel volumes.

However, there are some other high volume corridors that are not part of the radial corridor pattern, but that warrant consideration for some direct transit connections. These include:

- ? South Burlington to Williston, Colchester, Essex Junction, and Winooski
- ? Williston to Essex Junction and South Burlington

³CCMPO Travel Demand Forecasting Model maintained by Resources Systems Group.

⁴Vehicle trips have been converted to person trips.

- ? Essex Junction to Colchester and Williston
- ? Essex to Essex Junction and Colchester
- ? Winooski to Colchester and South Burlington
- ? Colchester to Milton, Essex Winooski, and South Burlington
- ? Milton to Colchester

In addition, there is the potential to extend the current radial routes from downtown to extend farther out from downtown along the following corridors:

- ? Williston Road Corridor to Williston and Tafts Corner
- ? North Avenue Corridor to Malletts Bay

The service in Colchester along the Route 15 Corridor (which serves Fort Ethan Allen and Fanny Allen Campus), while outside the CCTA member service area, also serves an important market.

While CCTA fixed routes provide excellent coverage for its service area, there are additional areas in the region that would also warrant fixed-route transit, most notably into Williston along the Williston Road Corridor and into the Malletts Bay area of Colchester. In addition, many of the small communities in neighboring municipalities have travel patterns that suggest some form of fixed-route transit is needed to connect them with Burlington. There are also areas in the County without high density, but with pockets of transit dependent people who need public transit, but probably not fixed-route (Milton, Richmond, Jericho Village, southeast Charlotte, eastern Hinesburg, and Underhill.)

SERVICE CONCEPTS

Given the analysis of transit needs, it is clear that one type of transit service is not appropriate throughout the region and that optimizing the use of resources will involve CCTA providing a mix of service types (levels and frequency) tailored to the demand and need for service in various subareas. For this

reason, the overall service concept provides a mix of services that are appropriate to the needs and conditions in subareas of the CCTA service area (and the County) where:

- ? Services are keyed to trip purpose -- work trip versus shopping/medical.
- ? Services are keyed to trip length/destination -- local versus regional trips needed to reach destination.
- ? Services are keyed to density of trip demand based on population, the regional model, and user characteristics.

This section presents the **hierarchy of services** being considered and where in the region they appear to be appropriate. As mentioned above, the design process began without constraining services based on funding (reality), but the service concept was eventually scaled back to the current funding levels by cutting services outside the CCTA member jurisdictions.

Timed Transfer/“Through Routing”

The current timed transfer pulse in downtown serves a useful function for current users. On a typical weekday, 31 percent of riders have to transfer and 83 percent of those riders transfer at the Cherry Street Transfer Center. However, the timed pulse does not seem to work for some routes which are too short or too long to make the timed transfer easily. In some cases, this results in long dwell times and lost hours. In other cases, it means buses are always late -- which in a pulse system means all the buses are late.

Considering the travel patterns of both current and potential riders, there should still be a transfer point in downtown, because the majority of trips radiate to/from that area. Further, given the current routes and the number of transfers, it is probably important that at least some of the routes meet for a timed transfer. The new service concept has the trunk lines “through routed” and meeting for a timed transfer in the downtown. In addition, the local Community Connector in Winooski/Riverside is through routed with the S. Burlington/University Mall connector, but does not pulse with the Trunk lines. Other local routes are

not pulsed in downtown, but at remote transfer points (where feeder services meet the fixed routes). These timed transfer points are also an integral part of the concept, serving as connection points between the community services and the trunk routes. These remote transfer points must also be designed to enhance rider convenience, including informational signing, shelters, seating, lighting and other amenities.

Service Types

Four primary service types are being proposed consisting of commuter services, line haul services on trunk lines, and a variety of community connector services:

- ? Regional Commuter Services
- ? Regional Trunk Lines or Line Haul Service
- ? Community Connectors
 - Local Fixed Routes
 - Cross County Direct Connectors
 - Feeder Services/Zones - Time Point Route Deviation or Demand-Responsive
- ? Demand-Responsive Services
 - ADA Eligible Persons in Fixed-Route Service Area
 - Rural Areas

Service Selection or Tailoring

Tailoring these services to the needs of an area depended on the number of riders anticipated, the density of their origins and destinations, and the types of trips they are anticipated to take. In theory, selecting a service for a particular area also means balancing the investment per capita so that areas receive similar levels of investment (if not service). This means that:

- ? Areas with higher demand/higher trip density can achieve higher productivity and therefore will receive a higher level of service (frequency, time span, etc.) -- because transit services are less costly per passenger, and
- ? Areas with lower demand/lower trip density usually are only able to achieve lower productivity and will receive a lower level of service -- because transit services in these areas are more costly per passenger.

Budget Target

The budget target has been set at the 1999 CCTA Operating Budget -- \$3,571,359 (this is the operating budget only for fixed-route and ADA services, it does not include the cost of Medicaid or Ridesharing and does not include capital costs or debt service on vehicles or facilities). This translates into an operating cost per capita in the service area (1990 Census) of \$44.12 (based on total in member jurisdictions - 80,954) and \$54.22 (based on the persons actually in the CCTA service area - 65,872 (1/4 mi)). If we extend this level of transit operating expenditure (\$44 per capita) to other jurisdictions, the resulting budget would be:

Total County	131,761 persons	\$5.8M
Areas Currently Outside CCTA	50,769 persons	\$2.2M
Areas Currently Inside CCTA	80,954 persons	\$3.6M

The following pages present a discussion of each of the service types and where they are appropriate in the CCTA service area and throughout Chittenden County. Each service type is described in terms of the basic focus of the service, service characteristics, and locations within the County where the service would be appropriate.

Regional Routes - Commuter Services

Regional commuter routes are designed to provide weekday peak hour express service oriented toward employment and school trips, from outlying areas into downtown Burlington and the university/college areas (major employment areas with parking issues). Service will be express with limited stops and at a premium fare. The end of the routes will be served by demand- responsive feeder zone and the routes will serve park and ride lots. Four regional commuter routes are included from the following outlying towns into downtown/other hubs:

- ? Charlotte/Shelburne
- ? Colchester/Milton
- ? Underhill Flats/Jericho/Essex Center
- ? Richmond/Williston

Regional Trunk Lines

Regional trunk routes provide frequent, all-day base service in corridors with higher population and trip densities, connecting local services. These services connect local services to downtown and feeder connection points (local transit centers). Service is provided all day, six days a week, using conventional type transit buses. Service has frequent stops and would be at a standard fare, but could have some commuter express runs in peak hours. Routes serving the North Avenue and Williston Road corridors are interlined, as are routes serving the Shelburne Road and Route 15/Essex Junction corridors. Scheduled connection between two through routes at the central transfer point and the routes have timed meetings with feeder connections at suburban transfer centers such as Essex Junction, University Mall, Shelburne, Malletts Bay, etc. These routes have potential for investment in Bus Rapid Transit-type improvements -- signal pre-emption, improved amenities.

Trunk routes are planned for four primary corridors:

- ? North Avenue/Malletts Bay
- ? Main Street/Williston Road
- ? Shelburne Road/Pine Street
- ? Route 15/Essex Junction

Community Connectors

Community Connectors provide intra-community local service in local towns and connect to regional routes. Service types vary with local density and needs:

- ? Local Fixed-Route/Fixed Schedule **Community Connectors** -- areas with high density/high levels of transit dependence or need.
- ? Local Fixed-Route/Fixed Schedule **Cross County Connectors** -- high travel corridors going from suburb-to-suburb.
- ? **Fixed-Route Deviation or Demand-Responsive Connector Services in Feeder Zones** - - lower-density areas surrounding and connecting to line-haul services
- ? **Demand-Responsive Connector Services** -- for ADA eligible person in fixed route service area or in lowest density rural areas.

Each of these is addressed separately with regard to service characteristics and service area in the following descriptions.

Community Connectors - Community Connectors focus on areas with high density/high levels of transit dependence or need. Local fixed-route connectors are high frequency in peak and lower in the off-peak and on Saturday lower frequency. This is a fixed-route, fixed schedule transit service using conventional buses at a standard fare. Five fixed route connectors are planned:

- ? College Street -- existing shuttle route
- ? “City” Loop -- similar to existing loop, with rerouting to serve new transfer point.
- ? Winooski /Riverside -- coverage to current route areas, simplify routing (into City via Riverside)
- ? Pine Street/Lakeside -- coverage in current service areas, implement SRTP modifications
- ? University Mall -- covering the University Mall area, but it may not be needed if the Williston Road trunk line is modified to serve South Burlington and the Airport if the service cannot be extended to Williston.

Cross County Connectors - Cross County Connectors focus on “Outer” loops providing a connection between outlying hubs without going downtown to transfer -- suburb-to-suburb service. Cross county connectors run at lower frequency on both weekdays and Saturdays. This allows all day and evening connections to trunk lines; AM and PM peak connections to commuter lines. Two cross county connectors planned include:

- ? South Burlington, Mall, Winooski
- ? South Burlington, Tafts Corners, Essex Junction

Feeder Zones for Route Deviation or Demand-Responsive Connector Services - Feeder zones serve the lower-density areas surrounding and connecting to line-haul services. The zones are designed around what one vehicle can do within one zone. Feeder service will be provided during the hours and days that fixed route services are operated -- all day and evening for feeder to trunk lines; AM and PM peak for feeders to commuter lines. The feeder will either be *fixed-route with checkpoints* -- vehicles would deviate a quarter mile -- or *demand-responsive*. Since it is a new service area, CCTA could contract for service provision, using smaller radio-dispatched vehicles. Feeder zones are planned:

- ? At the ends of the line haul trunk routes

- North Avenue Corridor - Malletts Bay area of Colchester
 - Williston Road Corridor - rest of Williston beyond Tafts Corners area
 - Shelburne Road - Shelburne area
 - Winooski/Route 15 - Essex Town
- ? At the ends of commuter routes
- Charlotte
 - Milton
 - Jericho
 - Richmond

Demand-Responsive for ADA Paratransit and in Rural Areas

ADA Paratransit will be provided in the CCTA fixed-route service area on the same days and times. As is currently the case users would request service in advance and demand-responsive service provided to certified ADA-eligible riders. Service operation would be contracted.

County-Wide Demand-Responsive General Public Service

General public demand-responsive services would be provided in low-density rural areas on Monday through Saturday to provide basic mobility for medical or local shopping. Users would request service in advance and vehicles would be radio-dispatched or self-dispatched by a direct call to the driver. A contractor would operate the service, possibly under the same arrangement as the ADA paratransit service. Rural demand-responsive service vehicles could connect to trunk routes or regional commuter routes. Five county zones will be designed, each of which would be served once a week by a single vehicle. Efforts will be made to ensure that these new services do not supplant existing agency services.

SUMMARY

Figure S-1 maps all the corridors and services described. As can be seen, the preliminary concept attempts to meet the growing trends in the County as well as providing a means for residents in outlying

areas to have access to many destinations downtown. Restricting the system to within the current CCTA service area reduces the effectiveness of transit in the region. Table S-1 presents some preliminary estimates of miles and hours required to operate the preliminary service concept. The table indicates that the system as designed would require 117,242 revenue hours and 1.51 revenue miles of service, not including the ADA paratransit required. CCTA has projected that it would provide 799,500 revenue miles and 69,913 revenue hours in FY 1999. Thus the total concept represents an 88 percent increase in miles and a 68 percent increase in hours.

ESTIMATED COSTS

Table S-2 estimates the operating cost for the overall expanded service concept to be \$5.2M annually, including \$197,000 for ADA paratransit services. **These costs to not include capital expenses or debt service on the current vehicles or facility.** Constant funding was assumed for ADA paratransit. The ADA service area increases slightly under the new service concept (as the trunk lines are extended in some areas). It is felt that this increase could be offset by the possibility that ADA paratransit requirements could be reduced in areas served by the new feeder services if new route deviated services are able to meet ADA paratransit needs, which are currently being met with more costly demand-responsive services.

A second analysis was performed using the current budget as a funding constraint, and assuming the current CCTA service area. The study team prioritized services, adding the estimated cost of each service in priority order starting with services in the CCTA member communities -- beginning with the trunk routes, then adding the required ADA services, local fixed routes, and some of the feeder services (see Figure S-2). While the new service concepts provide a more efficient service pattern, the proposed services within the CCTA service area would require the entire current budget. Table S-3 provides a summary of the services that are within the CCTA service area along with miles, hours, and estimated costs. As shown, these services include:

- ? the four trunk lines with the Main Street/Williston trunk line combined with the South Burlington/Mall/Airport Connector,
- ? the four fixed-route community connectors and the neighborhood specials,
- ? the cross county connector that links South Burlington with Winooski via the Mall,
- ? feeder zones in Essex and Shelburne (route deviation or demand responsive), and
- ? ADA paratransit.

Funding constraints would eliminate the following services:

- ? the commuter routes,
- ? the proposed extension on the North Avenue trunk line,
- ? the second cross county connector, and
- ? the feeder services in Malletts Bay, Williston, Milton, Underhill/Jericho, Richmond or Charlotte.
- ? the county-wide general public demand-responsive service.

As shown, the concept with the current CCTA area would require 908,000 revenue miles (plus paratransit), 84,421 revenue hours, and cost \$3.5 million dollars.

ESTIMATED RIDERSHIP

Based on the regional model, the ridership for the total unconstrained service design is estimated to be almost 2.1 million passenger annually (Table S-4). This includes level ridership in the Neighborhood Specials and ADA paratransit.

IMPLEMENTATION - A ROAD MAP TO THE FUTURE

Implementation planning for a concept plan is necessarily different from that for a short-range transit plan, both because of the level of detail and because of the likelihood that intervening events will make detailed plans obsolete over the longer time period. Also, there is no way to assign years to the implementation, scheduling events that depend on changes in organizations. However, to provide some basic guidance regarding the steps needed to reach the end state described in this plan, a three phase implementation plan is provided:

- ? **Phase One - Organizational Development:** One phase which needs to begin immediately and continue until there is satisfactory change is the effort to increase the membership in the CCTA, or develop alternative organizational structures that could provide the countywide transit envisioned in this plan. Continued efforts to address alternative funding is also critical to this phase.

- ? **Phase Two - Service Changes Within the Current CCTA Service Area:** While the organizational issues are being addressed, changes to the services within the current service area should be implemented:
 - Implementation of the through-routing of the North Avenue/Airport and Essex/Shelburne Trunk Routes,
 - Implementation of the Essex Route Deviation/Demand-Response Feeder Service Zone, and
 - Implementation of the Shelburne Route Deviation/Demand-Response Feeder Service Zone.
 - Implementation of the Direct Connect crosstown service between Winooski, Burlington, and South Burlington.

- ? **Phase Three - Service Expansion Outside the Current CCTA Service Area:** As progress with the organizational issues permits, the expansions to the outlying area can be implemented in steps depending on the funding and membership:
 - Implementation of Colchester services: Milton commuter service, North Avenue Trunk Line extension to Malletts Bay, Malletts Bay Feeder Service.
 - Implementation of Williston services: Implement Williston Route Trunk Line to Tafts Corners area, Williston Feeder Service, Direct Connect from Tafts Corner to Essex.
 - Through route the South Burlington/University Mall/Airport local connector with the Riverside/Winooski local connector.
 - Implementation of the Charlotte services: Commuter Service, Feeder Service.

 - Implementation of the Underhill/Jericho services: Commuter Service, Feeder Service.
 - Implementation of the Richmond services: Commuter Service, Feeder Service.

-- Implementation of Countywide Demand-Response service.

If the answer to the organizational issue involves all towns participating simultaneously, the expansion could be phased by service type, beginning with the Trunk Route extensions and Countywide Demand-Response, then the feeders to the Trunk Routes, followed by the commuter services, and then the feeders to the commuter services. Ideally, the implementation of the commuter services would be coordinated with the development of park and ride facilities at the origin ends of the routes, which would serve as transfer points from the feeder services.

LOCAL FUNDING FOR PUBLIC TRANSPORTATION OPERATIONS IN CHITTENDEN COUNTY

Given local goals calling for increased transit ridership, the proposed expanded transit services and resulting funding needs, and local concern about continued reliance on property taxes to fund transit operations, the CCMPO performed a draft study of funding options: *Public Transit Operations Funding in Chittenden County: Current Conditions and Potential Opportunities (Revised draft September 25, 1998)*. This study recommended several funding options for additional review, and the consultant team evaluated these and some additional concepts to develop recommendations for future transit operational funding in Vermont.

The Issue

Both local and state transportation plans call for increased public transportation service and ridership to meet identified needs. The *Chittenden County Long-Range Transportation Plan (1997)* advocates a ten-fold increase in public transit trips in the region by 2013. *Vermont's Long-Range Transportation Plan (1995)* prepared by the Vermont Agency of Transportation (VAOT) identifies improved local transit as the third ranked investment among 14 modal strategies, and the Final Report on

VAOT's *Community Outreach Forums—Summer of 1998* documents strong support at each meeting for increased public transit service and greater funding for public transportation.

The expanded transit system proposed in this study has an estimated annual operating cost for fixed-route and demand-responsive services of \$5,249,220 in current dollars, an increase of 47 percent over the FY 1999 budget for fixed-route and ADA paratransit services. Because Federal and state assistance is currently constrained by formula allocations, most of this expansion would have to be funded locally, unless alternative funding sources are developed.

CCTA's FY 1998 operating budget for current service levels was \$4.15 million, of which the local share was \$1.39 million or 33 percent of the total. This is paid by the member towns out of local property taxes. The amount paid by each is based on the number of bus-miles operated within each town. The remainder is paid by state (15%), Federal (13%), passengers (24%), advertising/other (4%), and purchase of service (11%). The local share of CCTA operating costs is the second highest in the state (41.2% – including contract revenue and other donations as well as direct local subsidy), after Rutland (48.6%) and this percentage is significantly higher than local subsidy levels in a number of other states.

Maintaining current CCTA public transit service levels is difficult given the continuing reliance on local property taxes for such a large percentage of the annual operating costs. Expansion of the system to meet identified service needs as called for in local plans is unlikely as long as it depends on local property taxes -- a constrained and unpopular funding source. Achieving Chittenden County's and VAOT's public transit goals requires the development of alternative means of funding that would ease the funding burden on local governments and allow system expansion.

Recommended Approach - Increase in State Transit Operating Assistance to Meet Transit Needs

The analysis of funding alternatives revealed that increasing state transit operating assistance for public transportation is the most feasible means of ensuring the funding needed to maintain and expand transit service. The recommended approach calls for the Governor and General Assembly to earmark a portion of the Transportation Fund for public transportation operating assistance, to significantly increase

state financial operating assistance for all of Vermont's public transit systems including CCTA. A potential source for this funding is the three cents of the gas tax revenues currently used for education, which could be returned to the Transportation Fund. The VAOT should work with the local transit providers and the Vermont Public Transit Association (VPTA) to determine appropriate funding levels and equitable allocations for FY 2000 and beyond before final legislative consideration of the FY2000 Transportation Capital Program takes place.

For CCTA, the state share of operating expenses is only 15 percent of the total – the lowest in the state, and far lower than for many other systems in the northeast, for example: Danbury, CT (45%); Norwalk, CT (65%); Brockton, MA (41%); Fitchburg, MA (56%), Elmira, NY (30%); and Glens Falls, NY (43%) – an average of 47 percent. Nationally the state share for systems this size is 24 percent.

The funding levels needed statewide are beyond the scope of this local study, but an estimate of Chittenden County needs can be used to support the recommended funding level. If the expanded system were to be operated (estimated annual operating costs of \$5,250,000), the estimated net deficit would be approximately \$4,000,000. Holding Federal and other (advertising and charter) revenues constant, the state share of the CCTA annual operating budget would come to an estimated \$3,616,000 (not including any purchase of service revenues), if there were no local contribution.

A three cent per gallon gas tax applied statewide would generate approximately \$9.6 million, according to the Legislature's Fiscal Facts 1999. Under the current VAOT public transit operating funding allocation plan, no more than 50 percent of the statewide total can be allocated to urbanized areas (CCTA is the only urbanized area recipient in the state). The projected total need for state operating funds for the expanded Chittenden County system could be met for less than 50 percent of the projected statewide program (\$4,800,000), based on the revenues that would be generated by the three cent per gallon gas tax. A two cent per gallon state gas tax would produce an estimated \$6.4 million – 50 percent of that amount is \$400,000 less than the estimated need for state funds to operate the expanded system in Chittenden County.

Other alternative funding sources used for transit in other states were reviewed as part of this study. Options considered included local sales taxes, local fuel taxes, local registration fees, or local short-term vehicle rental fees. These alternatives would require action by the Vermont legislature to create local option taxes to support transit – which would then also require local approval to implement. In Vermont the political feasibility of such an approach is doubtful, given the lack of precedents for local option taxes for any purpose. The key funding option not requiring state enabling legislation is the development of a college/university student transportation fee. Although this could produce additional local revenues, further study of student transportation needs at each school is needed to design services addressing these needs. A cooperative effort is needed to determine student transportation needs and potential solutions, including potential student fee/transit pass alternatives.

Increases in state operating assistance would need to be accompanied at the local level in Chittenden County by efforts to expand CCTA’s membership and service area in pursuit of long-term public transportation goals. Needed organizational changes are already being identified, but additional regional efforts to address these issues are needed.