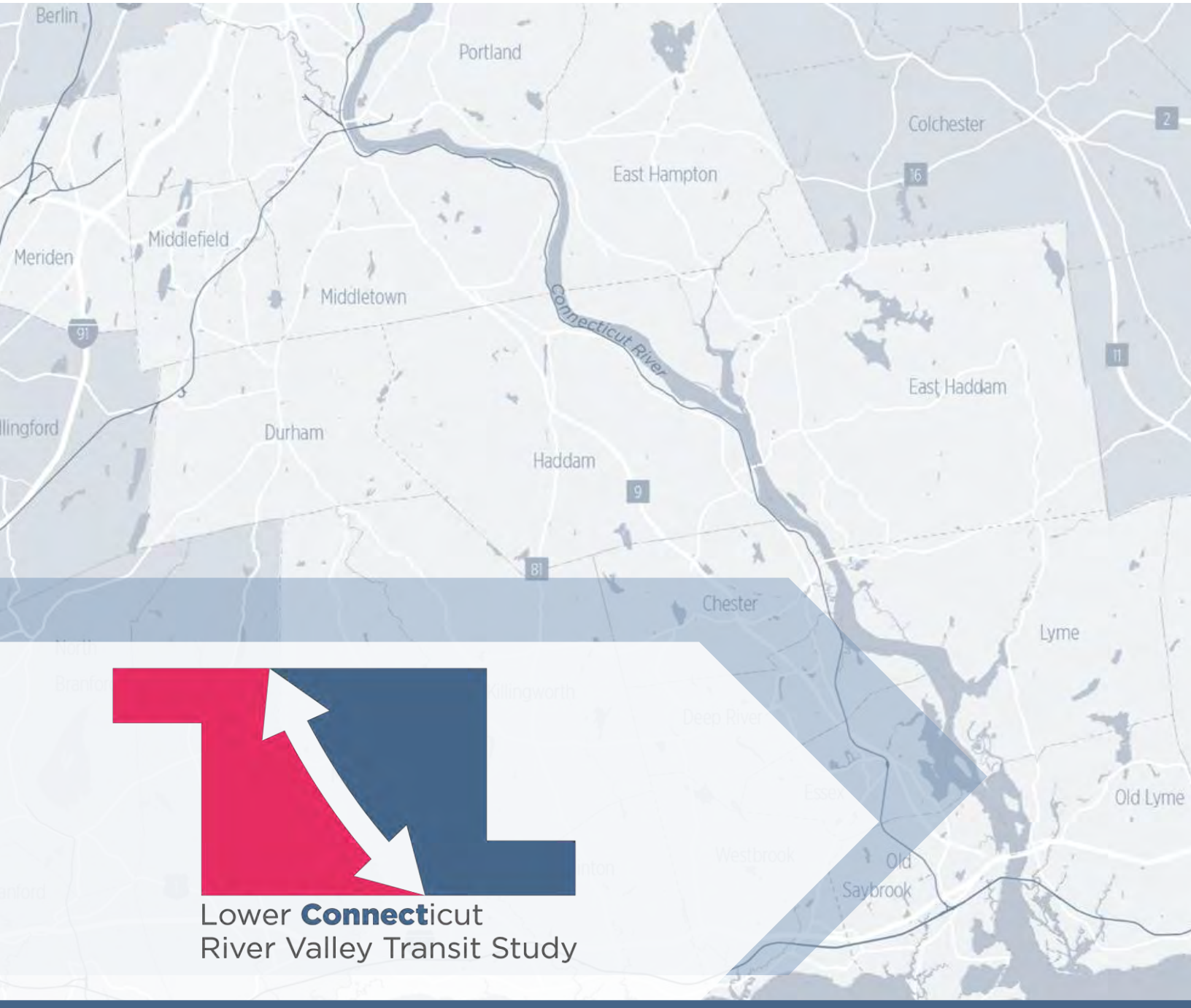
Lower Connecticut River Valley Transit Study

Final Report

July 8, 2020



Lower **Connecti**cut
River Valley Transit Study

RiverCOG
Lower Connecticut River Valley Council of Governments

Connecticut Department of Transportation

Middletown Area Transit MAT

9 Town Transit

Nelson Nygaard

Table of Contents

Table of Figures

Appendices

Executive Summary

Purpose & Goals of the Study

The Lower Connecticut River Valley (LCRV) Council of Governments (RiverCOG) coordinates land use and transportation planning for a 17-community region in south central Connecticut. Much of the region is served by one of two local public transit districts: Middletown Transit District (MTD) operating in the northern part of the region around Middletown; and, Estuary Transit District (ETD) serving a broader area to the south and making connections along the CT shoreline between Madison, Old Saybrook and New London.

Although MTD and ETD are the legal names of these transit districts, MTD operates as Middletown Area Transit (or MAT) and ETD operates as 9 Town Transit. This nomenclature is used interchangeably throughout this report, with "MTD" and "ETD" used when discussing governance and "MAT" and "9 Town" used when discussing service- related issues.

Many communities in this region have expressed interest in enhancing the efficiency, attractiveness, and usefulness of public transit service to better meet the needs of local residents, workers, and visitors. At the same time, both districts are in need of investment to effectively deliver these services. To meet these objectives, RiverCOG, in cooperation with the Connecticut Department of Transportation (CTDOT) and the two transit districts, has completed this Lower Connecticut River Valley (LCRV) Transit Study.

Goals established to guide the study include:

1. **Improve Regional Transportation:** Evaluate opportunities in administration, operations, and policy-making to ensure improved regional transportation for Estuary Transit District and Middletown Transit District.
2. **Achieve Efficiencies in Service Delivery:** Consider a shared structure and locations of assets and facilities to provide future transit services in the Lower CT River Valley region.
3. **Implement Recommended Actions:** Develop recommendations for subsequent planning and integration steps.

Background

The two transit districts are similar in size and the scope of their operations. As shown in Figure 1 | Snapshot Comparison of MTD and ETD Transit Districts, they have operating budgets in the range of $2.5 million, have similar sized fleets and each deliver about 50,000 annual hours of transit service.

9 Town Transit operates five fixed routes, on-demand Dial-a-Ride and XtraMile services, and complementary ADA services. Middletown Area Transit (MAT) operates seven fixed routes, Dial-A-Ride for seniors and complementary ADA services.

Figure 1 | Snapshot Comparison of MTD and ETD Transit Districts

	MTD	ETD
FY2020 Operating Budget	$2.5 M	$2.5 M
Employees (FTEs)	28	25
Annual Hours of Revenue Service	48,000	54,000
Revenue Vehicle Fleet Size	20	18

As relatively small transit districts, both entities have faced and overcome financial challenges, with MTD still working to secure long-term financial sustainability.

ETD experienced financial challenges beginning around 2007. Rising expenses were not managed in line with available local and State revenues. At that time, member municipalities increased their oversight by appointing First Selectmen to the Board and bringing on contracted management to oversee operations. These efforts allowed ETD to recover financially to the point where new services and an expanded fleet are now in place. The district was in strong financial position at the end of FY2019.

MTD was faced with financial challenges, near bankruptcy, and imminent financial shutdown in 2017. This situation was also largely a result of local expenses not being adequately reined in following cuts in State subsidy levels. The MTD Board brought on new management, expanded its membership and has made significant progress towards financial sustainability; the district had positive cash flow in FY2019, but also an outstanding liability to the State that has yet to be addressed.

The concept for this study emerged from a desire to ensure long-term financial stability for both districts. As small entities, both are inherently vulnerable to small shifts in expenses or revenues and must be vigilant about maintaining financial reserves to be prepared for unforeseen events. This study was envisioned to meet two critical objectives: finding ways to more efficiently provide better transit services to the public, *and* to build more resilient transit districts.

The Need for Investment

There is a demonstrated need for investment to ensure the long-term sustainability of transit services in the Lower Connecticut River Valley.

Financial stability is of critical importance. Despite recent audits showing MTD and ETD having positive cash flow on an annual basis and near-term stability, both agencies have experienced financial challenges and, as small agencies, must remain vigilant to maintain reserves and achieve long term financial resiliency. A particular concern is that MTD has a roughly $900,000 liability owed to the State.

Small staff sizes impact operational effectiveness. It is challenging to attract talent and properly staff a small, specialized operation. These challenges include employee retention, the need for technical capacity to keep up with changing technologies and growing federal regulations, and pressures for key employees to take tasks outside their areas of responsibility.

Both districts are in need of new or retrofitted facilities. MTD is in need of functional upgrades at their North Main Street maintenance facility, including a statewide mandate to incorporate new battery-electric buses into their fleet by 2030. 9 Town has been expanding their fleet and services yet operates out of a leased facility that does not adequately accommodate its needs. Neither district has facilities that position them for future growth.

New efficiencies may provide opportunities to improve service. The two districts are close neighbors within the region but, as separate entities, have redundant staff and assets. Building an Operations & Maintenance facility for ETD would further exacerbate these redundancies. Integration should be explored for the potential to redirect redundant resources to expand staff capabilities and to reduce overall capital needs by sharing the revenue fleet, equipment, and computer technologies.

The Potential for Regional Service Delivery

Recognizing the need for investment and the fact that the systems operate in close proximity (with services meeting in Middletown), the CTDOT sees an opportunity to consider some level of regional integration. With limited resources and significant levels of investment required at transit districts across the State, CTDOT has a vested interest in exploring regional cooperation where appropriate and practical.

Regional cooperation between local transit districts has been occurring in other parts of the State. Northwest CT Transit in Torrington is coordinating with CT*transit's* Waterbury division (operated by North East Transportation) to provide vehicle maintenance. In northeast CT, the concept of collaboration came up several years ago as Windham Regional Transit District (WRTD) was having financial challenges. WRTD and UConn's Husky Go service in Storrs are now working to consolidate management, operations, and maintenance under the auspices of WRTD.

The State further recognizes that the individual districts have a right to remain independent and compete for funding for needed upgrades and enhancements. This report compares a number of strategies for meeting MTD and ETD needs as either independent districts, through cooperation and sharing of certain functions, or as one integrated agency.

Investment Scenarios Considered

Four alternative investment scenarios were evaluated. Each incorporates a different strategy for governance and construction of needed facilities (see Figure 2 | Investment Scenarios Considered).

The anticipated costs, benefits and impacts of each of these scenarios was then assessed. Operating costs were projected and compared to FY2020 budget levels. Required levels of capital investment, above and beyond those currently planned, were estimated. The assessment also considered a range of more qualitative factors, benefits and impacts affecting agency operations.

Figure 2 | Investment Scenarios Considered

Scenario	Governance Strategy	Facility Alternative
1	**Independent Districts**	Facility Alternative 1 ▪ Expanded MTD Operations & Maintenance Facility ▪ New ETD Operations & Maintenance Facility along Shoreline
2	**Independent Districts with Shared Functions**	Facility Alternative 2 ▪ Expanded MTD Operations & Maintenance Facility ▪ New Shared Vehicle Maintenance Facility in Middletown ▪ New ETD Operations Facility along Shoreline
3	**Regional Service Delivery**	Facility Alternative 3 ▪ Expanded Operations & Maintenance Facility in Middletown ▪ New Shared Vehicle Maintenance Facility in Middletown ▪ New Shoreline Operations Facility
4		Facility Alternative 4 ▪ Operations, Maintenance & Storage Facility in Middletown

Recommendation

It is recommended that MTD and ETD merge as one integrated district to achieve a more efficient and sustainable approach to delivering transit services across the Lower Connecticut River Valley region.

This approach was one of four potential investment options identified by the LCRV Transit Study Steering Committee. It would involve:

1. The acceptance of member municipalities from one district into the other
2. The transition of staff and negotiated transition of contracts, assets, and liabilities into the accepting district
3. Construction of two new facilities:
    a. A shared Operations & Maintenance facility in Middletown
    b. A second Operations Facility in Westbrook to support Shoreline area services (including fueling, storage and local transportation staff)

The Operations & Maintenance center would serve as the district's primary headquarters and would include an expanded vehicle maintenance facility to serve the larger, merged fleet. Transit serving the northern part of the LCRV region would be operated out of the Middletown facility. Shoreline area transit services would operate out of a Shoreline area facility, currently proposed for Westbrook.

This approach was found to present the most cost-efficient and practical strategy for the delivery of regional transit services and would require:

- An estimated $29.0 million capital investment for facility construction, including $800,000 to initiate site surveys, environmental review, and preliminary design.
- An additional $1.6 million for other capital needs (engineering services, new equipment, technology upgrades, rebranding, etc.) to support consolidation
- Annual ongoing costs of about $6.2 million (in FY2020 equivalent $)
- An immediate $465,000 to fund near term studies and efforts in support of board decision-making related to the merger (e.g. real estate market review, fare policy study, legal support, etc.)

When compared to the baseline scenario which maintains independent transit districts, this approach represents an estimated 12% savings over the baseline facility costs, a 7.5% savings over total capital costs and an 8% savings over annual operating expenses.

There would be no job losses or layoffs anticipated from integration. In fact, it is recommended that the new larger district expand its overall technical capacity by creating several new management, maintenance, and administrative positions.

Service levels would also not be directly affected by this proposed merger. Although no service improvements are proposed at this time, combining forces as an integrated district will achieve efficiencies that a combined Board may wish to redirect into service improvements. An accompanying *Evaluation and Recommendation of LCRV Transit Service Improvements Report* (released separately from this report in spring 2020) identifies priority actions to enhance transit service across the region.

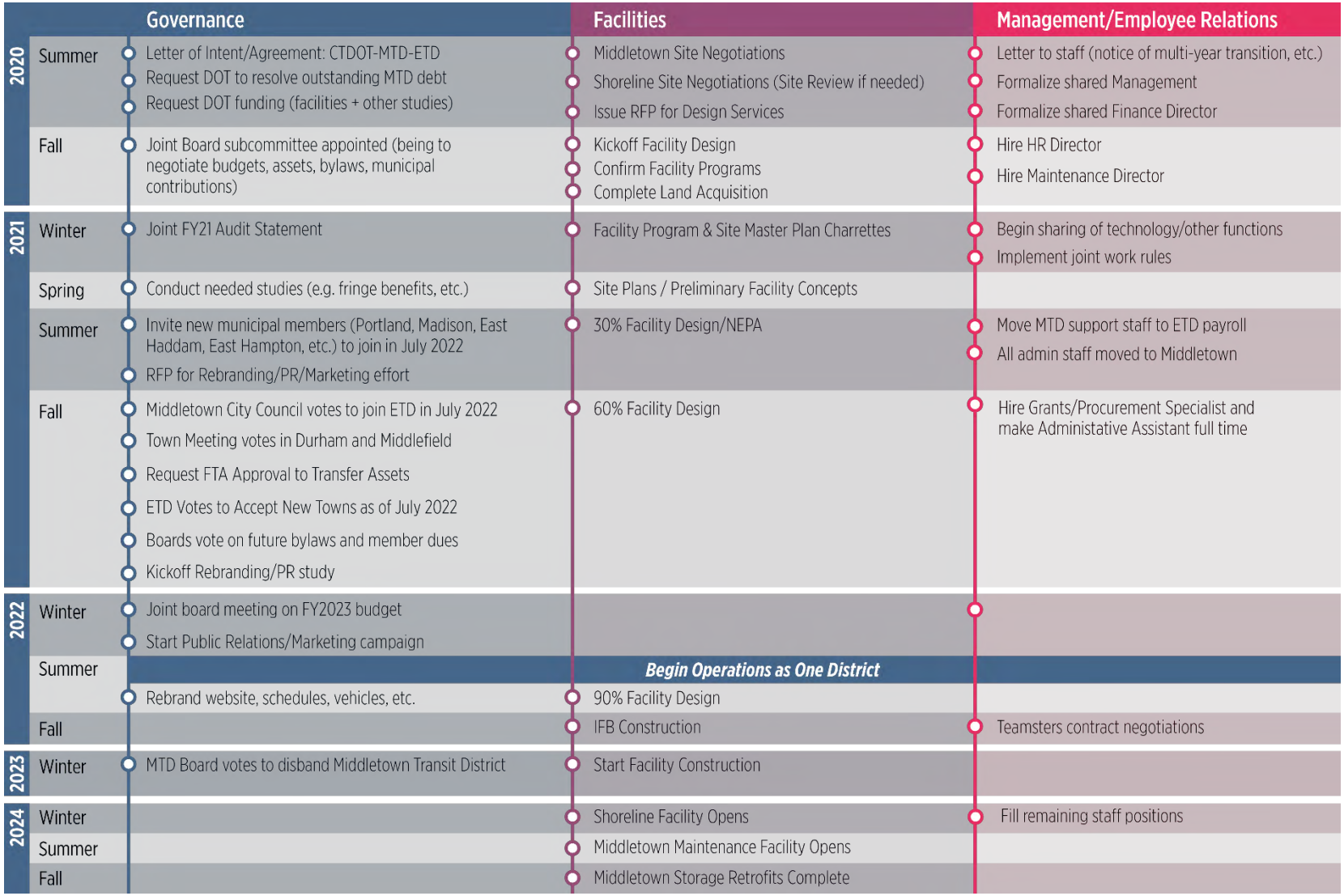
Implementation Plan

A two-year timeline is proposed to complete this merger, with an additional two years to bring new facilities on line.

This plan will move forward at the discretion of the two existing transit district boards, and with the support of CTDOT. Suggested actions to facilitate decision-making, advance implementation and design new facilities are shown in Figure 3 | Anticipated Timeline of Implementation Actions & Other Key Milestones. Key first steps include drafting a letter of agreement between the districts and CTDOT to outline the overall intent, responsibilities, and conditional steps required for a merger, formalizing the sharing of contracted management, advancing site acquisition and initiating facility design. Joint board meetings, or meetings of an appointed subcommittee, could then be initiated to finalize details.

It is recommended that MTD member municipalities, and possibly other municipalities, join ETD. With fewer municipal actions required, this approach would present the most direct path for a merger. Additionally, the ETD Board has a longer track record of financial stewardship and is well positioned to take the lead.

Figure 3 | Anticipated Timeline of Implementation Actions & Other Key Milestones



1 Introduction

The Lower Connecticut River Valley (LCRV) Council of Governments (RiverCOG) coordinates land use and transportation planning for a 17-community region in south central Connecticut. Much of the region is served by one of two local public transit districts: Middletown Transit District (MTD) operating in the northern part of the region around Middletown; and, Estuary Transit District (ETD) serving a broader area to the south and making connections along the CT shoreline between Madison, Old Saybrook and New London (see Figure 5).

Although MTD and ETD are the legal names of these transit districts, MTD operates as Middletown Area Transit (or MAT) and ETD operates as 9 Town Transit. This nomenclature is used interchangeably throughout this report, with "MTD" and "ETD" used when discussing governance and "MAT" and "9 Town" used when discussing service- related issues.

Many communities in this region have expressed interest in enhancing the efficiency, attractiveness, and usefulness of public transit service to better meet the needs of local residents, workers, and visitors. At the same time, both districts are in need of investment to effectively deliver these services. To meet these objectives, RiverCOG, in cooperation with the Connecticut Department of Transportation (CTDOT) and the two transit districts, is undertaking the Lower Connecticut River Valley (LCRV) Transit Study.

The LCRV Transit Study assessed the performance of transit in the region today; identifying the resources, facilities, staffing, and other assets used to deliver this service; considering best practices used by peer agencies; and making recommendations to enhance and more efficiently deliver service within the region.

Background

Although ETD covers a larger and less densely populated service area than MTD, the two districts are similar in size and the scope of their operations. They both have operating budgets in the range of $2.5 million, have similar sized fleets, and each deliver about 50,000 annual hours of transit service (see Figure 4).

Figure 4 | Snapshot Comparison of MTD and ETD

	MTD	ETD
Approved FY2020 Operating Budget	$2.5 M	$2.5 M
Employees (FTEs)[1]	28	25
Annual Hours of Revenue Service	48,000	54,000
Revenue Vehicle Fleet Size	20	18

1. FY2020 budgets include 27 FT and 2 PT positions at MTD, and 18 FT and 10 PT positions at ETD.

As relatively small transit districts, both entities have faced and overcome financial difficulties within the recent past.

ETD experienced some short-term financial challenges beginning around 2007. Rising expenses for service and labor were not managed in line with available local and State revenues. At that time, member communities increased their oversight by appointing First

Selectman to the Board and bringing on contracted management to oversee operations. ETD has recovered from these difficulties and has expanded to increase its fleet and offer new services. The district has been in strong financial position since FY2010 and there were no significant findings during a recent Federal Transit Administration (FTA) triennial review.

MTD was faced with similar financial challenges beginning around 2017 when local expenses were not adequately reined in following cuts in State subsidy levels. The MTD Board has brought on new management, expanded its membership, and made significant progress towards financial sustainability; the district had positive cash flow in FY2019 but also carries a large $900,000 liability to the State.

The issues highlighted above emphasize the need for both agencies to be vigilant about maintaining and continuing to build upon current financial reserves to be prepared for unforeseen future events and conditions.

Both transit districts are also in need of investments in facilities and staffing. Recognizing these needs and the fact that the systems operate in close proximity (with services meeting in Middletown), the CTDOT saw an opportunity to consider the potential for some level of regional integration to more efficiently meet these needs. With limited resources and significant levels of investments required at transit districts across the State, CTDOT has a vested interest in exploring regional cooperation where appropriate and practical.

Regional cooperation between local transit districts has been occurring in other parts of the state. Northwest CT Transit in Torrington is coordinating with CT*transit*'s Waterbury division (operated by North East Transportation) to provide vehicle maintenance. In northeast CT, the concept of collaboration came up several years ago as Windham Regional Transit District (WRTD) was having financial challenges. WRTD and UConn's Husky Go service in Storrs are now working to consolidate management, operations, and maintenance under the auspices of WRTD.

The State further recognizes that the individual districts have a right to remain independent and compete for funding for needed upgrades and enhancements. This report compares a number of strategies for meeting MTD and ETD needs as either independent districts, through cooperation and sharing of certain functions, or as one integrated agency.

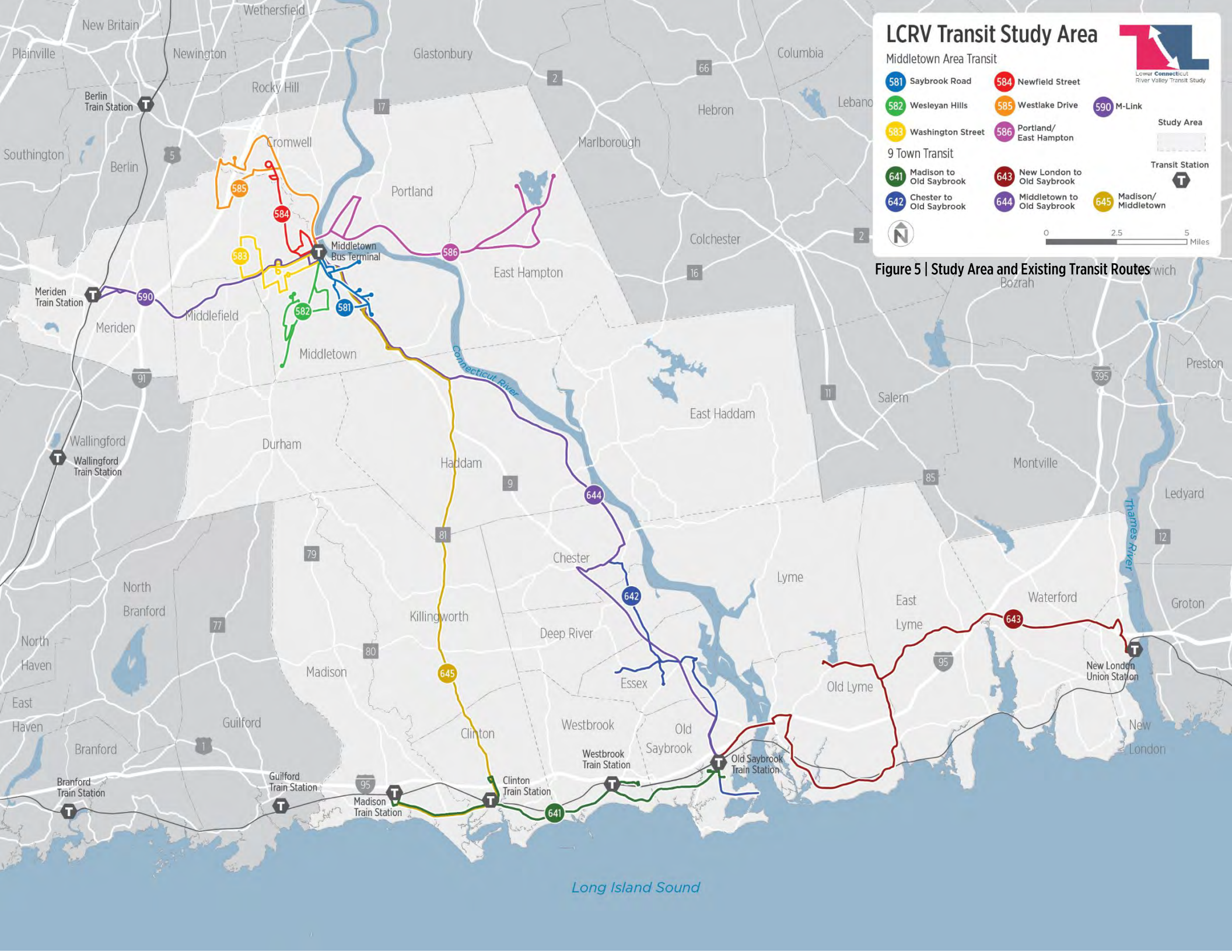


Figure 5 | Study Area and Existing Transit Routes

Study Goals and Overview of this Report

The LCRV Transit Study was guided by a Steering Committee made up of representatives from RiverCOG, CTDOT and the two transit districts. At the outset, the following goals were established:

1. **Improve Regional Transportation:** Evaluate opportunities in administration, operations, and policymaking to ensure improved regional transportation for Estuary Transit District and Middletown Transit District.
2. **Achieve Efficiencies in Service Delivery:** Consider a shared structure and locations of assets and facilities to provide future transit services in the Lower CT River Valley region, while also achieving long term financial stability.
3. **Implement Recommended Actions:** Develop recommendations for subsequent planning and integration steps.

This report represents the culmination of work completed over the study to document existing conditions, understand public needs and desires related to regional transit, and assess alternatives for the future delivery of transit services.

The remainder of this document is organized as follows:

- **Chapter 2** summarizes existing operations at the two transit districts and describes the need for investment. Additional detail can be found in the *State of the Systems (SOTS) Report, Existing Transit Conditions in the Lower Connecticut River Valley* (October, 2019).
- **Chapter 3** identifies preferred facility sites and summarizes the four facility options considered. Additional detail is provided in Appendix A – Evaluation of Investment Scenarios.
- **Chapter 4** identifies the four alternative Investment Scenarios and summarizes the evaluation process. Additional detail is provided in Appendix A – Evaluation of Investment Scenarios.
- **Chapter 5** identifies the Preferred Scenario
- **Chapter 6** presents Recommendations for moving forward and a timeline of actions and key implementation milestones.

Findings related to existing service and market demand are documented in the accompanying *Evaluation and Recommendation of LCRV Transit Service Improvements Report.*

2 Existing Operations & Governance

One of the first steps of the LCRV Transit Study was to review operations of the two existing transit districts. Key findings from the *State of the Systems Report, Existing Transit Conditions in the Lower Connecticut River Valley* (October 2019) are summarized below.

Transit District Board Structure

Transit districts in Connecticut are governed under the Connecticut General Statutes Chapter 103a Transit Districts (§7-273b-o). This statute enables the formation of districts by municipalities and specifies the operation, powers and responsibilities of such districts.

MTD currently has three member municipalities: Middletown, Middlefield, and Durham. A fourth municipality, the Town of Portland, is anticipated to join this district in 2020. ETD has nine member municipalities, and four ex-officio members that receive Dial-A-Ride services. Haddam has expressed interested in joining ETD.

Estuary Transit District

Member Municipalities		*Ex-Officio Members*
Chester	Lyme	Durham
Clinton	Old Lyme	East Haddam
Deep River	Old Saybrook	Haddam
Essex	Westbrook	Madison
Killingworth		

Middletown Transit District

Member Municipalities
Durham
Middlefield
Middletown

Board votes are weighted proportionally based on town population divided by the population of the smallest town represented. Member municipalities each have one appointed board member and one vote, with the exception of Middletown (a city with population greater than 25,000), which has two representatives on the MTD Board and thus, two votes.

Transit district bylaws and board rules may be established outside the State statute (e.g. rules of order, what constitutes a board quorum) to help achieve equity and efficiencies in the delivery of service. At MTD, two-thirds of the Directors represent a quorum. At ETD, a majority (or five Directors) constitutes a quorum. At each district, bylaws may be amended by a two-thirds vote.

Operating Expenses

Estimated FY2020 operating expenses are summarized in Figure 6. As shown, these expenses are somewhat lower than actual FY2020 budgets due to the averaging of wages and fringe benefits by position. This averaging was necessary to facilitate the comparison of FY2020

conditions against future investment scenarios (with varying staffing levels) as described below in Chapter 5.

Figure 6 | Summary of Estimated FY2020 Operating Statistics

	MTD	ETD	Combined
Transportation Expenses	$1.7 M	$1.5 M	$3.2 M
Maintenance Expenses	$0.16 M	$0.25 M	$0.41 M
Subtotal Fixed Expenses	$1.9 M	$1.8 M	$3.7 M
Administrative/Overhead	$0.65 M	$0.65 M	$1.3 M
Estimated FY2020 Expenses[1]	$2.5 M	$2.5 M	$5.0 M
% Overhead Costs	26%	25%	25%
Est. Annual Revenue Vehicle Hours (RVH)[2]	48,195	54,193	102,388
Average Cost per RVH[3]	$53	$45	$49

1. Estimated FY2020 Expenses based on actual FY2020 budget, adjusted by averaging salary costs for each position to develop a predictive service model to compare future scenarios. These estimated costs vary slightly from adopted FY2020 budgets.
2. Annual RVH estimates are based on a service model developed for the purposes of this study. Actual RVH vary slightly.
3. For the purposes of this analysis, Average cost per RVH =Estimated FY2020 Total Expenses / Estimated Annual RVH.

Revenues

Anticipated revenues for each district in FY2020 (based on adopted FY2020 budgets) are shown in Figure 7. Both districts receive over 50% of their operating revenues from State grants, with varying percentages for certain services (e.g. the State pays the full cost of 9 Town's Route 641). Municipal appropriations make up the second largest revenue source for MTD, with Federal revenues representing the second largest source for ETD.

Figure 7 | Anticipated FY2020 Revenues

Revenue Source	MTD	ETD	Combined
State Revenues/Grants	$1.8 M	$1.4 M	$3.2 M
Municipal Appropriations	$0.5 M	$0.35 M	$0.85 M
Federal Revenue/Grants	$0.1 M	$0.4 M	$0.5 M
Farebox	$0.25 M	$0.20 M	$0.45 M
Other Local Revenue (Public)	$0.02 M	$0.05 M	$0.07 M
Other Local Revenue (Private)	$0.05 M	$0.08 M	$0.13 M
Total FY2020 Revenue	$2.7 M	$2.5 M	$5.2 M

Source: Adopted FY2020 Budgets for MTD and ETD

MTD member contributions are not based on a unified formula, but municipalities pay for the services they receive. Middletown pays the majority of costs for fixed route bus and ADA paratransit services, with Durham and Middlefield contributing for rural Dial-A-Ride (DAR) services. ETD member contributions were developed based on population and services received and have not significantly changed over time. Non-member communities also

contribute for service: Portland, Cromwell and East Hampton pay MTD for service and Durham, East Haddam, Haddam, and Madison pay ETD for service. Several towns also redirect senior transportation funding towards 9 Town Dial-A-Ride services.

Other local revenues include advertising, ATM and vending machine fees at the Middletown passenger terminal, senior services and other sources. Both districts also have service contracts which bring in private revenue sources: MTD has a contract for about $50,000 with Middlesex Hospital. ETD has agreements with Middlesex Hospital for $60,000 and a $15,000 agreement with the Clinton Chamber of Commerce for the Clinton Trolley.

Financial Positions

Despite State support, both districts have experienced past financial challenges. As discussed in Chapter 1, the ETD Board has successfully overcome financial difficulties experienced in the FY2007 and FY2008 through engaged and proactive oversight. MTD's challenges occurred more recently, but this Board has also made significant progress towards financial sustainability.

Preliminary results from independent audits performed after the close of FY2019 are shown in Figure 8. MTD had cash reserves and other unrestricted assets totaling about $600,000, while ETD had about $800,000, After depreciation, MTD had total net capital assets (land, vehicles, buildings, equipment, etc.) of $15.1 million; ETD had total net capital assets of $2.5 million. MTD has a higher net value in terms of restricted assets due largely to their ownership of three facilities in Middletown.

In terms of liabilities, both agencies had lines of credit, accounts payable and other accrued expenses totaling about $300,000, but MTD carries a $900,000 liability owed to the State.

Figure 8 | Preliminary Summary of Net Financial Position (June 30, 2019)

	MTD	ETD
Current Assets	$0.6 M	$0.8 M
Capital Assets (depreciated)	$15.1 M	$2.5 M
Total Assets	**$15.7**	**$3.3 M**
Liabilities	$0.3 M	$0.3 M
Due to State of CT	$0.9 M	--
Total Liabilities	**$1.22 M**	**$0.25 M**
Total Net Position	**$14.5 M**	**$3.1 M**

Source: Preliminary FY2019 audit statements for MTD and ETD.

Staffing

Both transit districts contract for outside management services with First Transit which provides day-to-day support in the following functional areas: management and oversight of operations, equipment maintenance, scheduling, labor relations, and employee selection and training. MTD contracts for an Executive Director; ETD contracts for both an Executive Director and Operations Manager.

MTD has 27 full-time and two part-time employees, while ETD employs 18 full-time and 10 part-time positions. These estimates include contracted management positions; non-contracted positions include 26 full-time and two part-time positions at MTD and 16 full-time and 10 part-time positions at ETD.

MTD's employee roster includes 19 full-time bus drivers who are represented by the Teamsters Local 671. All other employees of both districts are unaffiliated.

Labor Practices

MTD's Labor Contract with Teamsters Local 671

The Teamsters contract provides MTD with general rights to manage its business and operate with maximum efficiency to preserve its financial position. Management rights include the ability to:

- Establish procedures related to operations, services, and maintenance
- Establish, adjust, or eliminate jobs, job classifications, departments, operations or services
- Promote, demote, layoff, transfer, assign, or reassign employees
- Determine operating divisions or re-locate the operation of any operation or facility
- Terminate, merge, consolidate, relocate, or transfer MTD's business, or dispose of and convert facilities

The work of bargaining unit employees cannot be subcontracted to another company.

The Union may not authorize or participate in any work stoppage or actions that interfere with operations. Violations of this clause, as well as grievances that are not settled between the union and supervisors, may go to binding arbitration by the CT State Board of Mediation and Arbitration.

Employee seniority is used to select job assignments, vacation time, and special work; any layoffs are also made with respect to seniority. Job assignments are "picked" at least twice a year. The contract also sets base and progressive labor rates, other pay (e.g. overtime and standby employees work), and employee benefits.

ETD Employee Handbook

ETD's Employee Handbook defines work rules, benefits, and certain compensation for drivers (e.g. minimum four hours pay, extra $1.00/hour on Saturdays). The handbook also details work conduct and a progressive discipline policy. Grievances are handled by supervisors and, if necessary, elevated to Executive Director.

Employee Benefits

Employee benefits at each transit district are compared in Figure 9. The employee benefits package at ETD is more generous than at MTD. Based on conversations with the Executive Directors of each district, the fringe benefit rate averages about 28% of base pay at MTD and about 44% of base pay at ETD. Notable differences include the fact that MTD does not contribute to family medical plans, does not offer 2 weeks of vacation until after two years of

employment, offers only one-third of ETD's sick days, and offers a significantly smaller retirement match.

Figure 9 | Summary of Existing Employee Benefits

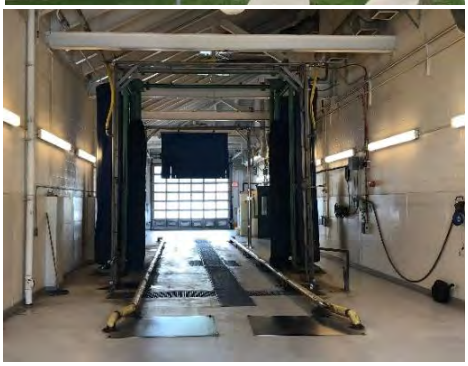
Benefits	MTD	ETD
Health/Dental Insurance	Employer contribution capped at 85% of single-payer premium. Dental plan; vision plan for drivers only.	Higher employer contributions for family plans. Dental and vision plans offered.
Vacation Accrual	5 days after 1 year 10 days after 2 years 15 days after 3 years 20 days after 10 years 25 days after 20 years Up to 2 weeks paid when leaving	10 days after 3 months 15 days after 5 years 20 days after 10 years PT workers accrue 1-4 days annually Unused days paid at year end
Other Paid Time Off	6 holidays (service and OT pay on 3) 5 sick days per year 3 days bereavement	7 holidays (service and OT pay on 1) 15 sick days per year Up to 30 sick days accrued 4 bereavement days 4 personal days
Other Benefits	Three uniforms Annual shoe allowance Paid physicals	Five uniforms for FT drivers Paid physicals Up to 30 days unpaid personal leave every two years
Retirement Plan	$20 employer contribution weekly	Match of up to 6% of gross base pay; employees are fully vested after 5 years

Maintenance and Support Facilities

Both MTD and ETD have outstanding facility investment needs to more effectively support operations and maintenance. These needs were detailed in the *LCRV Transit Study Existing Facilities Report* (October 2019) and are summarized below. In addition, Connecticut State law requires that 30% of all buses purchased by the State be zero-emission by 2030. Existing facilities at MTD will need to be retrofitted to accommodate both diesel and battery-electric bus technologies and to provide charging infrastructure.

Middletown Transit District (MTD)

MTD owns three facilities in Middletown including a downtown passenger terminal on Main Street and a two-building vehicle maintenance and storage facility on North Main Street. This report focuses on facility needs for vehicle maintenance and operational support. However, it should be noted that MTD has been granted funding to renovate and upgrade their downtown passenger terminal.



The North Main Street maintenance and storage facility is functional but constrained. The following operational constraints have been identified:

- The layout of the Cheeseman maintenance building and its single maintenance bay are inefficient. With only one bay, there is capacity to perform regularly scheduled preventative maintenance, but not other major or specialized repairs.
- There is little potential for growth. Additional maintenance and inspection bays are needed at present, and would be required for a larger fleet.
- Since specialized maintenance must now be contracted out, there is not sufficient work for more than one mechanic. However, having just one mechanic is impractical and inefficient, as challenges arise when this person takes vacation or sick time.
- There is diesel fueling on site, but no capacity to fuel the smaller cutaway vehicles and non-revenue support vehicles that use regular gasoline.
- The wash bay needs upgrades and the cash drop should be removed from the bus wash area.
- Roof leaks and HVAC issues have caused interior water damage and burst pipes. Space heaters are now used in the winter in certain areas.
- There is limited room for inventory; large parts must be ordered on an ongoing basis.

The administration suite in the Cheeseman Building and the Pease Avenue storage building are underutilized. Although both could be reconfigured to offer more vehicle storage and better support other operational needs, this does not solve issues related to the need for additional maintenance bays. In summary, due to physical limitations on the existing site, expansion onto an adjacent parcel is required to meet programmatic needs and to plan for growth.

Estuary Transit District

ETD operates out of leased space in the Centerbrook Industrial Park. Vehicles are stored outside and there is no indoor bay for cleaning, washing, inspections, or other light maintenance. Vehicles are fueled by drivers at commercial gas stations, and all vehicle maintenance functions are contracted to a garage in Old Saybrook. The district has recently

expanded its fleet to include larger transit buses and is now providing complementary ADA paratransit service. This recent growth is compounding space constraints.

The Board of Directors recognizes that it would likely be challenging to find appropriate space on the open real estate market. To address current constraints and accommodate future growth, the Board believes the system would be better served by operating out of a permanent, adequately sized facility and by performing its own fleet maintenance. In 2017, the district conducted a study to identify feasible and available sites for an ETD Transit Operations & Maintenance Facility.

Other Capital Assets

Both transit districts have a capital program funded through Federal and State transit programs. Funding is requested from the State (CTDOT) on an annual basis to replace vehicles, procure or upgrade other assets, and make other capital improvements.

Fleet

MTD and ETD both operate a mix of larger capacity Gillig transit buses and body-on-chassis cutaway buses (see Figure 10). The Gilligs are 29 to 35 feet in length, while the cutaways are less than 25 feet in length.

Future service improvements are discussed in the accompanying *Evaluation and Recommendation of LCRV Service Improvements Report*. While no specific service increases are planned at this time, it is anticipated that increases will be introduced in the future and a growth factor of 20% is assumed for the purposes of facility sizing.

Figure 10 | FY2020 Revenue Vehicle Fleet and Growth Assumptions

Current Fleet	MTD	ETD	Combined
Gillig Transit Buses	10	4	14
Cutaways	10	13	23
Trolleys	0	1	1
Subtotal	**20**	**18**	**38**
20% Growth	4	4	8
Potential Future Fleet	**24**	**22**	**46**

Each district also has non-revenue vehicles to support operations. MTD has a parts trucks (a pick-up with a lift gate and compressor) and a van to support operations. ETD has three non-revenue vehicles for management activities and to shuttle drivers for shift changes.

Technology

ETD has recently adopted and implemented a host of new technologies including:

- A new Automatic Vehicle Location (AVL) system that will allow customers to access real-time bus information via on-line applications and share data with other bus systems such as CT*transit*.
- New scheduling software and mobile applications for Dial-A-Ride and ADA services that allow for on-line booking and advance credit card payments, and provide trip arrival time updates.
- An Interactive Voice Response (IVR) system that can take reservations by phone.
- A new radio system that will be fully compatible with the statewide radio network (the Connecticut Land Mobile Radio Network, or CLMRN). Installation will be complete in mid-2020.
- XtraMile, an on-demand transit service that is scheduled using Transloc software and being piloted in the Old Saybrook area. Initial ridership trends show this service is well received and ETD sees the potential to invest further in these on-demand services.

MTD has implemented AVL technology, but it is a basic system without features that could help collect ridership data or be used to share bus location with passengers and other transit systems. The district has expressed interest in upgrading this AVL system and their paratransit scheduling software to platforms used by (or compatible with) ETD. The on-demand scheduling and payment system (Ecolane) used by ETD is also of interest. MTD district remains on an independent two-way radio network for now.

CT*transit* is implementing an account-based fare payment system (Go CT) on all its bus systems and is planning to expand this system to bus operators across the State. This will facilitate transfers and fare integration across districts (e.g. between MAT and 9 Town services, and with CT*transit* and SEAT). Funding to procure an upgraded fare system

compatible with Go CT has been awarded to ETD, but it is not clear whether this initial allocation is sufficient to cover full costs. There was been no funding awarded to MTD for a fare system upgrade.

The Need for Investment

There is a demonstrated need for investment to support the delivery of transit services in the Lower Connecticut River Valley.

Financial stability is of critical importance. Recent audits show ETD as being in positive net position with over $500,000 in unrestricted assets and positive cash flow on a near term basis. MTD has restored positive annual cash flow, but also carries a roughly $900,000 outstanding liability to the State. Despite near-term stability, both are small agencies that have experienced financial challenges. They each must be vigilant to maintain existing reserves and to be prepared for unforeseen events that could again impact their financial standing. This report assesses the potential for merging to create a larger district with a larger budget, a stronger net position, and additional management resources to sustain financial health and ensure the long-term effective delivery of transit in the region.

Small staff sizes impact operational effectiveness. Interviews with the current shared Executive Director, as well as the former Executive Director of MTD, highlighted the challenges of staffing a small agency. Not all salaries are market competitive, making it difficult to attract new employees. Once hired, there is little room for employee promotion and advancement, making it difficult to retain employees over the long term. There are few management or administrative support positions, meaning the Executive Director and other staff handle a myriad of duties that take away from their primary responsibilities. This introduces the potential for a significant loss in institutional knowledge and capacity if a qualified manager leaves or retires, as well as the potential for mismanagement in the event that a manager must take on tasks beyond their capabilities. This report considers the creation of new management and staff positions to increase technical capacity, improve the effectiveness of operations, and provide opportunities for employee growth.

Both districts are in need of new or retrofitted facilities. MTD is in need of functional upgrades at their North Main Street maintenance facility, including a statewide mandate to incorporate new battery-electric buses into their fleet by 2030. The district desires to meet these needs in a manner that would also accommodate future growth. ETD has been expanding their fleet and services yet operates out of a leased facility that does not adequately accommodate its needs. This report assesses alternative approaches to addressing facility needs.

New efficiencies may provide opportunities to improve service. The two districts are neighbors with overlapping service areas but, as separate entities, have redundant staff and assets. Building a new, separate Operations & Maintenance facility for ETD will further exacerbate these redundancies. This report examines how integration may offer opportunities to redirect resources, provide expanded staff capabilities, and reduce overall capital needs by sharing the revenue fleet, equipment and computer technologies.

There are significant statewide transit needs, but limited resources. CTDOT recognizes the outstanding needs of both MTD and ETD and continues to promise financial support. However, there are significant outstanding needs at transit districts across the State and limited resources for investment over the near term. The State has an interest in exploring regional cooperation where appropriate and practical.

3 Facility Alternatives

Investments in transit maintenance facilities are needed for both MTD and ETD. MTD's existing Operations, Maintenance & Storage Facility on North Main Street in Middletown is under-sized and in need of programmatic and equipment upgrades. ETD currently contracts with an outside vendor for vehicle maintenance; with a growing fleet and inadequate vehicle storage, the ETD Board of Directors started investigating sites in 2017 to construct their own Operations & Maintenance Facility.

A site review was conducted to identify potential facility locations and four facility alternatives were subsequently considered for these sites. *Appendix A – Evaluation of Investment Scenarios* provides more detailed documentation of these alternatives. A summary is provided below.

Facility Site Options

A site review was conducted to identify potential facility locations for an expanded MTD Operations & Maintenance Facility, a new ETD Operations & Maintenance Facility, and/or a shared facility. Using screening criteria related to parcel size, availability of utilities, land ownership, site access, and adjacent uses, the following sites were identified:

1. **North Main Street, Middletown:** Four privately-owned parcels on the east side of North Main Street and across from MTD's existing facility are available for sale (three parcels at 110 to 120 North Main Street known as the "O&G site" and another small adjacent parcel) and could be used in some combination to accommodate an expanded MTD facility or a shared regional facility.
2. **CTDOT Maintenance Facility, Tylerville:** This publicly owned site is centrally located between the two districts, is of sufficient size to accommodate a shared facility, and has good highway access.
3. **314 Flat Rock Place, Westbrook:** This privately-owned site was recommended for an ETD Operations & Maintenance Facility in 2018. It has since changed ownership, but recent contact by an ETD Board member determined the new owner would continue to entertain an offer to sell.
4. **Middlesex Turnpike, Old Saybrook:** A large municipal property was identified just north of Old Saybrook Train Station, the emerging hub of 9 Town services.

These sites are described in further detail in *Appendix A*.

Recommended Sites

Use of an expanded footprint at MTD's existing Middletown facility is the preferred option for either an independent MTD facility expansion or construction of a shared facility. Combined with adjacent parcels (across North Main Street) now for sale, the location has the capacity to accommodate a facility that could meet all regional facility needs. This approach also takes

advantage of MTD's existing investment in maintenance and support buildings, providing for a more cost-effective overall solution.

For a separate ETD Facility, the privately owned Westbrook parcel identified in the 2017 Wendel report continues to present a viable option, and is well situated off I-95 and Route 1 near the center of 9 Town's service area.

It should be noted that this study was not scoped to undertake a full real estate review and it is likely that other privately owned parcels of adequate size and with municipal water (and other utilities) may be available. A current market review for other sites would need to be conducted if initial negotiations at either preferred site are not successful.

Facility Alternatives

Four potential facility alternatives were identified, covering a range of strategies from independent to shared facilities and using the recommended Middletown and Westbrook sites identified above. These facility alternatives are shown in Figure 11 | Facility Alternatives and described in more detail below. Concepts for each facility alternative were based on the size of the current fleet with a potential 20% increase in fleet size in the future.

Figure 11 | Facility Alternatives

Facility Alternatives	
1	Separate Facilities ▪ Expanded MTD Operations & Maintenance Facility in Middletown ▪ New ETD Operations & Maintenance Facility in Shoreline Area
2	Shared Vehicle Maintenance/Separate Operational Facilities ▪ Expanded MTD Operations & Maintenance Facility in Middletown ▪ Shared Vehicle Maintenance Facility in Middletown ▪ New ETD Operations Facility in Shoreline Area
3	Shared Maintenance & Administrative Facilities/Separate Facilities for Local Operations ▪ Shared Administration, Operations & Maintenance Facility in Middletown ▪ Shoreline Facility for Shoreline Area Operations, Storage & Fueling
4	Shared Operations, Maintenance & Storage ▪ One centralized Operations, Maintenance & Storage Facility in Middletown

Estimated Capital Costs for Facilities

Programmatic requirements for each alternative are detailed in Appendix A and used to test fit each alternative on potential sites and to develop a cost estimate. Figure 12 provides an estimate of probable order-of-magnitude costs based on overall facility square footage, required equipment, and the opinion of engineering consultants participating in this study.

The costs shown under Facility Alternative 1 reflect the cost to independently meet MTD and ETD programmatic and state of good repair needs. This baseline cost is estimated to be $33.1 million and is the highest of all alternatives.

Alternative 2 requires a $30.6 million investment, or $2.5 million less than Alternative 1, reflecting the fact that a shared maintenance facility would be constructed in Middletown. Alternative 3 would require $29.0 million or $4.1 million less than Alternative 1. This reflects the fact that the two districts would be merged and operated out of renovated administrative space within MTD's current facilities. This reduces the scope of new construction in Westbrook to primarily accommodate only vehicle storage, fueling and driver support space. Alternative 4 has the lowest overall cost, estimated to be $27.2 million as it does not involve a facility in the Shoreline area nor the associated land acquisition.

Figure 12 | Probable Capital Costs for Maintenance Facilities (Order of Magnitude)

Facility	Facility Alternative 1	Facility Alternative 2	Facility Alternative 3	Facility Alternative 4
MTD Facilities				
Vehicle Storage	$2.5 M	$2.5 M	$2.75M	See Shared
Vehicle Maintenance	$8.1 M	*See Shared Facilities costs below*		
ETD Facilities				
O&M Facility[1]	$17.0 M	*See Shared Facilities costs below*		
Storage & Ops Facility	n/a	$12.6 M	n/a	n/a
Storage/Local Ops Only	n/a	n/a	$11.0M	n/a
Shared Facilities				
Vehicle Maintenance	n/a	$10.0 M	$10.0 M	n/a
O&M Facility	n/a	n/a	n/a	$22.8M
Soft Costs[3] (15%)	$4.1 M	$3.8 M	$3.6 M	$3.4 M
Land Acquisition				
Middletown	$0.4 M	$0.75 M	$1.0 M	$1.0 M
Westbrook	$1.0 M	$0.9 M	$0.6 M	n/a
Total[4]	**$33.1 M**	**$30.6 M**	**$29.0 M**	**$27.2 M**
Savings compared to Alternative 1		***$2.5 M***	***$4.1 M***	***$5.9 M***

1. Cost for ETD's full Operations & Maintenance Facility in Scenario 1 is based on revised square footage numbers from the Wendel report.
2. Estimates for maintenance equipment (e.g. lifts, bus wash, etc.) are included in the facility estimates above.
3. Soft costs based on total facility costs (not land acquisition) and include: Architectural and Engineering/Construction Services (8%), Owner's Contingency (5%) and FFE (2%) for furniture, fixtures and smaller equipment such as phone and data systems, furniture, etc. Owners contingency is used to help defray change orders and owner-directed changes.
4. A 25% contingency is included in the facility construction costs.

4 Evaluation of Investment Scenarios

Three potential governance strategies were identified to assess different administrative and staffing structures for transit delivery in the LCRV region. Each of these governance strategies is paired with a different facility alternative (as described in the previous chapter), creating four potential investment scenarios (see Figure 13).

All scenarios would position the districts for future growth. None of the scenarios anticipate any layoffs or job losses, in fact, additional positions would be created.

- Scenario 1 represents the "baseline condition" or a scenario in which outstanding needs would be met in terms of facilities and enhanced staffing.
- Scenario 2 is similar to the baseline condition, but district management and vehicle maintenance would be shared.
- Scenarios 3 and 4 test the concept of regional integration, with the two districts merging as one. Scenario 3 would maintain facilities in both the Shoreline and Middletown areas. Scenario 4 would operate all functions out of one Middletown facility.

Figure 13 | LCRV Service Delivery Scenarios

Scenario	Governance Strategy	Facility Alternative
1	**Independent Districts**	Facility Alternative 1 ▪ Expanded MTD Operations & Maintenance Facility ▪ New ETD Operations & Maintenance Facility
2	**Independent Districts with Shared Functions**	Facility Alternative 2 ▪ Shared Vehicle Maintenance at MTD ▪ Separate Operation & Storage Facilities
3	**Regional Service Delivery**	Facility Alternative 3 ▪ Shared Operations & Maintenance Facility in Middletown ▪ Shoreline Facility to support Shoreline area operations
4		Facility Alternative 4 ▪ Operations, Maintenance & Storage Facility in Middletown

Appendix A: Evaluation of Investment Scenarios provides a detailed description of the assumptions for each scenario. This chapter summarizes the evaluation of the four investment scenarios, covering four key areas:

- Impact on Staffing and Labor Relations
- Impact on Operating Expenses and Revenues

- Capital Investment Needs
- Qualitative Benefits and Impacts

Impact on Staffing and Labor Relations

Staffing

Assumed staffing by position and by scenario is shown in Figure 14 | Assumed Staffing by Scenario. There are no layoffs or reductions assumed. Rather, all alternatives involve higher staffing levels than currently budgeted for FY2020.

Scenario 1 represents the baseline scenario in which new positions would be created to bring each agency up to a more appropriate level of staffing, with new mid-level positions to increase management capacity and a minimum of three mechanics in each garage.

There are two Executive Directors in the baseline Scenario 1, and one shared Executive Director under Scenarios 2, 3 and 4. There would be two Operations Managers in Scenarios 1, 2 and 3, but only one in Scenario 4 where all service is operated out of one facility.

For the purposes of this analysis, it is assumed that transit service levels would remain similar to today.

- The number of drivers in Scenarios 1 and 2 are consistent with FY2020 staffing.
- Under Scenarios 3 and 4, the larger agency created by district integration would require that employees working more than 30 hours weekly be paid full benefits, making it less effective to employ part-time drivers. It is assumed existing part-time drivers would be "grandparented" in, with most transitioned to full time. It is assumed the number of full-time drivers would increase from 31 to 36, with only two part-time driver positions remaining.

Today, MTD employs two Transportation Supervisors while ETD has none.

- Scenarios 1, 2 and 3 assume there would be a Lead Supervisor and two others to cover all weekday and weekend shifts at both the MTD (or Middletown) and ETD (or Shoreline) facilities. In Scenario 4 only one Lead Supervisor would be required, but there would still be a need for 4 supervisors to oversee operations across the region.
- In Scenarios 1 and 2, each district would have a Lead Dispatcher and two others, as well as a part-time person to cover weekends. In Scenarios 3 and 4, all dispatch would be handled out of Middletown, with one Lead Dispatcher and 2.5 others to cover each shift.

Today, MTD has one Mechanic and a Facility Manager.

- Under Scenario 1, both maintenance facilities would have three mechanics (or, two on duty at all times with a third to allow for personal time off). One of these mechanics would be the Maintenance Manager. This Maintenance Manager would oversee both vehicle and facility maintenance. There would be a Janitor at each facility (performing light facility maintenance).
- Under Scenario 2, there would be only one mechanic at ETD's Shoreline Facility, performing light maintenance and serving as facility manager.

- Under Scenarios 3, there would be 3 mechanics based out of the shared facility in Middletown; mechanics would occasionally travel to the Shoreline facility to conduct light maintenance if and when needed. One Maintenance Manager would oversee all maintenance and facilities. In Scenario 4, only one full-time and one part-time Fueler/Service Worker and one Janitor would be needed.
- In all scenarios, there would be one full-time and one part-time Fueler/Service Worker cleaning and moving buses at each garage.

In terms of other administrative support positions:

- Scenario 1 assumes each district would have a full time Finance Director and an Administrative Assistant.
- Under Scenario 2, each district would have a part-time Bookkeeper to assist the Finance Director with cost allocation and increased accounting related to shared maintenance and other functions (this Bookkeeper is not included in other scenarios).
- In Scenarios 3 and 4, the larger, merged district would only need one Finance Director and one Administrative Assistant. Two new positions are created: A Human Resources specialist to handle increased tasks related to entities with 50+ employees, and a Grants/Procurement Specialist to handle federal compliance and pursue competitive federal grants.

Figure 14 | Assumed Staffing by Scenario

Position	FY2020		Scenario 1		Scenario 2		Scenario 3	Scenario 4
	MTD	ETD	MTD	ETD	MTD	ETD	Combined	Combined
Executive Director	1	1	1	1	1 shared		1	1
Operations Manager	1	1	1	1	1	1	2	1
Drivers (FT)[1]	19	12	19	12	19	12	36	36
Drivers (PT)[1]		8		8		8	2	2
Supervisors	2	0	3	3	3	3	6	5
Dispatchers	2.2	2.2	3.2	3.2	3.2	3.2	4.5	4.5
Mechanics[2]	1	0	3	3	3	1	3	3
Fuelers	1	0.8	1.5	1.5	1.5	1.5	2.5	1.5
Janitor	0	0	1	1	1	1	2	1
Finance Director	0	1	1	1	1	1	1	1
Bookkeeper	0.5	0	0	0	0.5	0.5	0	0
Grants/Procurement	0	0	0	0	0	0	1	1
HR/Payroll	0	0	0	0	0	0	1	1
Admin. Asst.	0	.5	1	1	1	1	1	1
Total	**27.2**	**26.6**	**34.2**	**34.2**	**34.2**	**31.2**	**61.5**	**58.5**
Combined	**44 FT / 13 PT**		**61 FT / 12 PT**		**58 FT / 14 PT**		**60 FT / 4 PT**	**56 FT / 4 PT**
Reduction in # of Positions Compared to Scenario 1					*4.4%*		*10.5%*	*14.5%*

1. FY2020 driver positions based on adopted budgets. Service increases over this year have increased ETD driver counts.
2. Mechanics include a Maintenance Manager that would oversee both Vehicle and Facility Maintenance.

Labor Relations

MTD's employee roster includes 19 full-time bus drivers who are represented by the Teamsters Local 671. All other employees of both districts are unaffiliated.

- Under Scenario 1, it is anticipated that labor affiliation would be unchanged.
- Scenario 2 would involve shared management and vehicle maintenance. Although the two districts currently "interface" at MTD's Passenger Terminal in Middletown, there would be more interfacing when ETD drivers bring vehicles to MTD for maintenance. It is possible that the local Teamsters would try to organize ETD drivers; it is not clear if ETD drivers would be amenable, would affiliate with a different union, or remain unaffiliated.
- Under Scenarios 3 and 4, it would be even more likely that the Teamsters (or another union) would encourage ETD drivers to unionize. Again, ETD employees may choose to remain unaffiliated.

Under Scenarios 2, 3 or 4, management should be prepared for one of two potential outcomes: either one union with one set of work rules; or two different operating units or unions. The latter would add administrative complexity that could encumber the efficiency of agency operations. Management would benefit from establishing work rules that are as consistent as possible across the two divisions.

Impact on Operating Expenses and Revenues

Operating Expenses

Based on the assumptions detailed above, the impact of each scenario on transit district operating expenses was assessed (see Figure 15 | Combined Operating Expenses by Scenario).

Operating expenses in Scenario 1 are anticipated to increase by $1.9 million, reflecting enhanced staffing and management capabilities at both districts, and the expanded MTD facility and new ETD facility which will require increased insurance, utilities and other upkeep. Scenarios 2, 3, and 4 each progressively reduce this projected increase by 4%, 8%, or 10%, respectively.

Transportation Expenses

Driver wages are assumed to be increased to achieve greater overall parity in Scenario 1, and are held constant across all scenarios. It is assumed that most part-time drivers would be transitioned to full-time in Scenarios 3 and 4, which would increase overall transportation costs. Transportation Supervision and Dispatch salaries are also lower in Scenarios 3 and 4, as redundancies in management are reduced.

Transportation expenses in Scenario 4 also reflect an increase related to the cost of moving vehicles between Middletown and the Shoreline for daily pullout. Under Scenarios 2, 3 and 4, the cost of emergency towing between the Shoreline and Middletown would also see a slight increase.

Maintenance Expenses

Maintenance wages and contracted fleet maintenance are highest in Scenario 1, but reduced by about 24%-38% when vehicle maintenance is shared in Scenarios 2 and 3, and by about 43% in Scenario 4. Scenario 4 savings would be offset somewhat by the cost to get vehicles from the Shoreline area to and from a Middletown garage.

There would still be a need for a limited amount of contracted fleet maintenance (about $100,000 annually) for body work and other specialized tasks.

Administrative/Overhead Expenses

Today, about 25% of regional transit expenses are directed towards overhead. Under Scenarios 1, 2 and 3 this would increase reflecting larger facilities that require upkeep and additional support staff. Overhead percentages are lowest in Scenario 4 when operation out of one facility would further reduce redundancies.

Integration under either Scenarios 3 and 4 would involve additional one-time operational costs to conduct additional studies, engage legal support and pursue other efforts to advance a merger of the districts. These costs are estimated to be in the range of $500,000 and would be spread over two fiscal years, having minimal impact on the overall efficiencies to be gained over the long term under these two scenarios.

Figure 15 | Combined Operating Expenses by Scenario

	Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Driver Wages + Fringe	$1.98 M	$2.16 M	$2.16 M	$2.29 M	$2.29 M
Tires/Fuels/Materials	$0.75 M	$0.75 M	$0.75 M	$0.75 M	$0.75 M
Increased Miles/Labor to Pullout	--	--	--	--	$0.15 M
Purchased Transportation	$0.03 M	$0.03 M	$0.03 M	$0.03 M	$0.03 M
Supervision/Dispatch Wages + Fringe	$0.40 M	$0.82 M	$0.82 M	$0.74 M	$0.66 M
Mechanic/Fueler Wages + Fringe	$0.14 M	$0.65 M	$0.46 M	$0.35 M	$0.32 M
Increased Towing	--	--	$0.02 M	$0.02 M	$0.02 M
Fleet Maintenance[1]	$0.28 M	$0.09 M	$0.09 M	$0.09 M	$0.09 M
Adjustment[2]	*$0.15 M*	*$0.15 M*	*$0.15 M*	*$0.15 M*	*$0.15 M*
Subtotal Fixed Expenses	**$3.7 M**	**$4.7 M**	**$4.5 M**	**$4.4 M**	**$4.5 M**
Management/Other Salaries[3]	$0.64 M	$0.94 M	$0.89 M	$0.70 M	$0.66 M
Professional Services	$0.12 M	$0.11 M	$0.11 M	$0.09 M	$0.09 M
Facilities[4]	$0.10 M	$0.33 M	$0.30 M	$0.34 M	$0.27 M
Utilities[4]	$0.14 M	$0.45 M	$0.42 M	$0.40 M	$0.38 M
Other/Contingency	$0.27 M	$0.39 M	$0.37 M	$0.37 M	$0.30
Subtotal Overhead Expenses	**$1.3 M**	**$2.2 M**	**$2.1 M**	**$1.9 M**	**$1.7 M**
Total Expenses	**$5.0 M**	**$6.9 M**	**$6.6 M**	**$6.3 M**	**$6.2 M**
		Compared to Scenario 1	*-4.1%*	*-7.7%*	*-10.3%*
% Overhead	25%	32%	34%	30%	28%
Cost per RVH[5]	$49	$67	$64	$62	$60

1. Fleet Maintenance cost keeps MTD's current contracted cost of $46,000 across all scenarios and assigns similar costs to ETD reflecting transition to in-house maintenance on a similar sized fleet.
2. Wages above are averaged by position and do not incorporate overtime. This adjustment corrects for averaging of wages and fringe rates across the board and to achieve consistency with FY20 budgets.
3. Management/Other Salary under Scenario 1 assume MTD's Deputy Operations Manager would become part of the contracted management team (at higher salary).
4. Utility and Facility maintenance expenses were estimated based on current MTD costs per square foot and assume septic service at any Shoreline facility, but do not include digging on-site well for water supply
5. Cost per Revenue Vehicle Hour based on estimated FY2020 annual fixed route and on-demand service hours (102,388) from model developed to evaluate service alternatives.

Revenues

None of the scenarios would result in lost revenues, but there may be opportunities to bring in new revenue. The potential for increased revenue depends on the outcome of negotiations between the two boards and with other stakeholders. For the purposes of this analysis, all scenarios are assumed to be revenue neutral, with the following to be considered:

- In all scenarios, it is assumed that Portland joins MTD or the new, integrated district, and that Haddam joins ETD or the new, integrated district.
- Under Scenarios 3 and 4, it is possible that other municipalities might also be attracted to join the larger, regional district. In addition to Portland and Haddam, municipalities that receive service today and do not belong to other transit districts include Madison, Cromwell, East Hampton, and East Haddam. Each of these provide some contribution for service today and it is possible that these contributions could be higher in the future.
- Scenarios 3 and 4 will also require that service contracts and agreements with existing partner organizations be renegotiated, restructured, or simply re-executed with the new district. A merger as one larger, regional district will also provide opportunities for expanded service and new partnerships. There has been interest from other private entities for new service agreements (e.g. Wesleyan, other seasonal tourist trolleys) and these partnerships should be pursued to enhance long term revenue streams.
- Scenarios 3 and 4 would require minor fare policy adjustments that could have a moderate impact on overall revenues.
  - Base fares would remain as today ($1.75) in both districts, with minor changes to make monthly pass and youth rates consistent.
  - A more significant change would be needed to bring consistency to regional senior fares. MTD offers senior discounts on monthly passes and 10-ride books, but seniors living in ETD member communities can pre-register and ride on a "donations accepted" basis (essentially for free). A discounted regional senior fare could be considered, but this change would need to be negotiated by a new district board of directors, as many member municipalities currently redirect senior funding in exchange for senior rides.
  - Further study of the impact of potential fare changes would be needed.

It is assumed that fare collection systems would be upgraded to be compatible with Go CT, the statewide account-based system now being implemented by CT*transit*. Fares would be made consistent across the region and the new fare system would offer fare capping, regional integration, and other benefits to help offset impacts due to potentially higher fares.

Capital Investment Needs

In addition to the facility costs described in Chapter 3, there are additional capital investments that would be required to support implementation of each of the scenarios. These needs are summarized below, with costs shown in Figure 16.

Technology Upgrades

Over the last few years, ETD has made significant advances in implementing new technology to achieve operational efficiencies and enhance customer convenience. Other ETD equipment upgrades are underway. Scenarios 2, 3, and 4 assume that MTD upgrades several technologies and software packages to be consistent with ETD and to allow for regional application.

- **Automated Vehicle Location (AVL) technology:** Both districts have AVL today but use different systems. Use of the same platform currently used by ETD (Passio) is recommended to allow maintenance managers to better track vehicle location. This would also ultimately benefit riders by allowing regional real-time bus tracking on one common application. Passio licenses its software on a per-vehicle basis.
- **Dial-A-Ride/ADA Scheduling and Interactive Voice Response (IVR):** MTD would use ETD's Dial-A-Ride/ADA scheduling software (Ecolane) and Interactive Voice Response (IVR) platform. Together, these upgrades would allow for a shared call center and more efficient, regional scheduling of on-demand services. Ecolane licenses its software on a per-vehicle basis, so there would be costs to incorporate the MTD fleet, but ETD has also invested about $200,000 for add-on features that could be utilized across the combined fleet. There would be no cost to expand use of ETD's IVR system for use in booking trips on MTD vehicles.
- **Radio System:** ETD will complete an upgrade of their radio system to be compatible with the CT Land Mobile Radio Network (CLMRN) in mid-2020. In order to better coordinate the movement of vehicles into and out of the shared maintenance facilities, it is recommended that MTD upgrade to a similar system.
- **Fare Collection:** MTD and ETD fare collection systems currently use magnetic swipe technology. Starting with CT*transit*, the State is transitioning to Go CT, an account-based fare collection system that passengers tap (rather than swipe) when boarding buses. Mobile phone apps can also be used for fare payment. ETD has been granted funding to upgrade to a compatible system. Moving MTD towards the same system would allow for all fare equipment maintenance to be performed at the shared maintenance facility, a more efficient approach than performing this task at the two respective storage facilities. This investment would also allow for regional fare integration under Scenarios 3 and 4.
- **Fixed Route Planning/Scheduling**: Whether under Scenario 2 or full integration, the districts would benefit from more advanced, in-house fixed-route planning and scheduling capabilities. "Off-the shelf" these programs (e.g. Remix, Trapeze, Hastus, etc.) typically involve upfront costs as well as annual support contracts and staff training. They would enable in-house scheduling, run-cutting and more accurate Title VI analyses in compliance with federal law. One of the dispatchers would be responsible for this scheduling.

Licensing and technical support pricing for AVL and scheduling software is based on the total number of vehicles, and as a result there would be no ongoing operational savings from district integration. However, ETD has made upfront investments in these technologies that would allow MTD vehicles to be brought on at overall lower cost without application development costs.

Rebranding and Marketing

Under Scenarios 3 and 4, the two transit districts would be integrated as one regional district. This would require rebranding of assets and materials to help communicate changes related to unified operations. The new district could take on the name of one of the original districts (e.g. Estuary Transit District) or could opt for a complete rebranding.

- Rebranding of vehicles is assumed at $15,000 per vehicle. This cost could be reduced by rebranding one district with the second's color scheme or by waiting until each bus reaches the end of its useful life and is replaced.
- New signage (at bus stops and other facilities), schedules, and driver uniforms
- New website
- Marketing and Public Relations. It will be important to carefully roll out the changes so the public understand the reasons behind integration (i.e. there was no failure or mismanagement). A regional market campaign will also be required to publicize changes in governance, branding, and service.

In order to fully communicate the changes across the region and to attract new riders, the rebranding effort should be conducted in parallel with a heightened marketing effort. Assuming ETD is the accepting district, one option would be to revert to use of the official "Estuary Transit" name, signaling a change while saving on the cost of a more comprehensive rebranding. Conversely, the new Board may decide to conduct a full rebranding under a new name or may elect to take a longer-term, phased approach. In summary, the timing and scope of rebranding can be flexible.

Non-Revenue Vehicles

Today, each district has non-revenue vehicles to support operations. MTD has a parts trucks to support maintenance and a van to support operations. ETD has three non-revenue vehicles for management activities and to shuttle drivers for shift changes.

There should always be a vehicle dedicated to the Transportation Supervisor on shift, one as a shuttle to support shift changes at each garage, and another for other management/administrative purposes at each facility.

- Under all scenarios, an additional vehicle for the new MTD Transportation Supervisor would be needed.
- Scenarios 2, 3, and 4 would require a service truck with a lift to handle maintenance road calls across a broader region.
- Under Scenarios 3, there would be need for an additional administrative vehicle to facilitate the movement of staff between facilities (e.g. mechanics, fuelers, managers, etc.)

Figure 16 | Capital Investments Needed to Support Scenario Implementation

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
MTD Automatic Vehicle Location (AVL) Upgrades[1]	n/a	$150,000	$150,000	$150,000
MTD On-Demand Scheduling[2]	n/a	$40,000	$40,000	$40,000
MTD Radio System[3]	n/a	$175,000	$175,000	$175,000
MTD Interactive Voice Response (IVR)	*ETD technology can be shared at no additional cost.*			
Fixed Route Planning/Scheduling[4]	n/a	n/a	$40,000	$40,000
Fare Collection Upgrades[5]	n/a	$350,000	$350,000	$350,000
Rebranding[6]	n/a	n/a	$705,000	$705,000
Non-Revenue Vehicles[7]	$25,000	$150,000	$175,000	$150,000
Subtotal (non-facilities)	**$0.03 M**	**$ 0.9 M**	**$1.6 M**	**$1.6 M**
Facilities	$33.1 M	$30.6 M	$29.0 M	$27.2 M
Total Capital Need	**$33.1 M**	**$31.5 M**	**$30.6 M**	**$28.8 M**

1. AVL: Based on ETD's implementation costs, requires an additional $150,000 to upgrade to a Passio AVL software.
2. On-Demand Scheduling: Based on ETD's implementation costs, MTD requires $40,000 to upgrade to Ecolane scheduling software.
3. Radios: Based on recent implementation costs for ETD, it would cost $175,000 to upgrade MTD's system to be compatible with the State network.
4. Planning/Scheduling Software: Costs reflect initial start-up costs only for licensing and training ($5,000 for Remix, $30,000 for Hastus, $5,000 for training). Annual software support costs not included. For Remix, annual costs would be about $25,000 for a 40-vehicle agency.
5. ETD's Fare Collection System Upgrade is funded @ $350,000. Similar costs are assumed to upgrade MTD for compatibility with Go CT.
6. Rebranding: Study@ $100,000; 38 vehicles @ $15,000 each; two $100 uniforms for 39 drivers; Website @ $15,000; Schedule redesign @ $3,000. Replace all bus stop and other signage systemwide @ $8,000 ($150 per sign installed at 40 bus stops, plus $500 per sign at 4 locations.)
7. One supervisor/admin car @ $25,000 (e.g. SUV) for all Scenarios; 2 under Scenario 3. Service vehicle @ $125,000 under Scenarios 2, 3 and 4.

Qualitative Benefits and Impacts

In addition to the quantitative assessment related to ongoing operational funding and needed capital investments, qualitative factors were also considered with the following findings.

Attracting & Retaining Quality Staff

Today, MTD and ETD have relatively small staffs with 28 and 25 positions, respectively. In many functional areas, there is only one position, meaning there is no back-up and minimal opportunity for staff advancement. Combined with the fact that some salaries are below market rate, management has indicated they often have difficulty attracting and retaining staff.

- All scenarios assume increased staffing, higher salaries for certain positions, and the creation of new supervisory roles in maintenance and transportation, providing room for advancement.

Technical Capacity of Staff

Increased staffing will lead to increased technical capacity. Today, many functions (training, federal compliance, scheduling, etc.) are assumed by the Executive Director or other staff as secondary duties. Relieving the Director of these tasks would enhance overall management capacity and improve the effectiveness and sustainability of district operations.

- All scenarios assume:
  - A Lead Transportation Supervisor and Lead Dispatcher.
  - The hiring of three mechanics to fully cover shifts; in turn, this would expand the technical capacity of the maintenance staff.
  - A Finance Director for both districts (shared under Scenarios 3 and 4)
- In Scenario 3, there would be two transportation supervisors allowing one to take on responsibility for training and safety, and thereby relieving the Executive Director of these tasks.
- Scenarios 3 and 4 would eliminate redundancies in maintenance and management and would allow for the creation of new positions. A Human Resources specialist would handle hiring, employment law compliance, and benefits, and relieve the Finance Director of the time-consuming task of weekly payroll. A Grants/Procurement Specialist would provide the capacity to pursue competitive grants and leverage federal dollars.

Staffing levels noted above could not be accommodated by the two districts today.

Shared Technology

Upgrading technology and equipment to be consistent across the region will reduce redundancies and offer greater convenience for transit riders.

- Under Scenarios 2, 3, and 4, shared technology (such as AVL, IVR, fare collection, etc.) will reduce redundancies and allow for the implementation of regional customer interfaces (e.g. real time bus arrival applications or on-demand scheduling). MTD and

the Middletown area will benefit by being able to "jump on board" with technologies already tested and implemented by ETD.

- Under Scenarios 3 and 4, an integrated district will offer one regional fare policy and seamless transfers.

Efficiency & Sustainability

Connecticut State law that requires that 30% of all buses purchased by the State be zero-emission by 2030. All scenarios include facilities that would position MTD and ETD to meet this mandate

New or retrofitted maintenance facilities will also incorporate the latest in energy efficient practices, minimizing the impact of utility costs.

Service

The accompanying *Evaluation and Recommendation of LCRV Service Improvements Report* (issued as a separate report in spring 2020) identifies priority actions to enhance transit service across the region. Although no service improvements are planned at this time, combining forces as an integrated district will achieve efficiencies that the combined Board may wish to redirect into service improvements. Use of a combined fleet will allow for more effective vehicle usage across the region and better management of spare vehicles.

Financial Resiliency

This study has highlighted valid concerns related to the long-term sustainability of smaller transit districts. While both districts currently have positive net positions, both have experienced financial challenges of varying severity. In part, these difficulties can be attributed to the small size of each district and the related hurdles of maintaining adequate working capital and dealing with unexpected events.

- Scenarios 3 and 4 would create one agency with a larger budget and would be more resilient than two smaller districts.

Evaluation Summary

A set of quantitative and qualitative measures have been developed to help assess the ability of each service delivery strategy to meet overall project goals. Quantitative metrics to assess service performance and potential costs, as well as qualitative measures to assess other factors related to alternative service delivery and governance structures.

The sections below compare the relative effectiveness of each scenario in terms of meeting established project goals.

Goal 1: Achieve Efficiencies in Service Delivery

Figure 17 provides a summary of quantitative factors that compare each scenario's relative ability to achieve efficiencies when compared to the Scenario 1 baseline condition. These efficiencies are further assessed against a number of factors below.

Figure 17 | Criteria for Goal 1: Achieve Efficiencies in Service Delivery

Criteria	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Annual Operating Cost	$6.9 M	$6.6 M	$6.2 M	$6.0 M
Relative Diff. in Annual Cost		*-4.1%*	*-7.7%*	*-10.3%*
Relative Diff. in % Overhead		*--*	*-3.4%*	*-6.2%*
Facility Costs	$33.1 M	$30.6 M	$29.0 M	$27.2 M
Relative Diff. in Facility Costs		*-7.5%*	*-12.4%*	*-17.8%*
Other Capital Costs	$0.03 M	$0.9 M	$1.6 M	$1.6 M
Potential to Share Assets/Capital Costs	Low	Moderate	High	High

Consider Overall Cost of Service Delivery

Change in Operating Costs

Scenarios 3 and 4 are the most efficient in terms of lower overall operating costs. Both propose full agency integration, reduce the number of new positions created to staff new facilities, and reduce annual costs by8-10% when compared to Scenario 1. Scenario 2 has a more moderate impact on efficiency, with shared vehicle maintenance but not full integration of staff and other functions.

Percent of Budget Dedicated to Overhead

There is less of a differential in the amount of the budget directed toward overhead and support functions, as efficiencies in **Scenarios 3 and 4** are redirected toward increased staff capacity. However, **Scenario 4** would achieve the greatest reduction in overhead, as all functions would be conducted out of one Middletown facility, saving on utilities and facility upkeep. Savings would also be realized as fewer new positions will need to be added to staff separate districts. Scenario 3, which maintains a smaller Shoreline facility (to support Shoreline area operations) would also realize a small decrease in overhead rates.

Use Existing and Planned Assets Efficiently

All scenarios would utilize and take advantage of the current investment in MTD's Middletown facilities. All would meet MTD state of good repair needs, prepare MTD facilities to handle zero-emission bus technology, and achieve Leadership in Energy and Environmental Design (LEED) Silver Certification (a national program to encourage energy efficient buildings).

Capital Cost for Facilities

At $33.1 million, the cost to provide improved maintenance facilities is highest for Scenario 1 which involves an upgrade and expansion of MTD facilities plus construction of a full Operations & Maintenance Facility for ETD. Scenario 2 would reduce this amount by 7.5% and Scenario 3 would reduce this cost by 12.4%. **Scenario 4** has the lowest facility cost, at $27.2 million, requiring facility investment only in one location. This cost is 17.8% less than Scenario 1.

Maintenance Reliability

Maintenance reliability means that vehicle repairs can be made in a timely fashion and vehicles are ready for service when needed. Reliability would improve under all scenarios as each provides improved facility capacity and appropriate levels of staffing. **Scenarios 2, 3, and 4** assume a shared maintenance facility tasked with maintaining a larger fleet and provide more opportunity for diverse technical capacity and retention of staff.

Sharing of Capital Costs, Technology and Other Assets

Scenarios 3 and 4 presents the greatest opportunity to share existing assets and technologies; all maintenance equipment, fleet and technology would be shared.

Sharing major equipment such as bus lifts and service vehicles would reduce the need for redundant capital investments within the region. A shared fleet would allow managers to more effectively meet daily requirements using existing spare vehicle capacity. Sharing technologies such as Automatic Vehicle Location (AVL), Interactive Voice Response (IVR), on-demand scheduling and fare payment would allow MTD to take advantage of ETD's recent investments and experience, allow one person (rather than two) to manage applications across the region and provide a more consistent and technologically advanced regional interface for riders.

Provide Opportunity and Capacity for Growth

Maintenance Facility Capacity & Ability to Handle Electric Vehicles

All scenarios assume that new and upgraded facilities would be designed to address current needs and to provide the opportunity and capacity for growth and a future expansion in fleet. All facilities would also be designed to provide the capacity to store and maintain gasoline, diesel, and battery-electric buses.

Management Capacity

All scenarios introduce additional mid-level management positions (i.e. Lead Supervisor(s) and Maintenance Manager(s)) to provide enhanced management oversight of transportation and maintenance functions.

Scenarios 3 and 4 create new positions for Human Resources and Grant Management and would alleviate the current Executive Director, Operations Manager and Finance Director of

secondary duties such as federal compliance, payroll, etc. Higher level managers would then be able to appropriately focus more time on broader district-level responsibilities.

Scenario 3 would provide two Lead Supervisors overseeing transportation, one at each garage. This would allow one of these positions to be tasked with training and safety, functions that are currently the responsibility of upper-level management. Scenario 4 would be the most practical to manage from a broader standpoint, with all staff and functions operated out of one facility.

Potential for New Members/New Revenues

Portland and Haddam have expressed interest in becoming members of MTD and ETD, respectively, and this is assumed for all scenarios. It is possible that addition members (e.g. Madison, East Hampton or Cromwell) might be more attracted to join a larger regional district with better potential for long-term financial sustainability. As a larger district, **Scenarios 3 and 4** would provide better opportunity to attract new revenues. In addition to potentially attracting more member municipalities, a larger district provides greater opportunity to expand both public services and private partnership agreements across the region.

Goal 1 Summary

Each of the scenarios provides opportunities to provide for future growth in transit in the LCRV region, particularly through new and upgraded facilities and the introduction of new technologies such as zero-emission buses. All scenarios offer improved maintenance reliability and meet state-of-good repair needs.

Scenario 4 would result in the lowest overall annual operating costs, lowest overhead, and lowest capital cost. **Scenario 3** scores slightly less well across these measures, but would still provide significant capacity to reduce costs and improve efficiency. Scenario 3 also offers the highest level of management capacity.

Both **Scenarios 3 and 4** would deliver transit service on a regional basis, allow for the sharing of resources and supporting a more resilient and specialized staff. A larger, merged district would realize improved financial stability over the longer term, potentially attracting new member municipalities and new revenues through expanded public and private partner service agreements.

Efficiencies achieved through integration and regional service delivery may, at the Board's discretion, be re-directed towards service improvements. Integration will increase the likelihood of obtaining needed support and investment from the state.

Goal 2: Plan and Implement Recommendations

A key goal of the study is to ensure that the recommended strategy and plan for regional transit service delivery is practical and implementable. The ability of each scenario to meet this goal is assessed against a number of factors below.

Plan is Practical and Implementable

Scenarios 1 and 2 largely replicate today's governance and labor structure (with the exception of a common management contract under Scenario 2) and would not be challenging to implement. Steps to move towards a common management team under Scenario 2 are already being tested. Due to the late 2019 resignation of MTD's Executive Director, the two districts are both currently being overseen by ETD's Executive Director and there has been further sharing of staff resources (e.g. financial staff), as well as plans to introduce greater collaboration.

Although implementable because they closely resemble business as usual, Scenarios 1 and 2 may not be practical. They require the greatest levels of operating support and capital funding and there are limited resources available to support statewide demand for these funds.

Integration under Scenarios 3 and 4 would involve challenges related to the merging of districts and required public, municipal, and board approvals. A merger would require the two boards to negotiate new bylaws, potential changes in municipal contribution levels, responsibility for liabilities, and a fair and equitable merger of assets. However, **Scenarios 3 and 4** would be more practical in terms of reducing costs and levels of needed State investment.

Scenario 1 represents the most implementable solution, while **Scenario 3** represents the most practical solution. Scenario 3 would allow the two boards to begin negotiations towards an eventual merger while new facilities are being designed in each district. Shared maintenance could begin as soon as the Middletown facility is able to accept ETD vehicles, with final district integration proceeding at an independent pace.

Implement Changes that Have a High Level of Public & Political Support

Impacts on Employee Satisfaction

MTD employees would likely see the benefits that a new and improved facility in Middletown would provide under any scenario. ETD employees would likely be happiest with Scenarios 1, 2 or 3 which maintain a presence in the Shoreline area.

Employee satisfaction under Scenarios 2, 3 and 4 could vary depending on how wages and work rules are renegotiated. MTD drivers may grieve the fact that a common management team is overseeing ETD operations and unaffiliated drivers. ETD drivers may be encouraged to affiliate, but it is unknown how that would be received.

In summary, MTD employees may be most satisfied under Scenario 4 in which all operations are under one agency with all operations run out of Middletown. ETD employees would probably be most satisfied with Scenario 1 in which a new facility is provided in the Shoreline area, with employee rules and relations similar to today.

Consistency with Board Priorities

Both boards have a vested interest in offering high quality transit service for their current riders, member municipalities and other partners. Both boards also have a vested interest in improving the efficiency of operations. Presentations on preliminary findings from the LCRV Transit Study were given to each board in February 2020.

The MTD Board of Directors recognizes their need to improve maintenance facilities and saw the benefits of doing so on a regional scale (Scenarios 2, 3 and 4). They also expressed a willingness to further explore the concept of integration, as long as the delivery of transit on a regional scale would avoid any negative impact to service or riders.

The ETD Board of Directors indicated they continue to feel strongly that their district would benefit from a permanent operations facility and in-house maintenance. They recognized the benefits of pursuing vehicle maintenance on a regional level, while continuing to advocate for a local operations center to best meet Shoreline area transit needs. Although **Scenario 1 or 2** was identified as the preferred option by most members, the Board did recognize that **Scenario 3** could be a solution that balances State and regional needs.

Additional discussion regarding the outcomes of Scenario 3 are desired to ensure respective Board priorities are met and to come to agreement regarding future bylaws and potential municipal contribution levels. Members will need to come to agreement regarding responsibilities and potential indemnification related to existing liabilities. These concerns would need to be addressed as part of an any future agreement to merge districts and current assets.

Public Support

The public may be concerned about any potential negative impacts on service. None of the scenarios presented would have an impact on service levels or design. However, **Scenarios 3 and 4** do offer the potential to realize operational efficiencies that could potentially be redirected toward service improvements at the discretion of a newly merged regional Board of Directors.

Goal 2 Summary

Scenario 1 and 2 involve the least change for each district and its employees and would be the easiest to implement. However, they would require higher levels of capital investment and ongoing operational support, making them less practical than Scenarios 3 and 4.

Scenarios 3 and 4 would be more challenging to implement, but more practical over the long term due to lower overall operating costs.

Scenarios 1 and 3 meet one of the key factors (ease of implementation or practicality) and appear to be more appealing to ETD employees and its Board.

Summary

Scenarios 3 and 4 would best meet the objectives of the LCRV Transit Study's first goal, to achieve efficiencies in service delivery.

Scenarios 1 and 3 would best meet the objectives of the second goal, to identify recommendations that are implementable, practical and can achieve broad support.

In summary, Scenario 3 best meets both these goals.

5 Preferred Investment Option

It is recommended that Middletown Transit District and Estuary Transit District merge as one integrated district to achieve a more efficient and sustainable approach to delivering transit service across the Lower Connecticut River Valley region. This regional approach also provides the greatest opportunity to expand service and enter into additional private partner service agreements, further enhancing the long-term financial resiliency of the district.

The four different investment scenarios evaluated in Chapters 3 and 4 (and detailed in Appendix A) found that:

> **Scenario 3, integration with a shared Operations & Maintenance center in Middletown and a second Shoreline facility to support transit operations in the Shoreline area, presents the most cost-efficient and practical strategy for the future delivery of regional transit services.**

This approach was one of four potential investment options identified by the LCRV Transit Study Steering Committee. It would involve the merger of the two transit districts and the construction of two new facilities: 1) a shared Operations & Maintenance facility on North Main Street in Middletown; and, 2) a Shoreline Facility to support local area transit operations including storage and fueling. The Operations & Maintenance center would serve as the district's primary headquarters and would include an expanded vehicle maintenance facility to serve the larger, merged fleet. Transit serving the northern part of the LCRV region would generally be operated out of the Middletown facility. Shoreline area transit services would generally operate out of the Shoreline facility.

There are no job losses or layoffs anticipated from integration. In fact, it is recommended that the new larger district expand its overall technical capacity by creating several new management, maintenance, and administrative positions.

This recommendation is consistent with the two primary goals of the LCRV Transit Study:

- Goal 1: Achieve Efficiencies in Service Delivery
- Goal 2: Identify a Practical and Implementable Plan

Chapter 6 provides specific recommendations for moving forward to merge the two districts and to construct shared operational facilities.

A separate *Evaluation and Recommendation of LCRV Service Improvements Report* considers potential service enhancements that could be considered for implementation by capturing anticipated operating efficiencies following the proposed merger. These potential improvements would effectively meet the third study goal to Improve Regional Transportation.

6 Recommendations & Implementation

This chapter outlines specific steps to advance the Preferred Investment Scenario and recommends additional studies to support implementation. A conceptual timeline for these actions is shown in Figure 18 | Anticipated Timeline of Implementation Actions & Other Key Milestones. Lessons learned from other transit agencies that have pursued integration are also shared below, as identified during a peer review conducted at the beginning of this study.

Governance

Board Structure & Representation

The Connecticut State Statute governing transit districts (Chapter 103A §7-273b-o) regulates the formation, operation, and disbanding of transit districts. The legislative body of a municipality (Common Council, Town Council or Town Meeting) may vote to establish a new district or join an existing district, contingent upon the subsequent approval of the transit district board.

Although either district could serve as the "accepting district," it is recommended that municipalities that are not currently members of ETD vote to join ETD.

With fewer municipal actions required, this approach would present the most direct path for a merger. Additionally, the ETD Board has a longer track record of successfully managing district finances while expanding the range of services offered, and is well positioned to take the lead.

As shown in Figure 18 | Anticipated Timeline of Implementation Actions & Other Key Milestones, a two-year timeline is proposed to complete this merger. Construction and opening of new facilities would occur over a subsequent two-year period.

First steps include the drafting of a three-way letter of agreement (or Memorandum of Understanding) between the districts and CTDOT. This agreement would outline the overall intent, responsibilities and timeline for potential conditional actions required to move forward towards a target merger for FY2023. Outstanding MTD liabilities with the State would likely be a key point. Joint board meetings, or meetings of an appointed subcommittee, would then be initiated to finalize details.

To support these negotiations, several additional studies and analyses should be undertaken, the first being a joint audit. Prepared following the independent district FY2020 audits, a joint financial statement would establish a baseline for future financial negotiations. Additional studies are suggested later in this chapter.

As negotiations progress, other municipalities could be approached to gauge their interest in joining a larger, regional transit district (e.g. Cromwell, East Hampton, East Haddam, and Madison). Portland and Haddam have already indicated an interest. New bylaws would need to be negotiated establishing the rules for a quorum, how cash reserves are handled, and how future decisions are made. Bylaw amendments may also be considered to facilitate the integration of the two districts.

State statutes govern how many appointees each municipality would have (municipalities with population less than 25,000 would have one board appointee; Middletown, with a population greater than 25,000, would have two board appointees) and how votes are weighted.

Figure 19 | Potential Weighted Votes as Part of Integrated District shows how votes would be weighted if the districts merged today, with Portland and Haddam as new members, and if all municipalities in the region were to join. Per statute, each board member's vote is assigned a weight equal to their municipality's population divided by the population of the smallest municipality. The two Middletown representatives each cast a vote equal to half of Middletown's total weighted vote.

The new Board can construct bylaws to determine the number of votes needed to constitute a majority and may want to require both a certain weight and number of municipalities (i.e. 7 of 13) to constitute a majority. ETD's existing bylaws employ a similar measure today.

Figure 18 | Anticipated Timeline of Implementation Actions & Other Key Milestones

		Governance	Facilities	Management/Employee Relations
2020	Summer	Letter of Intent/Agreement: CTDOT-MTD-ETD Request DOT to resolve outstanding MTD debt Request DOT funding (facilities + other studies)	Middletown Site Negotiations Shoreline Site Negotiations (Site Review if needed) Issue RFP for Design Services	Letter to staff (notice of multi-year transition, etc.) Formalize shared Management Formalize shared Finance Director
	Fall	Joint Board subcommittee appointed (being to negotiate budgets, assets, bylaws, municipal contributions)	Kickoff Facility Design Confirm Facility Programs Complete Land Acquisition	Hire HR Director Hire Maintenance Director
2021	Winter	Joint FY21 Audit Statement	Facility Program & Site Master Plan Charrettes	Begin sharing of technology/other functions Implement joint work rules
	Spring	Conduct needed studies (e.g. fringe benefits, etc.)	Site Plans / Preliminary Facility Concepts	
	Summer	Invite new municipal members (Portland, Madison, East Haddam, East Hampton, etc.) to join in July 2022 RFP for Rebranding/PR/Marketing effort	30% Facility Design/NEPA	Move MTD support staff to ETD payroll All admin staff moved to Middletown
	Fall	Middletown City Council votes to join ETD in July 2022 Town Meeting votes in Durham and Middlefield Request FTA Approval to Transfer Assets ETD Votes to Accept New Towns as of July 2022 Boards vote on future bylaws and member dues Kickoff Rebranding/PR study	60% Facility Design	Hire Grants/Procurement Specialist and make Administative Assistant full time
2022	Winter	Joint board meeting on FY2023 budget Start Public Relations/Marketing campaign		
	Summer		***Begin Operations as One District***	
		Rebrand website, schedules, vehicles, etc.	90% Facility Design	
	Fall		IFB Construction	Teamsters contract negotiations
2023	Winter	MTD Board votes to disband Middletown Transit District	Start Facility Construction	
2024	Winter		Shoreline Facility Opens	Fill remaining staff positions
	Summer		Middletown Maintenance Facility Opens	
	Fall		Middletown Storage Retrofits Complete	

Figure 19 | Potential Weighted Votes as Part of Integrated District

Municipality	2010 Population[1]	Potential Points for Weighted Vote	
		Only current members	With more regional members
Durham	7,388	3.07	3.07
Middlefield	4,425	1.84	1.84
Middletown	47,648	19.8	19.8
Portland[2]	9,508	3.95	3.95
Chester	3,994	1.66	1.66
Clinton	13,260	5.51	5.51
Deep River	4,629	1.92	1.92
Essex	6,683	2.78	2.78
Haddam[2]	8,346	3.47	3.47
Killingsworth	6,525	2.71	2.71
Lyme	2,406	1.00	1.00
Old Lyme	7,603	3.16	3.16
Old Saybrook	10,242	4.26	4.26
Westbrook	6,938	2.88	2.88
Cromwell	14,005	*Not current members*	5.82
East Haddam	9,126		3.79
East Hampton	12,959		5.39
Madison	18,269		7.59
Subtotal MTD area members[3]		**28.67**	**39.87**
Subtotal ETD area members[4]		**29.35**	**40.74**
Total Points		**58.02**	**80.61**
Amount Needed for 51% Majority		**29.59**	**41.11**

1. Calculation based on 2010 census. Adjustments will be required following publication of 2020 census results.
2. Portland and Haddam have expressed interest in joining MTD and ETD and are included as current members for purposes of this calculation.
3. Includes Portland as "current member" and considers Cromwell and East Hampton as MTD area towns under a regional membership.
4. Includes Haddam as "current member" and considers East Haddam and Madison as ETD area towns under a regional membership.

In the fall of 2021, votes to join ETD would be made at Durham and Middlefield town meetings and by the Middletown Common Council. The ETD Board would then vote to accept new members.

A target date of July 1, 2022 (the beginning of FY2023) is envisioned for the merger, however the boards may begin to share certain functions and/or staff before this time.

The MTD Board would stay active until all outstanding assets and liabilities had been transferred and/or settled. Current MTD member municipalities could be members of two districts until the time this occurs, then vote to disband MTD.

Financial Matters & Municipal Contributions

Key items for transit district negotiation include: the execution of a single management contract, the merger of existing assets and liabilities, annual municipal contribution levels, labor representation, and, a transition to one operating budget. Any anticipated changes in State contributions should also be considered.

MTD brings greater value in terms of assets to a merger, but retains a large outstanding liability to the State. Assets to be considered and merged include vehicles, facilities, infrastructure, equipment and unrestricted cash. At the end of FY2019, MTD had total net capital assets (land, vehicles, buildings, equipment, etc.) of $15.1 million; ETD had total net capital assets of $2.5 million. Depreciation, remaining useful life and other potential write offs will need to be considered. FTA must also approve the transfer of assets with a federal interest.

Member towns are liable for their share of any outstanding debt and liabilities, which must be settled prior to withdrawing from a district or a proportional amount is assigned to the municipality. Liabilities include accounts payable and MTD's outstanding debt to the State. MTD member municipalities share the responsibility for this liability, proportionate to the same basis on which annual expenses are shared.

All scenarios involve increased annual expenses to operate new facilities and increase staffing levels. Municipal contribution levels will need to increase as operating costs increase. Once the final slate of municipalities is set, a basis for municipal contribution levels could be negotiated. Historical contribution levels could be respected, but the merger and potential addition of new members provides an opportunity to reassess future contributions levels using metrics that members find equitable, such as population and/or service levels.

In addition, the larger regional district will provide the opportunity to grow both public services and those delivered through private partnership agreements. Existing agreements with area hospitals, senior services organizations and local business groups (e.g. seasonal trolleys/downtown shuttles) could be expanded and new partnership with schools (e.g. Wesleyan, Middlesex Community College), major employers and other private organizations should be pursued. Increased staffing at the larger district will provide the capacity to pursue and expand these agreements and kickstarting this effort should be considered as part of the marketing campaign below.

In 2023, the Boards should start early discussion on the FY2025 budget, the first year of merged operations.

Rebranding/Public Relations/Marketing

Assuming ETD is the accepting district, one option would be to revert to use of the official "Estuary Transit" name, signaling a change while saving on the cost of a more comprehensive rebranding. Conversely, the new Board may decide to conduct a full rebranding under a new name or may elect to take a longer-term, phased approach. In summary, the timing and scope of rebranding can be flexible.

In the final year before a merger, a concerted public relations and marketing effort should be launched to ensure the public understands the reasons behind the action as well as the benefits. Any service changes planned to be introduced at the time would also be publicized.

Facilities

Design of upgraded and new facilities in Middletown and a Shoreline area facility should be advanced as Governance details are worked through by the MTD and ETD boards. *Appendix B: Recommended Facility Program* outlines the scope and program to be considered as part of facility design.

Key actions and milestones include acquisition of land in Middletown and the Shoreline area and initiation of an RFQ and subsequent contract for engineering and design services.

Site Acquisition

Several parcels adjacent to MTD's existing North Main Street facility are actively being marketed for sale. The owner of the Westbrook parcel targeted for a Shoreline facility has also indicated (in informal conversation) a willingness to consider a sale. Coordination with CTDOT regarding site acquisition should begin as soon as possible.

If negotiations related to site acquisition are not successful, an updated real estate market review should be conducted to identify other suitable and available parcels in the area. Although a negotiated sale agreement is preferred, the State and districts have the power of eminent domain.

Phase 1 Level Environmental Studies should be conducted, whether independently or as part of a broader facility design contract. This would include a review of past uses, site reconnaissance and possibly other hydro-geological testing for potential hazardous substances.

Facility Design & Construction

It is assumed that CTDOT will take the lead on facility design, in cooperation with the two districts. An RFP for design services should be advertised shortly after the districts agree on the preferred approach. The contract should be bid as one design effort, allowing key staff members to efficiently oversee and coordinate design between the two new facilities: 1) the new Operations & Maintenance Facility plus retrofits in Middletown; and, 2) a Shoreline Area Facility.

The design process will take 18-24 months, at which point construction can be bid. There are three separate facilities to undergo construction:

- **Middletown Operations & Maintenance (O&M) Facility:** This new vehicle maintenance facility is proposed for newly acquired parcels across from MTD's North Main Street facility. Land acquisition is anticipated to be completed early in the design phase, providing the contractor with immediate access to begin demolition, site clearing, and construction following contract award. Construction is anticipated to take 18 months.
- **Shoreline Facility:** If a "greenfield" site is acquired, it would ensure the contractor can immediately mobilize for construction. If a site with existing development is pursued, existing tenants would need to vacate before the contactor has unfettered access for demolition and clearing. Construction of this facility is anticipated to take 12 months.

- **Middletown Vehicle Storage Facility:** Retrofits to MTD's existing North Main Street facility will be performed following the opening of the new O&M Facility. The existing repair bay, bus wash and fueling station need to remain in operation until the new Operations & Maintenance facility is open. Some support staff from ETD's Centerbrook office could be relocated to Middletown, and new hires could also be housed here as well. For example:
  - All dispatch could be moved to Middletown; a coordinated call center for on-demand trips (Dial-A-Ride, XtraMile, ADA) could be housed in the Cheeseman building. Fixed route calls could be handled by a Dispatcher at the customer service window in MTD's downtown terminal.
  - The newly hired Maintenance Manager and MTD's Operations Manager could be based in the maintenance area of the Cheeseman building. The Finance Director could also be based out of the Cheeseman building.
  - The Executive Director and Human Resources specialist could operate out of offices at the Middletown Passenger Terminal.
  - ETD's Operations Manager, Shoreline drivers, the Fueler/Cleaner and a new Lead Supervisor would continue to report to Centerbrook, and eventually to a new Shoreline facility (early 2024).
- Once the new O&M Facility is open across North Main Street (mid-2024), interior renovations of the Cheeseman and Pease Avenue buildings in Middletown could take place. These include interior renovations of the Pease Avenue building and of the Cheeseman repair bay for vehicle storage, while keeping the generator and fueling station in place. These retrofits would also include the office and conference room areas of the Cheeseman building to better accommodate support staff and drivers. Construction of this phase is anticipated to take about four months.

Management/Staffing/Labor

Management/Staffing

A recommended first step is to communicate with staff regarding the proposed merger, in order to provide employees of both districts with accurate information and an overview of what to expect and when.

The informal practice of shared management should be formalized as part of a letter agreement between the two districts (to the degree possible within the limitations of their existing management contracts). Alternatively, the management contracts could be rebid as one (the ETD contract expires in the fall of 2021).

As integration nears, new positions will be created, and hiring can be phased in. The first hires should be a Maintenance Manager and a Human Resources specialist.

The Maintenance Manager can serve as an additional MTD mechanic and can also provide valuable input during the design and construction of maintenance facilities. Once both the Maintenance Manager and existing MTD Mechanic positions are filled, it is possible that some ETD inspections and light maintenance could be shifted to MTD as determined by the Executive Director.

The Human Resources specialist can oversee changes in benefits and subsequent hiring. A Grants/Procurement specialist should be brought on in FY2022, and the Administrative Assistant position should be transitioned to full-time this same year; these changes will better allow the Executive Director and Finance Director to focus on integration tasks.

In FY2022, most ETD staff can be transitioned to work from Middletown (with the exception of drivers, dispatch and the Operations Manager). This will facilitate the sharing of technology (such as on-demand scheduling, etc.) and begin to familiarize staff and build interagency trust. At the same time, MTD staff can be transitioned to the ETD payroll. Full staffing would occur in FY24/25 as new facilities open.

Labor Representation

Today, MTD drivers are affiliated with the Teamsters and all other employees are unaffiliated. There are three potential outcomes for future labor representation:

1. Drivers might continue to operate as two separate divisions, e.g. Middletown/affiliated and Shoreline – either affiliated or unaffiliated.
2. Drivers from both districts might organize under one union – either the Teamsters or possibly a different union.
3. Drivers from both districts might decide to be unaffiliated without union representation.

From a management perspective, two divisions would add administrative complexity that encumbers the efficiency of operations. At a minimum, management of two divisions would be facilitated if work rules and other factors were consistent. Otherwise, implementation will require strict accounting and work practices to keep functions separate.

MTD's existing labor contract is effective through December 31, 2022. However, management has the ability to modify work rules and introduce new rules to support effective operations.

Management will also need to determine how part-time drivers are handled. It is recommended that any part-time ETD drivers be "grandfathered in," but following the merger date the district would need to offer full benefits to those who work 30 hours or more. This may limit the utility of these part-time positions in future years. Accommodations made to retain part-time drivers should be determined in context of the importance of maintaining sufficient headcount for service needs.

Additional Studies and Next Steps

The cost for Facility Engineering, Permitting and Construction Administration is included in the overall capital cost estimate for facility construction (estimated at $2 million, with $800-850,000 used to bring design to 30% design level). One contract is recommended to advance work in a coordinated manner across the region. The contract would include site surveys, Phase 1 environmental studies, preliminary design, permitting (in compliance with federal, state and local requirements) and final design. The same contract can cover the production of bid documents and construction administration/program management.

A number of additional studies are recommended to help advance implementation. An overview of the scope and estimated cost of these is as follows:

- **Shoreline Real Estate Market Review:** If negotiations for the Westbrook parcel are not successful, a real estate market search for 3 to 4 acres of available, developable land in the Old Saybrook-Westbrook-Essex area will need to be conducted. Any site should have access to municipal water, potentially other utilities, and regional highways. The broker engaged can also support the acquisition process. Estimated cost: $125,000 (based on 2017 Wendel work).
- **Environmental Site Review – MTD Facilities:** Prior to a transfer of assets, an Phase 1 Level 1 Environmental Assessment (for brownfields contamination) of MTD's existing North Main Street properties (Cheeseman and Pease properties) should be conducted to understand potential liability to be assumed; alternatively, the presumed new owner (e.g. CTDOT or the accepting district) could be indemnified. Estimated cost: $25,000
- **Joint Audit Statement:** Both districts utilize the same audit firm. Following the preparation of FY2020 audits, a joint audit statement should be prepared. Estimated cost: $40,000
- **Human Resources Study:** The new district will have over 50 employees, which will trigger new employment requirements, and potentially two labor divisions. An analysis of new pay scales, benefit packages, fringe benefit rates and other considerations would help support future budget development. Estimated cost: $75,000.
- **Public Relations/Marketing:** A public relations firm should be engaged to establish consistent public messaging about the reasons behind the proposed merger and to implement a regional marketing campaign in advance of any forward-facing changes. This will also be an important factor in pursuing new member municipalities and partnerships.

  A $100,000 rebranding effort has been identified as a needed a capital cost item (to cover cost of vehicle rebranding, website and schedule development, etc.). This PR/Marketing effort would be a separate effort and is estimated to cost an additional $100,000; however, it could potentially be combined with the Rebranding study as one effort.
- **Legal Fees:** There will be legal factors that need to be addressed during board negotiations. The districts also call upon legal representation skilled in labor law to support union negotiations and to resolve other workplace issues. Estimated cost: $50,000.
- **Other Studies:** A contingency for other efforts needed to support board decision-making, address unforeseen issues and advance merger discussions is recommended. Assumed contingency: $50,000.

The total needed to support decision-making, address unforeseen issues and advance merger discussions is estimated to be $465,000.

It is assumed that a consistent unified fare policy across the region, particularly related to senior fares and other discounts, would be set as part of a statewide transition to the Go CT fare system.

Lessons Learned from Agency Peers

At the outset of this study, a review of other transit agencies in the northeastern United States was conducted to identify lessons learned from those that have either considered integration or successfully merged. Key findings include:

- The most successful mergers were phased in over time with deliberate planning. Working together on certain administrative or other functions allows stakeholders to see the benefits of integration and trust the process and individuals involved. In all cases, the state DOTs provided guidance and approval.
- In the Burlington, Vermont area, individual agency brands were retained for several years before rebranding; the new entity operated the absorbed district through a management contract.
- In Ulster County, New York, the merger was phased in by assigning certain tasks to each of two districts, before eventually consolidating as a new entity.
- Agencies that operated redundant or overlapping transit service saw the greatest savings after pursuing integration. Since there are few redundancies in the LCRV area, cost savings are more likely to be realized from the sharing of maintenance and other staff, and from sharing capital investments for facilities, information technology, and other capital equipment. Other benefits include the creation of a more seamless regional transit network.
- In most examples, communication was critical. This includes informing the community about what is happening, why, and whether they may be potentially impacted. Communication with municipal leaders was also key to ensure they understand any expected benefits or impacts and to gain their support of any proposed change.

Finally, two other small transit agencies in Connecticut are in the midst of an ongoing merger. The Windham Regional Transit District (WRTD) is in the process of merging with UConn's Husky Go services in Storrs. A subcommittee made up of MTD and ETD board members may wish to meet with the WRTD Board to understand recent lessons learned that are more specific to Connecticut and involve a close working relationship with CTDOT.

Appendices

Appendix A: Evaluation of Investment Scenarios

Appendix B: Recommended Facilities Program