City of Appleton
Transit Development Plan - 2020

East Central Wisconsin Regional Planning Commission

ECWRPC

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City of Appleton (Valley Transit)
Transit Development Plan

February 25, 2020

Prepared by the
East Central Wisconsin Regional Planning Commission

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ABSTRACT

TITLE:	City of Appleton (Valley Transit) – Transit Development Plan
CONTACT:	Nickolas Musson – Principal Transportation Planner
AUTHORS:	Nickolas Musson – Principal Transportation Planner Kolin Erickson – Transportation Planner Adam Pfefferle – GIS Specialist II Joseph Kapper – SRF Consulting Jacob Knight – SRF Consulting Matthew Stegeman – SRF Consulting
SUBJECT:	Transit Plan
DATE:	February 25, 2020
PLANNING AGENCY:	East Central Wisconsin Regional Planning Commission
SOURCE OF COPIES:	East Central Wisconsin Regional Planning Commission 400 Ahnaip Street, Suite 100 Menasha, WI 54952 (920) 751-4770 www.ecwrpc.org

A Transit Development Plan (TDP) is a short-term strategic plan which assists the planning efforts of a transit system. This document is an update to the City of Appleton's (Valley Transit) TDP. Valley Transit's most recent TDP was completed in 2009, with the current plan updated in 2018-2019. This effort was funded through a Federal Transit Administration (FTA) Section 5304 Statewide Transportation Planning Program applied for by Valley Transit and East Central Wisconsin Regional Planning Commission (ECWRPC).

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Introduction

Valley Transit (VT) is the primary public transit provider for the City of Appleton and surrounding communities in the collective Fox Cities region. In addition to traditional fixed-route (bus), VT provides complementary on-demand paratransit services, regional employment transportation (with its Connector Service) and seasonal trolley rides in downtown Appleton (June-September).

To provide high quality transportation to its communities, VT is guided by its strategic plan known as a **Transit Development Plan (TDP)**. The TDP is updated periodically to help VT reevaluate its vision/mission statements, short and long term goals and reevaluate its transportation programs to offer effective and efficient transportation to its customers.

VT's plan was updated in 2009 prior to this current update in 2018-2019. With assistance from the East Central Wisconsin Regional Planning Commission (ECWRPC), SRF Consulting and a steering committee (made up of local funding partners/municipalities), VT revised its plan. The plan's vision / mission statements and objectives are highlighted below:

Vision: Getting all people where they want to go, when they want to go.

Mission: Valley Transit provides customer focused transportation, connecting our communities to enhance quality of life.

Objectives: Over **30 objectives** were developed by the steering committee. Objectives were grouped into **six categories:**

- **Funding**
- **Partnerships**
- **Perception/Education/Marketing**
- **Service Enhancements**
- **Service Expansion**
- **Technology**

Valley Transit (Agency Snapshot, 2017)

Service Area Statistics:

- 117 square miles
- 216,154 Population

Service Consumption:

- **Annual Passenger Miles**
  - Fixed Route: 4,706,393
  - Demand Response: 1,430,403
- **Annual Trips**
  - Fixed Route: 989,422
  - Demand Response: 157,412

Service Supplied:

- **Annual Vehicle Revenue Miles**
  - Fixed Route: 1,059,972
  - Demand Response: 842,205
- **Annual Vehicle Revenue Hours**
  - Fixed Route: 67,188
  - Demand Response: 39,470
- **Vehicles Operated in Maximum Service**
  - Fixed Route: 33
  - Demand Response: 43
- **Vehicles Available for Maximum Service**
  - Fixed Route: 51
  - Demand Response: 70

System Evaluation

SRF Consulting was contracted as part of this effort and was tasked with taking an in-depth review of VT's existing services.

To more fully understand how the current transit system operates, SRF reviewed **Level of Service (LOS) data from the National Transit Database** and compiled a **peer transit agency review of similar sized providers** (most in the Midwest region).

Level of Service (LOS): This analysis was used to gauge VT's overall system performance relative to national benchmark standards. LOS assigns letter grades A to F on a variety of factors to assess the

quality of a transit trip. A more detailed report can be found in **Appendix A** of the TDP. Highlights of VT's LOS include:

- **Service Coverage:** Grade B
- **Span of Service:** Grade C
- **Frequency of Service:** Grade D

Peer Review: This analysis compared VT's service to 14 transit agencies of similar size and service area across Wisconsin and the Midwest. Variables compared included: service area population, annual vehicle revenue hours, (how long buses are in service) annual passenger trips provided and fares. Please reference the Transit Agency Peer Performance Summary:

Performance Objective	Performance Measure	Valley Transit 2016 Performance Relative to Peer Group
Cost Effectiveness	Operating Expenses Per Passenger Trip	▲
Cost Efficiency	Operating Expenses Per Revenue Hour	▲
Service Effectiveness	Passenger Trips Per Revenue Hour	●
Market Penetration	Passenger Trips Per Capita	●
	Revenue Hours Per Capita	●
Passenger Revenue Effectiveness	Average Fare Per Passenger Trip	▲
	Operating Ratio	▲
	Subsidy Per Passenger Trip	▲
Key to Symbols	▲	Better than peer average
	●	Worse than peer average, but within satisfactory range (+/- one standard deviation)
	▼	Outside satisfactory range

Source: National Transit Database (2016)

Peer System	Adult Fare*	Monthly Pass*
Kenosha, WI	$2.00	$60.00
Racine, WI	$2.00	$65.00
Topeka, KS	$2.00	$50.00
Valley Transit	**$2.00**	**$60.00**
Sioux City, IA	$1.80	$48.00
Billings, MT	$1.75	$28.00
Eau Claire, WI	$1.75	$50.00
Wichita, KS	$1.75	$55.00
Canton, OH	$1.50	$45.00
Cedar Rapids, IA	$1.50	$40.00
Green Bay, WI	$1.50	$35.00
La Crosse, WI	$1.50	$35.00
Fort Wayne, IN	$1.25	$45.00
Muskegon, MI	$1.25	$50.00
Decatur, IL	$1.00	$36.80

**March 2019*

Recommendations

A full list of recommendations can be found in detail in the Recommendations chapter. The most impactful recommendations to VT's service included changes to its bus routes.

Service recommendations were developed and organized in two scenarios based on cost, complexity, and timeline for implementation. Full details are included in SRF's Report in **Appendix A** of the TDP.

- **Scenario 1:** Modification of Current Services
- **Scenario 2:** Service Expansion and Restructuring

Scenario 1A: Frequency Enhancements include:

- Adding 30 minute frequency for the core routes with greatest ridership
- Routes include 12, 15, 20 and 30

Scenario 1B: Minor Route Modifications:

- Improving on-time performance and reliability for a under-performing routes
- Routes include 2, 11, 12 and 16

Scenario 2A: Route 15 Restructuring and Frequency Improvements:

- Splitting Route 15 into two separate routes (a new north and new south route) with College Avenue as the dividing line
- Allow for 30 minute frequency over 60 minute frequency

Scenario 2B: North Service Area Restructuring:

- Routes 3, 4, 5, and 16 would be redesigned

Scenario 2C: New Crosstown Routes:

- Adding new east-west service to work with Routes 3, 4, 5 and 16
- Proposed Routes 50, 55 and 60 would have 60 minute frequency

Steering Committee Recommendations

The steering committee also recommended the following:

1. Continue to monitor and adhere to Federal Transit Administration's Safety and Security initiatives; prepare for **Public Transportation Agency Safety Plan (PTASP)** requirement.

2. Create a series of brief **"how to" videos of frequently asked questions (FAQ)** about transit. Tutorial video examples include: how to use the bike racks on the front of the buses, general etiquette for riders, how to use the trip planner on VT's website, how to use the forthcoming bus location application, etc.

3. Continue to **improve communications with riders** with scheduled route detours or weather delays/closures. Work to expand communication network with human service agencies, departments and non-profits that interact with customers of transit on behalf of their work and improve existing framework for communication with transit riders and the public. Valley Transit's Twitter account acts as their information hub connecting their website (myvalleytransit.com) and their app allowing their customers a seamless experience.

4. **Maintain and emphasize marketing services** to the public. Augmented marketing efforts would strive to increase public awareness, education and brand recognition for transit in the region. Increase use of Google Analytics and digital research as a means to gauge effectiveness and performance.

5. **VT II (Valley Transit II or Americans with Disabilities Act paratransit)** should focus on core ADA policies (service area = ¾ corridor; origin to destination service) as written in ADA law and Federal Transit Administration guidance.

6. Continue participation on **I-41 Commuter Service Feasibility Study**. Valley Transit, depending on the results of the I-41 Commuter Service Feasibility Study may have to review/create/modify service structure to coordinate with new commuter service if implemented.

7. Conduct an in-depth analysis on the **current funding model and recommend alternate funding system** based on the recommended route alterations. Analysis should include a cost benefit analysis of different types of funding models (revenue by hours, bus stops, ridership, frequency, level of service).

8. Foster continuous **learning opportunities** for Valley Transit by expanding training and networking opportunities at the local, state and national levels.

9. Coordinate on **federal transportation planning requirements** after 2020 Census for possible realignment of Appleton and Oshkosh Urbanized Areas.

10. Hire a full-time **Mobility Manager Staff position**. A dedicated mobility manager could increase customer satisfaction by offering case-by-case mobility assistance for riders, answering route/ride questions/concerns and develop a travel "bus buddy" training program to help new or prospective customers feel at ease with riding the bus.

11. Review existing **funding agreements with partner municipalities** and continuously monitor ridership and revenue trends and adjust contract agreements as needed. Develop a list of additional and new grant/fund opportunities.

12. Continue to investigate **on-demand service options** to reach areas needing additional service. Explore potential expansion of the **Connector Program** to cover new service areas (if warranted). Research on-demand zones to feed fixed routes from areas identified by SRF Consulting through the route workshop (Menasha and Kaukauna areas). Utilize the mobility manager to identify gaps or needs within the system (services to communities and employers, etc.) and recommend on-demand solutions.

13. **Coordinate with City of Neenah** on possible relocation of their current transfer center.

14. Support and **coordinate with surrounding municipalities** on the development of their comprehensive plans.

15. **Increase discussions with GO Transit** about partnerships, cost-effective coordination, Route 10, preparation for potential Urbanized Area (UZA) merger.

16. Valley Transit should **prepare a site selection study** to investigate appropriate alternatives for a new transit center. It should be modeled after a mixed-use, private/public opportunity such as options in La Crosse and future site in Eau Claire for their transit systems.

17. Valley Transit should create a **technology plan** that will direct future technology investments and data management. Since the beginning of the planning process, Valley Transit has installed automatic passenger counters, bus tracking app and paratransit scheduling and dispatch software. Invest in a suite of technology upgrades for the transit system including (but not limited to): automatic passenger counter systems for better accounting of boarding/alighting of passengers and data reporting to state/federal government; passenger fare box collection upgrades (cashless card system) and ticket kiosks at the transit centers and additional funding for on-going upgrades (as necessary).

18. Continue to coordinate with the **Wisconsin Department of Transportation on the Amtrak Thruway service** and the connection to Valley Transit and the potential for future mobility hubs.

19. Continue to analyze bus fleet, vehicle types and adhere to the **Transit Asset Management (TAM) plan**. Consider purchasing of paratransit fleet vehicles. Additionally, monitor alternative vehicle propulsion technologies.

20. Inventory on-going **facility needs** of the Administration/Maintenance facility to plan and budget for upgrades.

21. **Determine demand for transit route(s)** to Appleton International Airport, areas west of the Fox River Mall, Grand Market Drive, temporary staffing agencies, healthcare clinics, Greenville and Greenville industrial park.

22. **Implement bus route changes** and scenarios to help increase overall transit system efficiencies and customer satisfaction. A full detailed list of

recommendations are included in **Appendix A** (Report from project consultants).

1-Introduction

INTRODUCTION

A Transit Development Plan (TDP) is a strategic plan which assists with the short-term planning goals of a transit agency. The primary goals of this TDP are to:

- **Define** the community's transit needs through soliciting input from partner agencies and local businesses;
- **Involve** the public through numerous public outreach opportunities;
- **Explore** community goals with decision makers and other stakeholders;
- **Outline** alternative courses of action, and
- **Develop** a systematic plan to move Valley Transit forward.

Valley Transit with assistance from East Central Wisconsin Regional Planning Commission (ECWRPC) and SRF Consulting (SRF) lead the planning update process. Additional input was provided by a steering committee comprised of regional partners and from the public at various times during the planning effort. A previous plan was completed in 2009, with the current plan updated in 2018-2019.

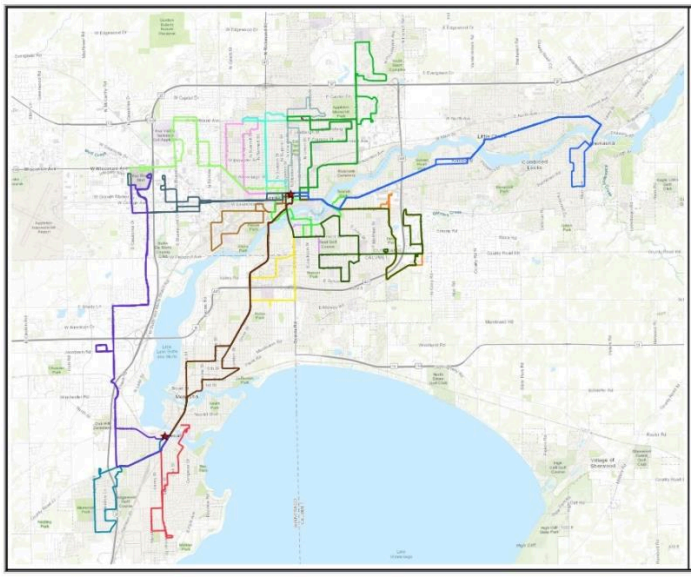
STEERING COMMITTEE

ECWRPC and Valley Transit developed a steering committee from a broad range of public, private and non-profit entities in the Fox Valley region to guide the development of this plan. Meetings were held at a variety of locations across the Fox Valley where different steering committee members hosted meetings. The committee learned about how transit is important to each entity and to the people they serve. Hopefully at the end of this process, steering committee members can be champions and promoters of transit. **Figure 1-1** contains the list of steering committee members invited to participate.

VALLEY TRANSIT OVERVIEW

Valley Transit's service area includes the cities of Appleton, Neenah, and Menasha, as well as the outlying towns and villages of Buchanan, Fox Crossing, Grand Chute, Kaukauna, Kimberly, and Little Chute. Located in Outagamie, Calumet, and Winnebago counties, these municipalities roughly encompass the Appleton-Fox Cities Urbanized Area, including 117 square miles and a population of approximately 216,000.

Valley Transit is a department of the City of Appleton. It is overseen by the Fox Cities Transit Commission, a board comprised of thirteen members from participating communities. Commission members include two elected Alderpersons from the City of Appleton, two citizens of Appleton, and nine members from the seven other communities that provide funding for Valley Transit.



VALLEY TRANSIT STATISTICAL OVERVIEW

Transit agencies which receive Federal Transit Administration (FTA) funding are required to annually submit data on their transit system to FTA's National Transit Database (NTD). The NTD data is from 2017. Here is a system level overview of Valley Transit by the numbers (continued on next page).

Sources of Operating Funds

Valley Transit is funded through a variety of sources which equated to approximately $8.7 million (2017). Please see **Figures 1-2 and 1-3** for an overview. Note: Other revenue consists of advertising on buses and agreements with UW-Fox Valley and Fox Valley Technical College.

Summary of Operating Expenses

Valley Transit's operating expenses were approximately $7.7 million (2017). Please reference **Figures 1-4 and 1-5** for an overview of expenses.

Figure 1-1: Steering Committee

Name	Representing
Amy Erickson	Valley Transit
Amy Rolfs	Valley Packaging, Inc.
Anthony Snyder	Fox Valley Workforce Development Board
Carol Kasimor	City Neenah
Connie Kanitz	ESTHER
Dan Flannery	Goodwill NCW
Danielle Block	Village of Kimberly
David Kress	City of Appleton
David Vickman	Valley Transit
Debra Ebben	Valley Transit
Don Merkes	City of Menasha
George Dearborn	Village of Fox Crossing
Greg Hartjes	Appleton Area School District
Holly Keenan	Making the Ride Happen-Lutheran Social Services
Jacob Knight	SRF Consulting
Jake Woodford	Lawrence University
James Fenlon	Village of Little Chute
James Rashid	World Relief
Jeff Sturgell	Village of Fox Crossing
Jerry Chapa	Valley Transit
Jim March	Town of Grand Chute
Joe Kapper	SRF Consulting
Joe Martin	Appleton City Council
Joel Gregozeski	Town of Greenville
John Meissner	Options for Independent Living
Keir Dvorachek	City of Appleton
Ken Usterbowski	Valley Transit
Kyle Lobner	City of Appleton
Lori Mueller	Partnership Community Health Center
Mary Dorn	Outagamie County Health Department
Patricia Sarvela	Partnerships Community Center
Peter Thillman	Fox Cities Regional Partnership
Rhonda Hannemann	United Way Fox Cities
Rick Detienne	Fox Cities Transit Commission
Rob Peterson	Fox Cities Regional Partnership
Robert Verkins	Ascension
Ron McDonald	Valley Transit
Ryan McCartney	ThedaCare
Shannon Gerke-Corrigan	Fox Valley Tech
Tony Brown	Town of Buchanan
Tony Gonzalez	United Way Fox Cities
Travis Parish	Town/Village of Harrison

Figure 1-2: 2017 Operating Funds (Dollars)

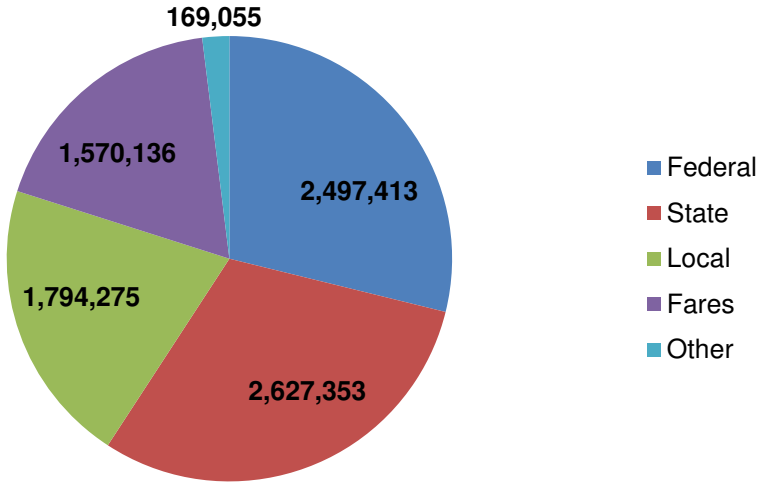


Figure 1-3: 2017 Operating Funds (Percent)

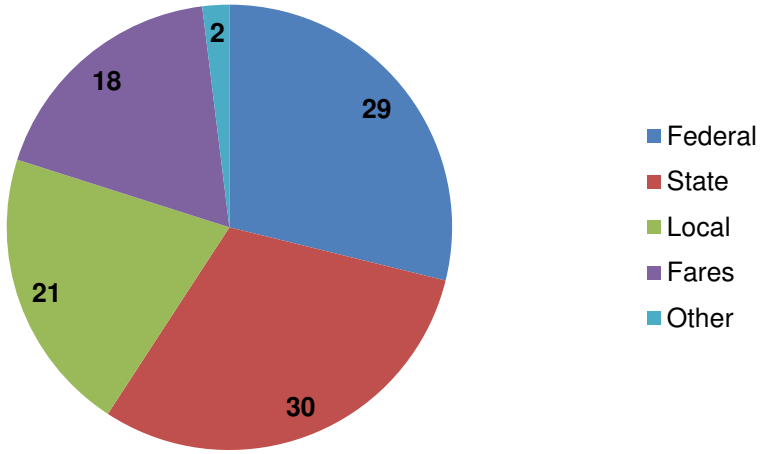


Figure 1-4: 2017 Operating Expenses (Dollars)

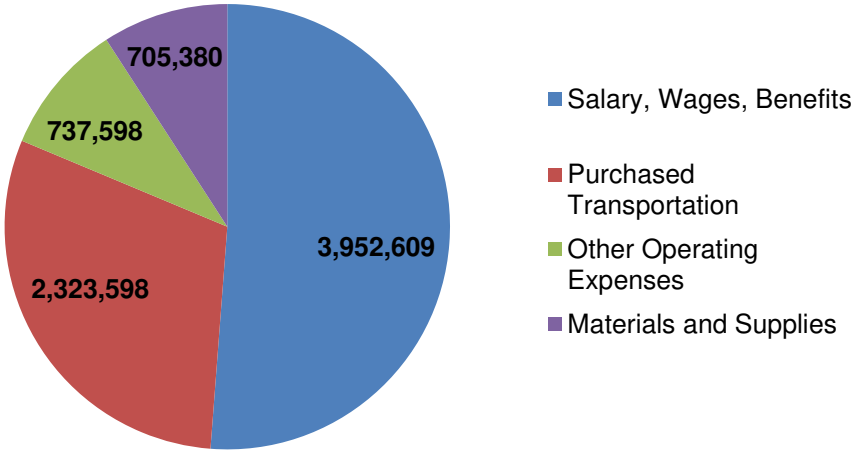
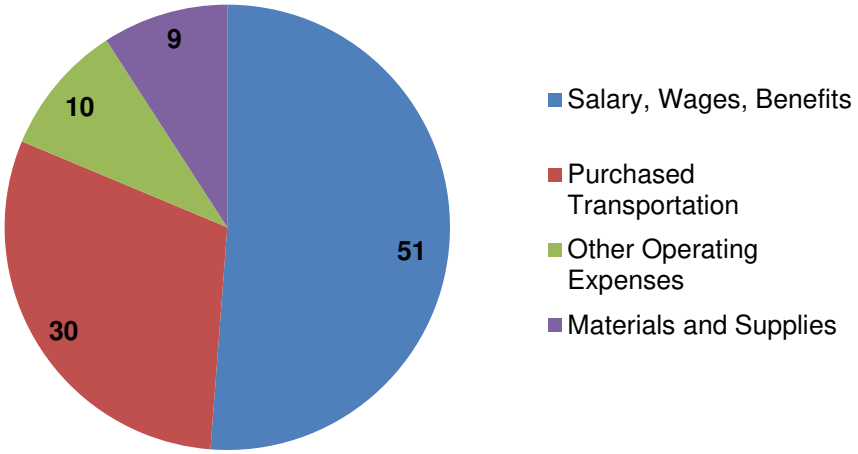


Figure 1-5: 2017 Operating Expenses (Percent)



Valley Transit (Agency Snapshot)[1]

Fixed Route Service

- 19 fixed routes serving the Fox Cities
- 3 tripper routes serving the Appleton Area School District
- 1 summer trolley serving downtown Appleton
- Monday – Friday (daytime service); 6:15 AM – 4:45 PM
- Monday – Friday (evening service); 5:15 PM – 9:45 PM
- Monday – Friday (7.5 round trips); 6:30 AM – 6:30 PM
- Saturday (service); 8:15 AM – 9:45 PM
- See **Map 1-1**: Valley Transit Bus Routes

Paratransit Programs (Valley Transit II)

- Paratransit service is for people with disabilities who are unable to use the fixed-route bus system and is provided under the guidelines of the Americans with Disabilities Act (ADA). The service is available to ADA certified customers within the Valley Transit service area.

- Seniors who are age 60 or over and who live in the Fox Cities portion of Outagamie or Calumet County are able to use Valley Transit II from 9:00 a.m. to 5:00 p.m. Monday through Friday. A similar service is provided for seniors living in Winnebago County and is called Dial-A-Ride.

The Connector

- This service is designed to provide safe, convenient, and affordable access to public transportation for Fox Cities residents who work second or third shift schedules or who need to travel throughout the community beyond the bus service area.

Other Demand Response

- Calumet County Rural Transportation
- New Hope Transportation
- Northern Winnebago County dial-A-Ride
- Outagamie County Employment
- Outagamie County Rural

Facilities

- Administration & Maintenance Facility (801 S. Whitman Avenue, Appleton)
- Transit Center (100 E. Washington Street, Appleton)

Vehicles

Figure 1-6: Fixed Route Fleet – Dec. 2018

Vehicle	Year	Mileage
Large Heavy-Duty Bus	1994	743,651
Large Heavy-Duty Bus	1994	588,616
Large Heavy-Duty Bus	2003	506,498
Large Heavy-Duty Bus	2003	469,878
Large Heavy-Duty Bus	2003	499,517
Large Heavy-Duty Bus	2003	396,835
Large Heavy-Duty Bus	2003	389,883
Large Heavy-Duty Bus	2004	530,489
Large Heavy-Duty Bus	2004	561,991
Large Heavy-Duty Bus	2004	580,111
Large Heavy-Duty Bus	2004	502,240
Large Heavy-Duty Bus	2004	533,220
Large Heavy-Duty Bus	2004	618.185
Large Heavy-Duty Bus	2004	605,620
Large Heavy-Duty Bus	2004	515,098
Large Heavy-Duty Bus	2004	565,561
Large Heavy-Duty Bus	2004	623,148
Large Heavy-Duty Bus	2004	516,858
Large Heavy-Duty Bus	2004	490,615
Large Heavy-Duty Bus	2004	477,333
Large Heavy-Duty Bus	2004	520,239
Large Heavy-Duty Bus	2004	613,608
Large Heavy-Duty Bus	2005	611,546
Large Heavy-Duty Bus	2005	793,193
Large Heavy-Duty Bus	2005	604,414
Large Heavy-Duty Bus	2005	623,205
Medium Bus	2011	186,009
Medium Bus	2011	228,305
Large Heavy-Duty Bus	2017	54.105
Large Heavy-Duty Bus	2017	53,238
Large Heavy-Duty Bus	2017	49,600
Medium Bus	2017	29,719
Large Heavy-Duty Bus	2018	New

[1] Current as of March 2018 from presentation by VALLEY TRANSIT.

VALLEY TRANSIT STRATEGIC PLAN - 2015

Valley Transit's 2015 Strategic Plan serves as a comprehensive analysis of the agency's existing operations and future opportunities for growth. Produced with extensive input from the Fox Cities Transit Commission, Valley Transit staff, and local community officials and residents, the Strategic Plan includes recommendations for implementation in the near term, as well as 3-year, 5-year, and 10-year future scenarios.

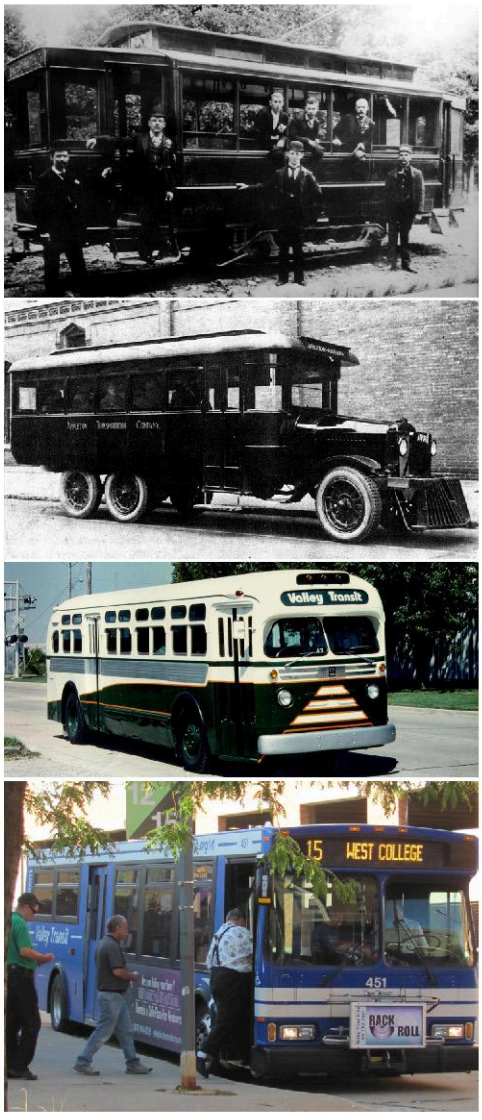
- The Near-Term Scenario is focused on internal management and performance tracking practices, not expansion or contraction of the Valley Transit network. Before large scale transportation investments are made, the system should build on existing efficient practices and dedicate staff accordingly. The intent is to lay the groundwork for future changes.

- The 3-Year Scenario comprises moving Valley Transit toward a more private sector approach to provide transit service while maintaining the essential qualities of municipal services. The approach will focus on moderate, controlled growth of the organization similar to the manner of many private sector businesses.

- The 5-Year Scenario is focused on continuing the recommendations and the foundation set in previous years. This scenario is focused on securing stable funding and making strategic investments in capital assets and personnel.

- The 10-Year Scenario is an aggressive approach to transportation services. A combination of public and private strengths will provide the most cost-effective service that meets a wider range of transit needs.

Valley Transit's Strategic Plan was utilized during the development of the TDP and helped the steering committee prioritize recommendations.



SOCIOECONOMIC ANALYSIS

Having a greater understanding of regional trends (population, households, employment and land use) is useful for the long-range decision making process. This section provides a brief overview of the state of the region in 2019.

Regional Land Use / Development

Future transportation planning recommendations for land use and development within the greater Appleton area should go hand-in-hand with planning for the future Valley Transit network including to[2]:

- Promote mixed-use development land use and zoning policies.
- Promote transit-oriented development land use and zoning policies.
- Promote right-of-way policies which support active transportation by all modes and users of transportation (motorized and non-motorized transportation-bicycle/pedestrian).
- Support land use policies to reduce sprawl which can place a strain on public infrastructure and utilities.
- Support land use policies to encourage infill redevelopment over developing on new land on the outskirts of the planning area.

Regional Population Projections

The Appleton Urbanized Area is a federally designated Transportation Management Area (with 200,000+ population). Population projections represent years 2020 and 2040. Overall, growth is expected to be significant; adding close to 40,000 in the tri-county region (Calumet, Outagamie and Winnebago counties) by 2040. Data and projection methodologies were provided by the Demographic Services Center, Wisconsin Department of Administration 2013.[3]

Figure 1-7: Calumet County Population Projections – 2020

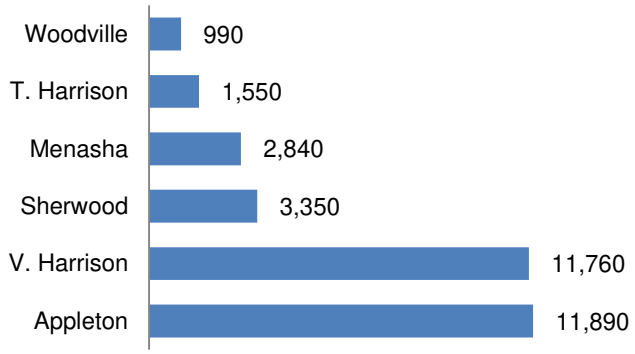


Figure 1-8: Calumet County Population Projections – 2040

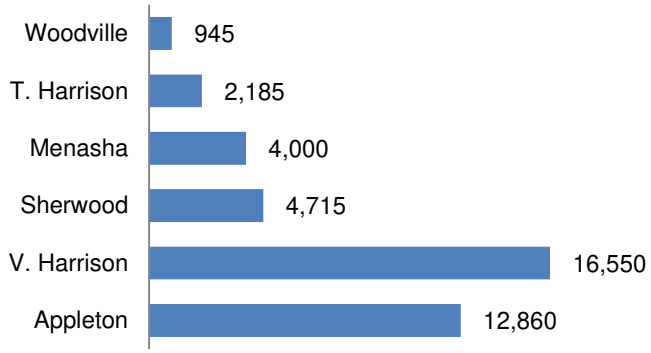
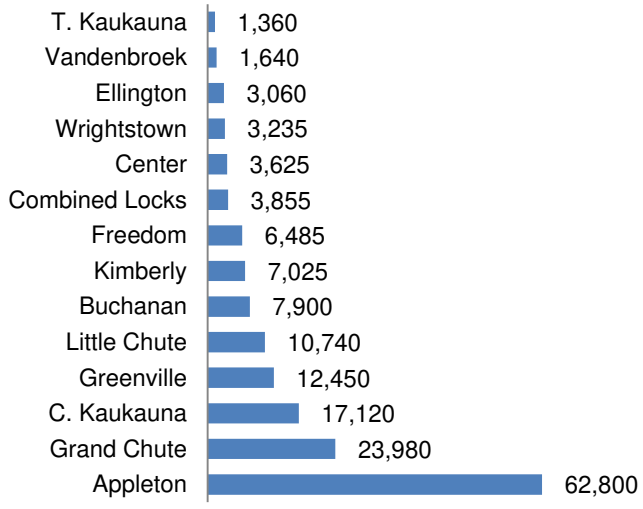


Figure 1-9: Outagamie County Population Projections - 2020



[2] https://www.cdc.gov/transportation/docs/transportation-fact-sheet.pdf.

[3] http://www.doa.state.wi.us/Divisions/Intergovernmental-Relations/Demographic-Services-Center/Wisconsin-Population-Projections/ .

Figure 1-10: Outagamie County Population Projections - 2040

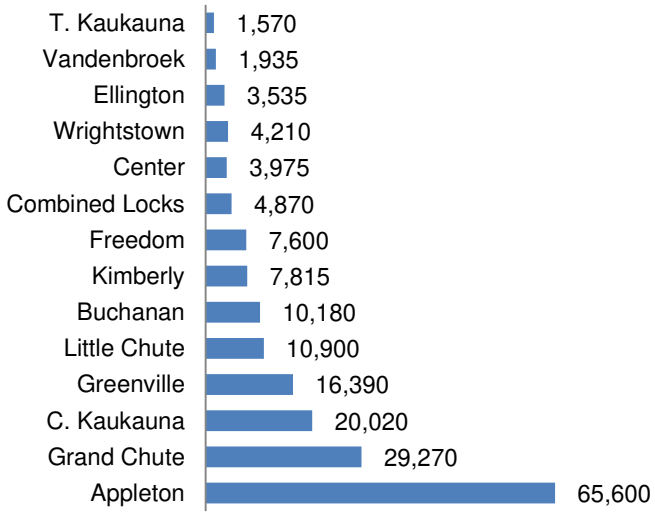


Figure 1-11: Winnebago County Population Projections – 2020

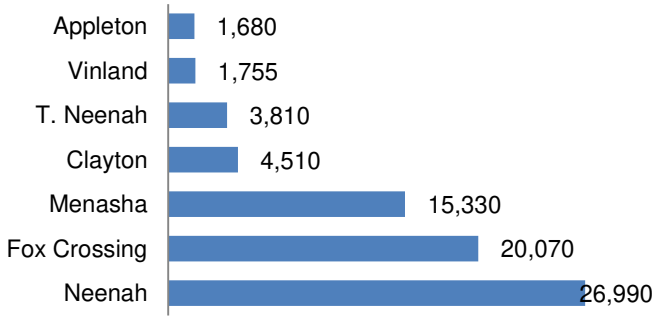
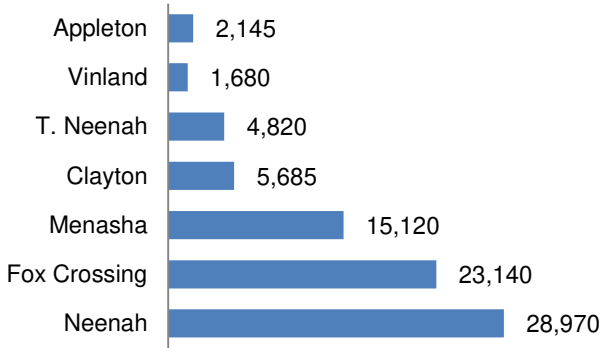


Figure 1-12: Winnebago County Population Projections - 2040



Regional Housing Projections

Housing projections represent years 2020 and 2040. Overall, housing growth is expected to be significant, mirroring the population projections noted above. The tri-county region is expected to add close to 22,000 new households by 2040. Data and projection methodologies are provided by the Demographic Services Center, Wisconsin Department of Administration 2013.[4]

Figure 1-13: Calumet County Household Projections – 2020

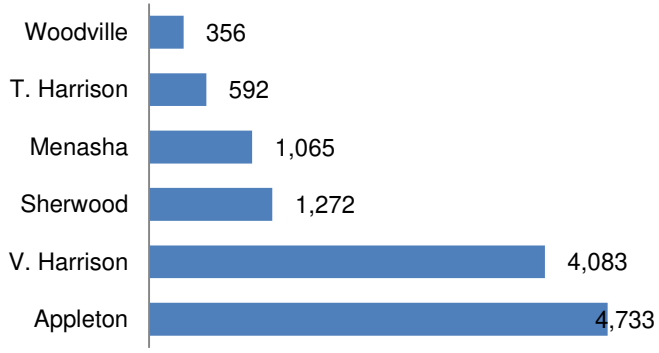
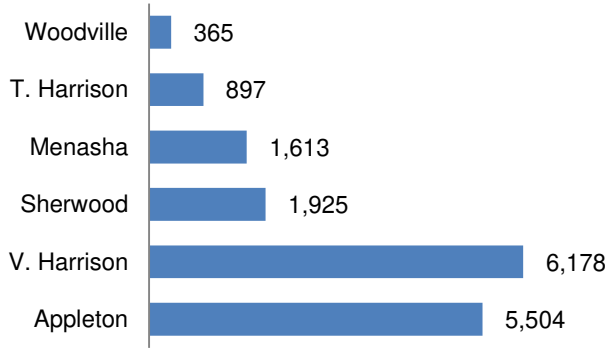


Figure 1-14: Calumet County Household Projections – 2040



[4] http://www.doa.state.wi.us/Divisions/Intergovernmental-Relations/Demographic-Services-Center/Wisconsin-Population-Projections/ .

Figure 1-15: Outagamie County Household Projections – 2020

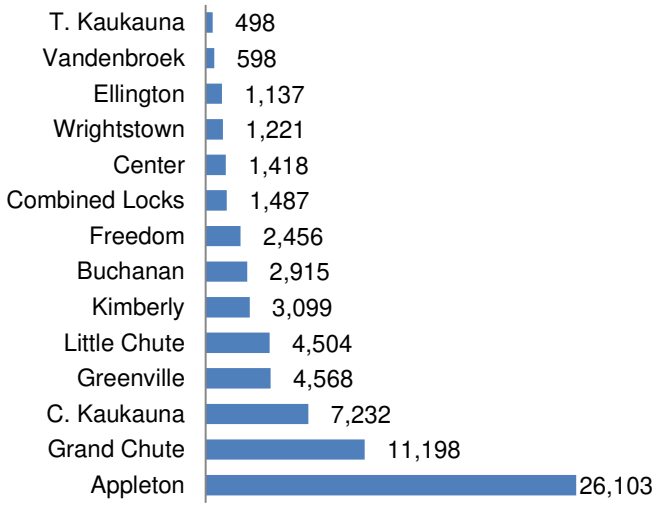


Figure 1-16: Outagamie County Household Projections – 2040

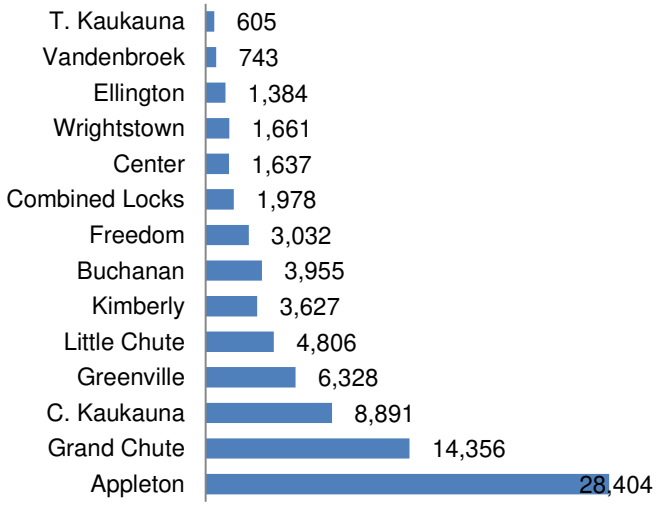


Figure 1-17: Winnebago County Household Projections – 2020

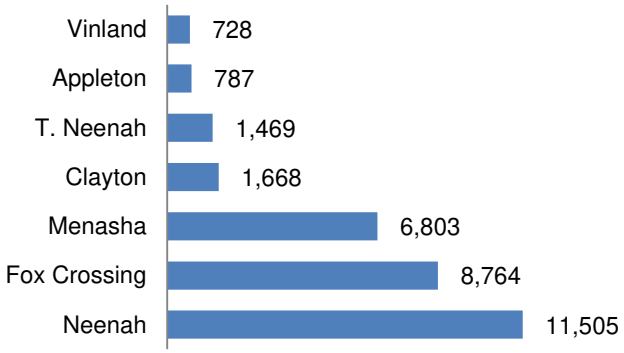
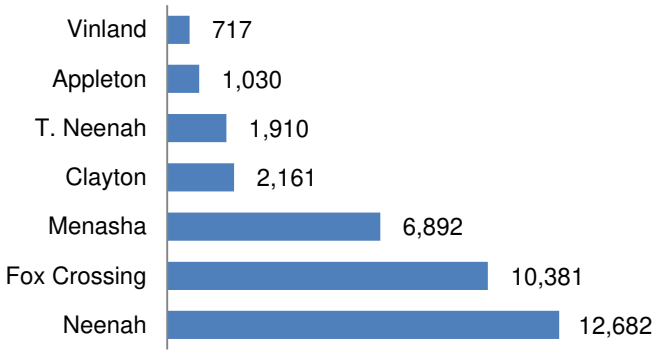


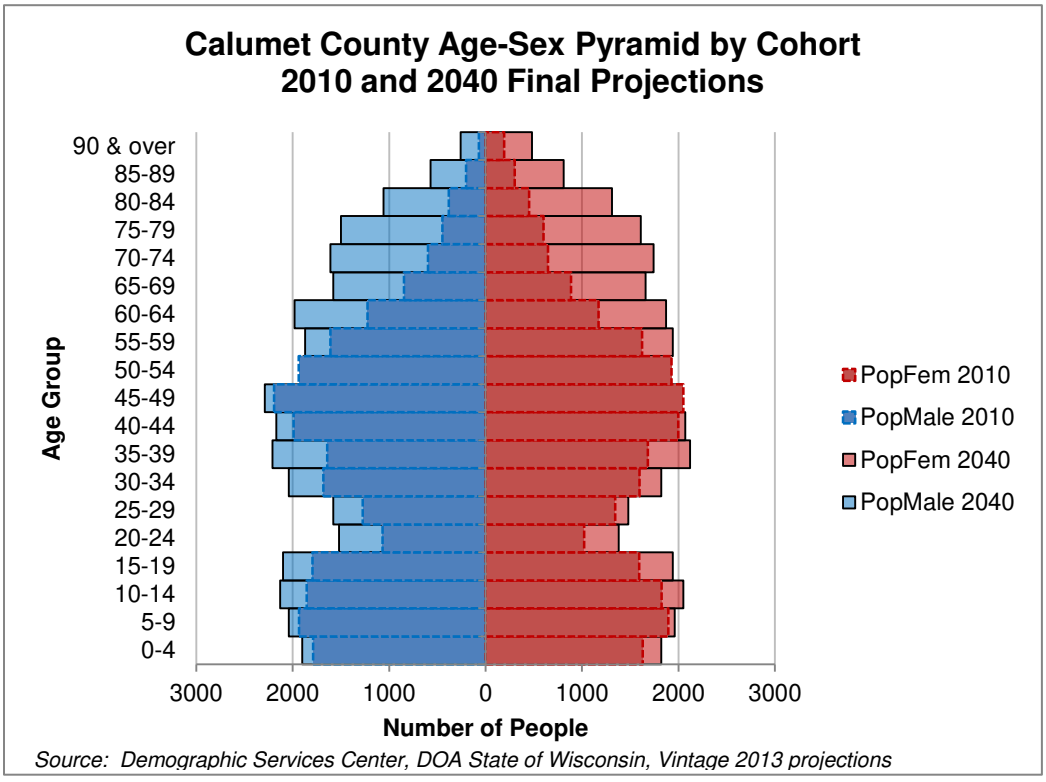
Figure 1-18: Winnebago County Household Projections – 2040



Regional Population Projections (by age)

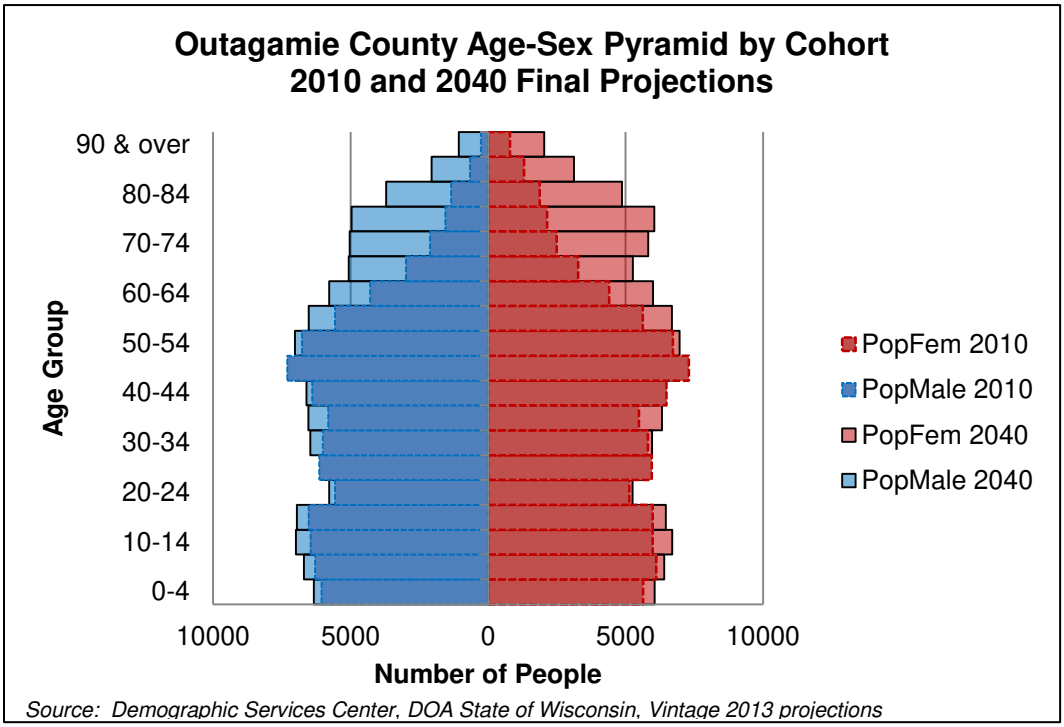
Another way to characterize future population growth is to look at population projections by age cohorts. Similarly, across the United States and Wisconsin, population projections in the tri-county region mirror nation and state trends. The region will see a significant increase in senior age cohorts in the next few decades (from 2010 to 2040). Please see **Figures 1-19 to 1-21**.

Figure 1-19: Calumet County Age/Sex Pyramid



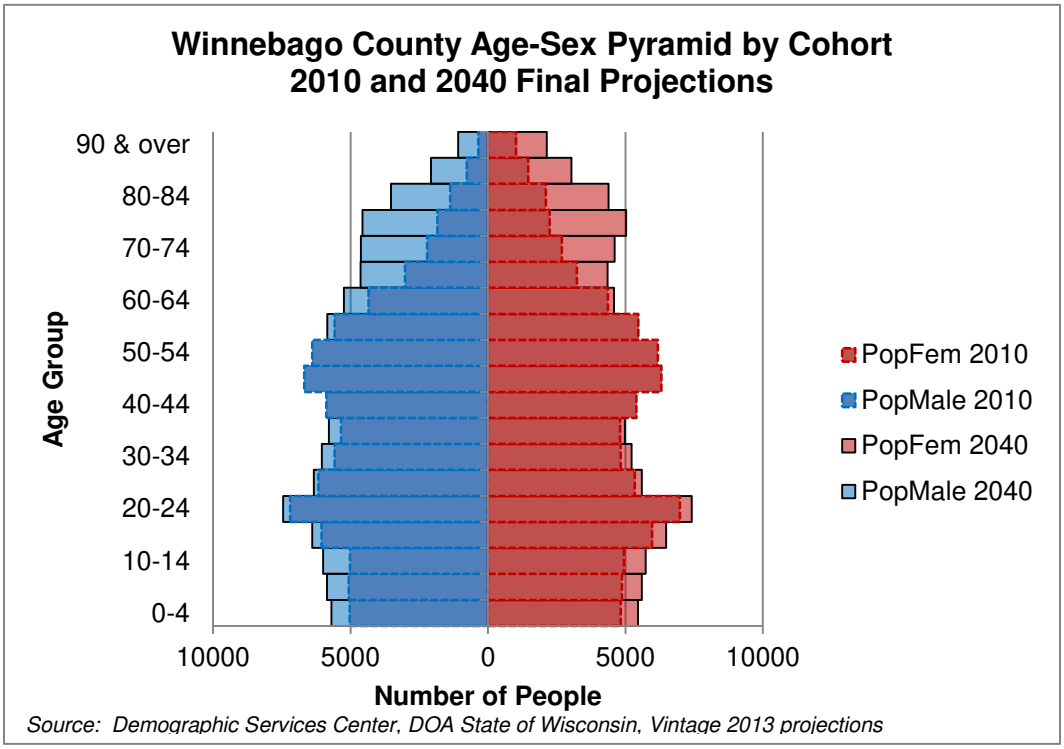
Source: Demographic Services Center, DOA State of Wisconsin, Vintage 2013 projections

Figure 1-20: Outagamie County Age/Sex Pyramid



Source: Demographic Services Center, DOA State of Wisconsin, Vintage 2013 projections

Figure 1-21: Winnebago County Age/Sex Pyramid



Source: Demographic Services Center, DOA State of Wisconsin, Vintage 2013 projections

Regional Vehicle Ownership

Within the tri-county transit service area vehicle ownership (defined as households age 16+) increased slightly in the last decade. Vehicle ownership is one of many factors impacting transit ridership and a person's decision to use transit.

Figure 1-22: Calumet County Vehicle Ownership

Households with:	2017	2013	2009
No vehicle available	193	262	421
1 vehicle available	2,839	2,804	2,522
2 vehicles available	13,277	12,091	12,250
3+ vehicles available	10,969	10,358	8,650
Total	**27,278**	**25,515**	**23,843**

Source: American Community Survey 5-Year Estimates, Table B08141

Figure 1-23: Outagamie County Vehicle Ownership

Households with:	2017	2013	2009
No vehicle available	1,363	1,447	1,194
1 vehicle available	15,776	14,481	13,403
2 vehicles available	46,385	45,176	44,494
3+ vehicles available	33,068	30,742	31,793
Total	**96,592**	**91,846**	**90,884**

Source: American Community Survey 5-Year Estimates, Table B08141

Figure 1-24: Winnebago County Vehicle Ownership

Households with:	2017	2013	2009
No vehicle available	1,425	1,532	1,671
1 vehicle available	16,601	15,396	13,791
2 vehicles available	39,608	37,861	38,678
3+ vehicles available	27,803	26,614	26,001
Total	**85,437**	**81,403**	**80,141**

Source: American Community Survey 5-Year Estimates, Table B08141

Regional Poverty Analysis

Data from the 2016 American Community Survey (ACS 2016, 5-year estimates) was mapped to provide a snapshot of areas of poverty in the Fox Cities. Data was displayed at the census block group level (as a percent) and the existing bus routes added for comparison. Please see **Figure 1-25**.

Regional Employment Analysis

Data from Business Analyst (2017) was also mapped to show the location of area businesses organized by number of employees within the tri-county area. Please see **Figure 1-26**.

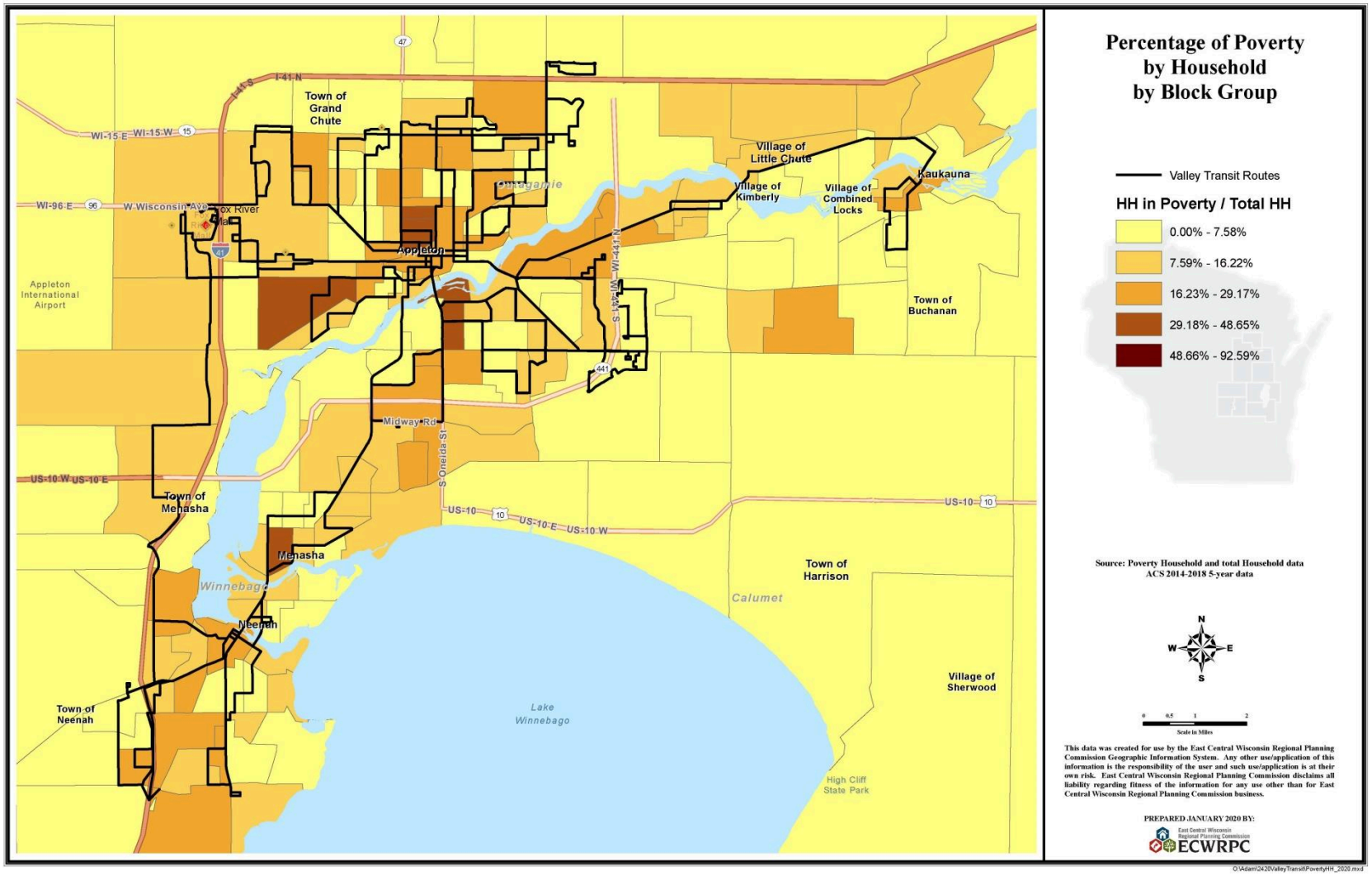


Figure 1-25: Percentage of Poverty by Household

Regional Trips by Paratransit (ADA Service) and Connector Service

In addition to the fixed route bus, Valley Transit provides ancillary paratransit and employment transportation with the Connector. Data from 2017 trips of both services was mapped, providing a snapshot of trips. Trips were grouped either within or beyond a ¾ mile buffer of the bus routes. Please see **Figures 1-27 and 1-28**.

Regional Population Age 60+

Within Valley Transit's tri-county service area, population estimates for those ages 60 and over are increasing. This pattern will likely continue in the upcoming decades as more of the Baby Boomer generation ages.

Figure 1-29: Tri-County Population (age 60+)

County	2017	2013	2009
Calumet	9,760	8,337	7,312
Outagamie	35,410	30,866	27,439
Winnebago	35,586	32,397	27,964
Total	**80,756**	**71,600**	**62,715**

Source: American Community Survey 5-Year Estimates, Table S0102

Regional Population with a Disability

Within Valley Transit's tri-county service area, population estimates for those with a disability are noted below.

Figure 1-30: Tri-County Population with a Disability

County	2017	2015	2013
Calumet	4,332	4,488	3,942
Outagamie	18,272	17,461	16,522
Winnebago	19,337	18,259	17,643
Total	**41,941**	**40,208**	**38,107**

Source: American Community Survey 5-Year Estimates, Table DP02

Regional Bus Ridership

Valley Transit recently installed an automatic passenger counting (APC) system on all of its buses. The APC is able to automatically count where passengers board and alight (exit) at each of the 800+ stops within the transit system. A two week sample of passenger boarding/alighting data was collected to give a sample snap shot of recent ridership. This sample was from March 4 to March 17 (2019). The top 25 bus stop locations in terms of total activity are included in **Figure 1-31**. Additionally, **Figures 1-32 to 1-34** are "heat" maps which visually show the activity at the stops by intensity of use. (One shows total activity; while the remainder show boarding and alighting separately.)

Figure 1-31: Top 25 Bus Stops by Total Activity

Stop Name	Board	Alight	Total
Transit Center	12,822	11,911	24,733
Church & W Doty (Neenah Transit Center)	1,777	1,725	3,502
Fox River Mall @ East Entrance	1,203	1,151	2,354
955 Mutual @ north Walmart entrance	382	412	794
Madison Middle @ rear door	362	218	580
E Schaefer & E Bluebird	288	194	482
FVTC @ building entrance 1	148	276	424
N Badger & Schneider	206	159	365
E Washington & N Durkee	166	180	346
FVTC @ building entrance 1	299	31	330
Northland Mall @ Festival Foods	161	142	303
E South River & S Jefferson	113	177	290
Woodman's @ first door	136	140	276
T Mobile east of Walmart	126	148	274
Appleton & Drum Corps	134	136	270
2730 N Roemer @ Valley Packaging	106	148	254
431 E Eagle Flats	112	128	240
Walmart - Food Center entrance	119	115	234
Appleton & W Tuckaway	129	102	231
W Spencer & S Mason	115	116	231
W Lawrence & S Bluemound	165	65	230
N Westhill & N College Frontage	77	149	226
E Roeland & S Telulah	145	80	225
1499 Appleton	47	173	220
S Memorial & W Prospect	84	114	198

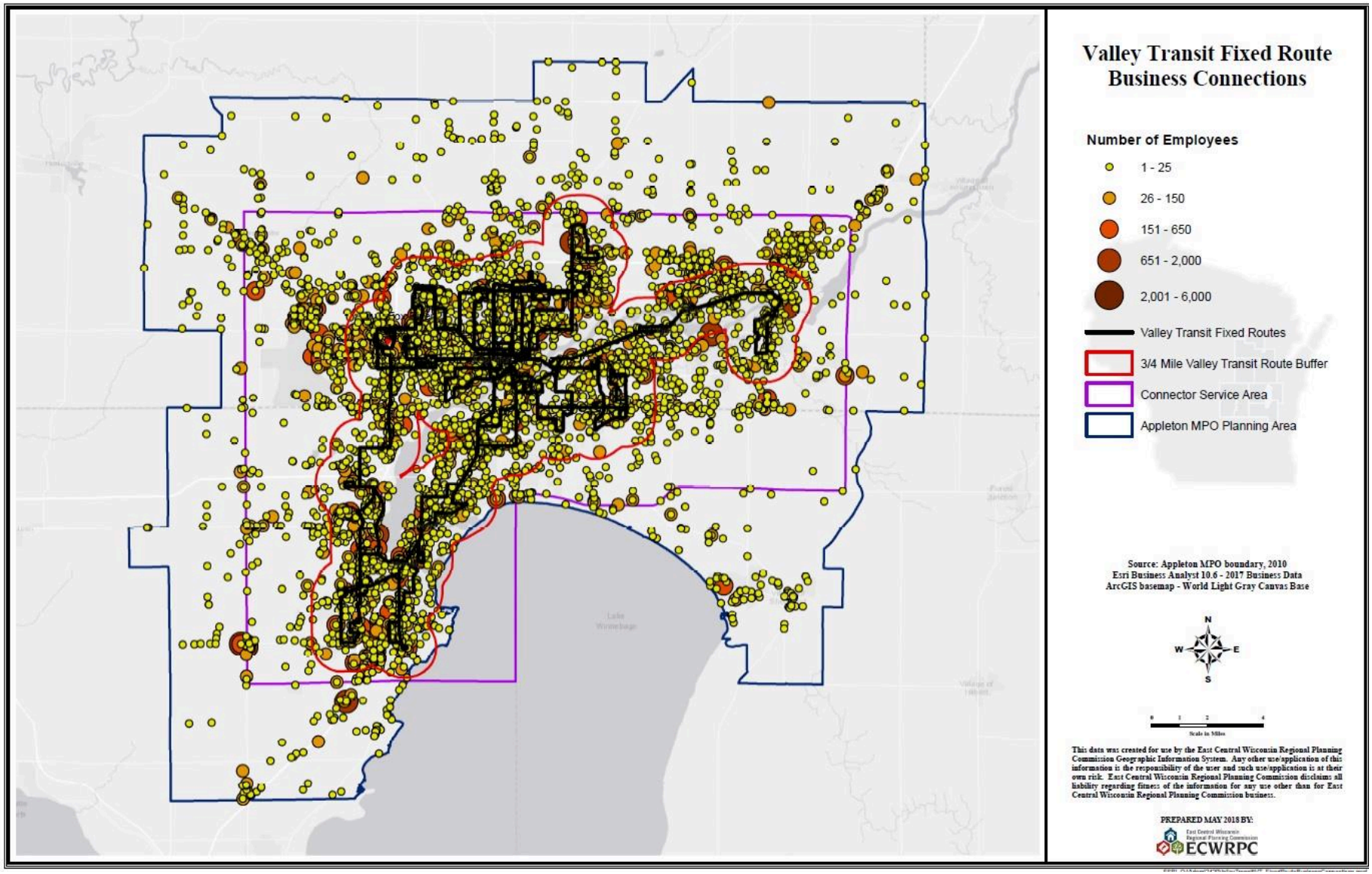


Figure 1-26: Business Connections by Number of Employees

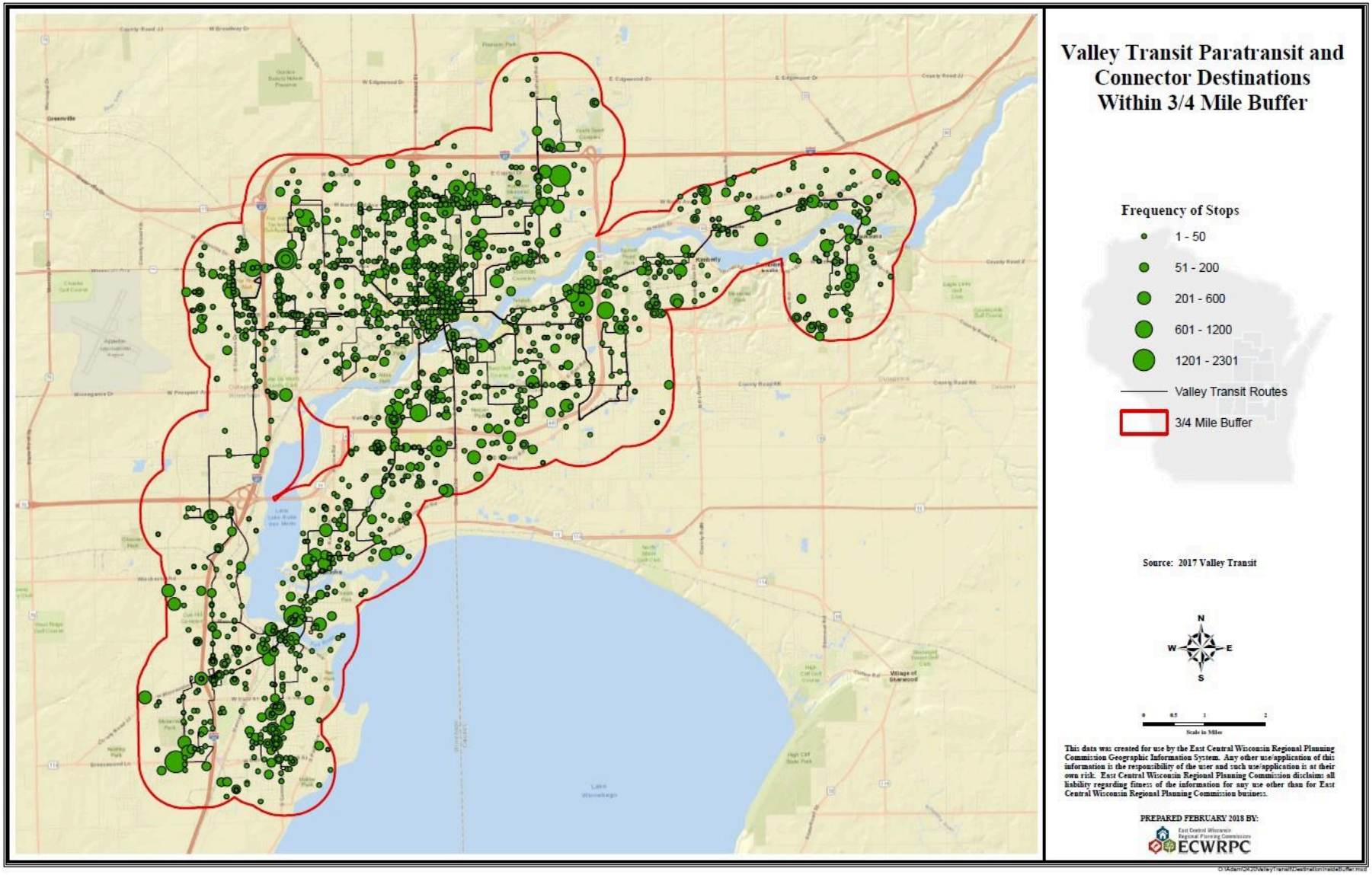


Figure 1-27: Valley Transit Paratransit & Connector Destinations (w/in ¾ mile of bus routes)

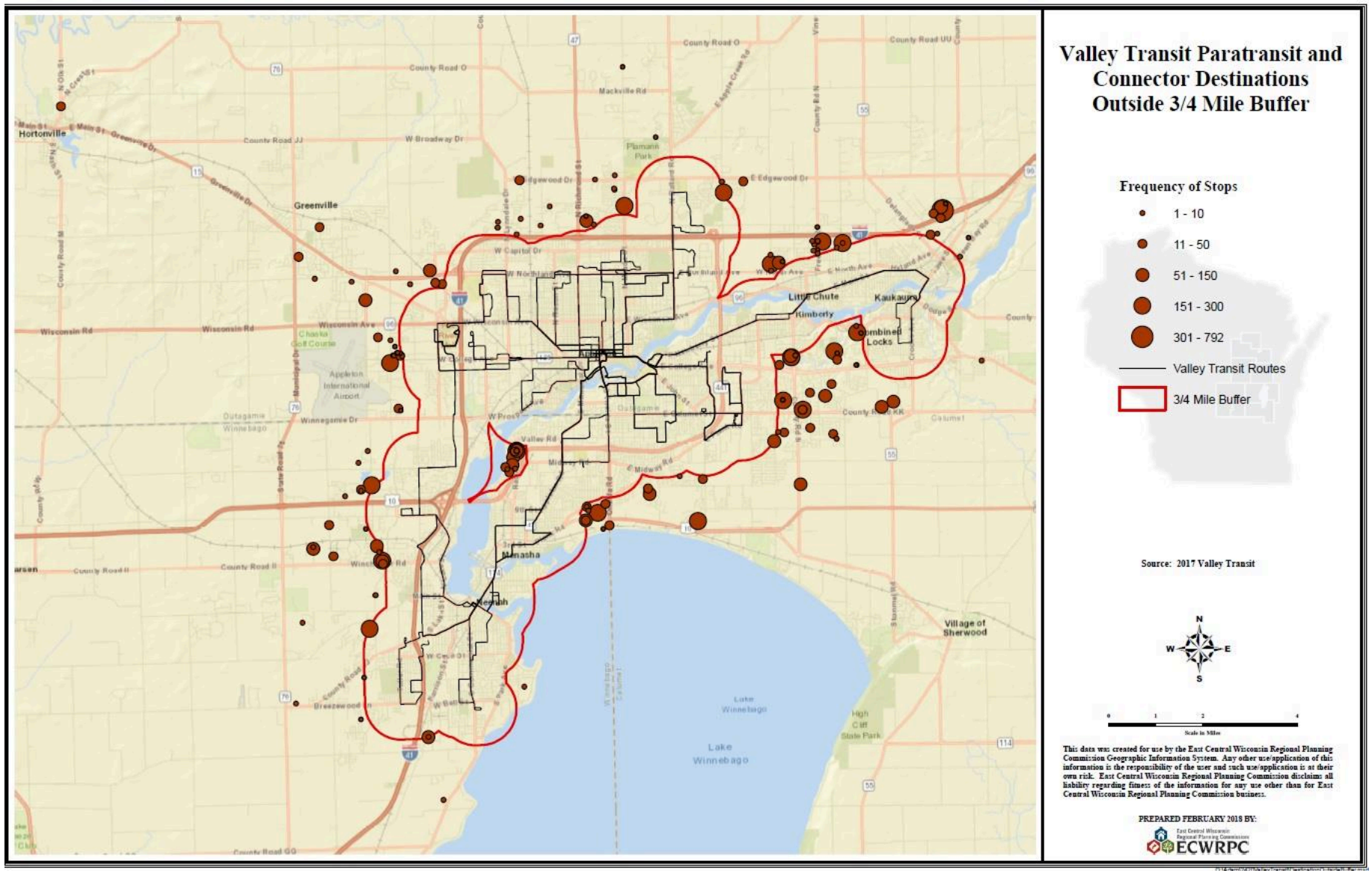
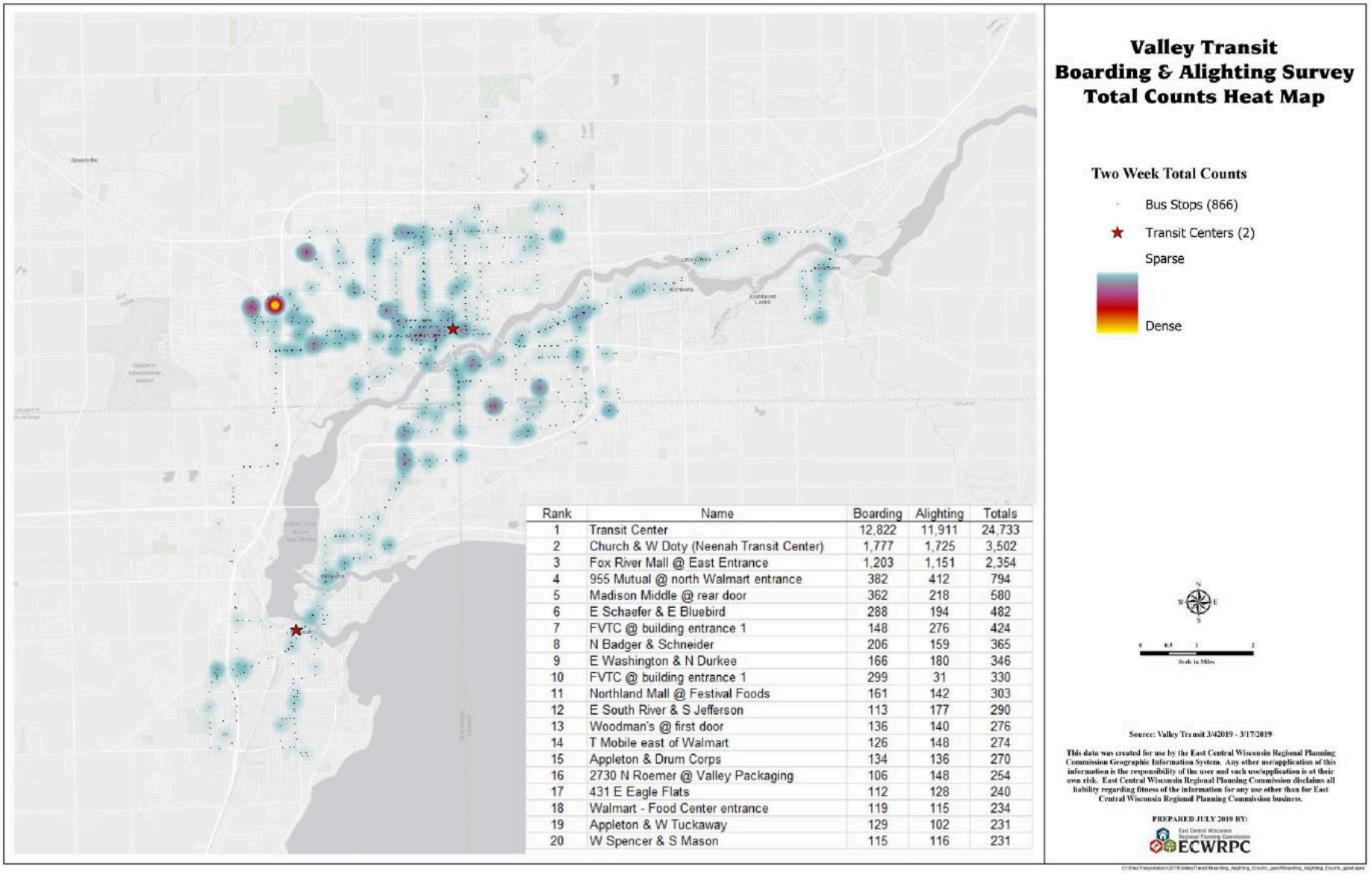
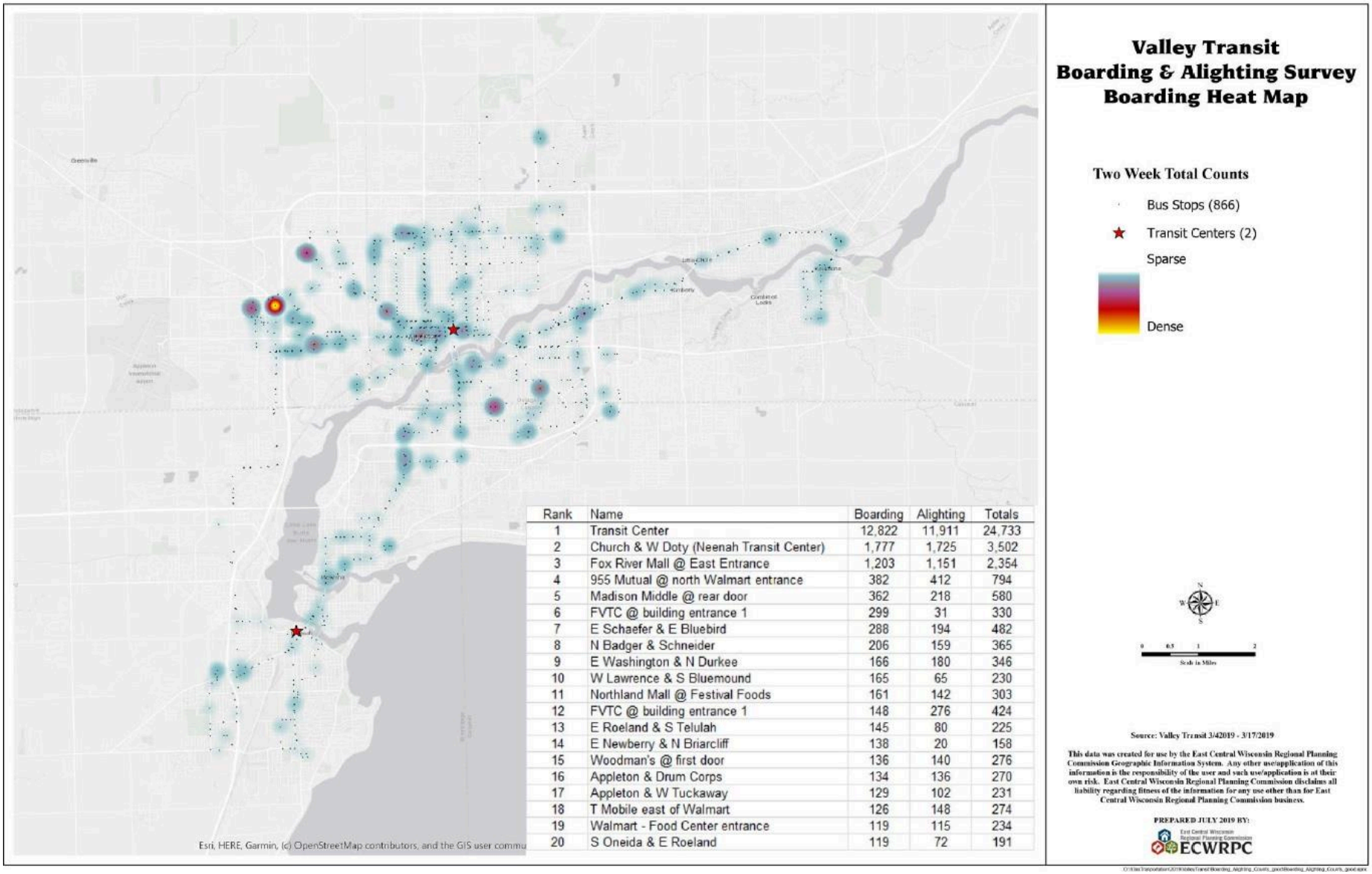


Figure 1-28: Valley Transit Paratransit & Connector Destinations (outside ¾ mile of bus routes)



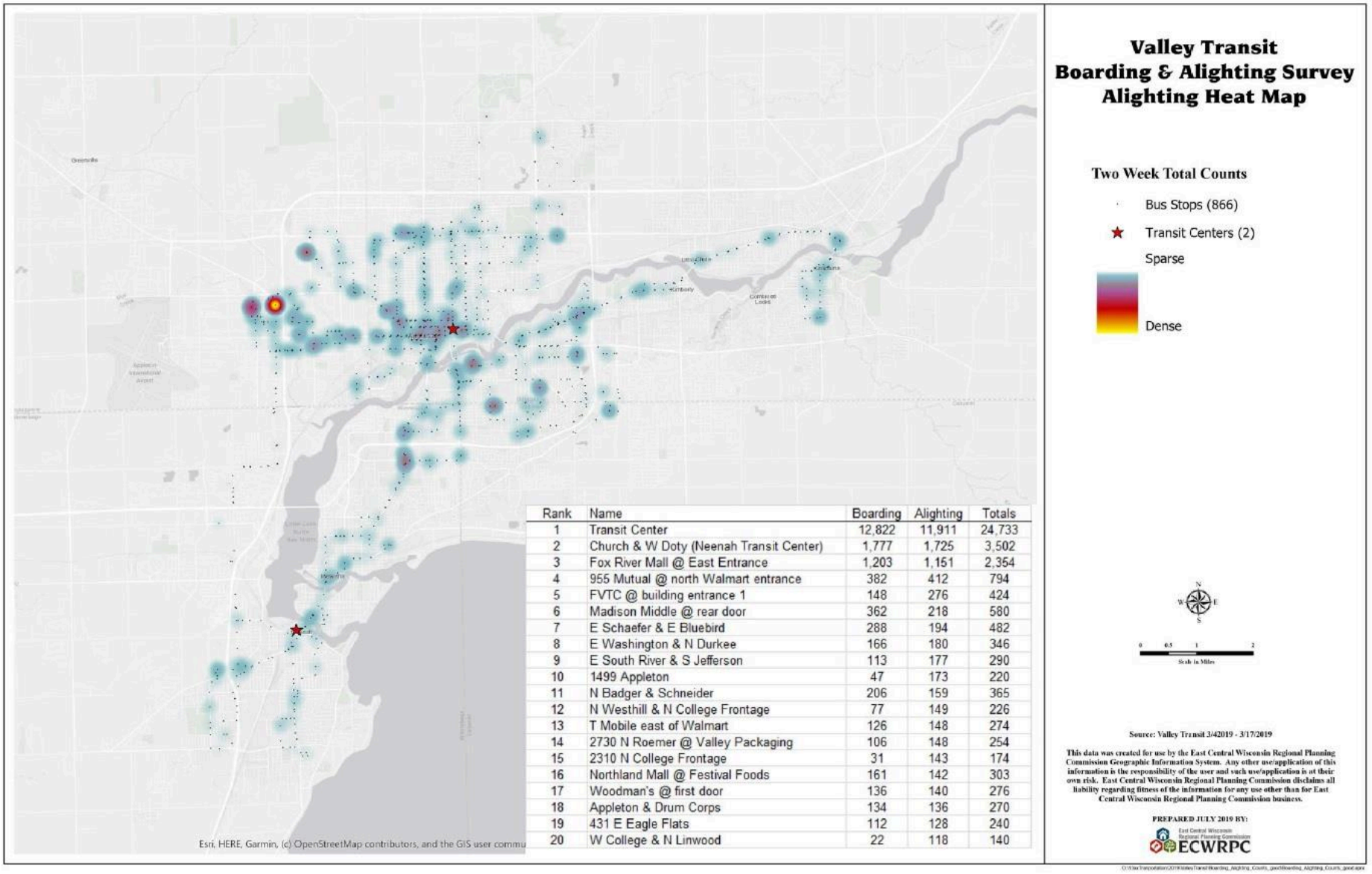
Rank	Name	Boarding	Alighting	Totals
1	Transit Center	12,822	11,911	24,733
2	Church & W Doty (Neenah Transit Center)	1,777	1,725	3,502
3	Fox River Mall @ East Entrance	1,203	1,151	2,354
4	955 Mutual @ north Walmart entrance	382	412	794
5	Madison Middle @ rear door	362	218	580
6	E Schaefer & E Bluebird	288	194	482
7	FVTC @ building entrance 1	148	276	424
8	N Badger & Schneider	206	159	365
9	E Washington & N Durkee	166	180	346
10	FVTC @ building entrance 1	299	31	330
11	Northland Mall @ Festival Foods	161	142	303
12	E South River & S Jefferson	113	177	290
13	Woodman's @ first door	136	140	276
14	T Mobile east of Walmart	126	148	274
15	Appleton & Drum Corps	134	136	270
16	2730 N Roemer @ Valley Packaging	106	148	254
17	431 E Eagle Flats	112	128	240
18	Walmart - Food Center entrance	119	115	234
19	Appleton & W Tuckaway	129	102	231
20	W Spencer & S Mason	115	116	231

Figure 1-32: Valley Transit Boarding & Alighting Counts (March 2019)



Rank	Name	Boarding	Alighting	Totals
1	Transit Center	12,822	11,911	24,733
2	Church & W Doty (Neenah Transit Center)	1,777	1,725	3,502
3	Fox River Mall @ East Entrance	1,203	1,151	2,354
4	955 Mutual @ north Walmart entrance	382	412	794
5	Madison Middle @ rear door	362	218	580
6	FVTC @ building entrance 1	299	31	330
7	E Schaefer & E Bluebird	288	194	482
8	N Badger & Schneider	206	159	365
9	E Washington & N Durkee	166	180	346
10	W Lawrence & S Bluemound	165	65	230
11	Northland Mall @ Festival Foods	161	142	303
12	FVTC @ building entrance 1	148	276	424
13	E Roeland & S Telulah	145	80	225
14	E Newberry & N Briarcliff	138	20	158
15	Woodman's @ first door	136	140	276
16	Appleton & Drum Corps	134	136	270
17	Appleton & W Tuckaway	129	102	231
18	T Mobile east of Walmart	126	148	274
19	Walmart - Food Center entrance	119	115	234
20	S Oneida & E Roeland	119	72	191

Figure 1-33: Valley Transit Boarding Counts (March 2019)



Rank	Name	Boarding	Alighting	Totals
1	Transit Center	12,822	11,911	24,733
2	Church & W Doty (Neenah Transit Center)	1,777	1,725	3,502
3	Fox River Mall @ East Entrance	1,203	1,151	2,354
4	955 Mutual @ north Walmart entrance	382	412	794
5	FVTC @ building entrance 1	148	276	424
6	Madison Middle @ rear door	362	218	580
7	E Schaefer & E Bluebird	288	194	482
8	E Washington & N Durkee	166	180	346
9	E South River & S Jefferson	113	177	290
10	1499 Appleton	47	173	220
11	N Badger & Schneider	206	159	365
12	N Westhill & N College Frontage	77	149	226
13	T Mobile east of Walmart	126	148	274
14	2730 N Roemer @ Valley Packaging	106	148	254
15	2310 N College Frontage	31	143	174
16	Northland Mall @ Festival Foods	161	142	303
17	Woodman's @ first door	136	140	276
18	Appleton & Drum Corps	134	136	270
19	431 E Eagle Flats	112	128	240
20	W College & N Linwood	22	118	140

Figure 1-34: Valley Transit Alighting Counts (March 2019)

REGIONAL COLLABORATION

Local Comprehensive Plans

Each municipality within the Valley Transit service area maintains a local comprehensive plan, which includes recommendations for transportation improvements along with other topic areas. Key transit-related recommendations of each local comprehensive plan are listed in **Figure 1-35** below.

Multimodal Connections

Bike racks are installed on all Valley Transit buses. This allows transit customers to better connect on their trips to and from their start and end destinations. Additionally, Amtrak's Thruway Interstate 41 Intercity Bus Service stops at Valley Transit's downtown transit center. The Thruway Service is a bus connector service which provides daily trips from Green Bay to Milwaukee (with stops in Appleton, Oshkosh and Fond du Lac) and connects to the Amtrak Intermodal station in Milwaukee. From there, customers are able to use the Hiawatha Line to Chicago.

Figure 1-35: Regional Comprehensive Plans

Plan	Key Recommendations
Appleton Comprehensive Plan 2010-2030	▪ Objective 6.6 Maintain diverse and cost-effective options for public transportation that meets the needs of all segments of the population. ▪ 6.6.1 Implement recommendations from the Metropolitan Planning Organization to establish a regional transportation authority with a dedicated revenue source. ▪ 6.6.2 Seek long-term funding options, in collaboration with neighboring communities, to support Valley Transit. ▪ 6.6.3 Continue to support alternative transit routes such as the Downtown Trolley. ▪ 6.6.4 Continue to support Valley Transit including the investigation of alternative transit routes, hub stations, and days/times of operations to better serve the community. ▪ 6.6.5 Support improved regional connections including along the I-41 corridor. ▪ 6.6.6 Encourage transit-oriented development (TOD) at higher densities at key locations in the City. Consider working with Valley Transit on redevelopment of existing single use transit center to a mixed use concept which incorporates other uses including housing. ▪ Objective 6.9 Implement the transportation-related recommendations contained within related plans. ▪ 6.9.1 Implement the transportation related recommendations within the 2016 Downtown Plan. ▪ Objective 11.1 Maintain a positive relationship with local area governments to foster collaboration on issues of mutual concern. ▪ 11.1.2 Continue Appleton's involvement in regional organizations, such as those to promote economic development, to work to provide affordable housing, to restore and revitalize the Fox River, and to provide transit services in the Fox Valley. ▪ Maintain diverse and cost-effective options for public transportation that meets the needs of all segments of the population. (Ongoing) ▪ 2016 Downtown Plan ▪ 5.5 Endorse a system of public transportation centered on downtown.
Village of Little Chute Comprehensive Plan 2016-2036	▪ Goal: To achieve a safe, efficient, and environmentally sound transportation system that provides personal mobility to all segments of the population, and supports the economy of the Village of Little Chute and the region. ▪ 8 Continue to work with the providers of transportation for the elderly and disabled residents of the Village of Little Chute.

Plan	Key Recommendations
	▪ 9 Coordinate transportation improvements with the towns of Grand Chute and Vandenbroek, the Village of Kimberly, the cities of Appleton and Kaukauna, Outagamie County, East Central Wisconsin Regional Planning Commission, and the Wisconsin Department of Transportation.
Village of Kimberly 2030 Comprehensive Plan	▪ Goal ED -4: To ensure that transportation infrastructure planning is supportive of economic development efforts. ▪ Strategy ED 4-1: Plan for providing adequate transportation infrastructure for businesses and industries within the Village. ▪ Recommendation ED-4.1.1: Examine major employment destinations in Kimberly and determine if they are adequately served by existing roadways, bus and bicycle routes. ▪ Goal T-4: To accommodate future mass transportation and public transit needs. ▪ Strategy T-4.1: Maintain and improve access to bus transit (through Valley Transit) for residents and businesses. ▪ Recommendation T-4.1.1: Work with the East Central Wisconsin Regional Planning Commission and other municipalities to foster the development of a 'Regional Transit Authority' (RTA) to ensure adequate funding of the bus system. ▪ Strategy T-4.2: To accommodate transportation for the elderly, disabled, handicapped and those not able to have a driver's license. ▪ Recommendation T-4.2.1: Continue to encourage the availability of taxis, medi-vans, and mini-van types of services in the village. ▪ Recommendation T-4.3.1: Coordinate with area municipalities and businesses to create park-and ride lots to facilitate carpooling.
Village of Combined Locks 2030 Comprehensive Plan	▪ Goal ED-4: To ensure that transportation infrastructure planning is supportive of economic development efforts. ▪ Strategy ED-4.1: Plan for provision of a variety of transportation infrastructure in the future in order to serve the needs of businesses and industries. ▪ Recommendation ED-4.1.1: Examine major employment destinations in Kimberly and determine if they are adequately served by existing roadways, bus, pedestrian and bicycle routes. ▪ Goal T-5: Accommodate public mass transportation opportunities as needs arise. ▪ Strategy T-5.1: To improve accessibility to alternatives modes of travel for all Village residents. ▪ Recommendation T-5.1.1: Continue to encourage the availability of taxi's, medi-van, and mini-van types of services in the village. ▪ Recommendation T-5.1.2: Encourage private carpooling by coordinating with area municipalities and businesses to create park-and ride lots. ▪ Recommendation T-5.1.3: Consider Valley Transit route possibilities when planning for transportation needs and developing street construction/re-construction projects.
City of Kaukauna Comprehensive Plan	▪ Goal, Strategies and Recommendations – Housing: ▪ Strategy: Ensure that housing and care facilities are provided to elderly and special needs residents, both current and future. ▪ Recommendation: Provide adequate and affordable means of transportation for the elderly and disabled within the City. ▪ Goal, Strategies and Recommendations - Transportation ▪ Participate in regional transit authorities that provide service to multiple areas within the Fox Cities for persons of all incomes, abilities, ages, and mental aptitudes. A regional service can best accommodate persons with disabilities, that elderly, and multiple modes of transit such as bicycles, cars, rail, plane, and others. ▪ Goal, Strategies and Recommendations: Intergovernmental Cooperation ▪ Ensure that short and long-term development plans are shared with other

Plan	Key Recommendations
	governmental entities. ▪ Work with and coordinate sewer service area planning, transportation planning, economic development activities, and other development matters as appropriate with the East Central Wisconsin Regional Planning Commission or other appropriate agencies. ▪ Ensure that future planning and development activities are shared and coordinated with the Heart of the Valley Metropolitan Sewerage Commission, Valley Transit, Outagamie County, neighboring communities, and other appropriate agencies.
Town of Buchanan Comprehensive Update 2040	▪ Transportation Policy: Provide a broad range of transportation choices; including well maintained local roads, county, state and federal highways, sidewalks, bike lanes, trails, and public transportation to meet the diverse needs of residents. ▪ Transportation Policy: Support ADA and elderly transportation options. ▪ Goal T 2: Promote a multi-modal transportation system for efficient, safe, and convenient movement of people, goods, and services. ▪ Objective T 2.2: Encourage the availability of public and private transportation services. ▪ Recommendation T 2.2.1: Work with Valley Transit to survey residents regarding transit needs. ▪ Recommendation T 2.2.2: Work with Valley Transit to monitor existing routes and expand or revise scheduled bus service as needed. ▪ Recommendation T 2.2.3: Support the continuation of ADA and Senior Transportation services within the Town.
Village of Harrison Comprehensive Plan Update (Feb. 2017)	▪ Housing Goal: To encourage safe, affordable, and quality housing of various types for residents in all stages of life while maintaining the existing housing stock. ▪ Objective 3. Provide opportunities for retirement facilities, elderly housing, and specialized housing such as nursing homes or community-based residential facilities, and ensure that they are adequately served with transit service, pedestrian facilities, bicycle facilities, recreational facilities, and convenient, nearby shopping, service and entertainment areas. ▪ Transportation Goal: To provide the Village of Harrison a transportation network will be a safe, efficient, and environmentally sound system that provides multi-modal personal mobility for all segments of the population as well as the movement of goods for business and industry. ▪ Objective 3. Develop and maintain infrastructure to support biking, walking and other modes of transportation throughout the Village and the surrounding region. ▪ Policy 1. Provide and require a broad range of transportation choices, including quality roads, highways, sidewalks and trails to meet the diverse needs of residents. ▪ Policy 13. Support private transportation providers that serve the population that are unable, or do not have access to, personal vehicles, such as the elderly, homebound, sick, or disabled.
City of Menasha 2030 Comprehensive Plan	▪ Housing Goal 5: Maintain an adequate supply of sites for multi-family housing in desirable locations that meet current needs and projected growth. ▪ Objective 1. The city shall encourage the development of high quality, mixed-income, attractive, high-amenity multi-family neighborhoods in close proximity to services, trails, public transportation, employment, and recreation facilities. ▪ Housing Goal 7: Create affordable home ownership opportunities for low- and moderate-income residents. ▪ Objective 5. Encourage development near existing public transportation opportunities and evaluate the need for expansion of these opportunities. ▪ Housing Goal 8: Maintain an adequate supply of affordable rental housing for low- and moderate income residents. ▪ Objective 4. Encourage development near existing public transportation

Plan	Key Recommendations
	opportunities and evaluate the need for expansion of these opportunities. ▪ Housing Goal 9: Maintain an adequate supply of affordable housing for senior and special need households. ▪ Objective 4. Encourage new senior and special needs development near existing public transportation opportunities and evaluate the need for expansion of these opportunities. ▪ Policy 35. The city shall consider the transportation needs of all residents, particularly low and moderate income, seniors, and special needs. ▪ Transportation Goal: Provide a safe, efficient, and cost effective transportation system for the movement of people and goods. ▪ Objective 4. Require developers to bear an equitable share of the costs for the improvement or construction of transportation system infrastructure and services (road, bike paths, sidewalks, public transportation, etc.) needed to serve development. ▪ Objective 13. Ensure that the transportation needs of the physically challenged are met. ▪ Transportation Goal: Support and promote the development and use of multiple modes of transportation. ▪ Objective 2. Continue the provision of both fixed route and demand response transportation services. ▪ Objective 4. Support the development of convenient and affordable transit options. ▪ Objective 5. Promote the use and development of alternative forms of transportation as a positive, viable choice. ▪ Policy/Recommendation 17. Continue to support public transportation and paratransit initiatives. ▪ Policy/Recommendation 18. Participate in planning initiatives evaluating future public transportation programs and funding options. ▪ Policy/Recommendation 19. Ensure that the transportation needs of the physically challenged are met. ▪ Policy/Recommendation 20. The city shall participate in regional transportation system planning. ▪ Policy/Recommendation 26: The city should engage in transportation planning to ensure that the needs of the citizens of the city are being met.
Town of Grand Chute Comprehensive Plan 2010-2030	▪ Transportation Goal: Provide an integrated, efficient and economical transportation system that affords mobility, convenience and safety and that meets the needs of all citizens, including transit dependent and disabled citizens. ▪ Objective Bus Service: Expand transit and para-transit services to provide connections to urban and rural areas throughout the Town and Fox Cities. ▪ Coordinate Valley Transit review of site plans and plats. ▪ Change State Law to allow Neighborhood Electric Vehicles on Wisconsin and College. ▪ Support creation of a Regional Transit Authority. ▪ Extend paratransit service to the entire Town.
Town of Greenville Comprehensive Plan 2040 (draft)	▪ Issues/Opportunities Goal 3: Accommodate the needs and service demands of a changing population. ▪ Framing Concept 3a: Aging in Place & Livability ▪ Strategy 3a-1: Make Greenville a more “livable” community over the next twenty years in order to increase opportunities to age in place. ▪ Strategy 3a-2: Integrate sound-decision making into land use policies using a framework that examines variables affecting livability and aging in place, such as: Mobility/Transportation, Housing/Affordability, Access to food, Programs and services, Built environment, Access to information, Public security/safety, Civic participation, Volunteerism, and Leadership. ▪ Action 3a-1: The Plan Commission should prepare a more detailed “livability

Plan	Key Recommendations
	study" which evaluates a number of the variables listed to better understand their options and impacts. For example, an examination of factors related to housing such as new housing styles (co-housing arrangements, accessory units, etc.); how transit may better serve aging populations; the details of housing construction principles such as Universal Design; reducing site/building maintenance, or; how changes in the zoning regulations could improve affordability. ▪ Transportation Goal 7: To provide a safe, efficient and cost-effective system of traditional and active transportation opportunities for residents & businesses. ▪ Framing Concept 7c: Realistic Public Transit Options ▪ Policy 7c-1: Support the extension of Valley Transit routes to serve the Appleton International Airport and businesses in the eastern portion of Greenville. ▪ Strategy 7c-1: Work with Valley Transit on the current and future Transit Development Plans (TDPs) to ensure Greenville's transit needs are identified and better addressed. ▪ Strategy 7c-2: Direct higher density/intensity developments to lands near the CTH CB corridor in order to better support transit services. ▪ Strategy 7c-3: Identify and secure locations within Greenville for use as park-n-ride facilities. ▪ Action 7c-1: Encourage the rezoning of appropriate properties along the CTH CB corridor to accommodate transit supportive housing developments. ▪ Action 7c-3: Work with WisDOT and landowners near the intersection of USH 15 and CTH CB to locate a new Park 'n Ride lot. ▪ Action 7c-4: Engage in the ongoing I-41 Commuter Service Study to explore potential benefits to Greenville's businesses and residents.
City of Neenah Comprehensive 2040 Plan Update	▪ Goal ED 2: Enhance Community and Neighborhood Identity. ▪ Objective ED 2.2: Promote and grow downtown Neenah. ▪ Recommendation ED 2.2.7: Improve traffic circulation and address safety access concerns for pedestrian, bicyclists, vehicles and public transit. (See Recommendation LU 1.5.5, T 1.1.1, LU 1.6.3) ▪ Objective ED 2.5: Increase alternative forms of transportation to employment centers. ▪ Recommendation ED 2.5.3: Encourage Valley Transit to evaluate existing bus routes within the City to determine if service should be expanded to serve other locations. ▪ Goal T 2: To provide, support and maintain a wide range of transportation alternatives for residents and visitors. ▪ Objective T 2.2: Provide cost-effective and convenient public transit. ▪ Recommendation T 2.2.1: Continue to support public transit and promote its use by the general public. ▪ Recommendation T 2.2.2: Investigate the benefits of supporting a regional transit authority. ▪ Recommendation T 2.2.3: Support the development of a regional transit route. (See recommendation ED 2.5.2, IC 1.1.6) ▪ Recommendation T 2.2.4: Work with Valley Transit to monitor existing routes within the City and expand or revise routes as needed. ▪ Objective T 2.3: Reduce and avoid mobility barriers for the elderly and disabled. ▪ Recommendation T 2.3.1: Continue to provide ADA and Senior Transportation options within the City. ▪ Goal LU 1: Create a balanced pattern of land uses that meets the needs and desires of residents, preserves and enhances the quality of life and is compatible with adjacent land uses. ▪ Objective LU 1.5: Promote economic growth and vitality that meets community and neighborhood needs, while preserving the City's neighborhoods, natural resources and historic character. ▪ Recommendation LU 1.5.5: Strengthen the downtown business district.

Plan	Key Recommendations
	▪ Objective LU 1.6: Ensure that the future transportation system is integrated with the existing land use plan. ▪ Goal IC 1: Continue to improve relations with neighboring municipalities and other government agencies in the Fox Cities, Winnebago County, and state and federal agencies, ▪ Objective IC 1.1: Strengthen existing partnerships and build new relationships to promote economic development in the City and region.
Village of Fox Crossing Comprehensive Plan 2018-2038	▪ Mobility and Transportation Goal: Provide and maintain a safe, convenient, efficient and environmentally sound multimodal transportation network that balances the needs of all users. ▪ Objective a. Local transportation systems will be well coordinated with regional systems and investments. ▪ Objective f. Increase access to transit facilities. ▪ Strategy 7. Require all new development along existing and proposed transit corridors to be designed so that it can be easily and conveniently served with bus or other transit systems. Site plan reviews should include a thorough analysis of whether or not the proposed development is designed in a manner that will allow it to be served by transit vehicles (e.g. buses, car pools, vans, rail, etc.). ▪ Strategy 8. Maintain a rolling 5-year Capital Improvement Plan to plan for the annual construction and maintenance of roads and other transportation facilities. Annual transportation investments should include funding for both traditional road improvements and alternative transportation modes, such as on-road bicycle accommodations, off-road bike and pedestrian trails, sidewalks and transit facilities. ▪ Action 6. Work with Valley Transit to improve the service for Fox Crossing residents. Discussions should include the possibility of additional bus stops, more benches/shelters at stops, and more education about bus routes and how to utilize the system.

Source: East Central Wisconsin Regional Planning Commission

VISION, MISSION & OBJECTIVES

Before any route modification or policy implementation, the steering committee developed a vision, mission and objectives to guide the planning process. The steering committee met numerous small group facilitations to develop the vision, mission and objectives.

VISION STATEMENT

Getting all people where they want to go, when they want to go.

MISSION STATEMENT

Valley Transit provides customer focused transportation, connecting our communities to enhance quality of life.

OBJECTIVES

Service Expansion:

1. Partake in the Initiative 41 (Economic Development) and Commuter Service Study to ensure coordination.

2. Advocate/encourage transit-oriented development.

3. Reorganize evening transit schedules to coincide with community activities/events.

4. Coordinate with Oshkosh (GO Transit) on related 2020 Census funding/service impacts.

5. Explore alternative transit service delivery options (on-demand, express route, mixed fleet, shared van pools, bike share, etc.).

6. Work with partner agencies to map all transportation mode options to see how Valley Transit can better align themselves within transportation and community planning.

7. Evaluate alternative transportation modes to fill first and last mile travel needs.

8. Increase fixed route frequency and geographic reach of service.

9. Bring on additional, diverse partners to increase growth.

10. Work with Appleton International Airport to connect passengers to greater Appleton area through transit.

Technology:

11. Research and develop a technology plan for the future (feeder transportation service, location app, cashless payment system, and autonomous vehicles).

Perception/Education/Marketing:

12. Develop a marketing and communication plan to develop relationships with businesses and the education system (middle school, high school, UW-System and Tech Colleges).

13. Educate and encourage public transportation as an option for all ages and demographics.

14. Develop outreach materials such as “how to ride” videos for buses, bicycle racks on buses, rider etiquette, etc.

Service Enhancements:

15. Develop a "Guaranteed Ride Home" program to encourage employment transit use.

16. Invest and upgrade technology to enhance rider experience (location app, social media, and fare payment).

17. Create an environment that is safe for all ages and abilities (riding the bus, bus stops, transit centers and transfer zones).

18. Continue to invest in new buses as funding/grants becomes available.

19. Continue to partner with local agencies to provide transportation to special events when warranted.

Funding:

20. Institute a Regional Transit/Transportation Authority (encourage State Legislature, educate/support for a local referendum).

21. Research alternative, stable funding sources and models.

22. Reach out to additional partners for to help expand and fund the system (regional partnership model).

23. Find alternatives to increase fare collections while maintaining reasonable costs for riders; increase ridership of choice riders.

24. Seek out sponsorships for free rides/incentives for riders for select routes/times.

Partnerships:

25. Collaborate with regional entities to develop a multi-modal transportation system/network (integration with all modes of travel).

26. Work with willing employers to provide incentives for employees for using transit.

27. Partner with non-profits to utilize idle equipment, educate and market the transit services and contribute financially to sustain and expand transit services (both public and private resources).

28. Work with transit destinations to provide benefits/incentives for transit riders (shopping, medical, schools, places of worship, colleges/universities).

29. Partner to provide incentives such as bicycle benefits.

30. Partner with employers to route buses and encourage flexible work schedules to increase availability at peak times (regional partnership model).

31. Recognize unique system that communities all contribute to cost of providing transit service.

2-Service Review

SERVICE REVIEW

SRF Consulting was contracted as part of this planning effort and was tasked with taking an in-depth review of the existing transit services. Secondly, SRF was also asked to develop a series of transit service recommendations. In general, recommendations were created under two scenarios: modifying the existing routes with small, low cost tweaks to the system; and the second was to redesign the entire system with additions in service frequency and routes.

SRF's full report is located in **Appendix A**. A few summary items are highlighted here.

LEVEL OF SERVICE (LOS)

SRF conducted a level of service (LOS) review of VT in order to gauge system performance relative to national benchmark standards. LOS assigns a letter grade (A to F) on a variety of factors assessing the quality of a transit trip. A set of methodologies for LOS are included in **Figures 2-1**, **2-2** and **2-3.** VT's grades are in bold.

PEER REVIEW

Additionally, a peer review of similar sized transit agencies was conducted. The criteria for the peer review included transit agencies with the following: located in cold-weather states in the Midwest, with similar service characteristics (i.e. population density, low-income and college student populations); and a similar service model (i.e. fixed route service. Please see **Figures 2-4** and **2-5**.

SERVICE RECOMMENDATIONS

Service recommendations were developed and organized in two scenarios based on cost, complexity, and timeline for implementation. Full details are included in SRF's Report in **Appendix A**.

Each scenario includes multiple concepts that are not necessarily mutually exclusive. Final implementation costs will depend on Valley Transit's service priorities and available resources.

- **Scenario 1: Modification of Current Services** - Scenario 1 includes near-term modifications to existing Valley Transit routes. These recommendations are designed to improve frequency and/or on-time performance without major changes to route alignments.

- **Scenario 2: Service Expansion and Restructuring** - Scenario 2 includes larger-scale route restructurings and proposed new services. These service concepts are designed to improve frequency on high-productivity routes, streamline low-productivity routes to offer faster trips, and expand service to offer new regional connections.

Scenario 1A: Frequency Enhancements:

In the near term, frequency improvements should be prioritized based on ridership and productivity. Routes 12, 15, 20, and 30 currently function as core routes in the Valley Transit system, providing over 45 percent of the agency's annual ridership in 2017. These routes currently operate on an hourly schedule on both weekdays and Saturdays; this is a lower level of frequency than many of Valley Transit's lower-performing routes. As noted in the Transfers & Connectivity section, the limited service on Routes 12, 15, 20, and 30 leads to long wait times for transfers in downtown Appleton and elsewhere on the system. Improving weekday frequency on Routes 12, 15, 20, and 30 to every 30 minutes would help Valley Transit attract new riders, offer more attractive transfers, and make transit a viable alternative for more types of trips. This recommendation would require 4 additional vehicles and an increase in vehicle hours and miles compared to the existing service.

Scenario 1B: Minor Route Modifications:

The service changes could result in improvements to on-time performance and reliability but would not result in major cost impacts. These are included as illustrative suggestions but have not been included in the full analysis of operating costs.

Route 2
Route 2 has a low-ridership loop to serve the Boys and Girls Club location at Badger Avenue and Lawrence Street. The loop adds travel time to passengers traveling to other destinations on Route 2, and Route 15 already offers a faster connection from Boys and Girls Club to downtown Appleton via College Avenue. Eliminating this loop could enhance on-time performance and offer streamlined trips to customers traveling to and from southwest Appleton. The estimated mileage savings would be approximately 0.5 miles per trip, or 3,041 miles per year.

Route 11
Detailed analysis is needed on a trip-by-trip basis to determine how often Route 11 buses need to serve Valley Packaging. Anecdotal evidence indicates that there are peak times before and after shifts. A few trips could serve the facility, and buses could detour on request at other times. Reducing the number of daily deviations could allow for improved on-time performance on most trips, while maintaining service for high-ridership trips. The mileage savings is approximately 0.8 miles per trip. If six trips per day are saved, the yearly mileage saving would be 1,224 miles per year.

Route 12
Route 12 is Valley Transit's third most productive route. However, it does have scheduled adherence problems due to its length and its many turns at signalized intersections that contribute to delays. In order to enhance on-time performance, some low-ridership areas on the route could be considered for elimination in favor of a more direct alignment on arterial streets. Currently, First Avenue between Lynndale and Bluemound is a low-ridership area served by westbound trips only. Rerouting westbound trips to use Northland would save approximately 0.15 miles per trip, or 675 miles per year.

Service along Lynndale between Glendale and Wisconsin could also be relocated to allow for bi-directional service on Perkins Street. This change is consistent with the project objective to reduce one-way loops where possible. Passengers traveling west of Lynndale may be impacted, but the housing developments east of Perkins are likely to be a more productive transit market. This recommendation would result in a negligible change in per trip mileage and running time.

Route 16
As with Route 11, Route 16 could be streamlined to offer service to Valley Packaging upon request or during shift times only. Additionally, Valley Transit could use an afternoon school tripper to offer an additional trip directly from Valley Packaging to the downtown transit center. This could save passengers up to 30 minutes of travel time compared to riding on the full length of Route 16, and could offer better transfers to other downtown bus routes at 4:15 p.m.

Scenario 2A: Route 15 Restructuring and Frequency Improvements:

Currently, Route 15 operates hourly service on a lengthy but productive alignment along College Avenue between downtown Appleton and Fox River Mall. Prior to reaching the mall, westbound buses deviate north of College to serve several large retail developments, including The Marketplace (Big Lots/Office Depot), Westhill Plaza (Home Depot/Burlington), Woodman's Food Market, and Marcus Hollywood Cinema. Buses then continue via Spencer Street (south of College) to serve additional retail destinations before proceeding north to the mall. While this circuitous alignment helps, many customers reach their destinations with a short or minimal walk, it results in longer trips for passengers traveling to or from the end of the route (Fox River Mall).

Proposed Alignment
Concept 2A recommends splitting Route 15 into two separate routes (15A and 15B). Both routes would continue to serve College Avenue but would operate two new, more direct branches to reach Fox River Mall.

Route 15A would serve retail destinations north of College Avenue and east of Interstate 41 in addition to Fox River Mall. After serving The Marketplace, westbound Route 15A buses would travel north along Westhill Boulevard, then west

along Wisconsin Avenue to approach Fox River Mall from the north, as shown in **Appendix A.**

Route 15B would serve retail destinations south of College Avenue and west of US-41 prior to reaching Fox River Mall. At Perkins Street, westbound Route 15B buses would leave the main travel lanes on College Avenue to operate westbound via the frontage road, Lawrence Street, and Spencer Street. After crossing Interstate 41, buses would continue north on Nicolet Road/Mall Drive to reach Fox River Mall, as shown in **Appendix A.**

Scenario 2B: North Service Area Restructuring

Summary

Routes 3, 4, 5, and 16 operate one-way loops to serve north and northeast sections of the City of Appleton. While these routes provide coverage to large parts of the Valley Transit service area, their productivity is lower than the system average, with the exception of Route 3. Concept 2B recommends streamlining each of these routes onto a more direct north-south alignment, which will allow Valley Transit to offer true bidirectional service and faster travel times between major destinations.

Route 3 – Mason

Route 3 – Mason provides weekday and Saturday hourly service between downtown Appleton and Northland Mall, with 30-minute peak service on weekdays. Service operates bidirectional on Franklin Street in downtown Appleton, then as a one-way loop. Northbound buses travel via Mason Street to Northland Mall, while southbound buses use Linwood and Badger Avenues to return to downtown.

Under this proposal, Route 3 would be restructured to offer bidirectional service on the highest-ridership segments of the existing loop, via Mason, Glendale, and Linwood. Service would be discontinued on Linwood and Badger south of Glendale, and on Mason north of Glendale, as shown in **Appendix A**.

Route 4 – Richmond

Like Route 3, Route 4 – Richmond also provides service between downtown Appleton and Northland Mall. Route 4 currently operates on a one-way loop both in downtown Appleton and along Northland Avenue, with bidirectional service along Richmond.

Under this proposal, Route 4 would operate a single bidirectional alignment along Franklin Street in downtown Appleton. At Northland Mall, the current one-way loop would be streamlined into a single small deviation, which would allow the route to be extended to serve the new Meijer store at Richmond and I-41. Destinations along Northland are largely within walking distance of the new route, but will also be served by a proposed crosstown service, as shown in **Appendix A**.

Route 5 – North Oneida

Route 5 currently operates a one-way loop between downtown Appleton and Einstein Middle School, just north of Northland Avenue. Northbound buses travel via Oneida Street and Morrison Street to reach Northland, and then make a clockwise loop on starting at Florida Avenue to serve the school, nearby residential areas, and businesses along 1st Avenue. Southbound buses travel primarily via Drew Street (1/4 mile east of Oneida) to return to downtown.

Under this proposal, Route 5 would be restructured to operate a single alignment along Oneida Street, Brewster Street, and Meade Street to reach Northland Avenue. There, northbound buses would travel west to Oneida, then north to make a streamlined counterclockwise loop on 1st Avenue/Winfield Place. Southbound buses would return to downtown via Meade, Brewster, and Oneida, as shown in **Appendix A**.

Route 6 – Meade / Route 16 – Northeast

Route 6 – Meade and Route 16 – Northeast combine to offer weekday and Saturday service to destinations in much of northeast Appleton. Route 6 – Meade provides weekday evening and Saturday service along a core one-way loop via Meade Street, Glendale Avenue, Pershing Street, Northland Street, Ballard Road, and Wisconsin Avenue. Weekday peak and midday service is provided by Route 16, which operates an extended one-way loop to serve Appleton North High School, located north of I-41 along Ballard Road.

Combined, Routes 6 and 16 are the most complex one-way loops in the Valley Transit system. In keeping with the previous recommendations, it is proposed that Routes 6/16 be consolidated into a single, bidirectional alignment where possible. The revised Route 6/16 – Northeast would operate primarily via Wisconsin Avenue and Ballard Road, with an abbreviated northern loop. From downtown Appleton, northbound buses would travel via Franklin, Rankin, Wisconsin, and Ballard, before making a loop via Capitol Drive to serve the ThedaCare Physicians-Appleton North medical complex. Southbound buses would return via Conkley Street, Northland Ave, Ballard, Wisconsin, and Lawes Street.

An alternate alignment for Route 6/16 would maintain service to Appleton North High School and other destinations north of I-41. Due to the increased length of this alignment, the route would operate every 60 minutes instead of every 30 minutes, with no change to total cost.

Scenario 2C: New Crosstown Routes

Summary

During the public outreach process, a number of stakeholders expressed a desire and need for crosstown service, which would enable customers to travel between many of the region's major destinations without traveling downtown. Routes 50, 55, and 60 are three new east-west routes proposed to complement the north-south network outlined in Concept 2B.

Route 50 – Northland

Route 50 – Northland would offer crosstown service along Northland Avenue, providing connections to the revised Routes 3, 4, 5, and 6/16. With service to the Capital Drive business park, Northland Mall, Fox Valley Technical College, and Fox River Mall, Route 50 would improve connectivity between major destinations previously served by one-way loop routes.

Of the three crosstown routes proposed here, Route 50 serves the highest proportion of existing riders and should be considered the highest priority for implementation.

Route 55 – E. College/Kaukauna

Route 55 – E. College/Kaukauna would offer new east-west service between downtown Appleton and Kaukauna via College Avenue. For residents of Kimberly, Buchanan, and Kaukauna, Route 55 would offer faster, more direct trips to downtown Appleton compared to the existing Route 11 and Route 20.

Route 60 – Wisconsin

Route 60 – Wisconsin would offer supplementary crosstown service along Wisconsin Avenue, with connections to Lawrence University, Fox River Mall, and business developments near Appleton International Airport. For residents of north central Appleton and Grand Chute, this route would provide east-west connections to routes 3, 4, 5, and 6/16 without requiring a transfer downtown. If desired, select trips on Route 60 could be extended to serve Appleton International Airport.

Figure 2-1: Level of Service (Frequency)

LOS	Average Headway (minutes)	Vehicles per Hour	Comments
A	<10	>6	Passengers do not need schedules
B	10-14	5-6	Frequent service, passengers consult schedules
C	15-20	3-4	Maximum desirable time to wait if bus/train missed
D	**21-30**	**2**	**Service unattractive to choice riders**
E	**31-60**	**1**	**Service available during the hour**
F	>60	<1	Service unattractive to all riders

Source: TCRP Report 100.
Valley Transit performance shown in bold.

Figure 2-2: Level of Service (Span of Service)

LOS	Hours of Service per Day	Comments
A	19-24	Night or "owl" service provided
B	17-18	Late evening service provided
C	**14-16**	**Early evening service provided**
D	12-13	Daytime service provided
E	4-11	Peak hour service only or limited midday service
F	0-3	Very limited or no service

Source: TCRP Report 100.
Valley Transit performance shown in bold.

Figure 2-3: Level of Service (Service Coverage)

LOS	Percent of Transit-Supportive Areas Covered	Comments
A	90.0-100.0%	Virtually all major origins & destinations served
B	**80.0-89.9%**	**Most major origins & destinations served**
C	**70.0-79.9%**	**About ¾ of higher-density areas served**
D	60.0-69.9%	About two-thirds of higher-density areas served
E	50.0-59.9%	At least ½ of the higher-density areas served
F	<50.0%	Less than ½ of higher-density areas served

Source: TCRP Report 100.
Valley Transit performance shown in bold.

Figure 2-4: Peer Group (Key Statistics-2016)

Peer System	Service Area Population	Annual Vehicle Revenue Hours	Annual Unlinked Passenger Trips
Billings, MT	109,059	38,794	516,800
Canton, OH	375,586	141,187	2,341,142
Cedar Rapids, IA	158,890	70,577	1,317,389
Decatur, IL	81,337	68,818	1,267,963
Eau Claire, WI	74,601	48,255	869,952
Fort Wayne, IN	268,485	103,084	1,797,322
Green Bay, WI	175,748	79,406	1,323,000
Kenosha, WI	99,894	63,323	1,247,739
La Crosse, WI	71,201	58,547	1,032,964
Muskegon, MI	172,188	45,118	553,978
Racine, WI	112,100	77,010	1,172,205
Sioux City, IA	122,128	44,751	1,039,222
Topeka, KS	127,473	55,616	1,155,180
Wichita, KS	382,386	116,116	1,233,899
Valley Transit	**216,154**	**67,186**	**1,036,081**
Peer Group Average	169,815	71,853	1,193,656
Valley Transit as % of Average	127%	94%	87%

Source: National Transit Database (2016)

Figure 2-5: Valley Transit Peer Performance Summary

Performance Objective	Performance Measure	Valley Transit 2016 Performance Relative to Peer Group
Cost Effectiveness	Operating Expenses Per Passenger Trip	▲
Cost Efficiency	Operating Expenses Per Revenue Hour	▲
Service Effectiveness	Passenger Trips Per Revenue Hour	●
Market Penetration	Passenger Trips Per Capita	●
	Revenue Hours Per Capita	●
Passenger Revenue Effectiveness	Average Fare Per Passenger Trip	▲
	Operating Ratio	▲
	Subsidy Per Passenger Trip	▲
Key to Symbols ▲	Better than peer average	
●	Worse than peer average, but within satisfactory range (+/- one standard deviation)	
▼	Outside satisfactory range	

Source: National Transit Database (2016)

3-Evaluation

SYSTEM EVALUATION

In addition to possible changes to the fixed route system, numerous opportunities were discussed throughout this planning process aimed at improving the overall transit experience. These opportunities include a variety of items ranging from marketing/education, to internal policy, preparing for system technology upgrades and possible real estate acquisition for a future transit center. These opportunities are discussed in detail within this text.

MARKETING/EDUCATION

Marketing of transit services is an on-going opportunity to tap into additional revenue for transit. Inside bus advertisements as well as bus wraps on the outside of buses can help local businesses and non-profits promote their name/brand in the greater region. Depending on local ordinances, advertising revenues could also be added by allowing advertising space at the transit centers and at the busiest bus shelters.

To implement and develop a robust marketing and outreach campaign, it may be beneficial for VT to budget and hire a full-time marketing position. Additionally, internship opportunities (paid or for credit) with area high schools and colleges/universities could assist marketing staff (for routine and special events).

A dedicated marketing position could also be a resource and a point of contact to share and distribute transit information to area employers, school districts and colleges/universities.

POLICY

From a policy perspective, an opportunity exists for VT to be more involved and proactive in local development such as with City of Appleton departments (such as Public Works and Planning). Transit staff could be part of the developmental process to make sure roads and real estate developments are being designed with consideration for transit and bus shelters, etc.

TECHNOLOGY UPGRADES/ITS

When budgeting for future transit needs, technology upgrades should be a priority. In 2018, VT installed an intelligent transportation system (ITS) which is internet-based through a vendor called DoubleMap. This ITS system includes a host of features to enhance the overall rider experience such as a bus locator application (called AVA) to provide real time bus locations in route to customers who download the app. Additionally this system provides stop location name call outs inside the buses to alert passengers of the nearest upcoming stops during the route. DoubleMap also includes automatic passenger counters which are installed on all doors of the buses to automatically count and report boarding and alighting of passengers. This allows for a better understanding of the stops and for better decision-making if routes need to be adjusted.

Future technology needs include:

- Creation of an **ITS Plan** to help VT take stock of their current technology inventory/suite of programs and be forward thinking to identify medium to long term technology priorities/investments; creation of an on-going wish list to prioritize and budget for technology upgrades and research best practices (such as how to prepare for 5G wireless technology and how systems will communicate internally and externally as well as offering **on-board complementary Wi-Fi** (budgeting for this amenity and future ones as part of ITS Plan)

- Similar to the fixed route fleet, paratransit/ADA on-demand transportation (provided by Valley Transit II) plans to upgrade its **computer aided dispatching** software system in 2019; the current system is over ten years old and inefficient and upgrading to a cloud-based system with on-demand communication technology is needed to provide a more efficient service; **Mobile Data Terminals (MDTs) or Mobile Digital Computers (MDCs)** would be recommended to add to each paratransit

vehicle allowing for seamless dispatch communications for drivers in the field

- Develop and **rebrand VT's website** which will occur in 2019; VT will host its website separate from the City of Appleton's official website; a key future use of this website rollout is to have the ability to accept credit card payments which will be upgraded to use on the website, internally in the office by staff and at the downtown transit center

- Implement **mobile fare collection system** to allow pay by smart phone; for riders without smart phones a reusable/reloadable card could be used; the goal would be to eventually migrate to a cashless fare system; careful selection of vendor would need to be vetted as many vendors take a percentage of each fare sold to utilize their technology

- Implement an **enterprise database system**; an enterprise database management system (DBMS) is a system that manages other systems or databases; VT has various programs which collect data (automatic passenger counters, fare boxes, paratransit fare boxes, maintenance software and other data intensive spreadsheets) which all operate on their own; an enterprise database system would allow for more efficient management and communication with all of VT's systems and the reporting of data; staff could use this system to oversee and manage all facets of transit

- Add additional **amenities inside buses, at bus stops and at shelters** to enhance the overall rider experience such as USB charging stations on board buses (will be available in newly ordered bus fleet), digital message boards/route maps at the transit center and at the busiest bus stops and possible integration of solar panels at shelter locations

- **Integrate General Transit Feed Specification (GTFS) and GIS data** for the regional service level; explore data storing/visualization and reporting options either with in-house GIS staff or with vendors

- Stay current on **alternative fuel options**[1] when purchasing new buses in the long term future; currently diesel buses are the most appropriate type of bus for the fleet (based on high reliability, lowest purchasing costs and little to no upgrades to infrastructure needed); alternative fuel options such as battery electric buses, compressed natural gas (CNG) and liquefied natural gas (LNG) would require significant infrastructure investments and need to have a much lower price point for VT to invest in alternatively powered buses; there are other reliability issues with poor battery operation in weather extremes (hot/cold)

- Stay current on **autonomous vehicle technology** for transit; more research/development and industry safety and regulations will need to occur to make this a viable option for transit in the long-term future

FUTURE TRANSIT CENTER/SITE PLAN

In the long-term future, VT is considering redeveloping its downtown transit center. An in-depth future site plan is recommended (beyond the scope of this plan) to help VT establish its priorities and find an appropriate site(s) to build or upgrade. Useful funding sources to put together a detailed site plan include a Wisconsin DOT grant (Section 5304: Statewide Transportation Planning Program and is funded 80 percent with state/federal funds, requiring a 20 percent local match) A new transit center could be built at the existing location or elsewhere in the central business district.

[1] https://www.cmu.edu/energy/education-outreach/public-outreach/17-104%20Policy%20Brief%20Buses_WEB.pdf.

General elements/best practices of a future transit center include to[2]:

- Incorporate transit site development to a city's overall comprehensive plan and greater vision for a specific area (i.e. downtown and central business district)

- Establish public/private collaboration for real estate acquisition and specialization in mixed use projects (transit and additional uses at the site such as retail/commercial, residential, office space)

- Ensure community involvement in the process to know activities, amenities and services needed in a mixed use transit center as well as creating a sense of local ownership

- Program events/opportunities at a future transit center so residents have more reasons to visit other than for transportation; such as making space an official voting precinct, healthcare clinic, community meeting space, job fairs, etc.

- Promote a future transit center with a positive marketing effort to bring together the community and multiple development efforts (as opposed to the transit center being categorized as a potential eye sore)

- Design matters! A transit center should be functional by providing transportation and cover from the weather conditions but also be a space that can be a landmark to the downtown/neighborhood and a source of local pride; site should be designed with a sense of permanence (iconic design elements)

- Find the right mix of tenants/uses in a transit center to help activate and enliven the facilities beyond just transportation

- Make security and regular maintenance a priority to make the community feel safe and decrease "bad image" transit centers can often get over time; have a portion of transit staff and ticket services available on site can also help with overall sense of safety

- Plan for growth at a transit center and be prepared if a transit system outgrows its facilities

Place Making

The idea of "place making" is not a new concept but one that is an important piece to successfully integrating transit into the community and developing a positive local sense of community. Place making is defined as "turning a neighborhood, downtown or community from a place you can't wait to get through to one you never want to leave".[3] Place making focuses on improving quality of life for all community members by offering "attractive amenities, social and business networks and opportunities for a vibrant, thriving lifestyle".[4] Proper place making is important to consider when planning for future infrastructure improvements to VT's infrastructure (i.e. future plans/improvements at a downtown transit center).

Successful places tend to have four key qualities[5]:

- They are accessible and have linkages to other places

- People use them and are engaged in activities there

- They are comfortable and have a good image

- They are sociable places where people meet and interact

See mixed use concept examples from Eau Claire and La Crosse transit systems:

[2] Transit Center Site Selection Study, City of Eau Claire (2016).

[3] https://www.pps.org/.
[4] Same as above.
[5] Same as above.

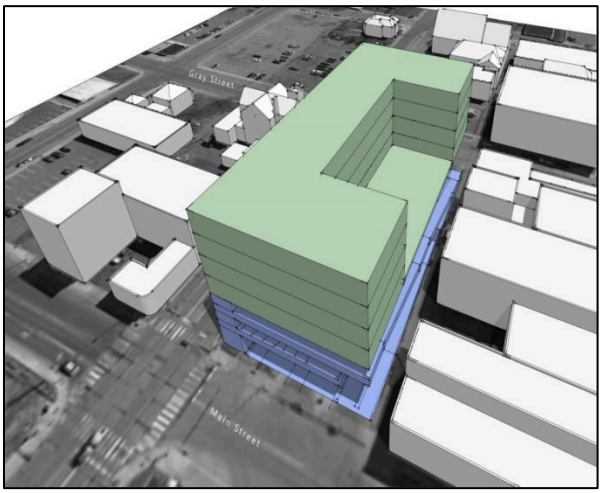
Grand River Station: La Crosse, WI

Source: AARP Blog

Future Transit Center: Eau Claire, WI

Source: Volume One Magazine

Source: www.grandriverstation.com



Source: Volume One Magazine

VALLEY TRANSIT REVENUE STRUCTURE

This section briefly reviews the current funding structure at the local level. VT is a department of the City of Appleton however, it provides transit beyond the city limits to communities across the Fox Cities. The existing funding system is highlighted as well as a few alternative future options are noted.

Existing Funding Model

VT provides transit service to the Fox Cities area, including the City of Appleton, City of Kaukauna, City of Menasha, City of Neenah, Town of Buchanan, Town of Grand Chute, Town and Village of Harrison, Village of Fox Crossing, Village of Kimberly, Village of Little Chute, Calumet County, Outagamie County, and Winnebago County. Each of these cities, villages, towns and counties pays a portion into the transit system (which typically covers 20 percent of yearly operating funds for the local share).

Transit fees apportioned to each municipality are calculated on a yearly basis by estimating the miles and hours of service provided to each entity. For example, in 2017 (source: Valley Transit):

- City of Appleton's portion: 31%
- Participating Municipalities: 19%
- Specialized Transportation (Calumet, Outagamie, Winnebago counties): 10%
- Other: 40%
- Local Share Total: $2,263,097
- Note full funding details can be found in SRF's Report-Appendix A

Although the existing funding structure is serviceable, it is not the most sustainable option. Participating municipalities could decide to pull out of their service agreements if they feel it is not a benefit to their residents or there is a change in local leadership. Additionally, VT does not have the capabilities to raise funds (capital or to cover shortfalls from other sources) outside of the official City of Appleton budget and City Council approval. Also, this funding system as it currently stands only covers existing services/maintenance. If transit would expand services, frequency or routes, more funding will have to be found.

Alternative Funding Models

As part of VT's Strategic Plan (2015), a series of funding alternatives were developed. These alternatives were designed with sustainability in mind. Alternatives include:

- Regional Transit Authority
- Regional Transit Commission
- Transit Municipal Utility

A **Regional Transit Authority (RTA)** is designed to be a self-governing and financing authority to have localized power to create taxes and govern its transit operations and policies. Given that VT provides services in three counties and municipalities across these three counties, this funding model would provide a long-term stable option. In addition, significant legislative changes would need to occur at the state level to enable RTA creation.

A **Regional Transit Commission (RTC)** would be considered an interim step towards establishing an RTA without the need to require a referendum. Under an RTC, municipalities and other funding partners would contribute a fixed membership fee to VT. In return for their membership dues, municipalities/funding partners would have a say on financial and policy decisions in an established transit commission. Currently, VT's governing committee is administered by the City of Appleton with its Transit Commission. The Transit Commission could be this extension for a formal RTC.

A **Transit Municipal Utility** as its name suggests would treat public transportation as a utility (similar to water, sanitation fees) which are passed onto households. At a regional level, municipalities could then purchase transit service from the transit utility through service contracts. The utility model is another option to the RTA. It would also require a referendum for the public to decide.

PUBLIC OUTREACH PLAN

A public outreach plan is a road map for effectively relaying your message to your project audiences. A successful public outreach plan addresses the following key objectives:

1. Clarify goals and objectives;
2. Identify target audience;
3. Inform and educate;
4. Get everyone one the same page;
5. Allow all stakeholders/public to have the opportunity for input;
6. Identify tools and techniques for effectively connecting to target audience;
7. Gauge plan's success and areas of needs and strengths; and
8. To communicate the next steps moving forward.

Communicating with the public and stakeholders is vital to this planning effort. Various outreach techniques were deployed which ranged from typical to out of the box. Outreach techniques, target audiences and a summary of input are documented in this section.

Outreach Tools and Techniques

Public comments were gathered using both print and digital media platforms. Numerous in-person "pop-up" events were used to gather feedback by being able to meet people where they were at, rather than setting up formal meetings at places and times that may be inconvenient. Outreach techniques included:

Outreach Events/Popup Meetings

A variety of outreach events or pop-up meetings took place (see Outreach Activities table below)

Online Map

A digital online map was also developed where responses/feedback were documented. Comments were collected for future route recommendations to the system. (https://arcg.is/1yWGCb.)

Social Media

Various public social media sites were deployed to also encourage input. Social media posts encouraged input with links to online engagement.

- ECWRPC Facebook
- Valley Transit Facebook
- City of Appleton Facebook

Community Partners

Additional outreach included working with local community partners to distribute surveys and gather input from key rider demographics:

- Lawrence University
- Partnership Health
- Partner Municipalities
- Partner Non-Profits

Steering Committee Members

Steering committee members for this plan were also asked to distribute surveys and online survey link within their channels of communication and their clients.

TARGET AUDIENCE[6]

Outreach activities were designed to encourage feedback from a range of existing and potential transit customers (the choice riders are those who can provide their own transportation, but choose to use transit for a variety of reasons). Special considerations for transit customers include:

- Persons with Disabilities
- Underserved Populations

Persons with Disabilities

Description: Persons with disabilities include, but are not limited to, persons who have the following functional limitations:

- blindness/vision impairments
- deafness/hearing impairments
- physical mobility restrictions
- cognitive/mental impairments

Implementation Guidelines and Suggestions:

The following serve as recommended guidelines and suggestions for improving accessibility and outreach to persons with disabilities:

- **Identify and consult with the disabled community.** Meet with organizations that represent the disabled community and with community advocates in order to determine how best to conduct outreach efforts and improve public involvement.
- **Develop a mailing list of persons with disabilities.** The list should include advocates, leaders of organizations that serve persons with disabilities, as well as persons who receive paratransit services, and people who request information about such services. The mailing list should be used to send information on projects and policies, announce public involvement activities, and seek feedback on accessibility and other issues of concern.
- **Create a fact sheet which lists the transportation services available to persons with disabilities and includes information on opportunities for public involvement.** This type of information should be included on the agency's website and should be made available in various formats for people with hearing and visual impairments.
- **Establish a checklist for making sure public events and meetings are accessible to people with disabilities.**

Underserved Populations

Description: Underserved populations, in the context of transportation planning, refer to populations who have traditionally experienced limited access to conventional public participation and outreach efforts. These populations include:

- Persons in low income communities
- Persons with low literacy and/or limited English proficiency
- Persons who live in remote or hard to reach places
- Persons who may have experienced cultural or physical barriers that may prevent them from expressing their concerns regarding projects or policies that may affect them

Implementation Guidelines and Suggestions:

The following serve as recommended guidelines and suggestions for tailoring outreach efforts to underserved populations:

[6] http://mpotransportationoutreachplanner.org/mpotop/strategies.

- **Identify the underserved groups within the agency's jurisdiction and assess past outreach efforts.** Agencies need to conduct a thorough analysis to identify the underserved groups in their communities and the possible barriers that these groups may encounter in public participation efforts.

- **Identify community leaders and stakeholders for each underserved community.** A contact list of community leaders and stakeholders should be developed prior to any outreach effort. Such a list will prove to be a valuable resource for working with the community. The list can be completed by contacting local leaders, community based organizations, and business owners in the community. Human service coalitions, such as the United Way, colleges, and universities can also provide valuable information as they often maintain similar contact lists.

- **Develop a public involvement strategy for each underserved community based on the needs of the target community.** In addition to the research discussed above, agencies need to determine the outreach activities that are most effective for each underserved group. Media outlets, elected officials and community stakeholders are generally knowledgeable regarding the best way to communicate with community members.

- **Work with community organizations to establish communication and encourage participation.** Community organizations and their leaders are important resources in building communication between agencies and underrepresented groups. Working such organizations increases the credibility of the participatory planning process.

- **Suggested organizations that agencies can partner with to carry out outreach activities:**

    - Faith based and community organizations
    - Newspaper
    - Radio
    - Internet, and other media outlets
    - Civic, homeowners, and tenant associations
    - Senior citizens organizations
    - Hospitals, clinics, and other health care providers
    - Shopping malls, stores, and restaurants Fairs, festivals, and flea markets
    - Government service providers (police, fire rescue, social services)
    - Universities, colleges, vocational and local schools, and libraries

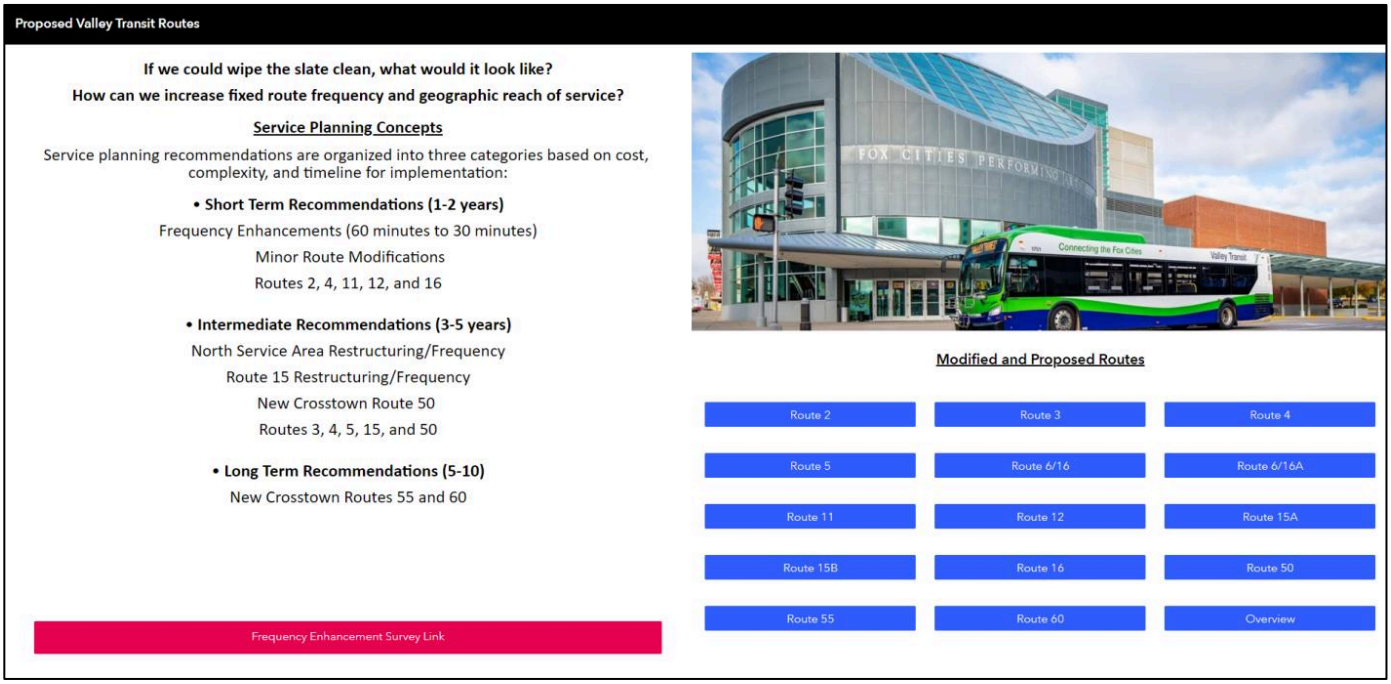
Outreach Activities

Name	Intent	Target Audience	Date
Public Information Meeting	Meet/educate transit customers and general public at existing events to gather input at Appleton Public Library	• Transit customers • General public • Project partners	September 23 and 25 2019 (10AM-6PM)
Surveys (Facebook & Valley Transit website)	Gather feedback from anyone using paper and digital means (social media and website)	• General Public	used throughout outreach efforts
Transit Commission Presentation	Educate and gather feedback from Valley Transit's board (with representation from all funding municipalities)	• Municipal representatives • General public	August 27, 2019
Latinofest	Meet/educate transit customers and general public at existing events to gather input	• Transit customers • General public • Project partners	September 7, 2019
City of Neenah Farmer's Market	Educate and gather feedback from general public and customers	• Transit customers • General public • Project partners	September 28, 2019
City Menasha Presentation	Educate and gather feedback from City Council (City is a funding municipality)	• City representatives • General public	October 7, 2019
Fox Valley Advocacy Coalition	Educate and gather feedback from coalition of area partners/agencies with interest in transportation	• Non-profit agencies	October 15, 2019
Online Interactive Map	Educate/gather feedback from transit customers and general public at their convenience	• Transit customers • General public • Project partners	September-November 2019
City of Kaukauna Open House	Educate and gather feedback from general public and customers	• Transit customers • General public • Project partners	November 15, 2019
Town of Grand Chute Open House	Educate and gather feedback from general public and customers	• Transit customers • General public • Project partners	November 18, 2019

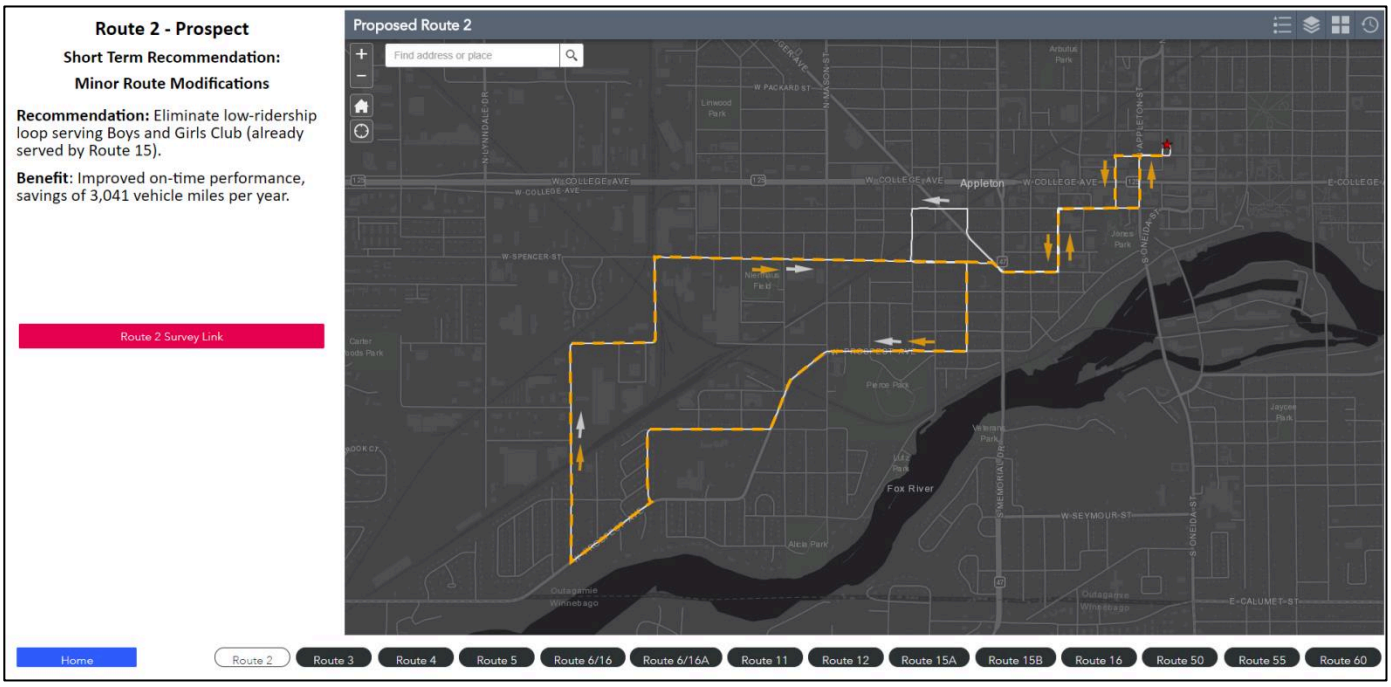
SUMMARY OF RESULTS

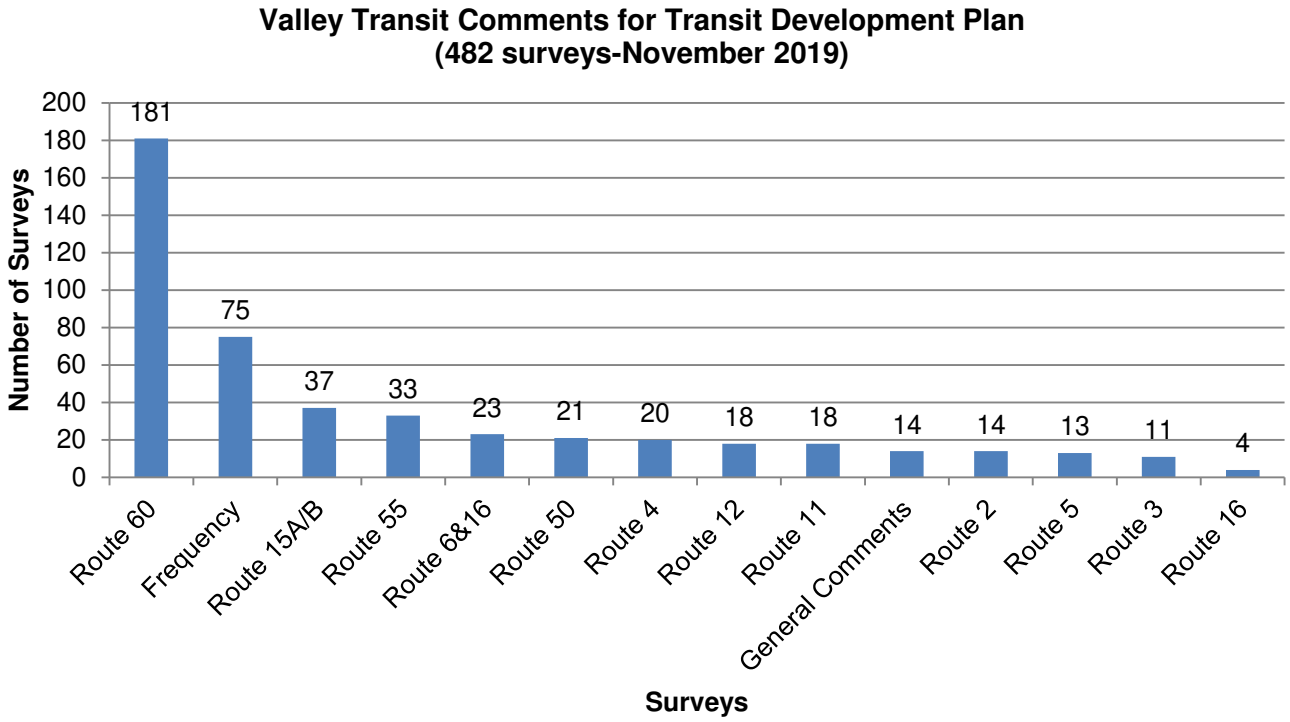
Public comments received during the outreach phase included both in-person events and digital comments from a variety of online platforms (on-line map, social media and Valley Transit's website). The general themes are discussed below. Almost 500 surveys were received.

Online interactive story map:



Example route page with survey link:





ECWRPC Facebook Page

Posting	Date	Number Reached	Number of Engagements
Feedback - Interactive Map and Open House	9/16/2019	1203	156
Provide Feedback Reminder	10/24/2019	192	14
Provide Feedback Reminder	11/4/2019	157	26
Open House - Nov. 18th	11/12/2019	29	2
Open House - Nov. 12th	11/12/2019	41	3
Open House - Nov. 18th	11/13/2019	22	6
Open House - Nov. 12th	11/13/2019	19	4
Open House - Nov. 18th	11/14/2019	27	0
Open House - Nov. 12th	11/14/2019	23	1

***These statistics current as of 12/30/2019*

Valley Transit Facebook Page

Posting	Date	Number Reached	Engagements
Kaukauna Open House and Grand Chute Open House	11/5/2019	396	74
Appleton Public Library	9/17/2019	669	121

East Central Wisconsin Regional Planning Commission
September 16 ·

Valley Transit is updating its transit development plan and would like to get your feedback on possible future bus route changes. How can you play your part in this? Please visit the following link to an interactive map to learn more, and give feedback on the update. https://bit.ly/2ko3von

Get involved by attending an in-person open house event on either September 23th or 25th at the Appleton Public Library! See below for more information.

If anyone needs special accommodations please email Nick Musson at nmusson@ecwrpc.org.

East Central Wisconsin Regional Planning Commission ECWRPC

Valley Transit
Connecting the Fox Cities
https://myvalleytransit.com/

LET US KNOW WHAT YOU THINK!

Valley Transit is updating its transit development plan and would like to get your feedback on possible future bus route changes.

HOW YOU CAN PROVIDE FEEDBACK (until 10.31.19)

Learn about changes & comment anytime
(Interactive on-line map):
https://bit.ly/2ko3von

Learn More & Get Involved:

You're Invited to attend an in-person open house:

- *September 23, 2019 at the Appleton Public Library-Meeting Room A on (Stop by anytime between 10AM-6PM)*
- *September 25, 2019 at the Appleton Public Library-Meeting Room A on (Stop by anytime between 10AM-6PM)*
- *Receive a **FREE DAY BUS PASS** when you attend & provide feedback (limit 1 per person and limited to the first 50 customers)*

- **Learn More About Project:**
  - Project Page: https://bit.ly/2lZnji5
  - View the Draft Plan
  - Submit Comments

Thank you for your time!

East Central builds relationships and cooperative, visionary growth strategies that keep our region beautiful, healthy, and prosperous.
400 Ahnaip Street, Suite 100 · Menasha, Wisconsin 54952 · PHONE 920.751.4770 · www.ecwrpc.org

East Central Wisconsin Regional Planning Commission
November 14 at 4:19 PM ·

Let US KNOW WHAT YOU THINK!

Valley Transit is updating its 5-year transit development plan and would like to get your feedback on the draft plan and possible future bus route changes.

HOW YOU CAN PROVIDE FEEDBACK UNTIL TOMORROW (until 11-15-2019)... See More

East Central Wisconsin Regional Planning Commission
October 24 ·

Like Page

Let US KNOW WHAT YOU THINK!

Valley Transit is updating its 5-year transit development plan and would like to get your feedback on the draft plan and possible fu...
See More

Insight Magazine, November 2019

Seeking Valley Transit feedback
The East Central Wisconsin Regional Planning Commission is seeking survey feedback on proposed Valley Transit route changes. The organization welcomes feedback from anyone, from riders to employers. To read more, please visit Insight's website for an online story on the project, and to provide feedback by Nov. 15, visit **https://bit.ly/2lZnji5.**

PLACES BY JESSICA THIEL | WHAT'S UP IN THE REGION. PAGE 18: SHEBOYGAN

Breaking the bottleneck

Long-awaited expansion of Interstate 41 will get underway in 2025

new north

Anyone who regularly drives the stretch of Interstate 41 between north Appleton and De Pere is familiar with the situation: the brake lights ahead of you come on, you see the line of cars ahead of you and you know you're mostly likely in for a delay. It could be a minor or major situation, leading to a minor or major slowdown.

The good news: Expansion of the 23.6-mile stretch between State 96 in Grand Chute and Scheuring Road in De Pere g approval from the artment of Transportation. rk, which will expand four lanes to six, won't ntil 2025, with expected 029.

sistant director of the East sin Regional Planning ys the project is long ytime a roadway reduces four, the bottleneck mic development issue. e stopped in traffic, it's rs an hour that's sitting ntion the safety aspect."

omic development time you're raffic, it's millions hour that's sitting o mention the t. (I-41) is really the cylinder of the economic engine for the region."

– *Walt Raith, assistant director of the East Central Wisconsin Regional Planning Commission*

he says. "(I-41) is really the cylinder of the economic engine for the region."

The ECWRPC serves as the metropolitan planning organization for the Fox Cities. Part of its work includes meeting federal requirements to assemble long-range transportation plans that look out 25 years into the future. The organization has long viewed expanding the stretch as a priority.

Raith and the ECWRPC work closely with the DOT to look at traffic congestion issues, put together crash data and analyze where crashes occur and why. In the case of the Appleton-De Pere stretch, one of the whys is not hard to identify.

"It's just like a water pipe. If you reduce it down, it's going to cause problems, and it does cause problems," Raith says.

More than 65,000 cars pass through the stretch on a typical day, and on some days, it's well more than that. Once you reach that level, or 2,000 cars per hour, per lane, roadway is at capacity, Raith says.

Raith says the stretch sees almost daily incidents, some large and some small. Either way, the slowdowns prove costly. Whether it's a semitrailer or a commuter stuck in traffic, it means lost money, he says.

Peter Thillman, vice president of economic development for the Fox Cities Regional Partnership, says the expansion also could help address the chronic labor shortage. Improving traffic flow could allow prospective workers to consider jobs where they would have to commute a little farther.

"Now you have a more mobile workforce, and if you have an expanded network of transportation, it's easier to move that workforce between employment opportunities," he says.

Expanding another portion of I-41 has already proven successful, Raith says. When the stretch between Highway 26 in Oshkosh and the Breezewood/Bell exit in Neenah expanded from four lanes, crashes dropped more than 50 percent, and he would anticipate the same for this project.

Raith says funding is difficult to acquire. Though it's come through, the wait for relief will continue. Environmental studies will begin next year and last through 2022, and engineering and design work will take place between 2023 and 2024.

Because of the difficulty of securing funding, Thillman won't get his wish of seeing the stretch expand from four lanes to eight instead of six, but he says it's important to be forward-thinking and does see the need for an even larger expansion.

The importance of I-41 can't be understated, says Raith, adding it's absurd it's taken this long to get the project moving.

"How many dollars an hour is that every time (an incident) happens, and how long would it take to pay for a project like that if we thought about it in that way?" he says.

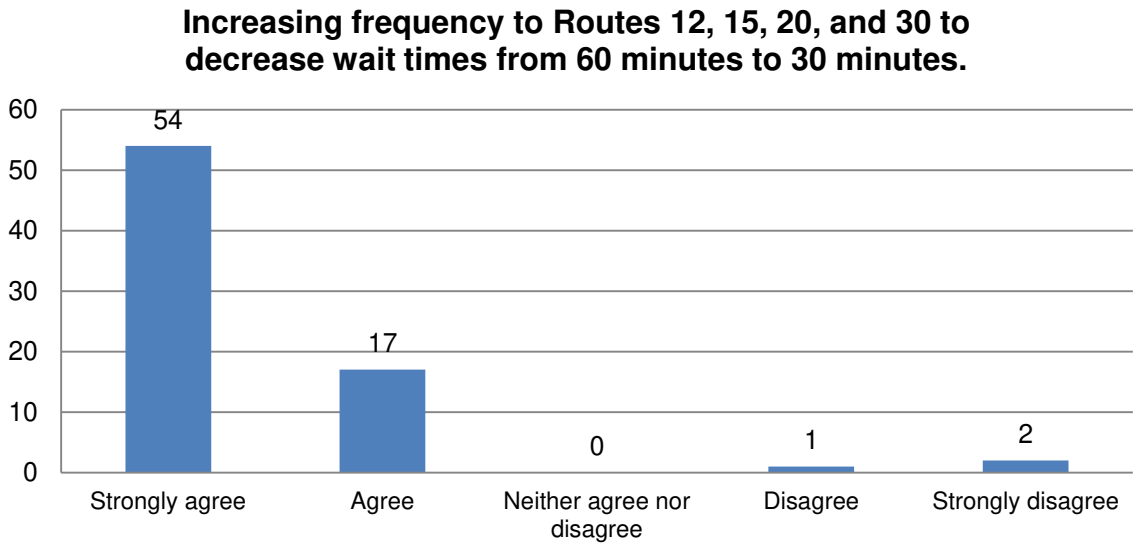
Seeking Valley Transit feedback
The East Central Wisconsin Regional Planning Commission is seeking survey feedback on proposed Valley Transit route changes. The organization welcomes feedback from anyone, from riders to employers. To read more, please visit Insight's website for an online story on the project, and to provide feedback by Nov. 15, visit **https://bit.ly/2lZnji5.**

14 | INSIGHT · November 2019 www.insightonbusiness.com

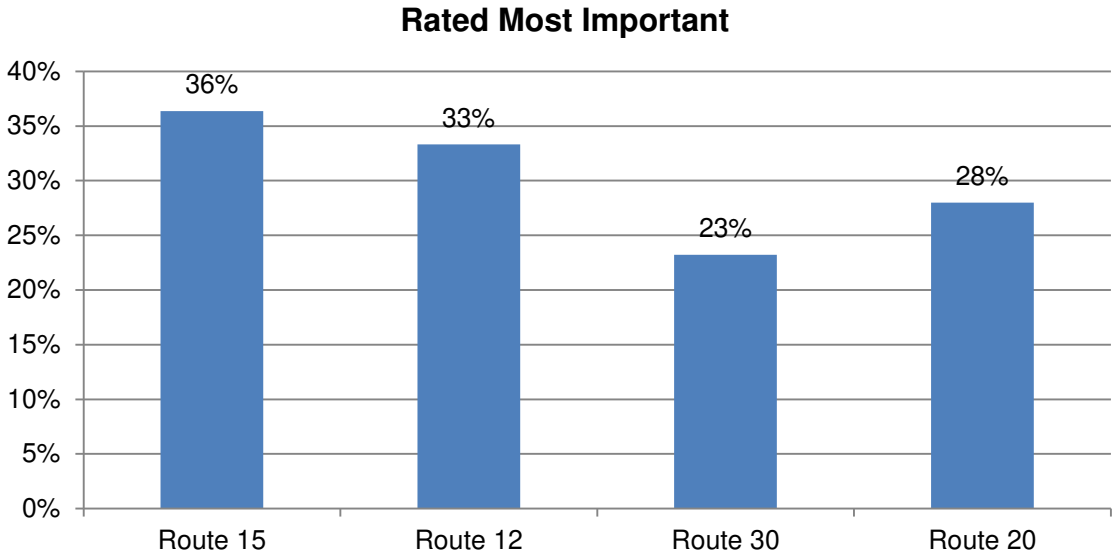
Frequency

*Increase frequency from 60 minutes to 30 minutes on route 12, 15, 20 and 30.

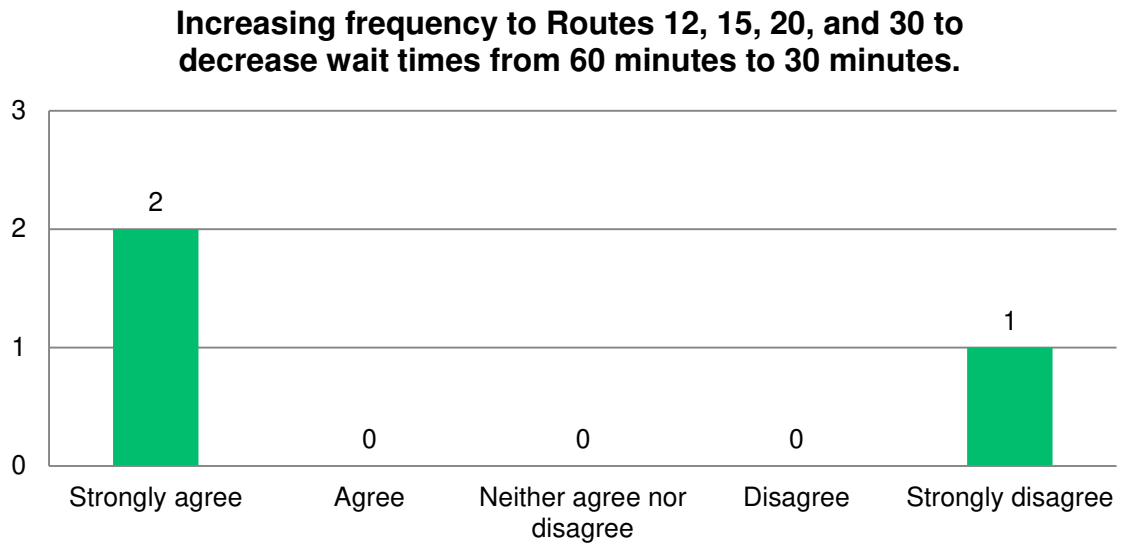
Survey Results



Frequency was prioritized and scored 1-most important to 4-least important for these four routes:



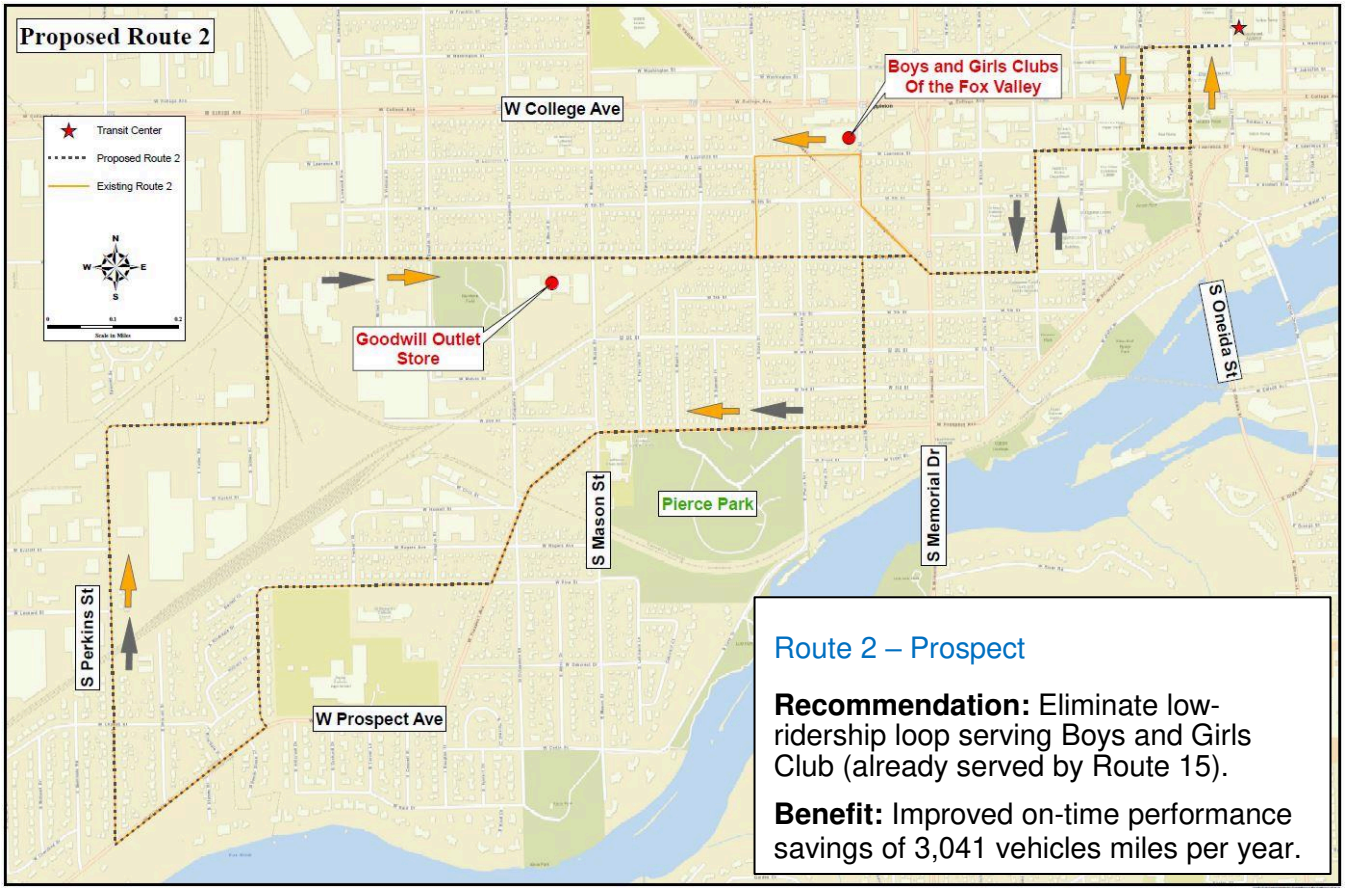
City of Appleton Staff Results (noted in green)



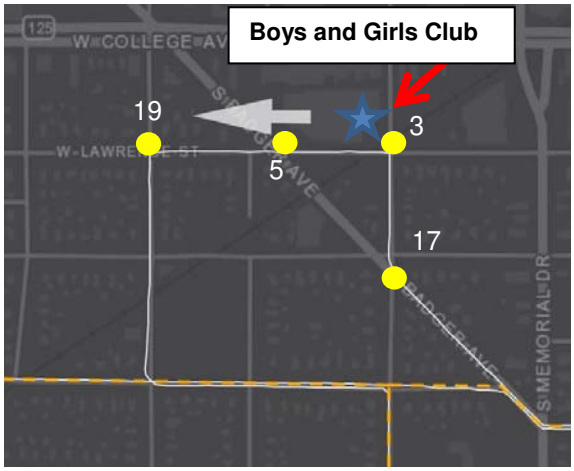
Route 2

Route 2 has a low-ridership loop to serve the Boys and Girls Club location at Badger Avenue and Lawrence Street. The loop adds travel time to passengers traveling to other destinations on Route 2, and Route 15 already offers a faster connection from Boys and Girls Club to downtown Appleton via College Avenue. Eliminating this loop could enhance on-time performance and offer streamlined trips to customers traveling to and from southwest Appleton. The estimated mileage savings would be approximately 0.5 miles per trip, or 3,041 miles per year.

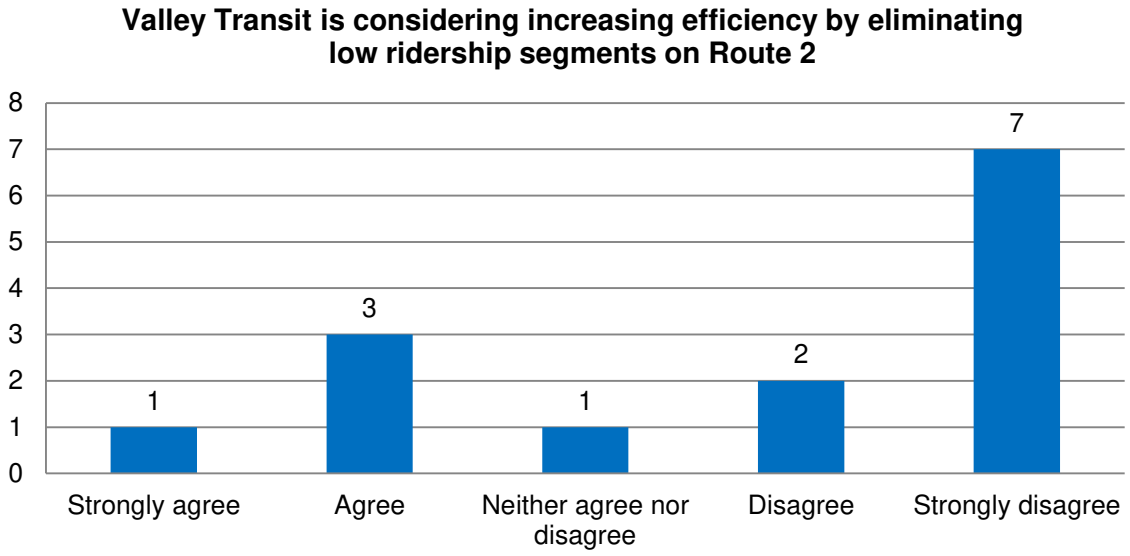
Minor Route Modification: Route 2 - Prospect



Route 2 – Prospect Ridership Analysis	
Time period:	Boarding and Alighting Counts are from September 9 to September 21, 2019
Area of Focus:	Boys and Girls Clubs of
Total Boarding & Alighting (B/A)	2672
Boys and Girls Club Total B/A	44
% of Total	1.6



Survey Results



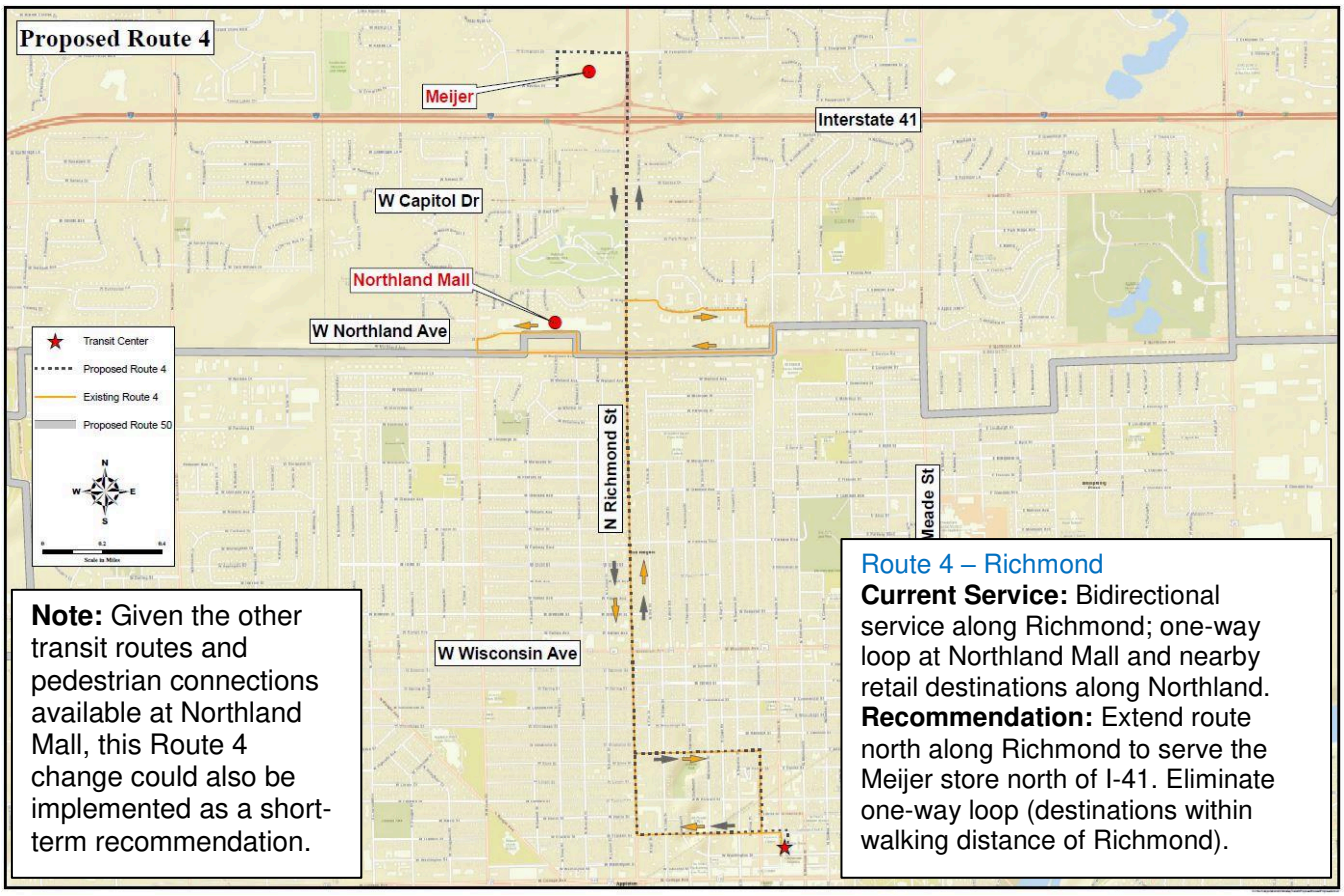
Route 2 Summary

Although there isn't a high percentage of ridership at these stops (1.6 percent), the public is not favor removing the Boys and Girls Club stop along Route 2.

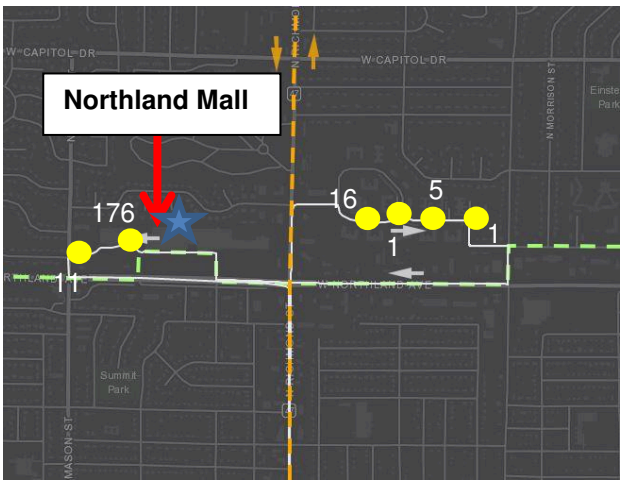
Route 4

Richmond also provides service between downtown Appleton and Northland Mall. Route 4 currently operates on a one-way loop both in downtown Appleton and along Northland Avenue, with bidirectional service along Richmond. Under this proposal, Route 4 would operate a single bidirectional alignment along Franklin Street in downtown Appleton. At Northland Mall, the current one-way loop would be streamlined into a single small deviation, which would allow the route to be extended to serve the new Meijer store at Richmond and I-41. Destinations along Northland are largely within walking distance of the new route, but will also be served by a proposed crosstown service.

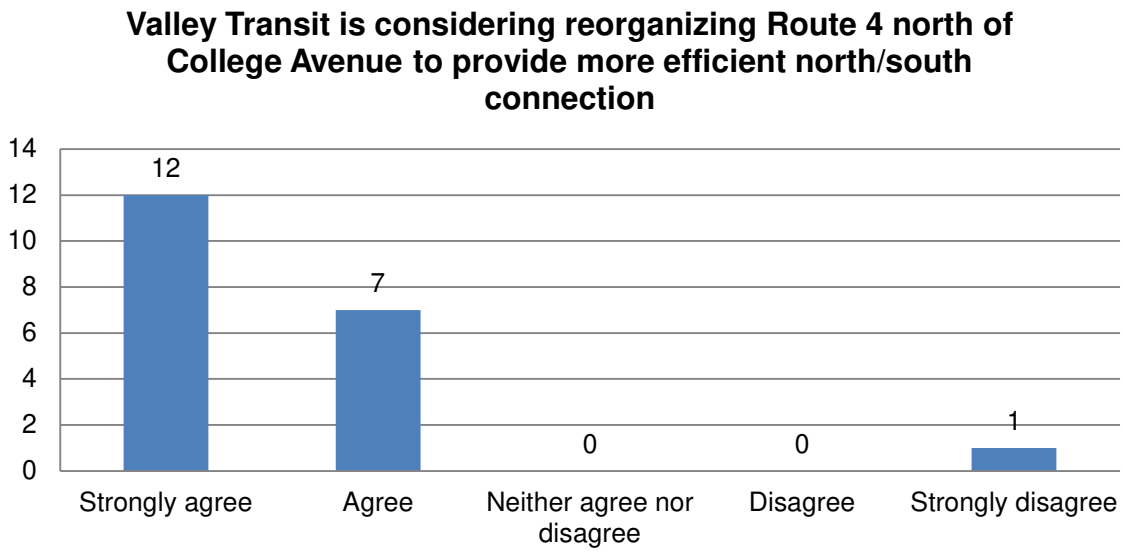
Proposed Alignment: Route 4 – Richmond Street



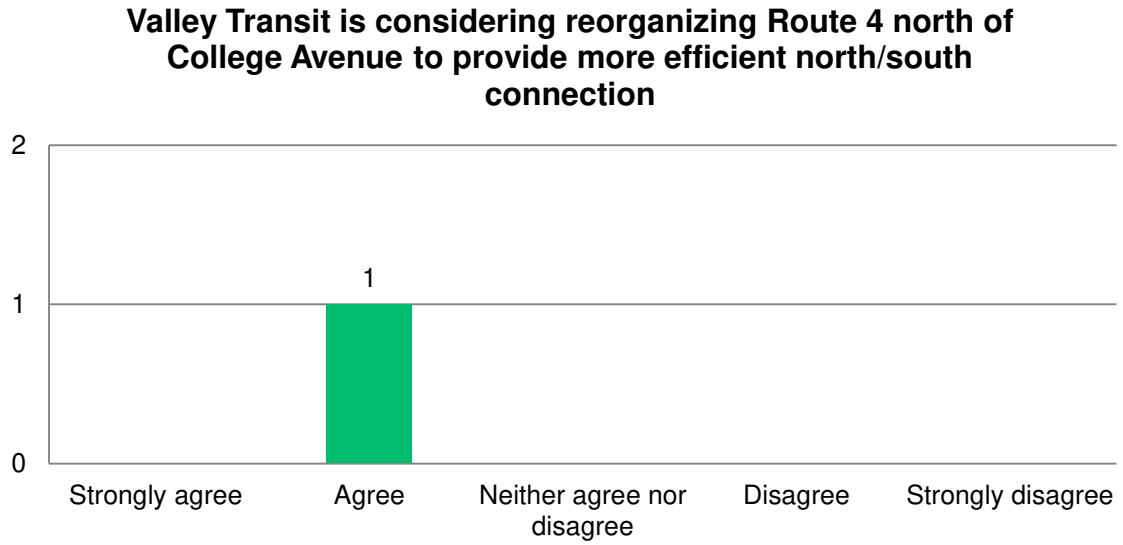
Route 4 – Richmond Ridership Analysis	
Time period:	Boarding and Alighting Counts are from September 9 to September 21, 2019
Area of Focus:	Northland Mall
Total Boarding & Alighting (B/A)	3278
Northland Mall Area Total B/A	210
% of Total	6



Survey Results



City of Appleton Staff Results



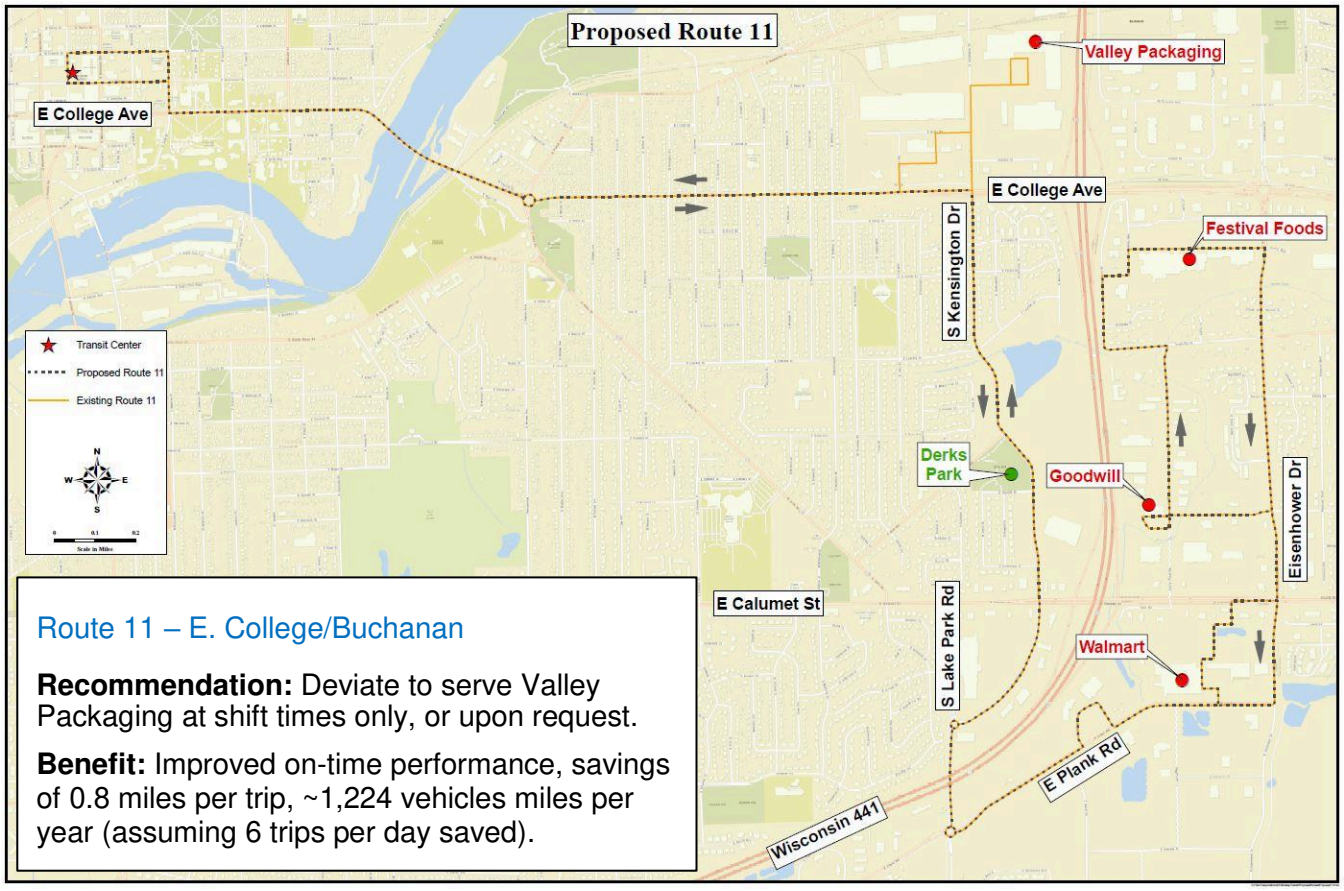
Route 4 Summary

In general, the proposed recommendations for Route 4 were well received and supported by the public and staff. If eliminated, the Northland Mall area which includes Festival Foods will still be served by Route 3 Mason.

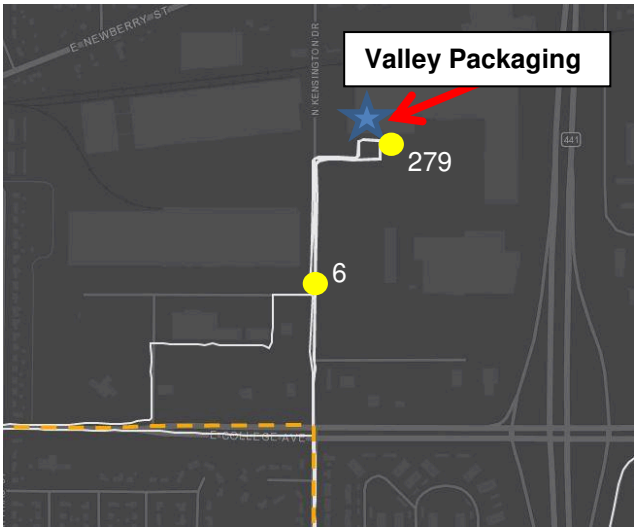
Route 11

Detailed analysis is needed on a trip-by-trip basis to determine how often Route 11 buses need to serve Valley Packaging. Anecdotal evidence indicates that there are peak times before and after shifts. A few trips could serve the facility, and buses could detour on request at other times. Reducing the number of daily deviations could allow for improved on-time performance on most trips, while maintaining service for high-ridership trips. The mileage savings is approximately 0.8 miles per trip. If six trips per day are saved, the yearly mileage saving would be 1,224 miles per year.

Minor Route Modification: Route 11 – College/Buchanan



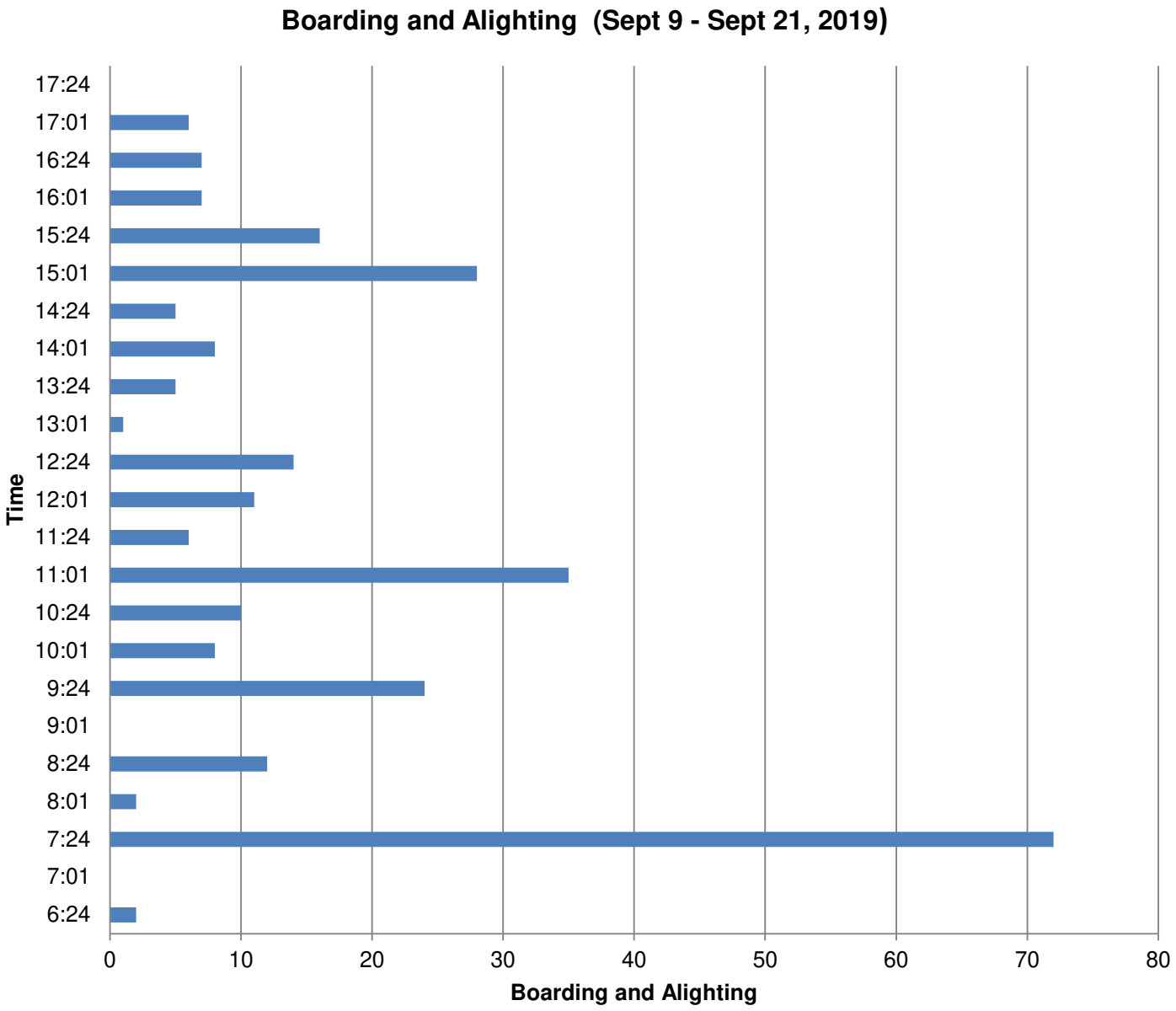
Route 11 – College/Buchanan Ridership Analysis	
Time period:	Boarding and Alighting Counts are from September 9 to September 21, 2019
Area of Focus:	Valley Packaging
Total Boarding & Alighting (B/A)	2461
Valley Packaging Total B/A	285
% of Total	10.4



Boarding and Alighting at Valley Packaging by Time:

Valley Packaging shift times (Kensington Location):

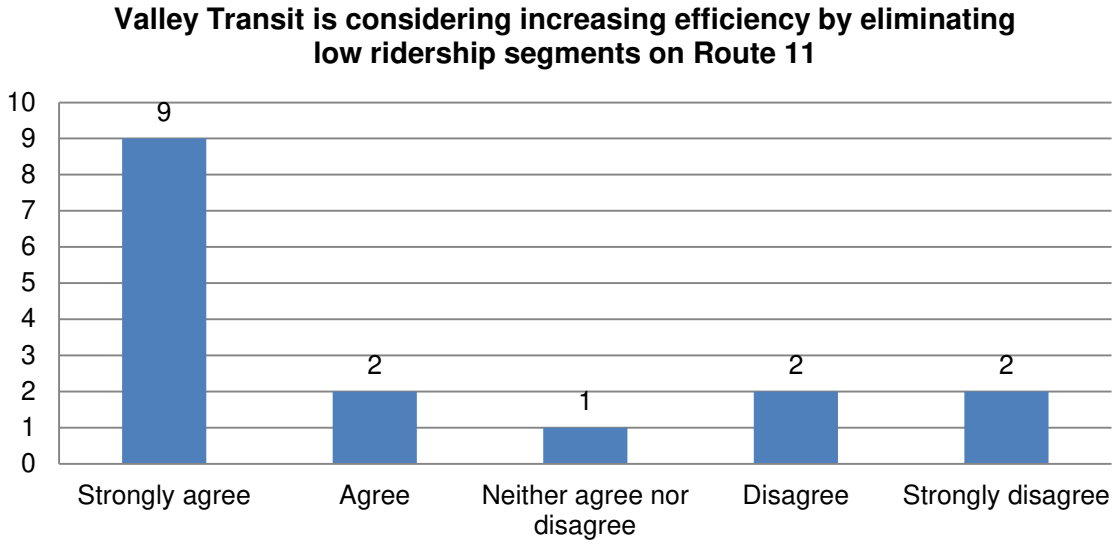
- 1st shift
  - 7:45 am to 15:45 pm
- Production Employees
  - 7:45 am to 16:15 pm
- 2nd Shift
  - 16:30 pm to 1:15 am



There are three time periods with the highest boarding and alighting and should be considered when looking at deviations:

- 7 to 8 am
- 10 am to 12 pm
- 14 pm to 16 pm

Survey Results



Route 11 Summary

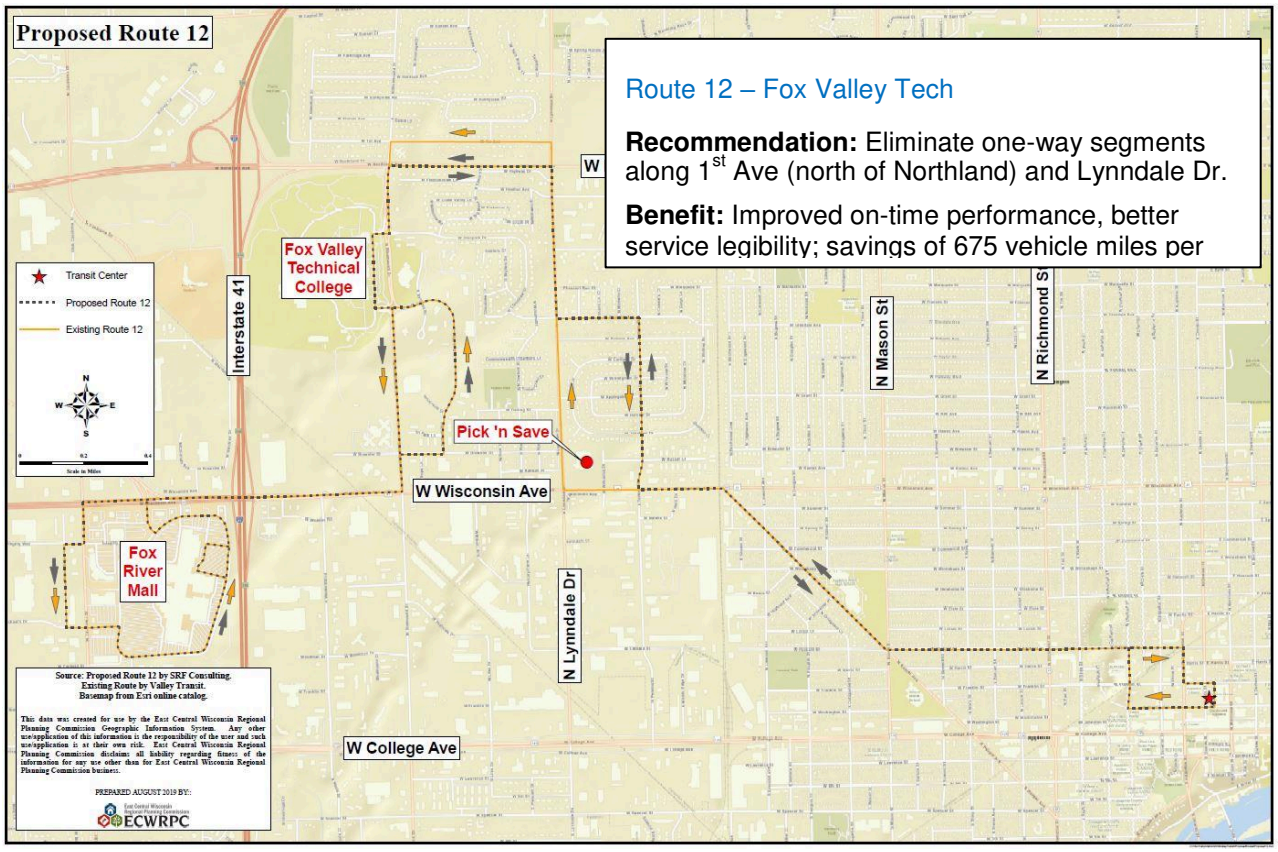
There is general support for the recommendations as long as the Valley Packaging ridership (approximately 10 percent) for this stop is accommodated. The boarding and alighting data (Sept 9 - Sept 21, 2019) shows activity throughout the day, not just for peak times making route deviation difficult to achieve. Valley Transit values their relationship with Valley Packaging and will not jeopardize a 10 percent loss in ridership as a tradeoff for minimal route time savings.

Route 12

Route 12 is Valley Transit's third most productive route. However, it does have scheduled adherence problems due to its length and its many turns at signalized intersections that contribute to delays. In order to enhance on-time performance, some low-ridership areas on the route could be considered for elimination in favor of a more direct alignment on arterial streets. Currently, First Avenue between Lynndale and Bluemound is a low-ridership area served by westbound trips only. Rerouting westbound trips to use Northland would save approximately 0.15 miles per trip, or 675 miles per year.

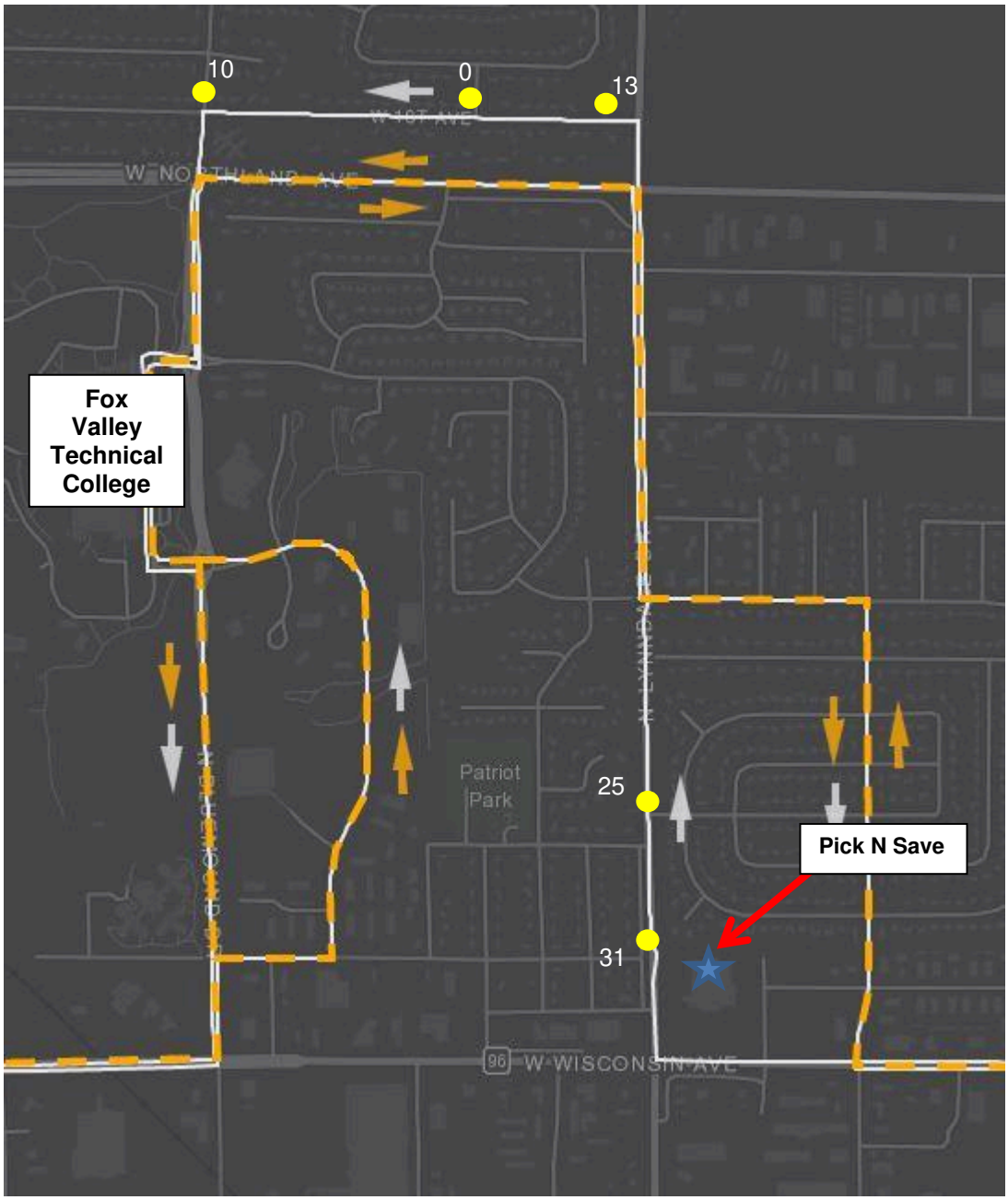
Service along Lynndale between Glendale and Wisconsin could also be relocated to allow for bi-directional service on Perkins Street. This change is consistent with the project objective to reduce one-way loops where possible. Passengers traveling west of Lynndale may be impacted, but the housing developments east of Perkins are likely to be a more productive transit market. This recommendation would result in a negligible change in per trip mileage and running time.

Minor Route Modification: Route 12

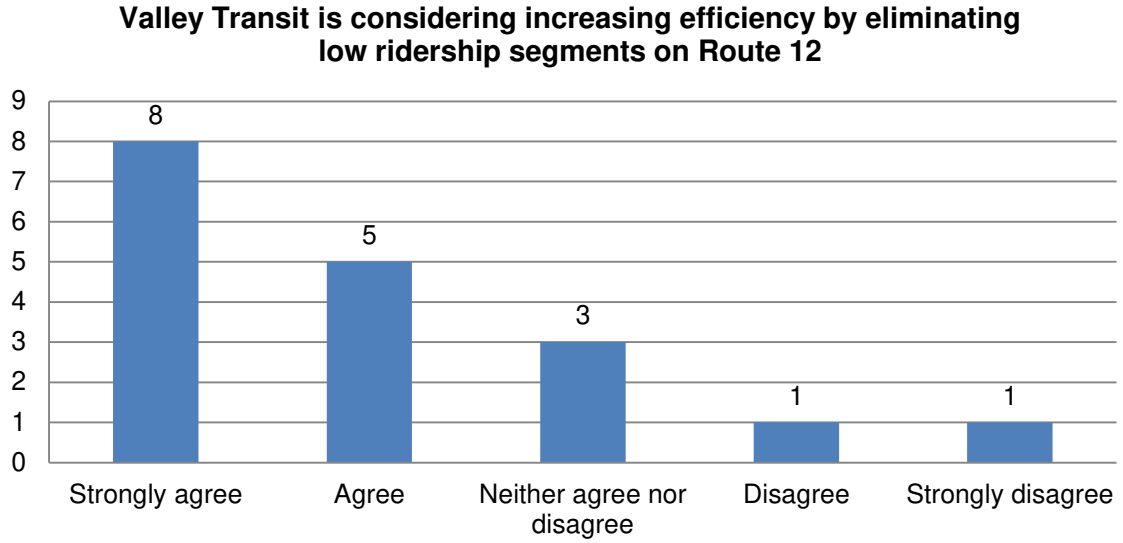


Route 12 – Fox Valley Tech Ridership Analysis	
Time period:	Boarding and Alighting Counts are from September 9 to September 21, 2019
Area of Focus:	Pick'n Save/1st Ave
Total Boarding & Alighting (B/A)	5743
Total B/A Pick'n Save/1st Ave	79
% of Total	1.4

Route 12


10
0
13
W 101ST AVE
W NORTHLAND AVE
Fox Valley Technical College
N RICHMOND ST
N LYNHAVEN DR
Patriot Park
25
Pick N Save
31
96 W WISCONSIN AVE

Survey Results:



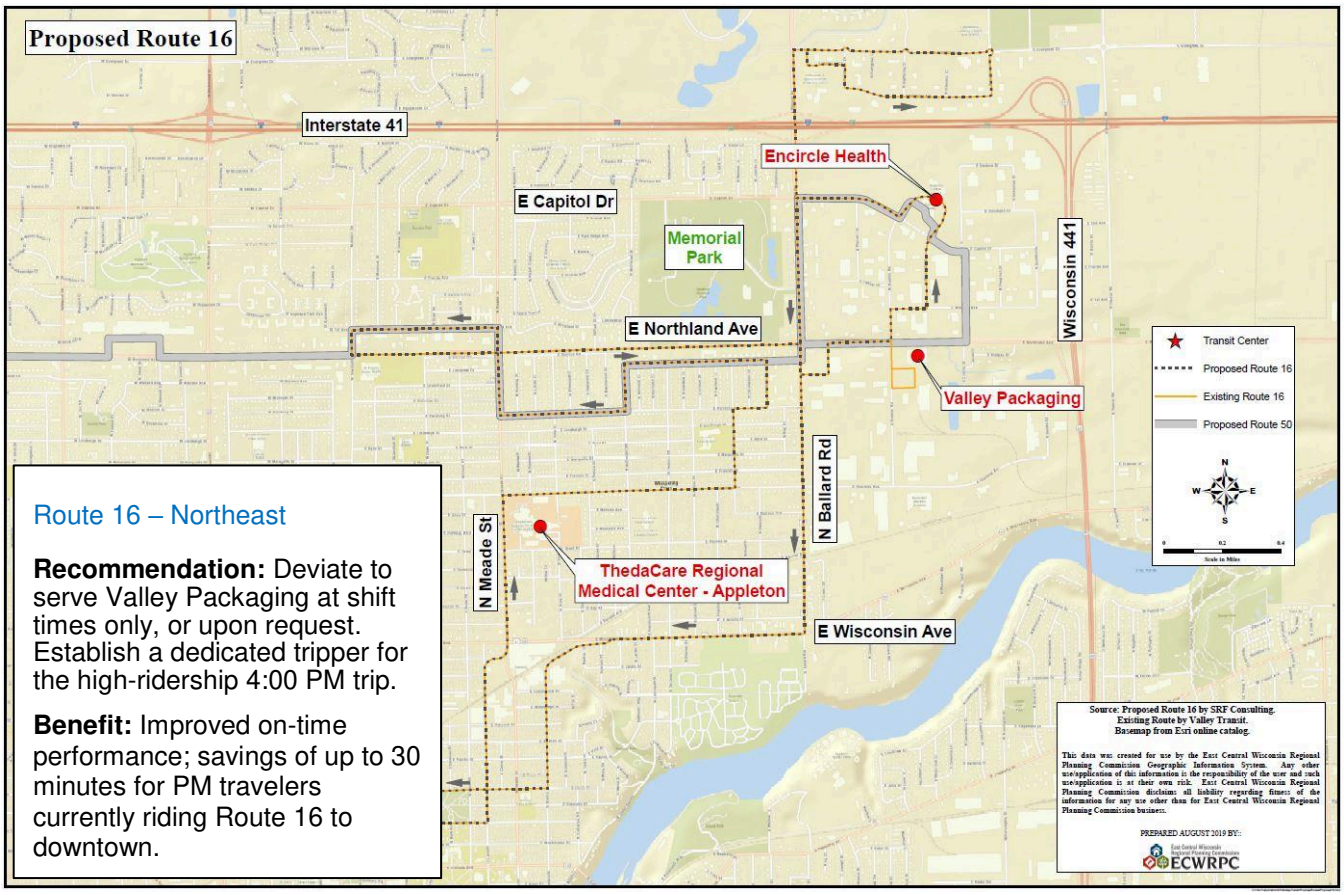
Route 12 Summary

Generally, the proposed recommendations for Route 12 were supported by the public (either Strongly Agree/Agree).

Route 16

As with Route 11, Route 16 could be streamlined to offer service to Valley Packaging upon request or during shift times only. Additionally, Valley Transit could use an afternoon school tripper to offer an additional trip directly from Valley Packaging to the downtown transit center. This could save passengers up to 30 minutes of travel time compared to riding on the full length of Route 16, and could offer better transfers to other downtown bus routes at 4:15 p.m.

Minor Route Modification: Route 16



Route 16 – Northeast

Recommendation: Deviate to serve Valley Packaging at shift times only, or upon request. Establish a dedicated tripper for the high-ridership 4:00 PM trip.

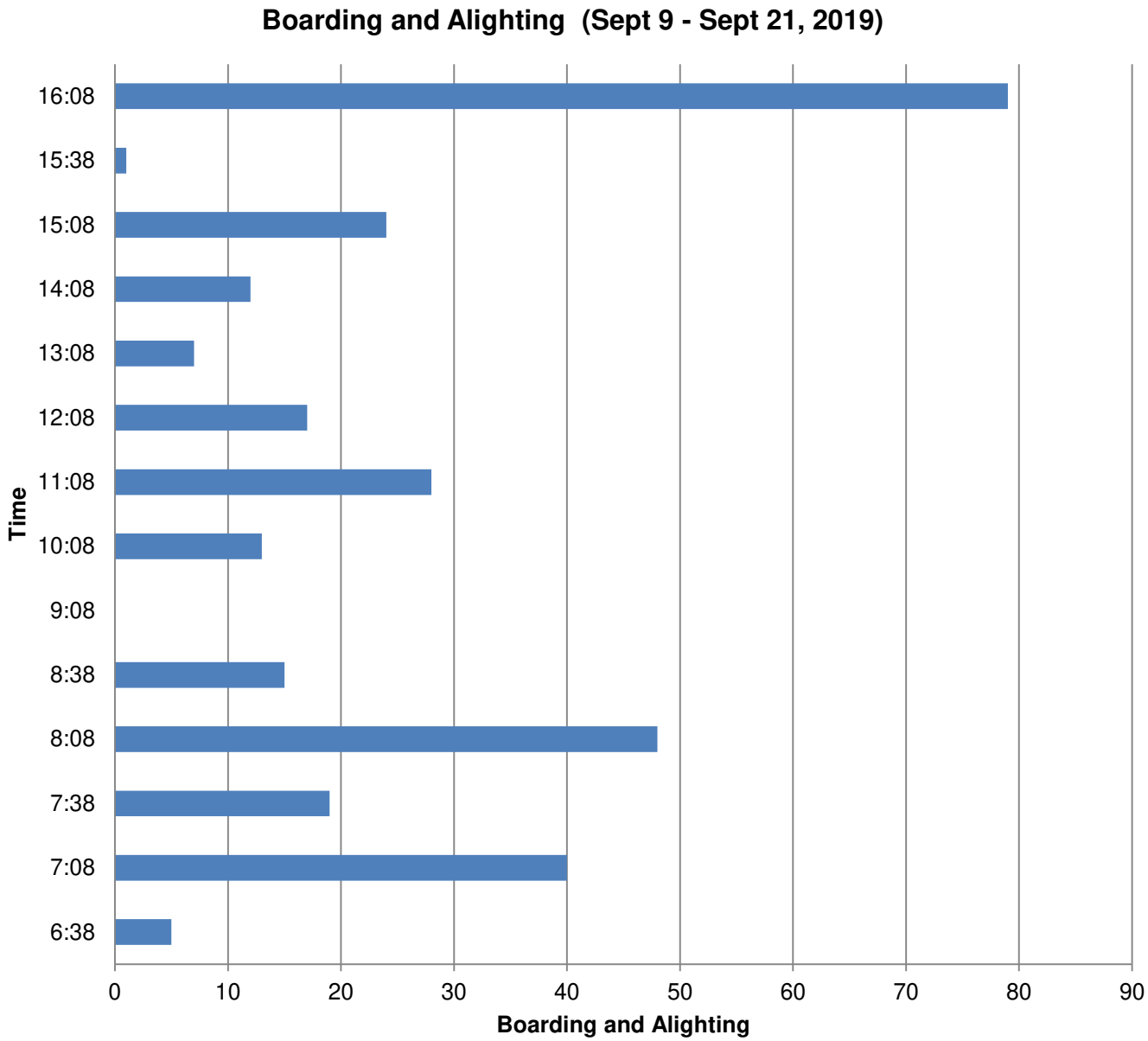
Benefit: Improved on-time performance; savings of up to 30 minutes for PM travelers currently riding Route 16 to downtown.

Route 16 – Fox Valley Tech Ridership Analysis	
Time period:	Boarding and Alighting Counts are from September 9 to September 21, 2019
Area of Focus:	Valley Packaging
Total Boarding & Alighting (B/A)	2696
Total B/A Valley Packaging	308
% of Total	10.3

Boarding and Alighting at Valley Packaging by Time:

Valley Packaging shift times (Roemer Location):

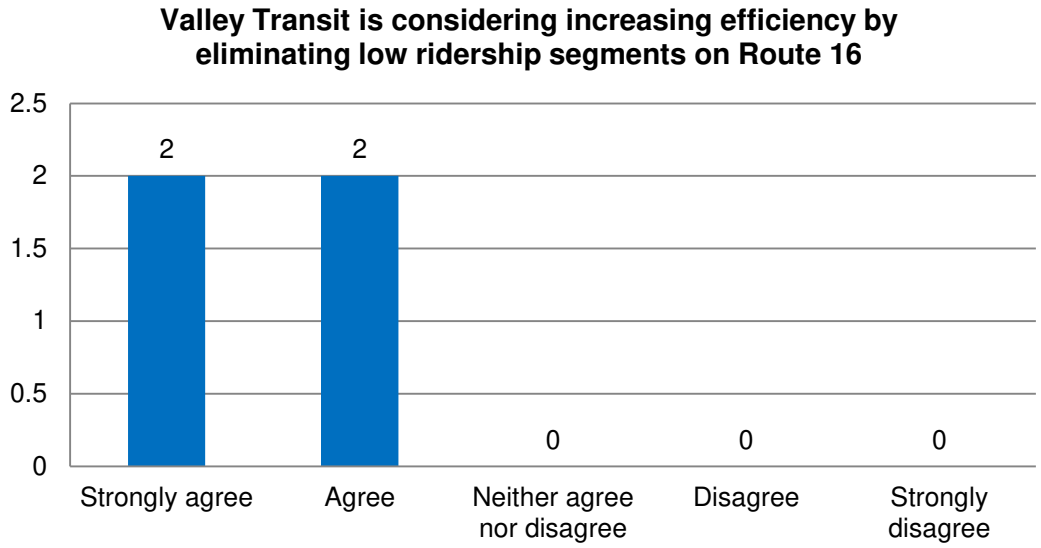
- 1st shift
  - 7:45 am to 16:15 pm
- Production Employees
  - 7:45 am to 16:15 pm
- 2nd Shift
  - 16:30 pm to 1:15 am



There are three time periods with the highest boarding and alighting and should be considered when looking at deviations:

- 7 to 9 am
- 10 am to 1 pm
- 15 pm to 16 pm

Survey Results:



Route 16 Summary

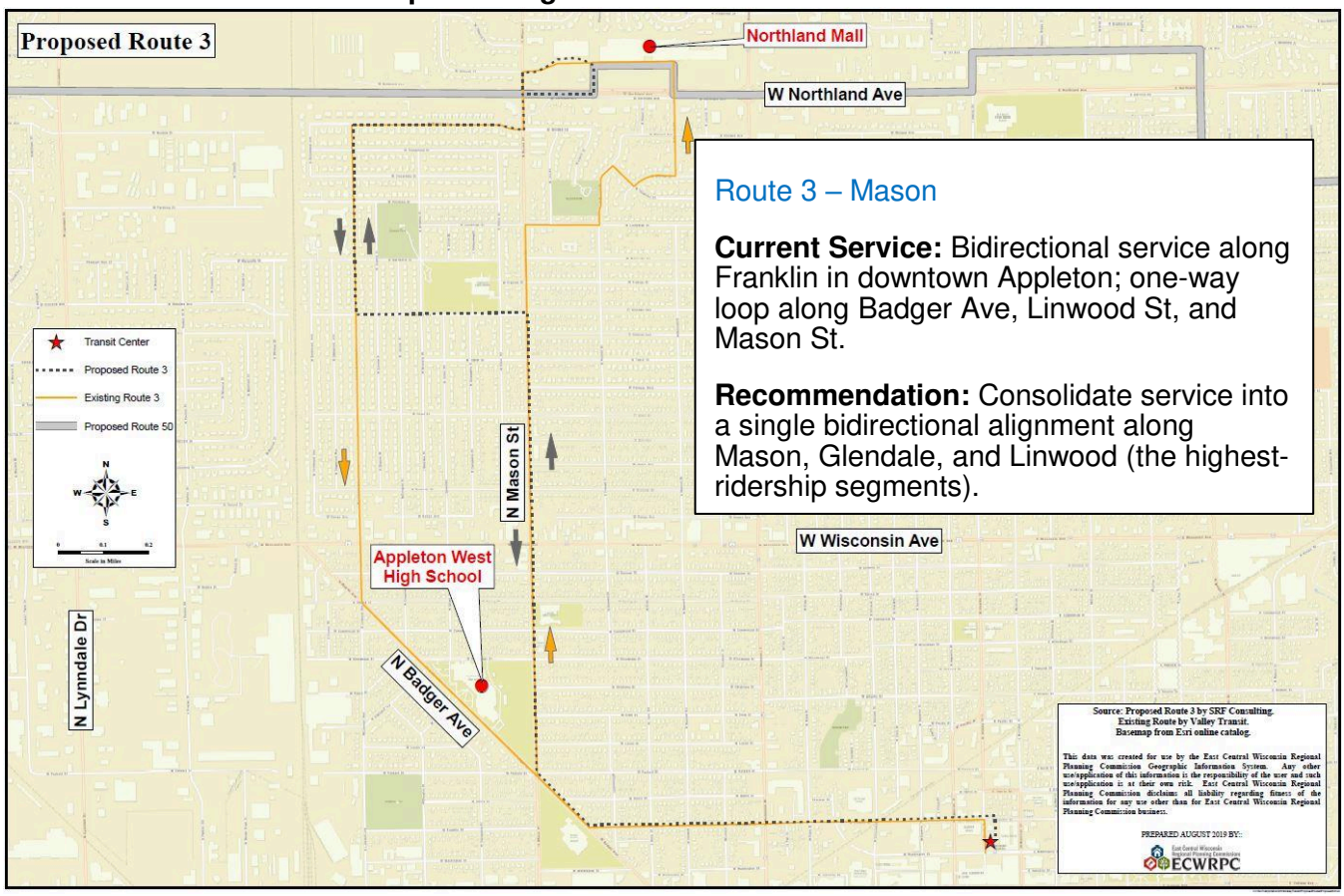
Similar to Route 11, there is general support for the recommendations as long as the Valley Packaging ridership (approximately 10 percent) for this stop is accommodated. The boarding and alighting data (Sept 9 - Sept 21, 2019) shows activity throughout the day, not just for peak times making route deviation difficult to achieve. Valley Transit values their relationship with Valley Packaging and will not jeopardize a 10 percent loss in ridership as a tradeoff for minimal route time savings.

Route 3

Mason provides weekday and Saturday hourly service between downtown Appleton and Northland Mall, with 30-minute peak service on weekdays. Service operates bidirectional on Franklin Street in downtown Appleton, then as a one-way loop. Northbound buses travel via Mason Street to Northland Mall, while southbound buses use Linwood and Badger Avenues to return to downtown.

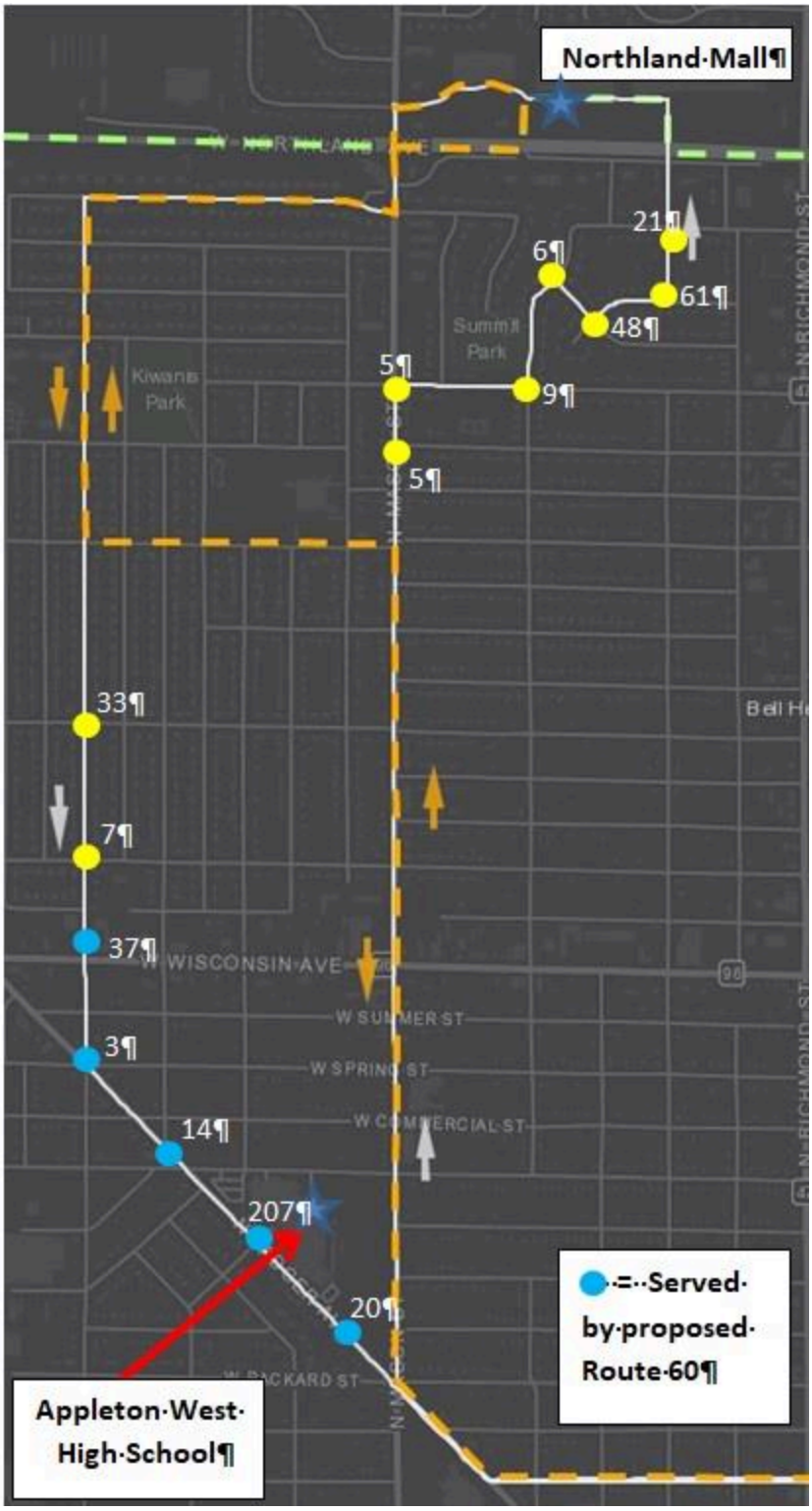
Under this proposal, Route 3 would be restructured to offer bidirectional service on the highest-ridership segments of the existing loop, via Mason, Glendale, and Linwood. Service would be discontinued on Linwood and Badger south of Glendale, and on Mason north of Glendale.

Proposed Alignment: Route 3 – Mason Street

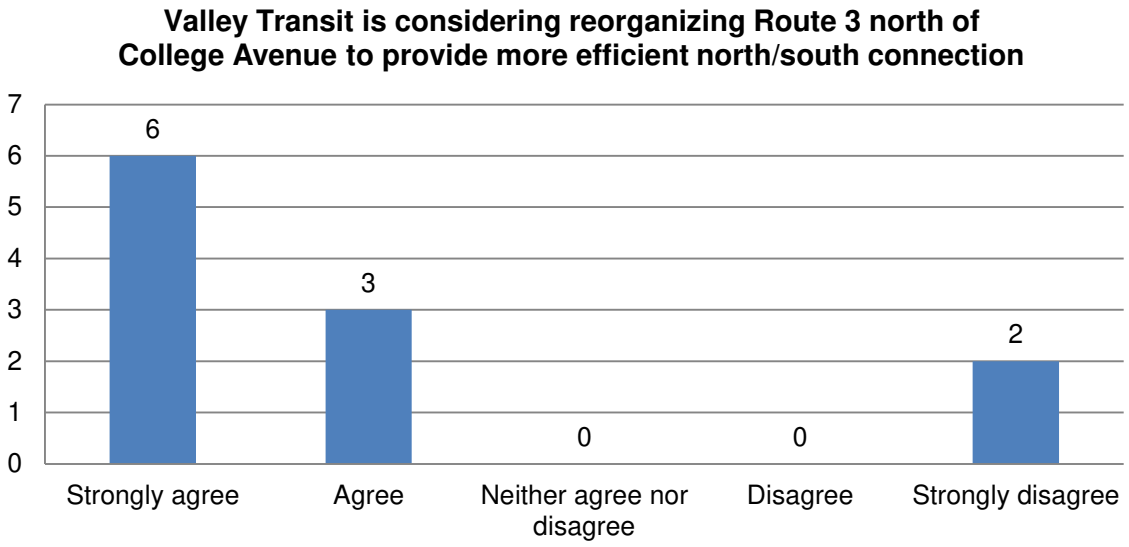


Route 3 – Mason Ridership Analysis	
Time period:	Boarding and Alighting Counts are from September 9 to September 21, 2019
Area of Focus:	Appleton West High School/Northland Mall
Total Boarding & Alighting (B/A)	4277
Total B/A Appleton West High School/Northland Mall	476
% of Total	11.1

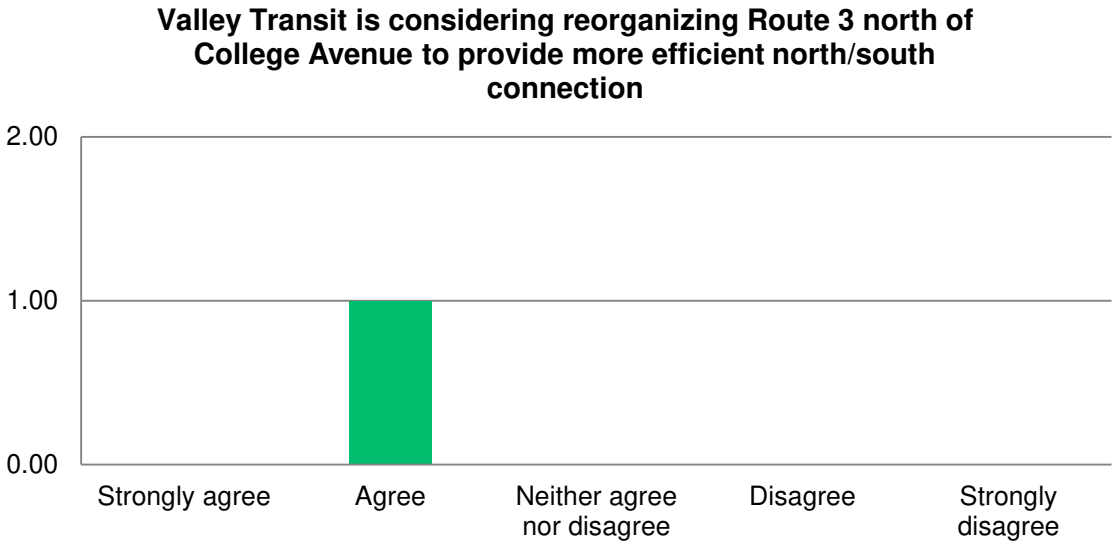
Route 3


Northland·Mall¶
21¶
6¶
61¶
48¶
Summit Park
Kiwanis Park
5¶
9¶
5¶
33¶
7¶
37¶
W WISCONSIN AVE
W SUMMER ST
W SPRING ST
W COMMERCIAL ST
3¶
14¶
207¶
20¶
W PACKARD ST
Appleton·West· High·School¶
●·=··Served· by·proposed· Route·60¶

Survey Results:



City of Appleton Staff Results



Route 3 Summary

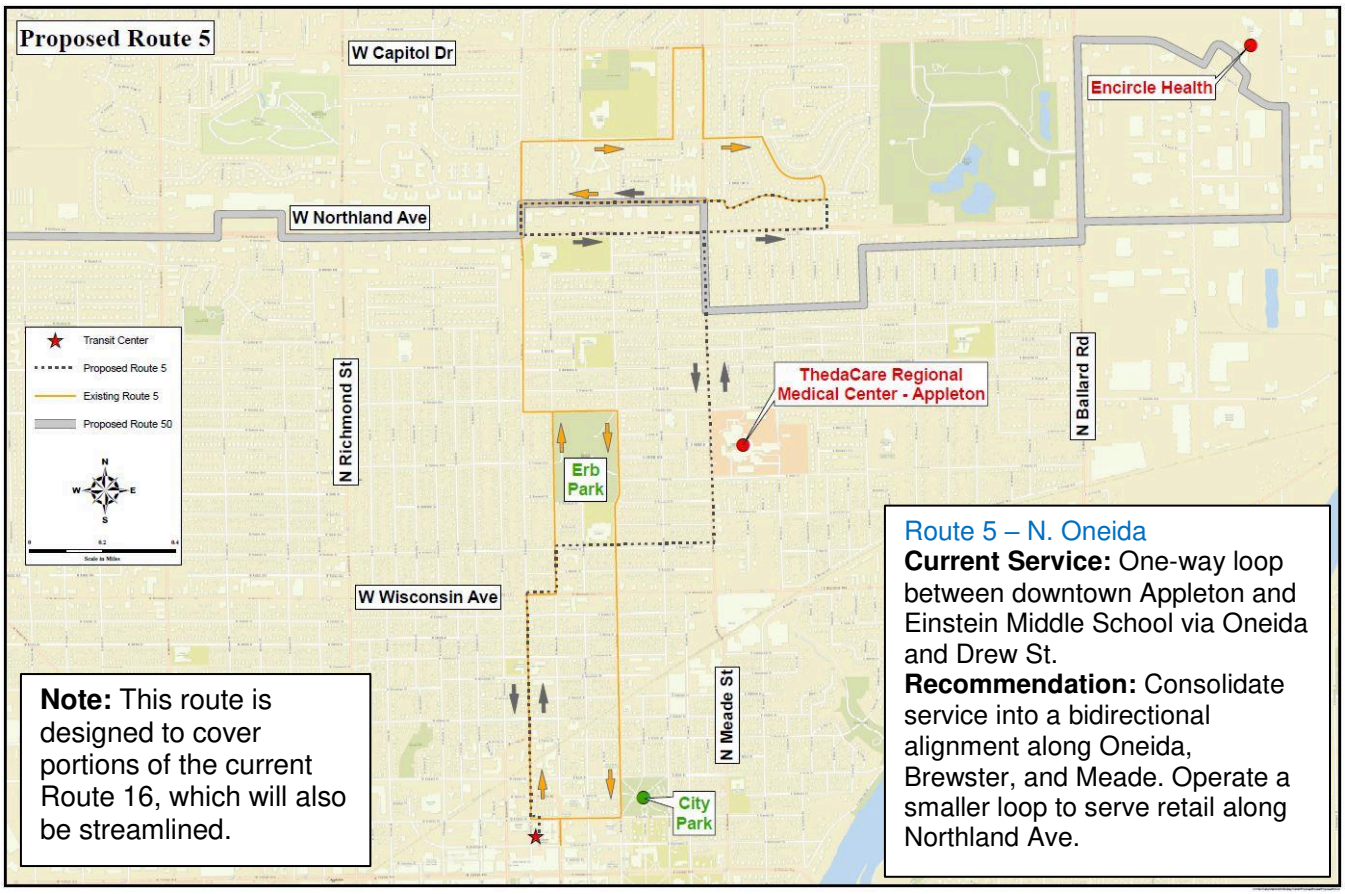
The proposed changes with Route 3 were supported by the public. Boarding and alighting counts from September 9 to September 21, 2019 shows about an 11 percent loss in ridership, which would significantly impact route performance. Proposed Route 3 will succeed when paired with the implementation of proposed (new) Route 50. This recommendation will need to be studied further by Valley Transit before any implementation.

Route 5

Currently operates a one-way loop between downtown Appleton and Einstein Middle School, just north of Northland Avenue. Northbound buses travel via Oneida Street and Morrison Street to reach Northland, and then make a clockwise loop on starting at Florida Avenue to serve the school, nearby residential areas, and businesses along 1st Avenue. Southbound buses travel primarily via Drew Street (1/4 mile east of Oneida) to return to downtown.

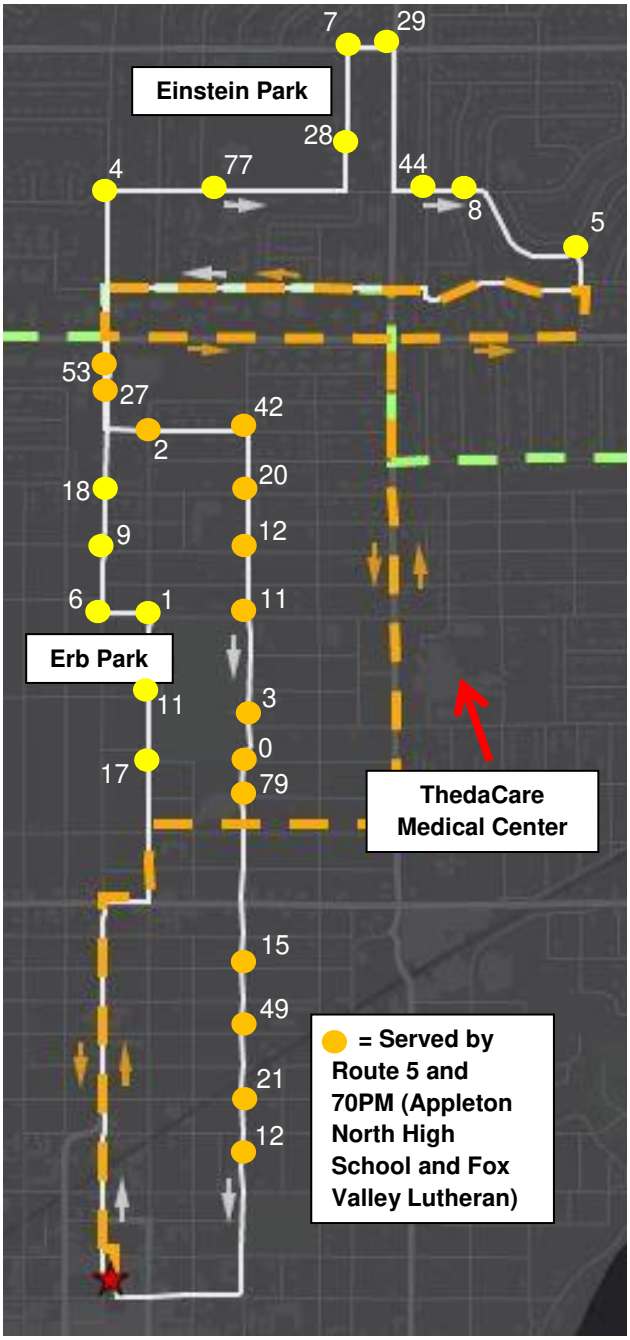
Under this proposal, Route 5 would be restructured to operate a single alignment along Oneida Street, Brewster Street, and Meade Street to reach Northland Avenue. There, northbound buses would travel west to Oneida, then north to make a streamlined counterclockwise loop on 1st Avenue/Winfield Place. Southbound buses would return to downtown via Meade, Brewster, and Oneida.

Proposed Alignment: Route 5 – Oneida/Meade Streets

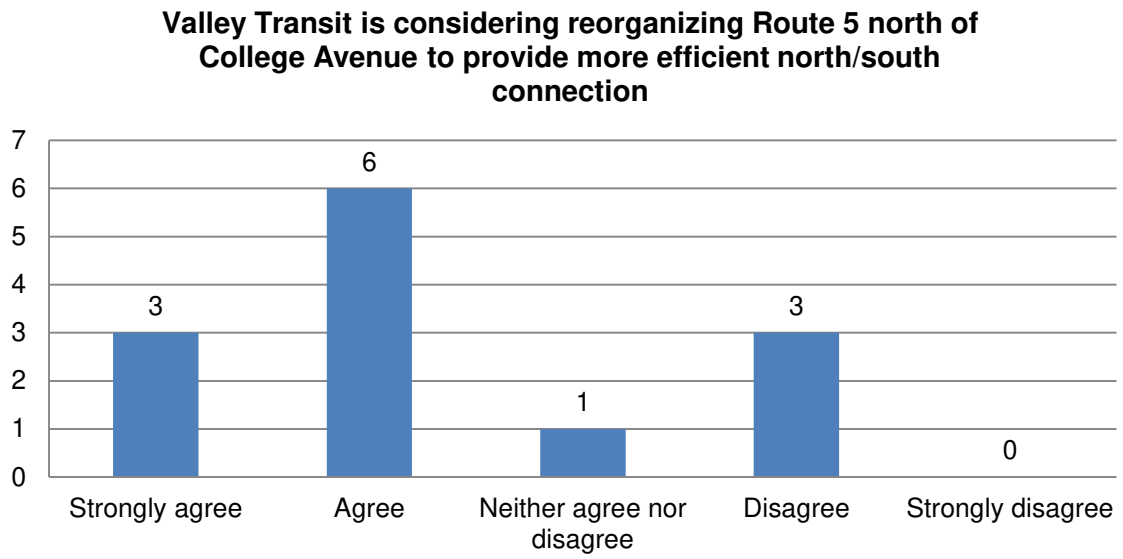


Route 5 – Oneida/Meade Streets Ridership Analysis	
Time period:	Boarding and Alighting Counts are from September 9 to September 21, 2019
Area of Focus:	ThedaCare/Einstein/Erb Park
Total Boarding & Alighting (B/A)	2684
Total B/A ThedaCare/Einstein/Erb Park	610 (Includes stops served by 70PM)
% of Total	22.7

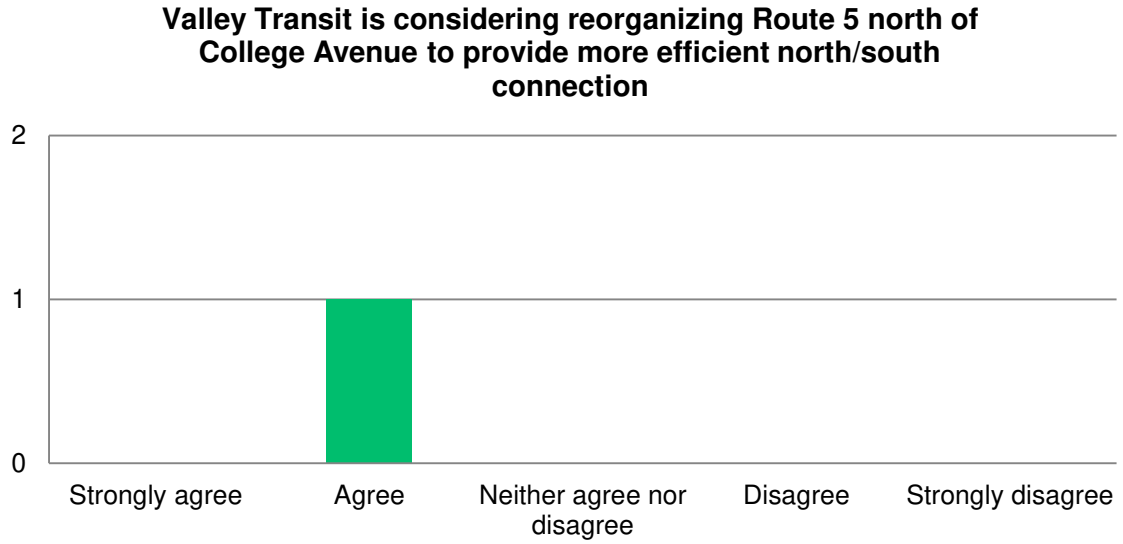
Route 5


7
29
Einstein Park
28
4
77
44
8
5
53
27
42
2
18
20
9
12
6
1
11
Erb Park
11
3
0
17
79
ThedaCare
Medical Center
15
49
21
12
= Served by Route 5 and 70PM (Appleton North High School and Fox Valley Lutheran)

Survey Results



City of Appleton Staff Results



Route 5 Summary

Recommended changes for Route 5 should be studied further by Valley Transit before implementation as public comments/opinions varied across the spectrum. In addition, the ridership that would be lost would be around 23 percent.

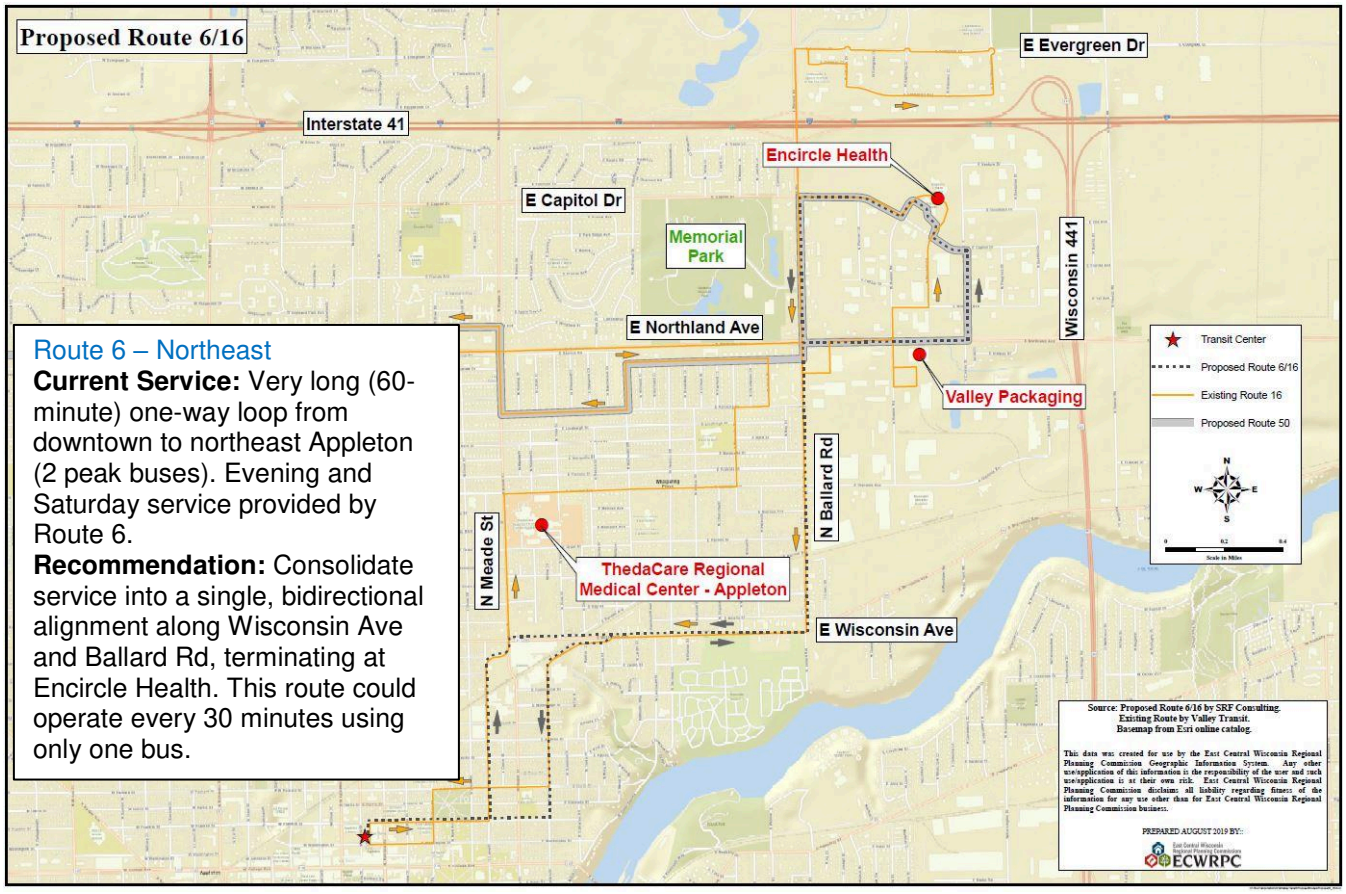
Route 6/16

Meade and Route 16 – Northeast combine to offer weekday and Saturday service to destinations in much of northeast Appleton. Route 6 – Meade provides weekday evening and Saturday service along a core one-way loop via Meade Street, Glendale Avenue, Pershing Street, Northland Street, Ballard Road, and Wisconsin Avenue. Weekday peak and midday service is provided by Route 16, which operates an extended one-way loop to serve Appleton North High School, located north of I-41 along Ballard Road.

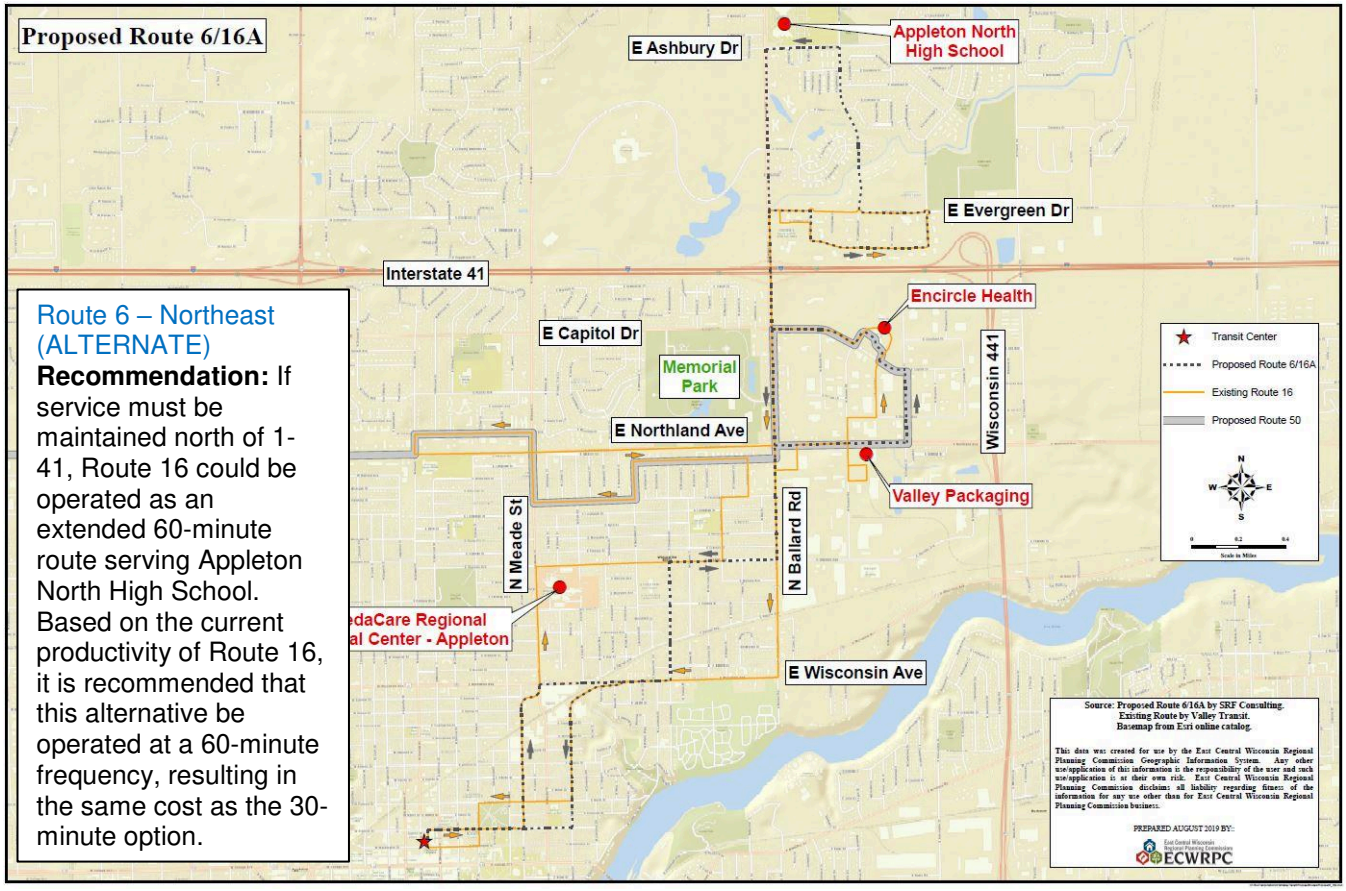
Combined, Routes 6 and 16 are the most complex one-way loops in the Valley Transit system. In keeping with the previous recommendations, it is proposed that Routes 6/16 be consolidated into a single, bidirectional alignment where possible. As shown in the figure below, the revised Route 6/16 – Northeast would operate primarily via Wisconsin Avenue and Ballard Road, with an abbreviated northern loop. From downtown Appleton, northbound buses would travel via Franklin, Rankin, Wisconsin, and Ballard, before making a loop via Capitol Drive to serve the ThedaCare Physicians-Appleton North medical complex. Southbound buses would return via Conkley Street, Northland Ave, Ballard, Wisconsin, and Lawes Street.

An alternate alignment for Route 6/16 would maintain service to Appleton North High School and other destinations north of I-41. Due to the increased length of this alignment, the route would operate every 60 minutes instead of every 30 minutes, with no change to total cost.

Proposed Alignment: Route 6/16 – Northeast



Proposed Alignment: Route 6/16A – Northeast



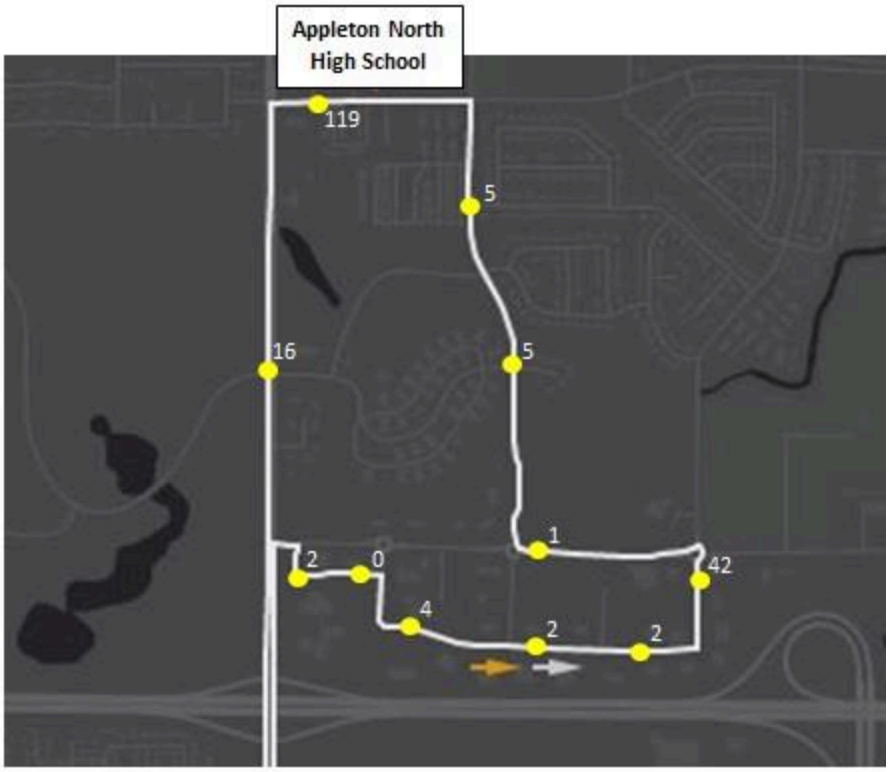
Route 6 – Northeast (ALTERNATE)

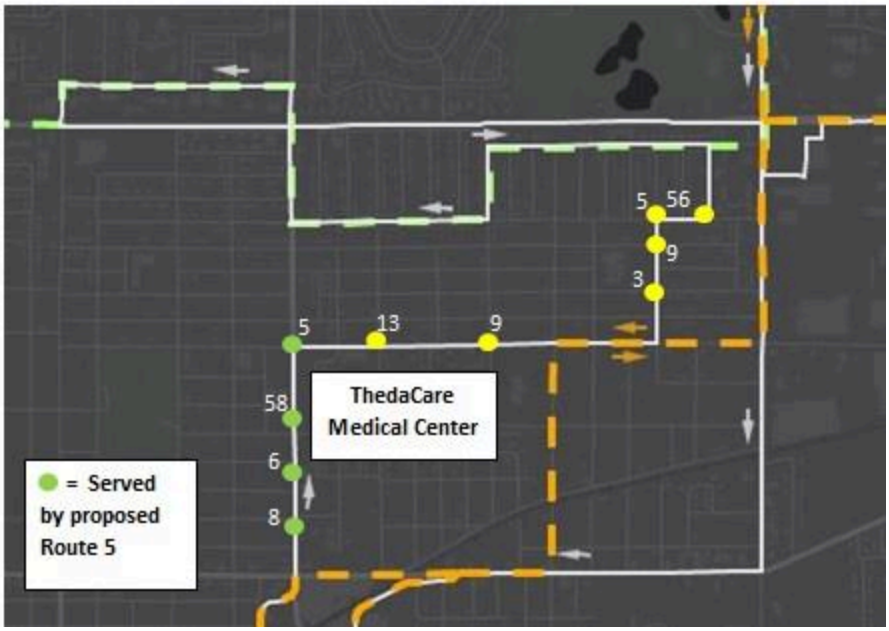
Recommendation: If service must be maintained north of 1-41, Route 16 could be operated as an extended 60-minute route serving Appleton North High School. Based on the current productivity of Route 16, it is recommended that this alternative be operated at a 60-minute frequency, resulting in the same cost as the 30-minute option.

Route 6/16 – Northeast Ridership Analysis	
Time period:	Boarding and Alighting Counts are from September 9 to September 21, 2019
Area of Focus:	Appleton North High School
Total Boarding & Alighting (B/A)	3670
Total B/A Appleton North High School	198
% of Total	5.4

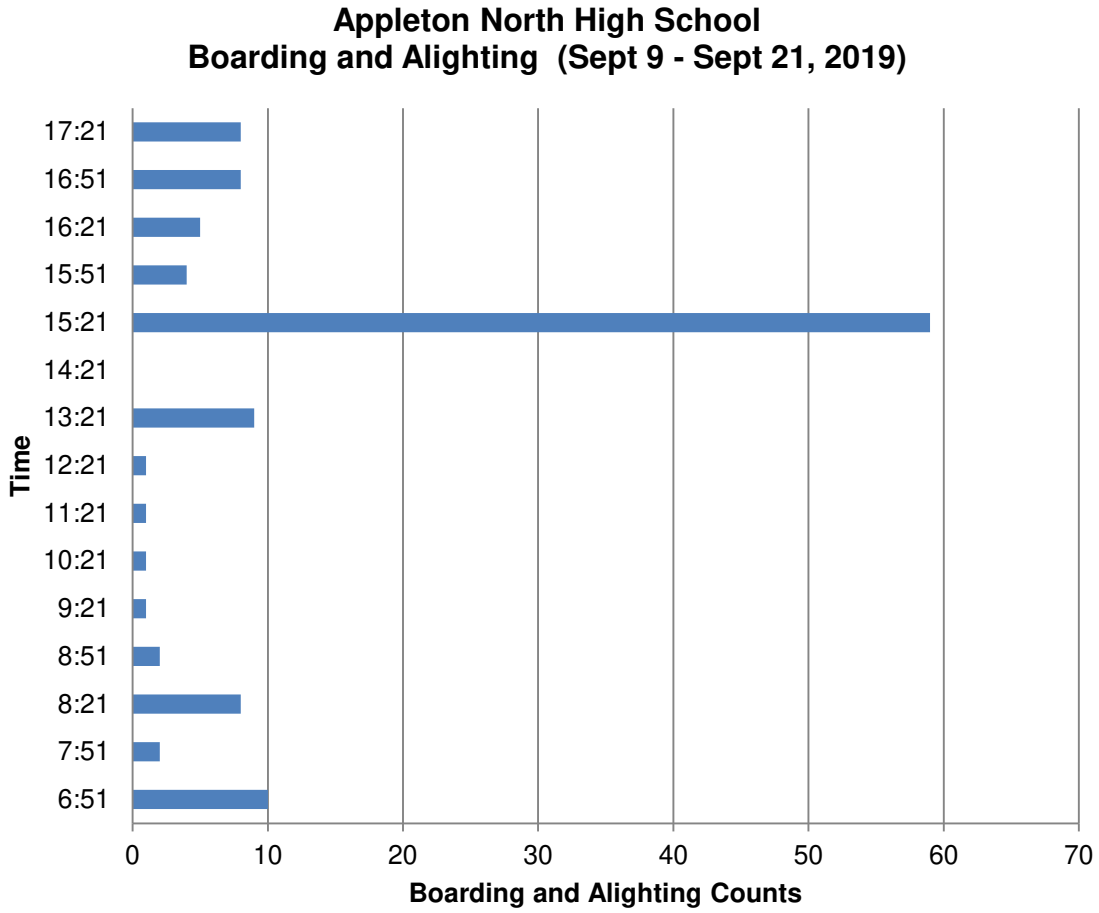
Route 6/16 – Northeast Ridership Analysis	
Time period:	Boarding and Alighting Counts are from September 9 to September 21, 2019
Area of Focus:	ThedaCare Medical Center
Total Boarding & Alighting (B/A)	3670
Total B/A ThedaCare Medical Center	95 (Does not include stops being served by proposed route 5)
% of Total	2.6

Route 6/16


Appleton North
High School
119
5
16
5
1
2
0
42
4
2
2


5
56
9
3
5
13
9
58
ThedaCare
Medical Center
6
8
= Served
by proposed
Route 5

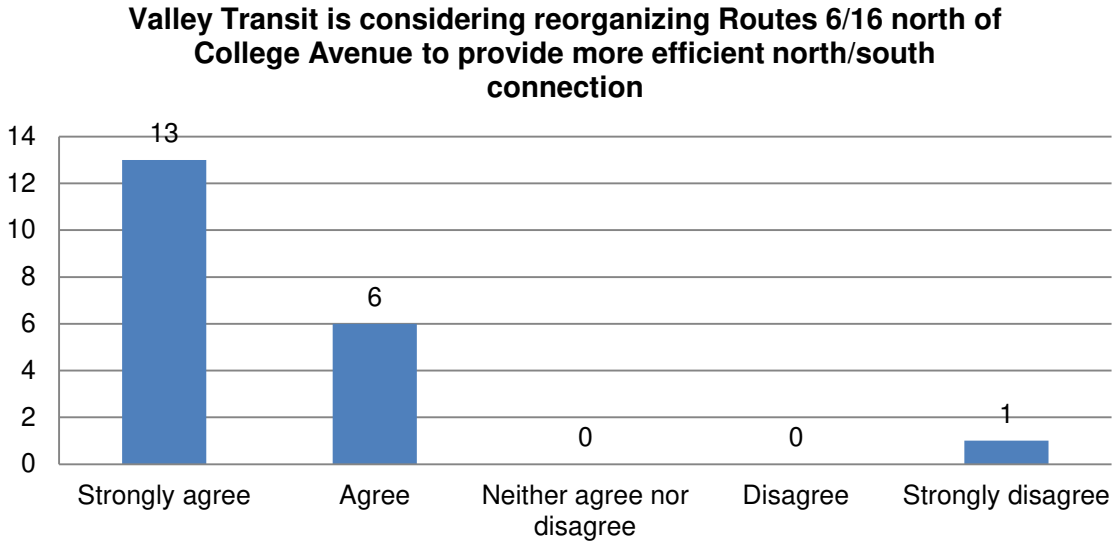
Appleton North High School Analysis



There are two time periods with the highest boarding and alighting and should be noted when looking at the Appleton North High School stop:

- 6 to 9 am
- 3 pm to 5 pm

Survey Results



Route 6/16 Summary

Service to Appleton North High School is an essential destination for Route 6/16 and was evident through the public comments received. The Alternative Route 6/16 (serving Appleton North High School) is the preferred recommendation for Route 6/16.

Route 15

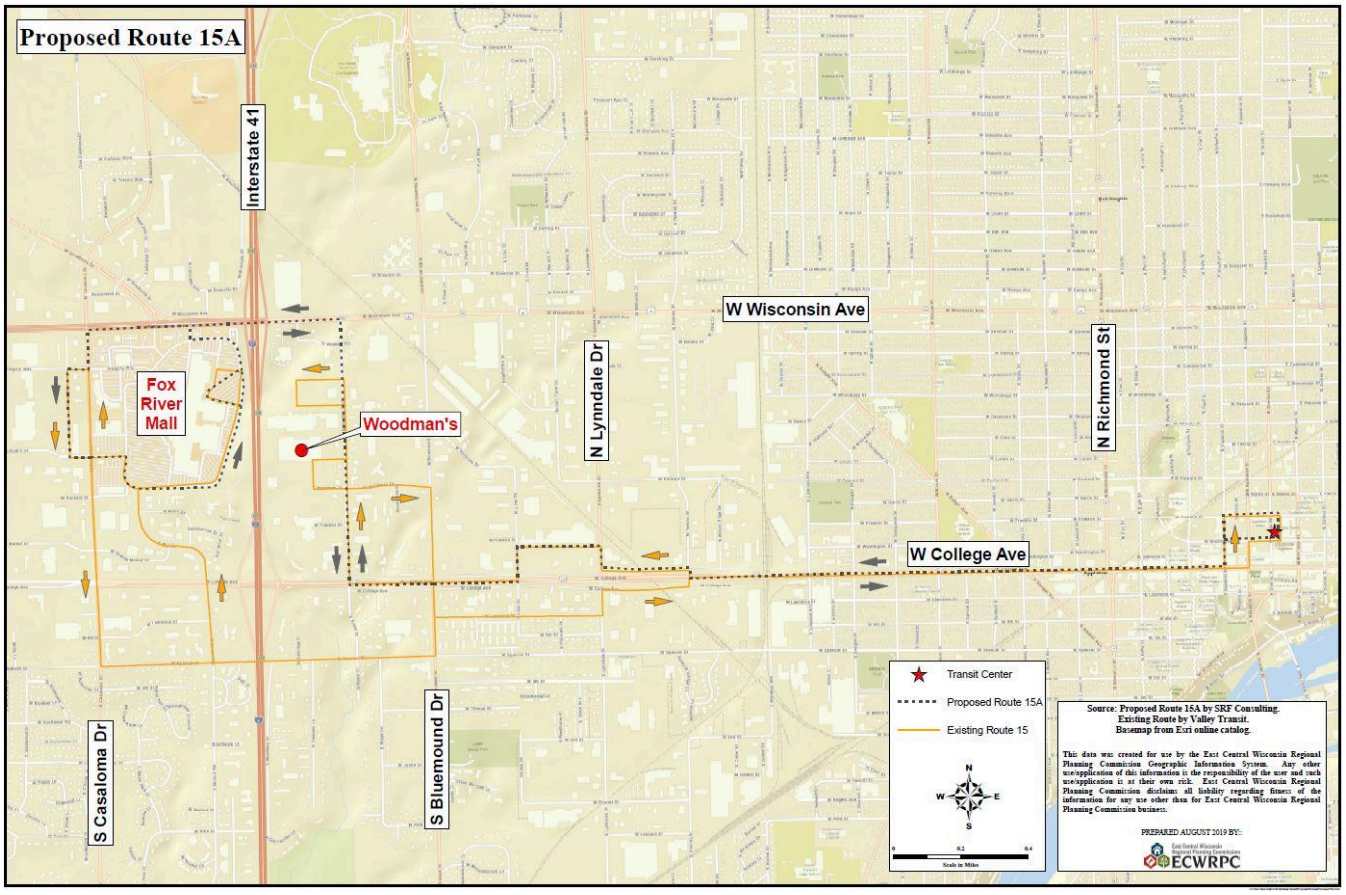
Concept 2A recommends splitting **Route 15 into two separate routes (15A and 15B)**. Both routes would continue to serve College Avenue but would operate two new, more direct branches to reach Fox River Mall.

Route 15A would serve retail destinations north of College Avenue and east of Interstate 41 in addition to Fox River Mall. After serving The Marketplace, westbound Route 15A buses would travel north along Westhill Boulevard, then west along Wisconsin Avenue to approach Fox River Mall from the north.

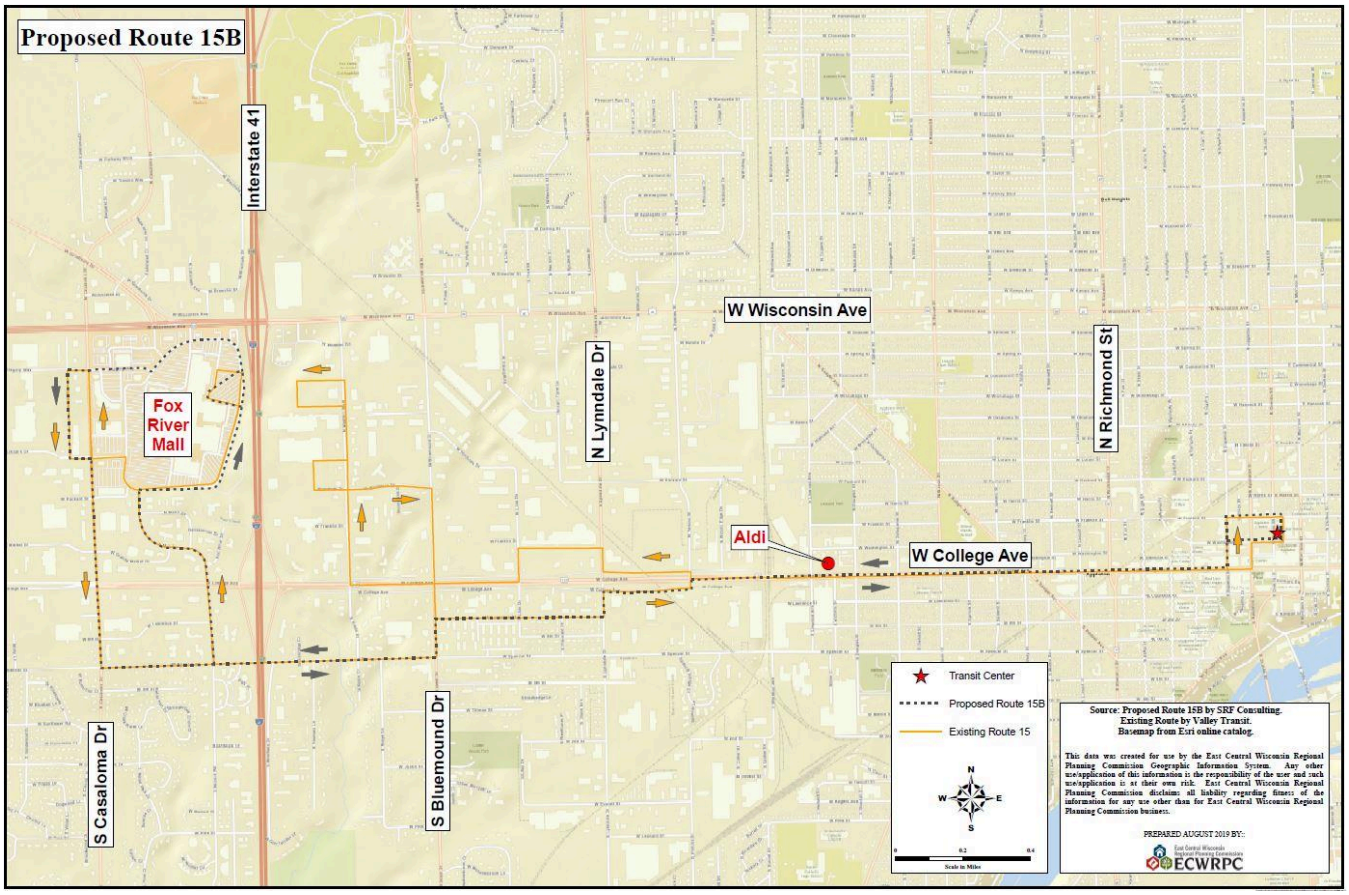
Route 15B would serve retail destinations south of College Avenue and west of US-41 prior to reaching Fox River Mall. At Perkins Street, westbound Route 15B buses would leave the main travel lanes on College Avenue to operate westbound via the frontage road, Lawrence Street, and Spencer Street. After crossing Interstate 41, buses would continue north on Nicolet Road/Mall Drive to reach Fox River Mall.

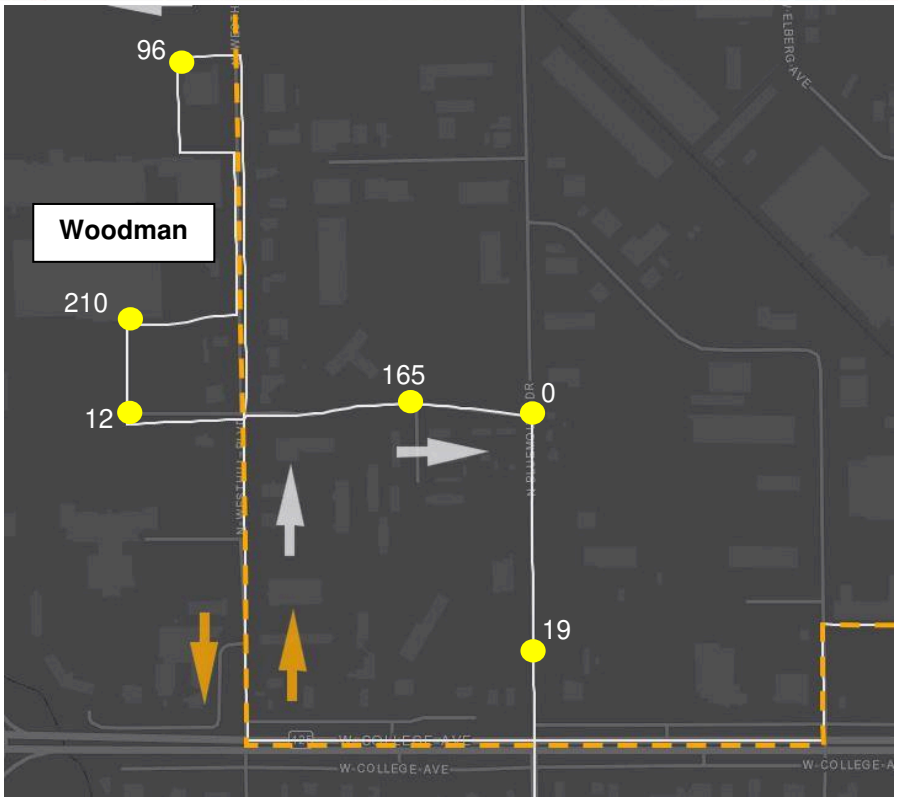
In order to maintain hourly service to all destinations currently served by Route 15, Routes 15A and 15B would each operate hourly service. Schedules would be designed to operate at offset 30-minute intervals, which would effectively deliver 30-minute service along College Avenue between Perkins Street and downtown Appleton. Given that Route 15 has the agency's highest ridership and productivity with only hourly service, it is expected that this additional frequency will help the route meet existing demand and attract new customers. See figure below:

Proposed Alignment: Route 15A (College Avenue)

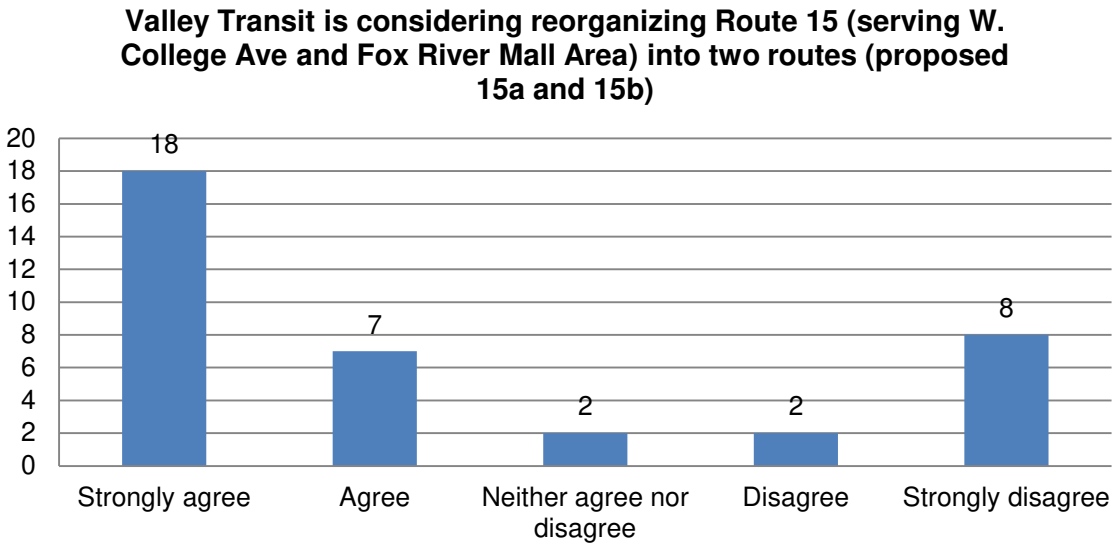


Proposed Alignment: Route 15B (College Avenue)

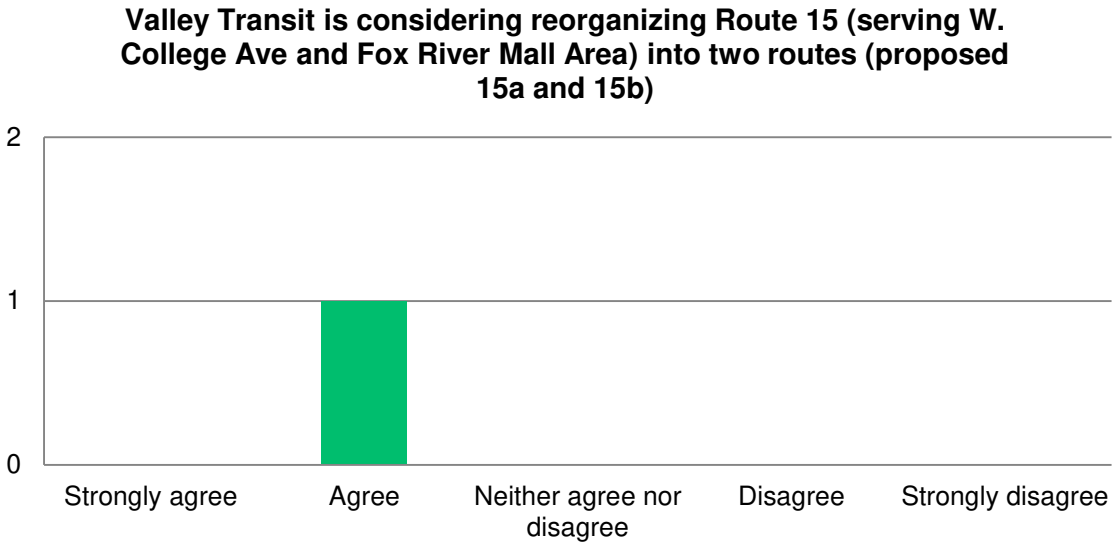




Survey Results:



City of Appleton Staff Results



Route 15 Summary

Overall, the proposed recommendations for Route 15 were supported by the public except for the loss of service along Woodman Drive. Since the development of this recommendation, the Town of Grand Chute has decided to reconstruct Woodman Drive to include a designated transit bump out. Valley Transit supports transit oriented development and will continue service along Woodman Drive.

Route 50

Proposed Route 50 would offer crosstown service along Northland Avenue, providing connections to the revised Routes 3, 4, 5, and 6/16. With service to the Capital Drive business park, Northland Mall, Fox Valley Technical College, and Fox River Mall, Route 50 would improve connectivity between major destinations previously served by one-way loop routes.

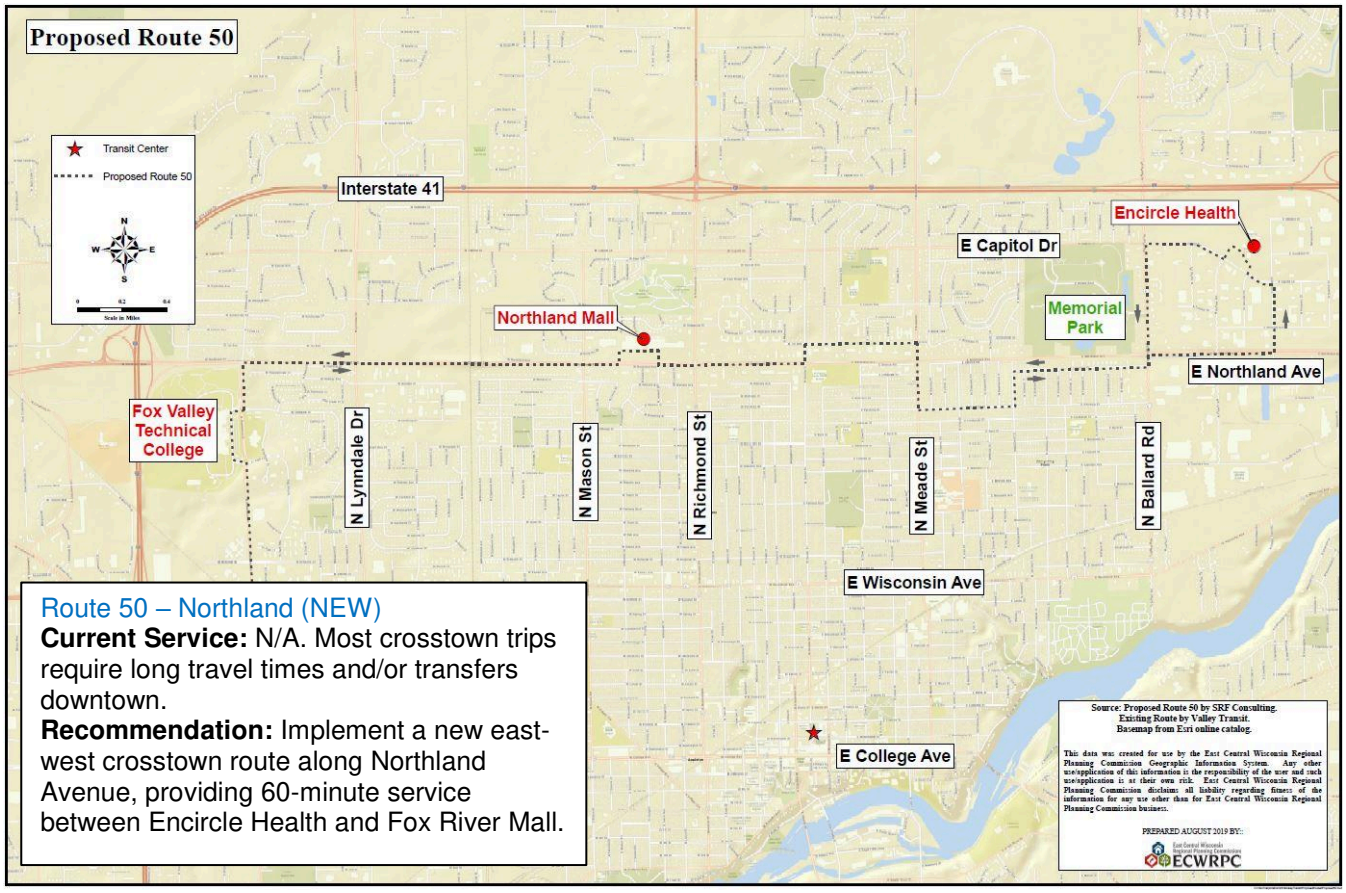
- Of the three crosstown routes proposed here, Route 50 serves the highest proportion of existing riders and should be considered the highest priority for implementation.

- **Frequency**
  For this new route, frequency and span will be determined by the length of the route alignment, expected ridership, and connections to nearby services. This east-west service would have a longer route alignment than the typical north-south routes, with a 60-minute cycle time. Based on expected ridership, it is recommended that Route 50 operates every 60 minutes.

- Routes 50 is expected to serve many customers transferring from Routes 3, 4, 5, and 6/16, so it is recommended that this route offer an equivalent span of service (approximately 6:15 AM to 10:15 PM).

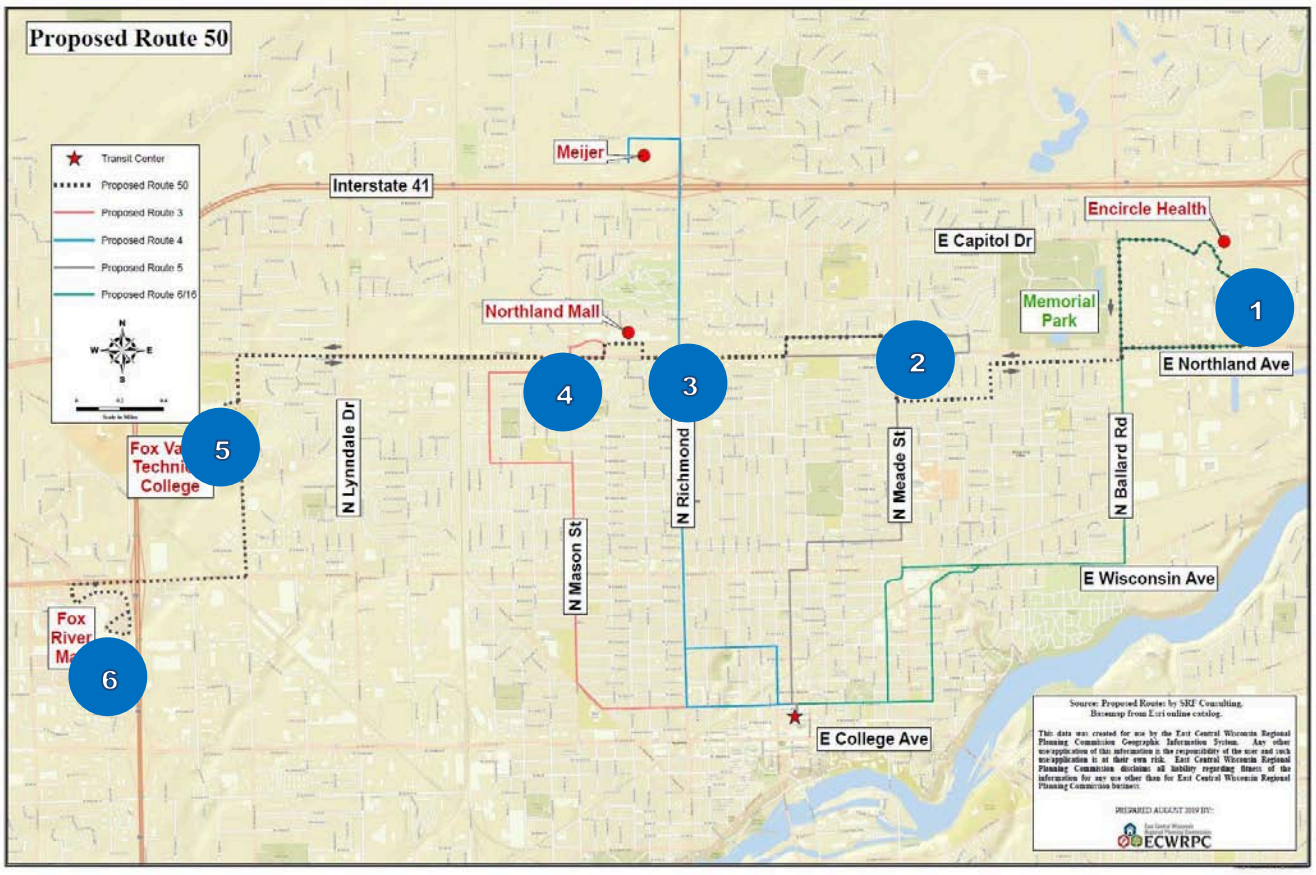
#	Time point Location	Route 50 Arrive / Depart	Primary Connecting Route	Connecting Route Arrive/Depart
1	Encircle Health	Arrive :55 / Depart :00	Proposed Route 16	:00/:30
2	Northland/Meade	WB :05 / EB :50	Proposed Route 5	:00/:30
3	Northland/Richmond	WB :10 / EB :50	Proposed Route 4	:25/:55 (Outbound) :35/:05 (Inbound)
4	Northland Mall	WB :12 / EB :48	Proposed Route 3	:00/:30
5	Fox Valley Technical College	WB :20 / EB :35	Route 12	:05/:55
6	Fox River Mall	Arrive :25 / Depart :30	Route 15	:15/:45

Proposed Alignment: Route 50 – Northland Avenue

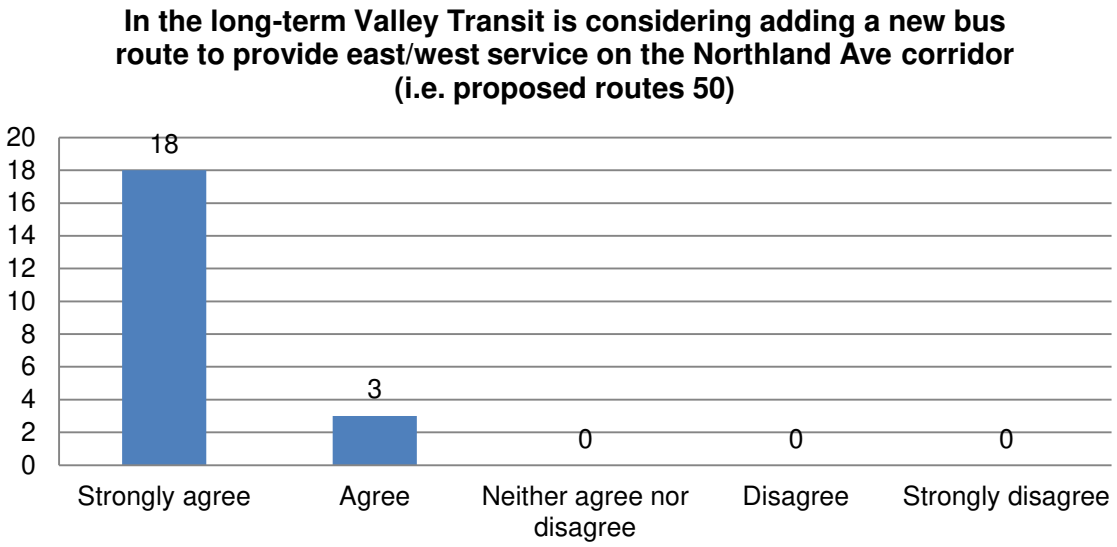


Route 50 – Northland (NEW)
Current Service: N/A. Most crosstown trips require long travel times and/or transfers downtown.
Recommendation: Implement a new east-west crosstown route along Northland Avenue, providing 60-minute service between Encircle Health and Fox River Mall.

Proposed Alignment: Route 50 – Northland Avenue (With north/south routes)



Survey Results



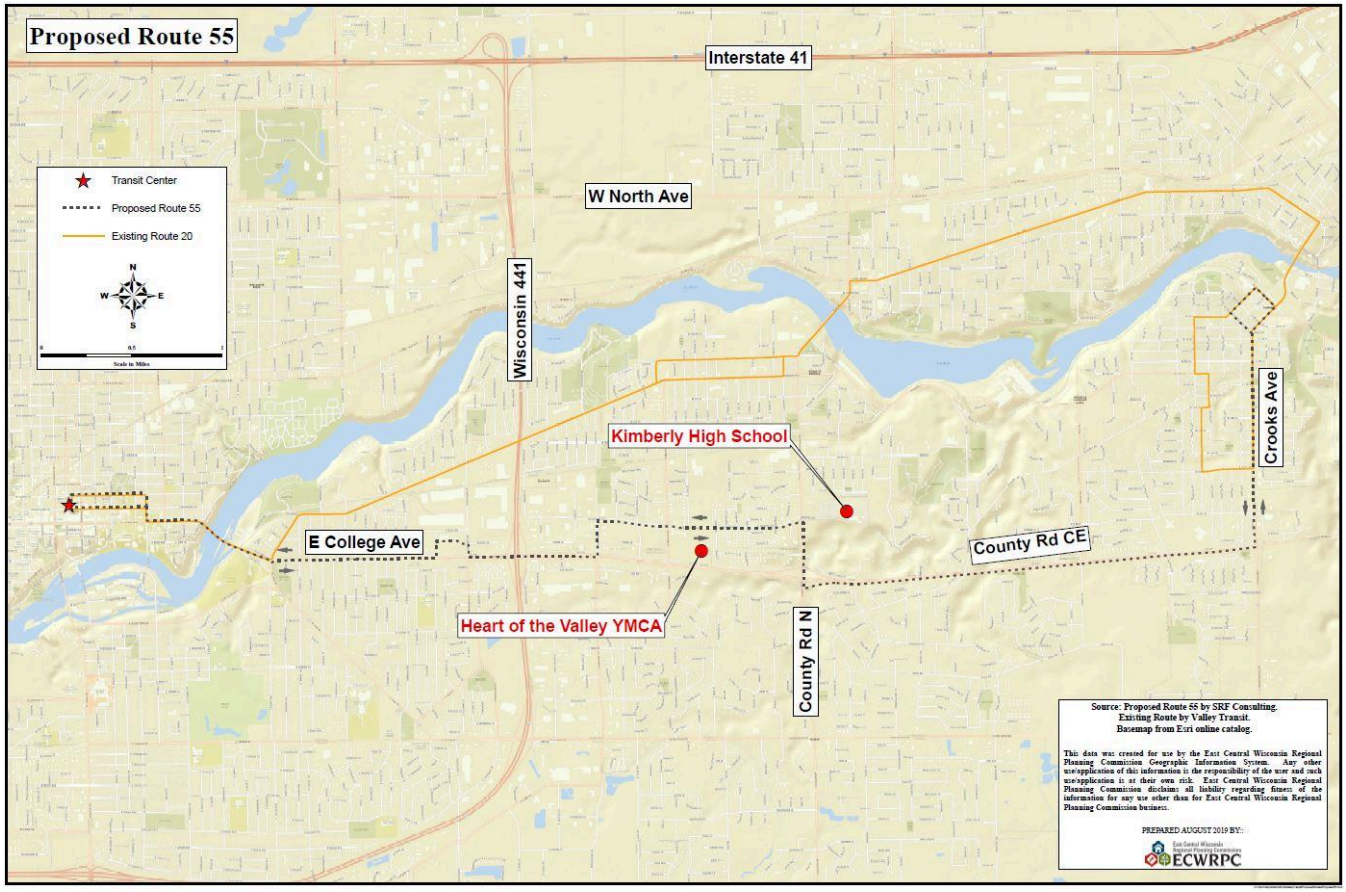
Route 50 Summary

In the long-term, proposed Route 50 would provide additional east/west service capacity along Northland Avenue. Additional consideration will be needed by Valley Transit as to the extent this recommendation can be implemented.

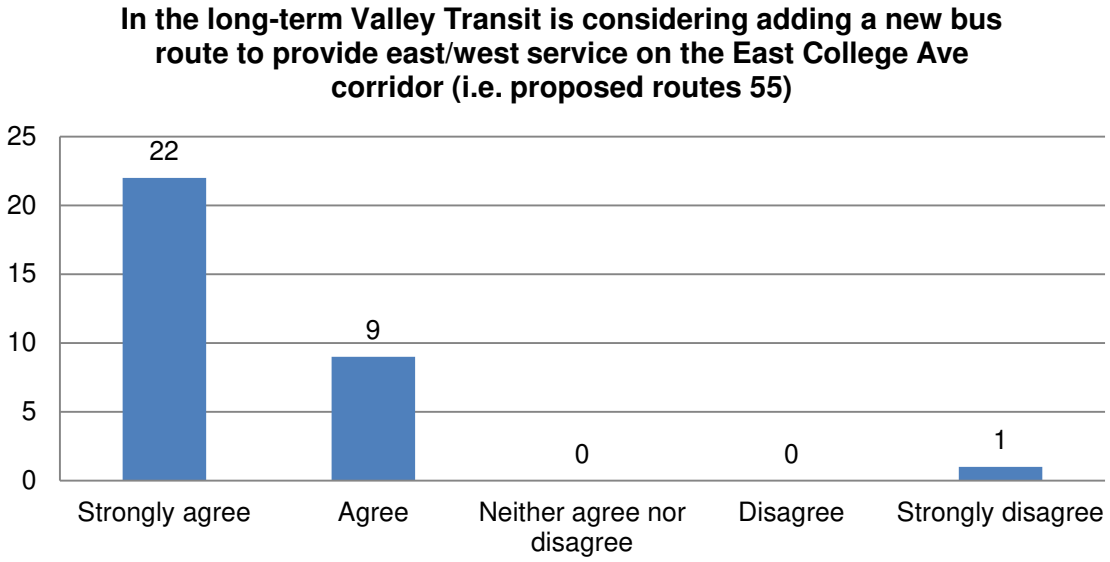
Route 55

E. College/Kaukauna would offer new east-west service between downtown Appleton and Kaukauna via College Avenue. For residents of Kimberly, Buchanan, and Kaukauna, Route 55 would offer faster, more direct trips to downtown Appleton compared to the existing Route 11 and Route 20.

Proposed Alignment: Route 55 – E. College Avenue / Kaukauna



Survey Results



Route 55 Summary

In the long-term, proposed Route 55 would provide additional east/west service capacity to the Heart of the Valley. Additional consideration will be needed by Valley Transit as to the extent this recommendation can be implemented.

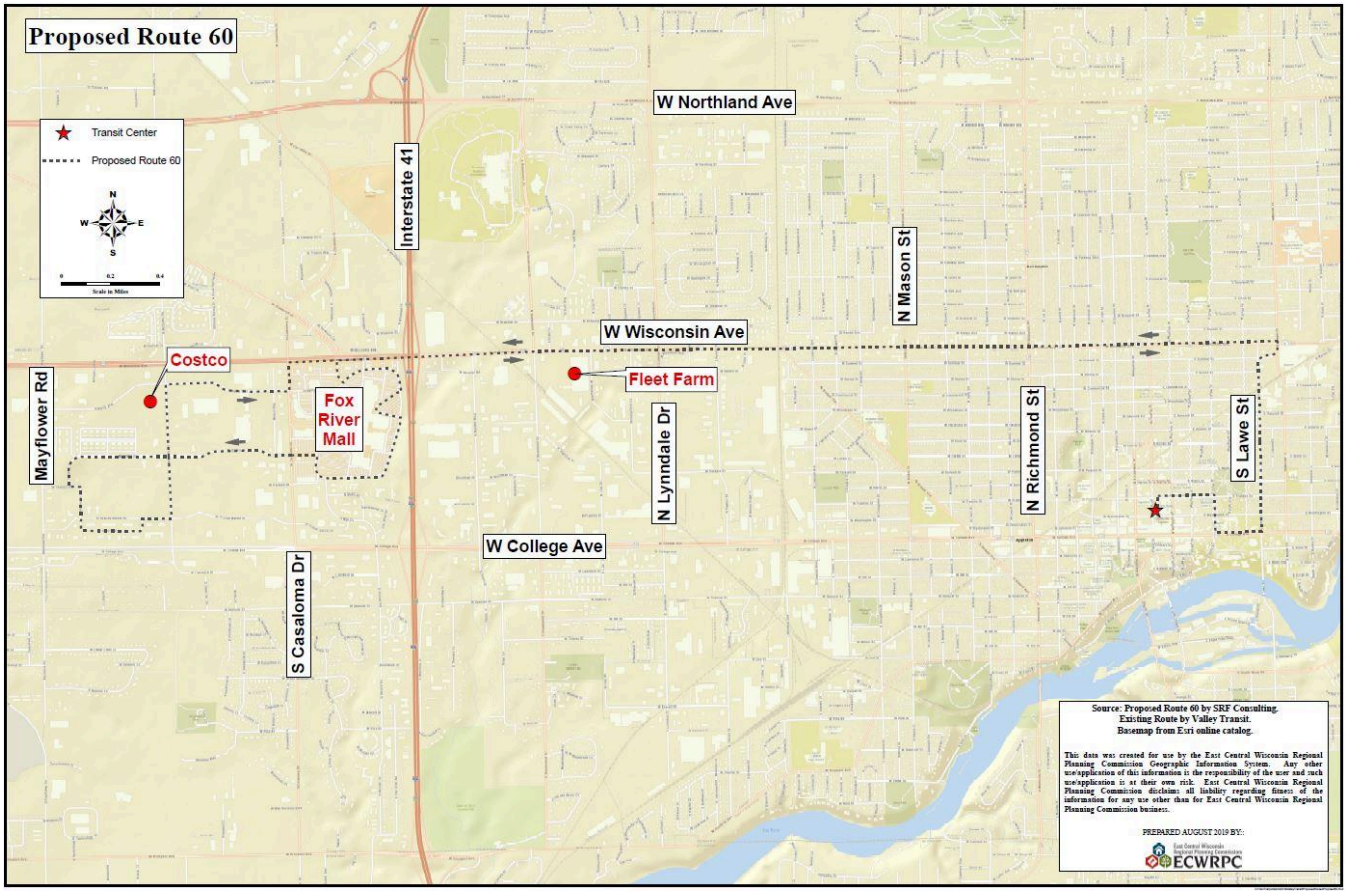
Route 60

Proposed Route 60 would offer supplementary crosstown service along Wisconsin Avenue, with connections to Lawrence University, Fox River Mall, and business developments near Appleton International Airport. For residents of north central Appleton and Grand Chute, this route would provide east-west connections to routes 3, 4, 5, and 6/16 without requiring a transfer downtown. If desired, select trips on Route 60 could be extended to serve Appleton International Airport.

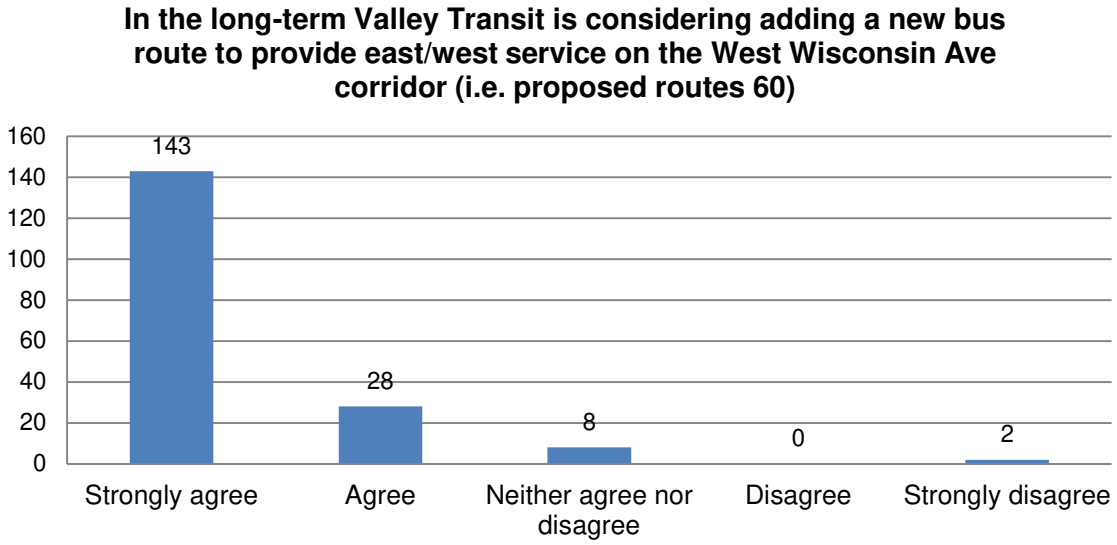
- **Frequency**
  For each new route, frequency and span will be determined by the length of the route alignment, expected ridership, and connections to nearby services. These east-west services each have a longer route alignment than the typical north-south routes, with a 60-minute cycle time. Based on expected ridership, it is recommended that all three routes operate every 60 minutes.

  Route 60 is expected to serve many customers transferring from Routes 3, 4, 5, and 6/16, so it is recommended that it offer an equivalent span of service (approximately 6:15 AM to 10:15 PM). Route 55 is proposed to operate a slightly truncated span of service, similar to Routes 31 and 32 in Neenah (approximately 6:15 AM to 7:15 PM).

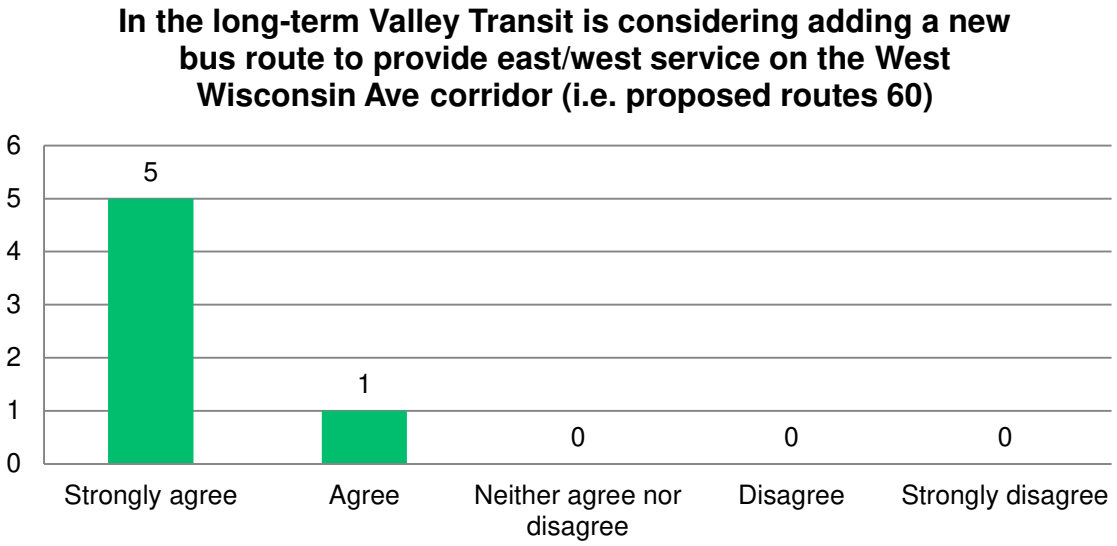
Proposed Alignment: Route 60 – Wisconsin Avenue



Survey Results



City of Appleton Staff Results



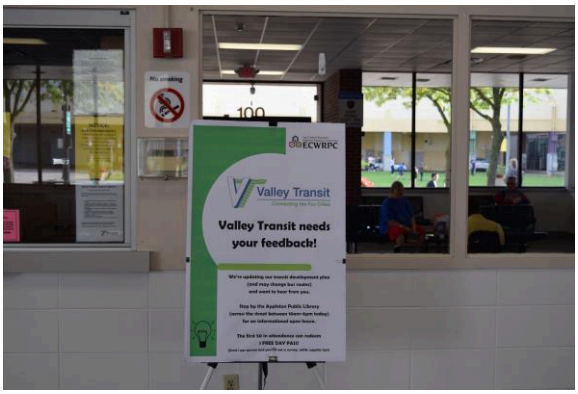
Route 60 Summary

In the long-term, proposed Route 60 would provide additional east/west service capacity to West Wisconsin Avenue. Additional consideration will be needed by Valley Transit as to the extent this recommendation can be implemented.

4-Recommendations

RECOMMENDATIONS / ACTION PLAN

Recommendations were developed with input from the project steering committee, VT's Transit Commission and public comments from various events/opportunities. The recommendations are structured into actionable goals; noting responsible parties, necessary resources to complete the goal, and timeline for completion (short, intermediate, long) term.



RECOMMENDATION: Continue to monitor and adhere to Federal Transit Administration's Safety and Security initiatives; prepare for Public Transportation Agency Safety Plan (PTASP) requirement.

Goal: Remain current on Federal Transit Administration rules, regulations and initiatives.

Action: Actively monitor and comply with Federal Transit Administration regulations and initiatives.

Responsible: Transit Staff

Resources: Dedicated roles/responsibilities to transit staff; consistent check-in with staff and FTA

Timeline: Short-term (on-going)

RECOMMENDATION: Create a series of brief "how to" videos of frequently asked questions (FAQ) about transit. Tutorial video examples include: how to use the bike racks on the front of the buses, general etiquette for riders, how to use the trip planner on VT's website, how to use the forthcoming bus location application, etc.

Goal: Create FAQ Videos

Action: Create FAQ videos

Responsible: Transit Staff; internships

Resources: Marketing/development; contract with outside company

Timeline: Short-term

RECOMMENDATION: Continue to improve communications with riders with scheduled route detours or weather delays/closures. Work to expand communication network with human service agencies, departments and non-profits that interact with customers of transit on behalf of their work and improve existing framework for communication with transit riders and the public. Valley Transit's Twitter account acts as their information hub connecting their website (myvalleytransit.com) and their app allowing their customers a seamless experience.

Goal: Increase external communication of transit changes.

Action: Increase external communication of transit changes, increase twitter followers and drive more customers to the website.

Responsible: Transit Staff; partner agencies/non-profits

Resources: Dedicated roles/responsibilities to transit staff

Timeline: Short-term

RECOMMENDATION: Maintain and emphasize marketing services to the public. Augmented marketing efforts would strive to increase public awareness, education and brand recognition for transit in the region. Increase use of Google Analytics and digital research as a means to gauge effectiveness and performance.

Goal: Maintain and increase marketing efforts/initiatives.

Action: Maintain and increase marketing efforts/initiatives. Refresh brand, update rider profile and increase research action. Note: since the start of the TDP, Valley Transit took feedback and developed a stand alone website (myvalleytransit.com).

Responsible: Transit Staff

Resources: Budget/funding/staff allocation

Timeline: Short-term

RECOMMENDATION: VT II (Valley Transit II or Americans with Disabilities Act paratransit) should focus on core ADA policies (service area = ¾ corridor; origin to destination service) as written in ADA law and Federal Transit Administration guidance.

Goal: Focus on core services for paratransit customers.

Action: Focus on core services/polices for paratransit customers to provide uniform service across all municipalities.

Responsible: Transit Staff

Resources: Coordinate with internal staff and third-party transportation provider of VT II services

Timeline: Short/Medium-term

RECOMMENDATION: Continue participation on I-41 Commuter Service Feasibility Study. Valley Transit, depending on the results of the I-41 Commuter Service Feasibility Study may have to review/create/modify service structure to coordinate with new commuter service if implemented.

Goal: Continue participation on I-41 Commuter Service Feasibility Study.

Action: Continue participation on Planning Steering Committee.

Responsible: Transit Staff

Resources: Coordinate agency activities if a future system is created

Timeline: Short/Medium-term

RECOMMENDATION: Conduct an in-depth analysis on the current funding model and recommend alternate funding system based on the recommended route alterations. Analysis should include a cost benefit analysis of different types of funding models (revenue by hours, bus stops, ridership, frequency, level of service).

Goal: Reconfigure funding agreements with funding partners.

Action: Reconfigure funding agreements with funding partners.

Responsible: Transit Staff

Resources: Coordinate with department/municipalities and consultant experts to update funding system

Timeline: Short/Medium-term

RECOMMENDATION: Foster continuous learning opportunities for Valley Transit by expanding training and networking opportunities at the local, state and national levels.

Goal: Expand training and networking opportunities at local, state and national levels.

Action: Develop a list of reoccurring conferences, webinars, trainings for staff to attend to remain current on industry best practices and technology, etc.

Responsible: Transit Staff

Resources: Dedicated roles/responsibilities to transit staff

Timeline: Short-term

RECOMMENDATION: Coordinate on federal transportation planning requirements after 2020 Census for possible realignment of Appleton and Oshkosh Urbanized Areas.

Goal: Prepare for 2020 Census changes to official Appleton Urbanized Area boundary and potential merger with Oshkosh Urbanized Area or other areas.

Action: Coordinate federal planning requirements with Oshkosh (GO Transit) and ECWRPC.

Responsible: Transit Staff; Oshkosh (GO Transit) staff; ECWRPC

Resources: Dedicated roles/responsibilities to transit staff and coordination with ECWRPC

Timeline: Short/Medium-term

RECOMMENDATION: Hire a full-time Mobility Manager Staff position. A dedicated mobility manager could increase customer satisfaction by offering case-by-case mobility assistance for riders, answering route/ride questions/concerns and develop a travel "bus buddy" training program to help new or prospective customers feel at ease with riding the bus.

Goal: Reconfigure funding agreements with funding partners.

Action: Hire Mobility Manager

Responsible: Transit Staff

Resources: Budget/Funding

Timeline: Medium-term

RECOMMENDATION: Review existing funding agreements with partner municipalities and continuously monitor ridership and revenue trends and adjust contract agreements as needed. Develop a list of additional and new grant/fund opportunities.

Goal: Examine existing partnerships for ridership and revenue and explore new funding partnerships.

Action: Review revenue agreements with partner agencies/municipalities and update as transit ridership changes.

Responsible: Transit Staff

Resources: Dedicated roles/responsibilities to transit staff

Timeline: Short/Medium-term

RECOMMENDATION: Continue to investigate on-demand service options to reach areas needing additional service. Explore potential expansion of the Connector Program to cover new service areas (if warranted). Research on-demand zones to feed fixed routes from areas identified by SRF Consulting through the route workshop (Menasha and Kaukauna areas). Utilize the mobility manager to identify gaps or needs within the system (services to communities and employers, etc.) and recommend on-demand solutions.

Goal: Review Connector Program

Action: Internal review of Connector Program

Responsible: Transit Staff

Resources: Budget/funding/staff allocation

Timeline: Medium-term

RECOMMENDATION: Coordinate with City of Neenah on possible relocation of their current transfer center.

Goal: Coordinate with City of Neenah on relocation of transfer center.

Action: Work with leadership at the City of Neenah on possible transfer center relocation.

Responsible: Transit Staff / City of Neenah

Resources: Coordinate with departments/municipalities

Timeline: Medium-term

RECOMMENDATION: Support and coordinate with surrounding municipalities on the development of their comprehensive plans.

Goal: Coordinate with regional municipalities on long-range planning efforts.

Action: Coordinate (where possible) with regional municipalities to support/advocate for transit in their long-range planning efforts.

Responsible: ECWRPC, transit staff & partner municipalities

Resources: Coordinate discussions/conversations with area municipalities, possibly develop new funding agreements/transit routes

Timeline: Medium-term

RECOMMENDATION: Increase discussions with GO Transit about partnerships, cost-effective coordination, Route 10, preparation for potential Urbanized Area (UZA) merger.

Goal: Coordinate with Oshkosh (GO Transit).

Action: Coordinate with GO Transit on routes, operations, route 10 and potential UZA merger.

Responsible: Transit Staff/Appleton Transportation Management Area (TMA)

Resources: Coordination with GO Transit, private bus provider, Appleton TMA and ECWRPC

Timeline: Medium-term

RECOMMENDATION: Valley Transit should prepare a site selection study to investigate appropriate alternatives for a new transit center. It should be modeled after a mixed-use, private/public opportunity such as options in La Crosse and future site in Eau Claire for their transit systems.

Goal: Complete Transit Center site selection study.

Action: Complete a Future Transit Center site selection study.

Responsible: Transit Staff and ECWRPC (work with consultant)

Resources: Request for Proposals to create an in-depth site selection study/plan.

Timeline: Long-term

RECOMMENDATION: Valley Transit needs to create a technology plan that will direct future technology investments and data management. Since the beginning of the planning process, Valley Transit has installed automatic passenger counters, bus tracking app and paratransit scheduling and dispatch software.

Invest in a suite of technology upgrades for the transit system including (but not limited to): automatic passenger counter systems for better accounting of boarding/alighting of passengers and data reporting to state/federal government; passenger fare box collection upgrades (cashless card system) and ticket kiosks at the transit centers and additional funding for on-going upgrades (as necessary).

Goal: Invest in technology upgrades.

Action: Invest in technology upgrades, continue to monitor progress and research addtitional technology like a new fare payment system.

Responsible: Transit Staff

Resources: Budget/Funding element; technology plan

Timeline: Medium/Long-term

RECOMMENDATION: Continue to coordinate with the Wisconsin Department of Transportation on the Amtrak Thruway service and the connection to Valley Transit and the potential for future mobility hubs.

Goal: Coordinate with Wisconsin Department of Transportation on Amtrak service.

Action: Work together to develop a seamless system.

Responsible: Transit Staff/WisDOT

Resources: Coordinate agency activities

Timeline: Medium/Long-term

RECOMMENDATION: Continue to analyze bus fleet, vehicle types and adhere to the Transit Asset Management (TAM) plan. Consider purchasing of paratransit fleet vehicles. Additionally, monitor alternative vehicle propulsion technologies.

Goal: Monitor and adhere to Transit Asset Management (TAM) Plan.

Action: Adhere to Transit Asset Management Plan.

Responsible: Transit Staff

Resources: Dedicated roles/responsibilities to transit staff

Timeline: Short/Medium-term

RECOMMENDATION: Inventory on-going facility needs of the Administration/Maintenance facility to plan and budget for upgrades.

Goal: Plan for administration/maintenance facility upgrades to accommodate needs.

Action: Create an inventory of facility needs to budget for future upgrades.

Responsible: Transit Staff

Resources: Dedicated roles/responsibilities to transit staff

Timeline: Short/Medium-term

RECOMMENDATION: Determine demand for transit route(s) to Appleton International Airport, areas west of the Fox River Mall, Grand Market Drive, temporary staffing agencies, healthcare clinics, Greenville and Greenville industrial park.

Goal: Coordinate with Appleton International Airport and Greenville

Action: Study demand for service/route to Appleton International Airport, areas west of the Fox River Mall, Grand Market drive, staffing agencies, healthcare clinics and the Greenville area.

Responsible: Transit Staff/Airport Staff/Municipal staff

Resources: Additional funding to provide service (as needed)

Timeline: Medium/Long-term

RECOMMENDATION: Implement bus route changes and scenarios to help increase overall transit system efficiencies and customer satisfaction. A full detailed list of recommendations are included in **Appendix A** (Report from project consultants).

Goal: Implement short, medium and long term route changes.

Action: Implement bus route changes as needed.

Responsible: Transit Staff

Resources: Time/Coordinate with internal departments (i.e. public works)

Timeline: Short/Medium/Long-term

Route Recommendation Summary

Over the course of the development of the Transit Development Plan (TDP) a lot has happened that impact the recommendations originally developed by SRF Consulting. New technology purchased by Valley Transit has provided additional data for further analysis in relation to the proposed recommendations. Land use changes and planned reconstruction projects contradict some of the proposed recommendations.

One important development was the installation of Automatic Passenger Counters (APC) on all of Valley Transit buses. APC are devices installed on transit vehicles which accurately records boarding and alighting of passengers. In the past Valley Transit has used surveys (individuals counting passengers) to calculate boarding and alighting. With APC, Valley Transit has the data for every stop for every route for whatever time period. The data is robust and gives the transit agency a complete picture of their system. SRF Consulting used the only data available to develop their recommendations. Since then, ECWRPC and Valley Transit have used the newer APC data to compare to the route recommendations. There are some that need further analysis. In addition to the APC, several land uses have changed in the service area. The DMV is leaving their location along Hwy 47; potentially affecting Route 4's recommendation to connect to Meijer's and the DMV. Shopko on Northland is now closed and eliminates another destination supporting route 3, 4 and proposed route 50. A Major road construction project is planned for Woodman Road along the Woodman Apartments,

which includes pedestrian accommodations and a bump out for the bus stop. Valley Transit aims to support these kinds of transit friendly projects and will not remove services from Woodland Drive. Encircle health is looking at expanding their facility and demand for additional services will likely increase in the future.

As a result of the APC data, land use changes and reconstruction projects, some recommendations need to be modified and/or need further analysis. Below is a summary of the proposed next steps. A TDP is an ever evolving document. It provides the necessary information for Valley Transit to improve efficiencies in the near future.

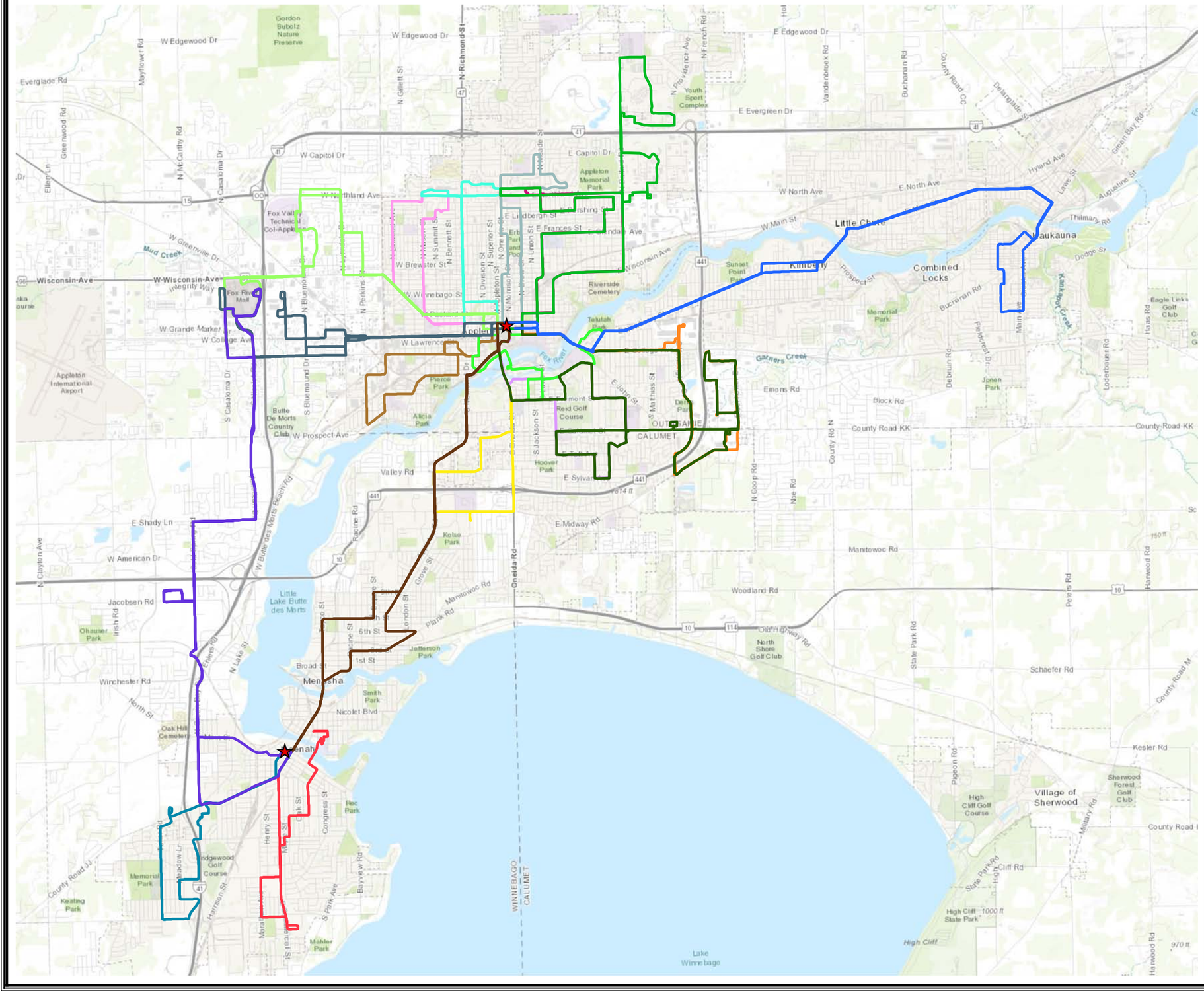
- Continue to utilize APC data to evaluate route performance (ongoing).
    - Further analysis needed for minor route modification to route 2, 3, 11, 12 and 16.
    - Further analysis needed for North area restructuring for routes 3, 4, and 5.
- Increase frequency on 12, 15, 30 and 20 (1-2 years)
- Route 4 (1-2 years)
- Route 15 (3-5 years)
- Route 60 (5-10 years)
- Route 50 and 55 (5-10 years) – needs further analysis
- Valley Packaging, Appleton North High School and Woodman Apartments will not lose service.

APPENDICES

APPENDIX A-1

VALLEY TRANSIT SYSTEM MAP

Map 1-1
Valley Transit Routes
2019



★ Valley Transit Centers

- Route 1
- Route 2
- Route 3
- Route 4
- Route 5
- Route 6
- Route 8
- Route 9
- Route 11
- Route 12
- Route 15
- Route 16
- Route 19
- Route 20
- Route 30
- Route 31
- Route 32
- Route 41

Source: Valley Transit Routes - Appleton GIS GTFS, May 2019
Base Map - World Topographic Map, Esri base maps.

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Scale in Miles

PREPARED MAY 2019 BY:

East Central Wisconsin Regional Planning Commission
ECWRPC

O:\Adam\2420ValleyTransit\SystemMap.mxd

APPENDIX A-2

SRF SERVICE REVIEW DOCUMENT

Valley Transit
Service Review

Final Report

April 2019

East Central Wisconsin Regional Planning Commission

Table of Contents

Introduction

Project Overview

This Service Review is intended to evaluate Valley Transit's existing system, develop strategies to improve operations and efficiency, and recommend both short-term and long-term improvements to fixed-route service.

This document begins with a review of previous planning efforts, a statement of vision, mission and objectives, and a summary of existing demographic and transit in the Valley Transit service area. Following this analysis of existing conditions, the Service Review will recommend short- and long-term service revisions to improve Valley Transit's ability to meet customer needs.

Governance Structure & Partnerships

Valley Transit is a department of the City of Appleton. It is overseen by the Fox Cities Transit Commission, a board comprised of thirteen members from participating communities. Commission members include two elected Alderpersons from the City of Appleton, two citizens of Appleton, and nine members from the seven other communities that provide funding for Valley Transit, as shown in Table 1 below.

Table 1. Fox Cities Transit Commission Members

Municipality	Representatives	Term
City of Appleton	Two (2) citizens, appointed by the mayor	3 years
	Two (2) alderpersons, appointed by the mayor	1 year
City of Neenah	Two (2)	3 years
Town of Grand Chute	Two (2)	3 years
City of Menasha	One (1)	3 years
Village of Fox Crossing	One (1)	3 years
City of Kaukauna	One (1)	3 years
Village of Kimberly	One (1)	3 years
Town of Buchanan	One (1)	3 years

Valley Transit is supported by various funding sources, including assistance programs from the FTA, the State of Wisconsin, local support from municipalities, counties and non-profits/private companies in the Valley Transit service area, and user fares. Currently the local share of funding is primarily built up from local government contributions via property tax revenue. A dedicated sales tax has been pursued in the past through state legislation that would enable a regional transit authority (RTA); however, this type of authority is not currently enabled in the State of Wisconsin.

Previous Plans & Guiding Policies

The Valley Transit Service Review is intended to build on previous planning efforts in the Fox Cities region, including the 2015 Valley Transit Strategic Plan, 2009 Valley Transit - Transit Development Plan (TDP), and local and regional transportation plans. ECWRPC has led the effort to identify key recommendations from previous plans that can be used to inform this analysis. Below is a summary of findings from each relevant plan.

Valley Transit Strategic Plan (2015)

Valley Transit's 2015 Strategic Plan serves as a comprehensive analysis of the agency's existing operations and future opportunities for growth. Produced with extensive input from the Fox Cities Transit Commission, Valley Transit staff, and local community officials and residents, the Strategic Plan includes recommendations for implementation in the near term, as well as 3-year, 5-year, and 10-year future scenarios.

- The Near-Term Scenario is focused on internal management and performance tracking practices, not expansion or contraction of the Valley Transit network. Before large scale transportation investments are made, the system should build on existing efficient practices and dedicate staff accordingly. The intent is to lay the groundwork for future changes.
- The 3-Year Scenario comprises moving Valley Transit toward a more private sector approach to provide transit service while maintaining the essential qualities of municipal services. The approach will focus on moderate, controlled growth of the organization similar to the manner of many private sector businesses.
- The 5-Year Scenario is focused on continuing the recommendations and the foundation set in previous years. This scenario is focused on securing stable funding and making strategic investments in capital assets and personnel.
- The 10-Year Scenario is an aggressive approach to transportation services. A combination of public and private strengths will provide the most cost-effective service that meets a wider range of transit needs.

Service descriptions for each scenario are listed in the table on the next page.

Table 2. Key Recommendations: Valley Transit Strategic Plan (2015)

Scenario	Key Recommendations
Near-Term Scenario	▪ Bus route network similar to current network with minor adjustments to ensure buses are running on time. ▪ No changes in ADA paratransit service. ▪ No changes in Connector service.
3-Year Scenario	▪ The portfolio of Valley Transit services will be similar to what is currently offered ▪ Geographic expansion is contingent upon meeting service development guidelines, and the availability of funding ▪ Buses will be added to peak service to improve schedule reliability ▪ Adjust services to reduce or eliminate low-performing segments of fixed-routes. If they are in areas of critical need (people with disabilities, transit dependent, etc.), but do not generate substantial fixed-route ridership, explore coordinating with other agencies or offering a more flexible transit mode ▪ Reinvest service into high return areas that have transit supportive densities and strong ridership (Routes 12, 15, 20, 30). Establish high frequency network of routes in highest use areas. ▪ Incorporate staggered transfer times at hubs ▪ Expand ADA complementary paratransit in a manner consistent with the expansion of fixed routes ▪ Add tripper services to serve niche markets or areas of inconsistent demand. Use 2010 Comprehensive Operations Analysis as reference point.
5-Year Scenario	▪ Additional frequency on most productive bus routes. A high-frequency network should be established. ▪ Geographic expansion is contingent upon meeting service development guidelines. ▪ Connector service should be implemented in areas where fixed-route performance thresholds are not met; however, funding for this should be identified. ▪ Consistent with private sector practices, low ridership segments of routes should be eliminated. No passenger will be left behind, as taxi vouchers, Connector service, or paratransit can be used to current customers who lose fixed route service. ▪ Valley Transit will coordinate, advocate, or sponsor ridesharing and other multimodal services like bike sharing, car sharing, and capital investment in transit supportive infrastructure.

10-Year Scenario	▪ Expand services geographically to accommodate new development only if it meets density thresholds. Examples include Town of Greenville and Kaukauna Circulator routes, and intercity bus service.
	▪ Expand connector service as needs increase
	▪ Coordinate Fox Cities regional rideshare program, or co-promote with State of Wisconsin rideshare and vanpool programs
	▪ Deploy broad portfolio of transportation services:
	  ▪ Fixed-route commuter buses
	  ▪ Guaranteed ride home program
	  ▪ Travel demand management
	  ▪ Bicycle commuting infrastructure, outreach programs, and services
	▪ Increase service frequencies as markets develop.

Valley Transit -- Transit Development Plan (2009)

The most recent Transit Development Plan for Valley Transit was completed in 2009. While many service recommendations were updated in the 2015 Strategic Plan, key planning and policy recommendations from the TDP are listed below.

Table 3. Key Recommendations: Valley Transit– Transit Development Plan (2009)

Topic Area	Key Recommendations
Planning and Policy	▪ Further Examination and implementation of a regional transit authority (RTA) pending statewide enabling legislation. ▪ Participation in the planning and design of the reconstruction of Wisconsin Avenue. ▪ Expanded involvement in land use planning and development efforts to curb sprawl and facilitate transit-oriented development patterns. Continue to maintain extensive service in downtown Appleton and other central business districts where there are higher densities. ▪ Continue to participate in security/evacuation plans.

Source: East Central Wisconsin Regional Planning Commission

Long-Range Transportation Plan

Appleton (Fox Cities) Transportation Management Area: Long Range Transportation/Land Use Plan – 2050

Developed in 2015 by the East Central Wisconsin Regional Planning Commission, this plan addresses transportation and land use improvements for the Appleton (Fox Cities) Transportation Management Area, which includes the cities of Appleton, Kaukauna, Menasha, and Neenah, as well as surrounding towns and villages in Calumet, Outagamie, and Winnebago counties. The plan includes a detailed analysis of Valley Transit's operations and finances; key recommendations are listed in the following table.

Table 4. Key Recommendations: Long Range Transportation/Land Use Plan – 2050

Topic Area	Key Recommendations
System Recommendations	▪ Reduce route lengths where boarding and alighting counts are low to nonexistent; decrease residential service and increase arterial service. ▪ Eliminate areas of duplicated service between Call-A-Ride/Dial-A-Ride/Connector. ▪ Extend peak hour service in the afternoons/increase frequency. ▪ Reduce travel and transfer times. ▪ Cover more area instead of backtracking on routes. ▪ Review and adjust routes more frequently than annually. ▪ Flexible routes that can be adjusted based on bad weather/traffic/etc. ▪ Initiate discussions with Green Bay Metro on examining intercity bus transportation. ▪ Service to Fox Cities Stadium for games. ▪ Renew discussions with Combined Locks for service. ▪ Make a connection to the VA Milwaukee shuttle in the morning.

	▪ Examine ways to incorporate service requests into service areas without major changes: Affinity Pediatrics in Neenah; intersection of Racine Street and Midway Road; Evergreen Drive and Ballard Road medical offices/Park and Ride; Railroad Street and Kimberly Avenue in Kimberly; Later service to Wal-Mart in Neenah; Park and Ride lot in Greenville; Indoor Skate Park in Kimberly; Time Warner Cable on Plank Road.
Passes and Fares	▪ A student bus pass program (K – 12/universities/technical colleges). ▪ Expand the number of outlets where tickets can be purchased. ▪ Examine online ticket printing. ▪ A frequent user discount/rewards program/daily specials.
Information and Technology	▪ The use of color coded signage along the routes to match up with route maps. ▪ Use reflective tape on signage so it is more visible at night. ▪ Continue to utilize the transit model maintained by the East Central Wisconsin Regional Planning Commission. ▪ Include minor civil division (MCD) boundaries on all route maps and rider's guides. ▪ Coordinated expansion of the Bus Buddy Program with Making the Ride Happen to include all age groups. ▪ Expansion of Intelligent Transportation Systems (ITS), such as: ▪ Global positioning systems (GPS) on buses; Cell phone technology with real-time updates (Requires GPS on buses); Message boards at the transit center with important real time information; Wireless internet on buses; Audio/visual entertainment on buses;
Planning and Policy	▪ Further examination and implementation of a regional transit authority (RTA) pending statewide enabling legislation. ▪ Expanded involvement in land use planning and development efforts to curb sprawl and facilitate transit oriented development patterns, but continue to maintain extensive service in downtown Appleton and other central business districts where the densities support transit. ▪ Continue to participate in security/evacuation plans. ▪ MPO staff will continue to work with local municipalities to develop and maintain more efficient ways to monitor inventories (i.e. road maintenance inventories such as PASER and sign inventories); this could also include assisting local municipalities with collecting field data if requested by local municipalities.
Marketing and Education	▪ Target potential teen users that choose not to get a driver's license due to increasing costs of vehicle operation and maintenance. ▪ Invest/market more heavily in the notion that Valley Transit is an affordable alternative to commuting. ▪ Invest/market more heavily to a vast market of residents not aware of Valley Transit. ▪ Continue to pursue feasible marketing partnerships with other agencies and organizations. ▪ Expand discussions with major employers to subsidize transit cost for employees. ▪ Participation in area Health and Wellness Fairs.
Funding	▪ Continued pursuit of other nontraditional funding opportunities both public and private, for both operation and capital improvements. ▪ Further examine the staffing of a mobility manager.
Image	▪ Continue to enhance the public image/perception of the Appleton Transit Center.

	▪ Enhance the public image/perception of public transportation throughout the region by expanding education and outreach efforts particularly to groups not aware of Valley Transit. Future marketing efforts should also focus on the notion that the bus system is alternative to commuting by vehicle. ▪ Increase staffing presence at the Appleton Transit Center (staff, community leaders, police, etc.). ▪ Reexamine the Carry-on Policy to have more flexibility for the consumer.
Miscellaneous	▪ Encouragement and education of programs like WisDOT's Rideshare and the use of bicycle/pedestrian facilities. ▪ Capacity Improvements of area roadways (where necessary and practical). ▪ Access Management (through traffic calming/traffic devices and engineering designs). ▪ Preservation of existing system/network of the local roads system. ▪ Preservation (utilizing PASER for local roads and PCI for regional state highways). ▪ Railroads and bridges (emergency management/preparedness plans) for rerouting traffic in case of emergencies. ▪ Road design improvements that make safety a priority (may also include/incorporate road diets, additional turn lanes at intersections, improve system user's sight lines). ▪ Consider work policies such as alternative work schedules, compressed work weeks and flexible working hours as strategies to alleviate peak morning/afternoon rush hour traffic. ▪ Wittman Regional Airport Business Park: support efforts for future aviation development and work with all interested parties to increase collaboration and economic development for the region.

Source: East Central Wisconsin Regional Planning Commission

County Coordination Plan

The Appleton-Fox Cities Long Range Transportation/Land Use Plan 2050 also includes analysis of public transit-human services transportation coordination within Outagamie County. Key recommendations from this section are listed below.

Table 5. Key Recommendations: County Coordination (from 2050 LRTP)

Plan	Key Recommendations
Outagamie County Coordination Facilitation (from 2050 LRTP)	▪ Investigate/research/continue to support a Regional Transportation Authority (RTA) at the local and regional level and contact local legislators. ▪ Expand on travel training and Bus Buddy Program; continue to market with transit providers; ESTER (economic research/data on the benefits of public transit to the local economy); support the "Complete Streets" policies; advertise with mailers; leaders setting an example of transit; letters to the editor with personal stories; outreach/presentations to the communities; support TRANSPORTATION PLUNGE (Fox Cities) in spring 2014; incentives for local businesses/students to use public transit (AASD for middle/high school students); coordinate with Lawrence University students; grant opportunities ▪ Contact legislators about importance of services; gathering community support and contributions; educate the public on funding issues/ensuring a better perception of public transit; advocate for funding for capital and operation costs (alternative funding such as through a Regional Transit Authority (RTA) is

	supported) ▪ Purchasing vans from Group Homes; coordination with other providers (private and non-profit); education/outreach to the public; research on weight limit capacities for lifts. ▪ Bringing healthcare providers together; researching other examples of success stories

Source: East Central Wisconsin Regional Planning Commission

Local Comprehensive Plans

Each municipality within the Valley Transit service area maintains a local comprehensive plan, which includes recommendations for transportation improvements along with other topic areas. Key transit-related recommendations of each local comprehensive plan are listed in the table below.

Table 6. Key Recommendations: Local Comprehensive Plans

Plan	Key Recommendations
Appleton Comprehensive Plan 2010-2030	▪ Objective 6.6 Maintain diverse and cost-effective options for public transportation that meets the needs of all segments of the population. ▪ 6.6.1 Implement recommendations from the Metropolitan Planning Organization to establish a regional transportation authority with a dedicated revenue source. ▪ 6.6.2 Seek long-term funding options, in collaboration with neighboring communities, to support Valley Transit. ▪ 6.6.3 Continue to support alternative transit routes such as the Downtown Trolley. ▪ 6.6.4 Continue to support Valley Transit including the investigation of alternative transit routes, hub stations, and days/times of operations to better serve the community. ▪ 6.6.5 Support improved regional connections including along the I-41 corridor. ▪ 6.6.6 Encourage transit-oriented development (TOD) at higher densities at key locations in the City. Consider working with Valley Transit on redevelopment of existing single use transit center to a mixed use concept which incorporates other uses including housing. ▪ Objective 6.9 Implement the transportation-related recommendations contained within related plans. ▪ 6.9.1 Implement the transportation related recommendations within the 2016 Downtown Plan. ▪ Objective 11.1 Maintain a positive relationship with local area governments to foster collaboration on issues of mutual concern. ▪ 11.1.2 Continue Appleton's involvement in regional organizations, such as those to promote economic development, to work to provide affordable housing, to restore and revitalize the Fox River, and to provide transit services in the Fox Valley. ▪ Maintain diverse and cost-effective options for public transportation that meets the needs of all segments of the population. (Ongoing) ▪ 2016 Downtown Plan ▪ 5.5 Endorse a system of public transportation centered on downtown.
Village of Little Chute Comprehensive Plan 2016-2036	▪ Goal: To achieve a safe, efficient, and environmentally sound transportation system that provides personal mobility to all segments of the population, and supports the economy of the Village of Little Chute and the region.

	▪ 8 Continue to work with the providers of transportation for the elderly and disabled residents of the Village of Little Chute. ▪ 9 Coordinate transportation improvements with the towns of Grand Chute and Vandenbroek, the Village of Kimberly, the cities of Appleton and Kaukauna, Outagamie County, East Central Wisconsin Regional Planning Commission, and the Wisconsin Department of Transportation.

Village of Kimberly 2030 Comprehensive Plan	▪ Goal ED -4: To ensure that transportation infrastructure planning is supportive of economic development efforts. ▪ Strategy ED 4-1: Plan for providing adequate transportation infrastructure for businesses and industries within the Village. ▪ Recommendation ED-4.1.1: Examine major employment destinations in Kimberly and determine if they are adequately served by existing roadways, bus and bicycle routes. ▪ Goal T-4: To accommodate future mass transportation and public transit needs. ▪ Strategy T-4.1: Maintain and improve access to bus transit (through Valley Transit) for residents and businesses. ▪ Recommendation T-4.1.1: Work with the East Central Wisconsin Regional Planning Commission and other municipalities to foster the development of a 'Regional Transit Authority' (RTA) to ensure adequate funding of the bus system. ▪ Strategy T-4.2: To accommodate transportation for the elderly, disabled, handicapped and those not able to have a driver's license. ▪ Recommendation T-4.2.1: Continue to encourage the availability of taxis, medi-vans, and mini-van types of services in the village. ▪ Recommendation T-4.3.1: Coordinate with area municipalities and businesses to create park-and ride lots to facilitate carpooling.
Village of Combined Locks 2030 Comprehensive Plan	▪ Goal ED-4: To ensure that transportation infrastructure planning is supportive of economic development efforts. ▪ Strategy ED-4.1: Plan for provision of a variety of transportation infrastructure in the future in order to serve the needs of businesses and industries. ▪ Recommendation ED-4.1.1: Examine major employment destinations in Kimberly and determine if they are adequately served by existing roadways, bus, pedestrian and bicycle routes. ▪ Goal T-5: Accommodate public mass transportation opportunities as needs arise. ▪ Strategy T-5.1: To improve accessibility to alternatives modes of travel for all Village residents. ▪ Recommendation T-5.1.1: Continue to encourage the availability of taxi's, medi-van, and mini-van types of services in the village. ▪ Recommendation T-5.1.2: Encourage private carpooling by coordinating with area municipalities and businesses to create park-and ride lots. ▪ Recommendation T-5.1.3: Consider Valley Transit route possibilities when planning for transportation needs and developing street construction/re-construction projects.
City of Kaukauna Comprehensive Plan	▪ Goal, Strategies and Recommendations – Housing: ▪ Strategy: Ensure that housing and care facilities are provided to elderly and special needs residents, both current and future. ▪ Recommendation: Provide adequate and affordable means of transportation for the elderly and disabled within the City. ▪ Goal, Strategies and Recommendations - Transportation ▪ Participate in regional transit authorities that provide service to multiple areas within the Fox Cities for persons of all incomes, abilities, ages, and mental aptitudes. A regional service can best accommodate persons with disabilities, that elderly, and multiple modes of transit such as bicycles, cars, rail, plane, and others. ▪ Goal, Strategies and Recommendations: Intergovernmental Cooperation ▪ Ensure that short and long-term development plans are shared with other

	governmental entities. ▪ Work with and coordinate sewer service area planning, transportation planning, economic development activities, and other development matters as appropriate with the East Central Wisconsin Regional Planning Commission or other appropriate agencies. ▪ Ensure that future planning and development activities are shared and coordinated with the Heart of the Valley Metropolitan Sewerage Commission, Valley Transit, Outagamie County, neighboring communities, and other appropriate agencies.
Town of Buchanan Comprehensive Update 2040	▪ Transportation Policy: Provide a broad range of transportation choices; including well maintained local roads, county, state and federal highways, sidewalks, bike lanes, trails, and public transportation to meet the diverse needs of residents. ▪ Transportation Policy: Support ADA and elderly transportation options. ▪ Goal T 2: Promote a multi-modal transportation system for efficient, safe, and convenient movement of people, goods, and services. ▪ Objective T 2.2: Encourage the availability of public and private transportation services. ▪ Recommendation T 2.2.1: Work with Valley Transit to survey residents regarding transit needs. ▪ Recommendation T 2.2.2: Work with Valley Transit to monitor existing routes and expand or revise scheduled bus service as needed. ▪ Recommendation T 2.2.3: Support the continuation of ADA and Senior Transportation services within the Town.
Village of Harrison Comprehensive Plan Update (Feb. 2017)	▪ Housing Goal: To encourage safe, affordable, and quality housing of various types for residents in all stages of life while maintaining the existing housing stock. ▪ Objective 3. Provide opportunities for retirement facilities, elderly housing, and specialized housing such as nursing homes or community-based residential facilities, and ensure that they are adequately served with transit service, pedestrian facilities, bicycle facilities, recreational facilities, and convenient, nearby shopping, service and entertainment areas. ▪ Transportation Goal: To provide the Village of Harrison a transportation network will be a safe, efficient, and environmentally sound system that provides multi-modal personal mobility for all segments of the population as well as the movement of goods for business and industry. ▪ Objective 3. Develop and maintain infrastructure to support biking, walking and other modes of transportation throughout the Village and the surrounding region. ▪ Policy 1. Provide and require a broad range of transportation choices, including quality roads, highways, sidewalks and trails to meet the diverse needs of residents. ▪ Policy 13. Support private transportation providers that serve the population that are unable, or do not have access to, personal vehicles, such as the elderly, homebound, sick, or disabled.
City of Menasha 2030 Comprehensive Plan	▪ Housing Goal 5: Maintain an adequate supply of sites for multi-family housing in desirable locations that meet current needs and projected growth. ▪ Objective 1. The city shall encourage the development of high quality, mixed-income, attractive, high-amenity multi-family neighborhoods in close proximity to services, trails, public transportation, employment, and recreation facilities. ▪ Housing Goal 7: Create affordable home ownership opportunities for low- and moderate-income residents. ▪ Objective 5. Encourage development near existing public transportation

	opportunities and evaluate the need for expansion of these opportunities. ▪ Housing Goal 8: Maintain an adequate supply of affordable rental housing for low- and moderate income residents. ▪ Objective 4. Encourage development near existing public transportation opportunities and evaluate the need for expansion of these opportunities. ▪ Housing Goal 9: Maintain an adequate supply of affordable housing for senior and special need households. ▪ Objective 4. Encourage new senior and special needs development near existing public transportation opportunities and evaluate the need for expansion of these opportunities. ▪ Policy 35. The city shall consider the transportation needs of all residents, particularly low and moderate income, seniors, and special needs. ▪ Transportation Goal: Provide a safe, efficient, and cost effective transportation system for the movement of people and goods. ▪ Objective 4. Require developers to bear an equitable share of the costs for the improvement or construction of transportation system infrastructure and services (road, bike paths, sidewalks, public transportation, etc.) needed to serve development. ▪ Objective 13. Ensure that the transportation needs of the physically challenged are met. ▪ Transportation Goal: Support and promote the development and use of multiple modes of transportation. ▪ Objective 2. Continue the provision of both fixed route and demand response transportation services. ▪ Objective 4. Support the development of convenient and affordable transit options. ▪ Objective 5. Promote the use and development of alternative forms of transportation as a positive, viable choice. ▪ Policy/Recommendation 17. Continue to support public transportation and paratransit initiatives. ▪ Policy/Recommendation 18. Participate in planning initiatives evaluating future public transportation programs and funding options. ▪ Policy/Recommendation 19. Ensure that the transportation needs of the physically challenged are met. ▪ Policy/Recommendation 20. The city shall participate in regional transportation system planning. ▪ Policy/Recommendation 26: The city should engage in transportation planning to ensure that the needs of the citizens of the city are being met.
Town of Grand Chute Comprehensive Plan 2010-2030	▪ Transportation Goal: Provide an integrated, efficient and economical transportation system that affords mobility, convenience and safety and that meets the needs of all citizens, including transit dependent and disabled citizens. ▪ Objective Bus Service: Expand transit and para-transit services to provide connections to urban and rural areas throughout the Town and Fox Cities. ▪ Coordinate Valley Transit review of site plans and plats. ▪ Change State Law to allow Neighborhood Electric Vehicles on Wisconsin and College. ▪ Support creation of a Regional Transit Authority. ▪ Extend paratransit service to the entire Town.
Town of Greenville Comprehensive Plan 2040 (draft)	▪ Issues/Opportunities Goal 3: Accommodate the needs and service demands of a changing population. ▪ Framing Concept 3a: Aging in Place & Livability

	▪ Strategy 3a-1: Make Greenville a more "livable" community over the next twenty years in order to increase opportunities to age in place. ▪ Strategy 3a-2: Integrate sound-decision making into land use policies using a framework that examines variables affecting livability and aging in place, such as: Mobility/Transportation, Housing/Affordability, Access to food, Programs and services, Built environment, Access to information, Public security/safety, Civic participation, Volunteerism, and Leadership. ▪ Action 3a-1: The Plan Commission should prepare a more detailed "livability study" which evaluates a number of the variables listed to better understand their options and impacts. For example, an examination of factors related to housing such as new housing styles (co-housing arrangements, accessory units, etc.); how transit may better serve aging populations; the details of housing construction principles such as Universal Design; reducing site/building maintenance, or; how changes in the zoning regulations could improve affordability. ▪ Transportation Goal 7: To provide a safe, efficient and cost-effective system of traditional and active transportation opportunities for residents & businesses. ▪ Framing Concept 7c: Realistic Public Transit Options ▪ Policy 7c-1: Support the extension of Valley Transit routes to serve the Appleton International Airport and businesses in the eastern portion of Greenville. ▪ Strategy 7c-1: Work with Valley Transit on the current and future Transit Development Plans (TDPs) to ensure Greenville's transit needs are identified and better addressed. ▪ Strategy 7c-2: Direct higher density/intensity developments to lands near the CTH CB corridor in order to better support transit services. ▪ Strategy 7c-3: Identify and secure locations within Greenville for use as park-n-ride facilities. ▪ Action 7c-1: Encourage the rezoning of appropriate properties along the CTH CB corridor to accommodate transit supportive housing developments. ▪ Action 7c-3: Work with WisDOT and landowners near the intersection of USH 15 and CTH CB to locate a new Park 'n Ride lot. ▪ Action 7c-4: Engage in the ongoing I-41 Commuter Service Study to explore potential benefits to Greenville's businesses and residents.
City of Neenah Comprehensive 2040 Plan Update	▪ Goal ED 2: Enhance Community and Neighborhood Identity. ▪ Objective ED 2.2: Promote and grow downtown Neenah. ▪ Recommendation ED 2.2.7: Improve traffic circulation and address safety access concerns for pedestrian, bicyclists, vehicles and public transit. (See Recommendation LU 1.5.5, T 1.1.1, LU 1.6.3) ▪ Objective ED 2.5: Increase alternative forms of transportation to employment centers. ▪ Recommendation ED 2.5.3: Encourage Valley Transit to evaluate existing bus routes within the City to determine if service should be expanded to serve other locations. ▪ Goal T 2: To provide, support and maintain a wide range of transportation alternatives for residents and visitors. ▪ Objective T 2.2: Provide cost-effective and convenient public transit. ▪ Recommendation T 2.2.1: Continue to support public transit and promote its use by the general public. ▪ Recommendation T 2.2.2: Investigate the benefits of supporting a regional transit authority. ▪ Recommendation T 2.2.3: Support the development of a regional transit route. (See recommendation ED 2.5.2, IC 1.1.6)

	▪ Recommendation T 2.2.4: Work with Valley Transit to monitor existing routes within the City and expand or revise routes as needed. ▪ Objective T 2.3: Reduce and avoid mobility barriers for the elderly and disabled. ▪ Recommendation T 2.3.1: Continue to provide ADA and Senior Transportation options within the City. ▪ Goal LU 1: Create a balanced pattern of land uses that meets the needs and desires of residents, preserves and enhances the quality of life and is compatible with adjacent land uses. ▪ Objective LU 1.5: Promote economic growth and vitality that meets community and neighborhood needs, while preserving the City's neighborhoods, natural resources and historic character. ▪ Recommendation LU 1.5.5: Strengthen the downtown business district. ▪ Objective LU 1.6: Ensure that the future transportation system is integrated with the existing land use plan. ▪ Goal IC 1: Continue to improve relations with neighboring municipalities and other government agencies in the Fox Cities, Winnebago County, and state and federal agencies, ▪ Objective IC 1.1: Strengthen existing partnerships and build new relationships to promote economic development in the City and region.
Village of Fox Crossing Comprehensive Plan 2018-2038	▪ Mobility and Transportation Goal: Provide and maintain a safe, convenient, efficient and environmentally sound multimodal transportation network that balances the needs of all users. ▪ Objective a. Local transportation systems will be well coordinated with regional systems and investments. ▪ Objective f. Increase access to transit facilities. ▪ Strategy 7. Require all new development along existing and proposed transit corridors to be designed so that it can be easily and conveniently served with bus or other transit systems. Site plan reviews should include a thorough analysis of whether or not the proposed development is designed in a manner that will allow it to be served by transit vehicles (e.g. buses, car pools, vans, rail, etc.). ▪ Strategy 8. Maintain a rolling 5-year Capital Improvement Plan to plan for the annual construction and maintenance of roads and other transportation facilities. Annual transportation investments should include funding for both traditional road improvements and alternative transportation modes, such as on-road bicycle accommodations, off-road bike and pedestrian trails, sidewalks and transit facilities. ▪ Action 6. Work with Valley Transit to improve the service for Fox Crossing residents. Discussions should include the possibility of additional bus stops, more benches/shelters at stops, and more education about bus routes and how to utilize the system.

Source: East Central Wisconsin Regional Planning Commission

Service Standards

Valley Transit maintains service standards for fixed-route bus routes as a component of the agency's Title VI Plan. These standards include measures of vehicle load (passengers per vehicle), vehicle headways (time between buses), on-time performance, and service availability. Valley Transit's official description for each service standard is listed below.

Vehicle Loads

The average of all loads during the peak operating period should not exceed vehicles' achievable capacities, which are 30 passengers for an ARBOC Spirit of Mobility bus, 58 passengers for standard 32-foot buses, and 67 passengers for standard 40-foot buses.

Vehicle Headway

Vehicle Headway is the length of time it takes between two buses traveling in the same direction on a particular route. Valley Transit's buses are scheduled with either 30 or 60 minute headways. During peak service, all half hour routes, and some hour long routes run with 30 minute headways. During the off-peak times all routes run once per hour.

On-Time Performance

A Valley Transit bus is considered on-time if it departs a scheduled time point no more than 1 minute early or more than 5 minutes late. Valley Transit's On-Time Performance objective is 90% or greater.

Service Availability

Valley Transit currently provides service to all major destinations and large employment centers within the communities that it serves. The majority of the City of Appleton has bus service within one quarter mile of all residents. Valley Transit optimizes the funding and resources that it receives from the partner communities to maximize its route coverage within these communities. Valley Transit frequently reviews its level of service to each community and discusses expansion opportunities when resources to do so become available.

Vision, Mission & Objectives

Vision Statement

Getting people where they want to go, when they want to.

Mission Statement

Valley Transit provides customer focused transportation, connects our communities and enhances quality of life.

Objective Statements

Expansion

1. Partake in the I-41 Initiative and Commuter Service Study to ensure coordination
2. Advocate/encourage transit-oriented development
3. Reorganize evening transit schedules to coincide with community activities/events
4. Coordinate with Oshkosh (GO Transit) on related 2020 Census funding/service impacts
5. Explore alternative transit service delivery options (on-demand, express route, mixed fleet, shared van pools, bike share, etc.)
6. Work with partner agencies to map all transportation mode options to see how Valley Transit can better align themselves within transportation and community planning
7. Evaluate alternative transportation modes to fill first and last mile travel needs.
8. Increase fixed route frequency and geographic reach of service
9. Bring on additional, diverse partners to increase growth
10. Work with Appleton International Airport to connect passengers to greater Appleton area through transit

Technology

11. Research and develop a technology plan for the future (feeder transportation service, location app, cashless payment system, and automated vehicles)

Perception/Education/Marketing

12. Develop a marketing and communication plan to develop relationships with businesses and the education system (middle school, high school, UW-System and Tech Colleges)
13. Education and encourage public transportation as an option for all ages and demographics

14. Develop outreach materials such as "how to ride" videos for buses, bicycle racks on buses, rider etiquette, etc.

Service Enhancements

15. Develop a "Guaranteed Ride Home" program to encourage employment transit use
16. Invest in technology to enhance rider experience (location app, social media, fare payment)
17. Create an environment that is safe for all ages and abilities (riding the bus, bus stops, transit centers and transfer zones)
18. Continue to invest in new buses as funding becomes available
19. Work to make transit as convenient as the personal automobile
20. Continue to partner with local agencies to provide transportation to special events when warranted

Funding

21. Institute a Regional Transit Authority (encourage State Legislature, educate/support for a local referendum)
22. Research alternative, stable funding sources and models
23. Reach out to additional partners for to help expand and fund the system (regional partnership model)
24. Find alternatives to increase fare collections while maintaining reasonable costs for riders; increase ridership of choice riders
25. Seek out sponsorships for free rides/incentives for riders for select routes/times

Partnerships

26. Collaborate with regional entities to develop a multi-modal transportation system/network (integration with all modes of travel)
27. Work with willing employers to provide incentives for employees for using transit
28. Partner with non-profits to utilize idle equipment, educate and market the transit services and contribute financially to sustain and expand transit services (both public and private resources)
29. Work with transit destinations to provide benefits/incentives for transit riders (shopping, medical, schools, places of worship, colleges/universities)
30. Partner to provide incentives such as bicycle benefits
31. Partner with employers to route buses and encourage flexible work schedules to increase availability at peak times (regional partnership model)
32. Recognize unique system that communities all contribute to cost of providing transit service

Community Profile

Overview

Valley Transit's service area includes the cities of Appleton, Neenah, and Menasha, as well as the outlying towns and villages of Buchanan, Fox Crossing, Grand Chute, Kaukauna, Kimberly, and Little Chute. Located in Outagamie, Calumet, and Winnebago counties, these municipalities roughly encompass the Appleton-Fox Cities Urbanized Area, including 117 square miles and a population of approximately 216,000.

Operating Environment

Activity Centers

Located along the Fox River three miles north of Lake Winnebago, downtown Appleton serves as the geographic core of the Fox Cities region, as well as a major population and employment center. Other notable employment destinations include northeast Appleton (industrial), Grand Chute/Fox River Mall (retail and industrial), and downtown Neenah (office/industrial).

Similarly, Valley Transit's primary transfer locations are located in downtown Appleton, at Fox River Mall, and in downtown Neenah.

Institutions, Human Service Providers & Major Employers

The Fox Cities region is home to a variety of educational and community institutions, including colleges and universities, hospitals, and social service organizations. Selected institutions are listed below.

Education

- **Appleton Area School District (AASD):** The Appleton Area School District operates 16 elementary schools, four middle schools, and three area high schools (Appleton North, South, and West), in addition to supporting a variety of charter school options. During the 2017-2018 school year, AASD had an enrollment of over 16,000 students and employed an equivalent of 1,846 full-time staff.
- **Lawrence University:** Located in downtown Appleton, Lawrence University is a nationally recognized liberal arts college offering over 40 undergraduate degree programs. With over 1,400 students, the campus is located within walking distance of Valley Transit's Downtown Transit Center and is directly served by Routes 9, 11, and 20.
- **Fox Valley Technical College:** The main campus of Fox Valley Technical College is located in northwest Appleton, near the intersection of Northland Avenue and I-41. The college offers over 200 associate, technical, and certificate programs and serves 8,000 students annually across a five-county area. FVTC

students are eligible for discounted passes on Valley Transit; the Appleton campus is served by Route 12.

Health Care

- **ThedaCare Regional Medical Centers:** ThedaCare is a community-owned nonprofit health system with multiple hospitals and medical centers across northern Wisconsin. ThedaCare's primary locations in the Valley Transit service area include ThedaCare Regional Medical Center-Appleton, located on North Meade Street, as well as the Theda Clark medical campus in Neenah, home to the region's only Level II trauma center.
- **St. Elizabeth Hospital:** Ascension NE Wisconsin – St. Elizabeth Campus (formerly St. Elizabeth Hospital) is a 352-bed hospital located on South Oneida Street in Appleton. St. Elizabeth employs over 420 medical staff and is served by Valley Transit Route 1.

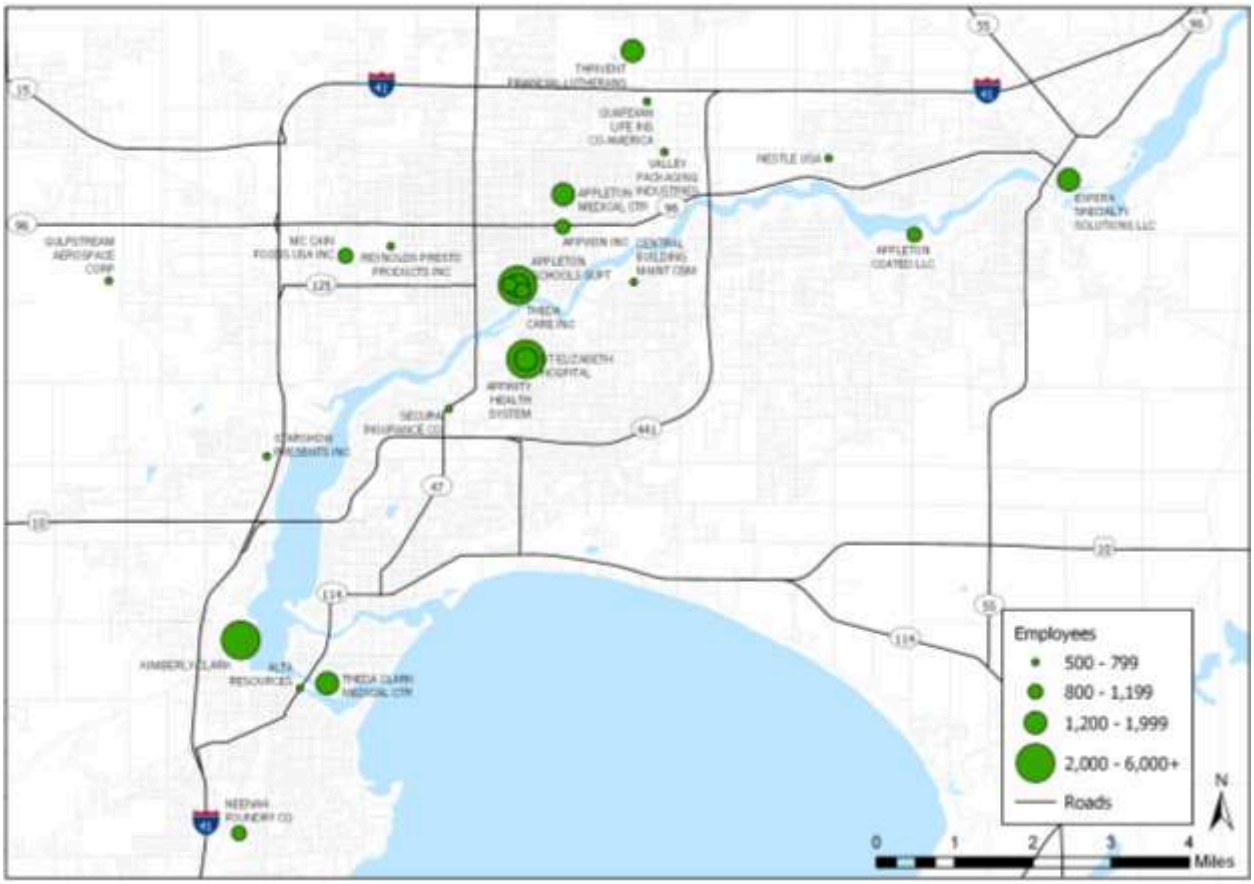
Nonprofit / Social Services

- **Valley Packaging Industries (VPI):** Valley Packaging Industries is a 501c (3) nonprofit organization that provides vocational training and employment for people with disabilities and disadvantages, as well as other services. VPI's two locations in Appleton employ between 500 and 800 people annually, many of whom rely on Valley Transit for transportation to or from work. Valley Packaging's Kensington Drive location (Northeast Appleton) is served by Route 16, while its Roamer Road facility (Southeast Appleton) is served by Route 11.
- **Other Social Service Organizations:** The Fox Cities region is home to multiple social service providers, including Winnebago County Human Services (Neenah), Outagamie County Health & Human Services (downtown Appleton), and multiple locations of Lutheran Social Services and other private providers. Most public social service agencies are served by existing Valley Transit routes.

Other Major Employers

Major employers in the Fox Cities include many of the institutions listed above, as well as Kimberly-Clark (Neenah), Thrivent Financial (Appleton), and Affinity Health (Appleton). These and other employers with over 500 employees are shown in Figure 1 below.

Figure 1. Major Employers in the Appleton-Fox Cities Region (500+ employees)



Source: East Central Wisconsin Regional Planning Commission

Other Transit Generators

Additional destinations that contribute significantly to Valley Transit ridership include the following:

- **Retail Corridors:** Retail destinations account for a large proportion of Valley Transit trips. After transit centers, Valley Transit's highest-ridership stops are located at Fox River Mall, Walmart, Goodwill, and Northland Mall. High-ridership retail corridors include College Avenue west of downtown Appleton, Northland Avenue, Highway 47 (Appleton Road) in Menasha, and Winneconne Avenue in Neenah.
- **K-12 Schools:** Students at area public schools are eligible for discounted tickets and passes on Valley Transit. As an added benefit, the Appleton Area School District (AASD) has partnered with Valley Transit to fund free rides for AASD middle and high schools students (grades 7-12) during the school year. As part of this agreement, Valley Transit operates three dedicated tripper routes designed to serve AASD on school days (Routes 70, 84, and 85). These and other routes see high ridership at AASD's three high schools (Appleton North, South, and West).

Growth Areas

In recent years, new commercial developments have occurred on the outskirts of Appleton and surrounding municipalities, as well as in local downtowns. The following areas have seen notable recent growth or are planned for future development:

- **I-41 Corridor:** Areas adjacent to Interstate 41 have seen increasing retail and commercial development in recent years, including in the communities of Neenah, Grand Chute, Appleton, and Little Chute. While economic development along I-41 may bring additional tax revenue to each respective community, new facilities along the western and northern edges of the Valley Transit service area can be challenging to reach via existing transit routes.
- **Downtown Appleton:** Over the past two decades, the City of Appleton has made significant investments in core downtown areas, including streetscaping along College Avenue, the establishment of the Fox Cities Performing Arts Center, and improvements to downtown parks and public spaces. These enhancements have attracted new or expanded commercial developments, including a new headquarters for U.S. Venture (announced in 2017) and a satellite location for West Corp. Further planning efforts call for supporting retail and mixed-use development in the downtown area, as well as enhancing pedestrian, bicycle, and transit connections.
- **Downtown Neenah:** Downtown Neenah is a thriving, walkable streetscape home to a wide array of major employers, restaurants and entertainment businesses, and public facilities. The City of Neenah is actively planning further improvements to the pedestrian and bicycle network to enhance safety and offer better connections to Doty Island and downtown Menasha. These efforts will likely continue to attract more transit-supportive retail and business activity to the area.

- **Commercial Corridors:** The City of Appleton has completed corridor plans for Wisconsin Avenue, Richmond Street, and South Oneida Street as part of the Appleton Comprehensive Plan. Each corridor plan calls for retail and mixed-use development, new or improved pedestrian and bicycle accommodations, and the installation of signs, shelters, and other amenities to facilitate transit use.
- **Appleton International Airport/Town of Greenville:** Located just west of Grand Chute, the Town of Greenville is home to Appleton International Airport and neighboring industrial parks. Greenville has seen rapid growth in recent decades, with population more than doubling between 1990 and 2008. Current planning documents call for increased industrial and residential density in the eastern portion of the Town, closest to the airport. As development occurs, there may be increased demand for Connector and/or fixed route transit service.

Streets, Sidewalks, and Infrastructure

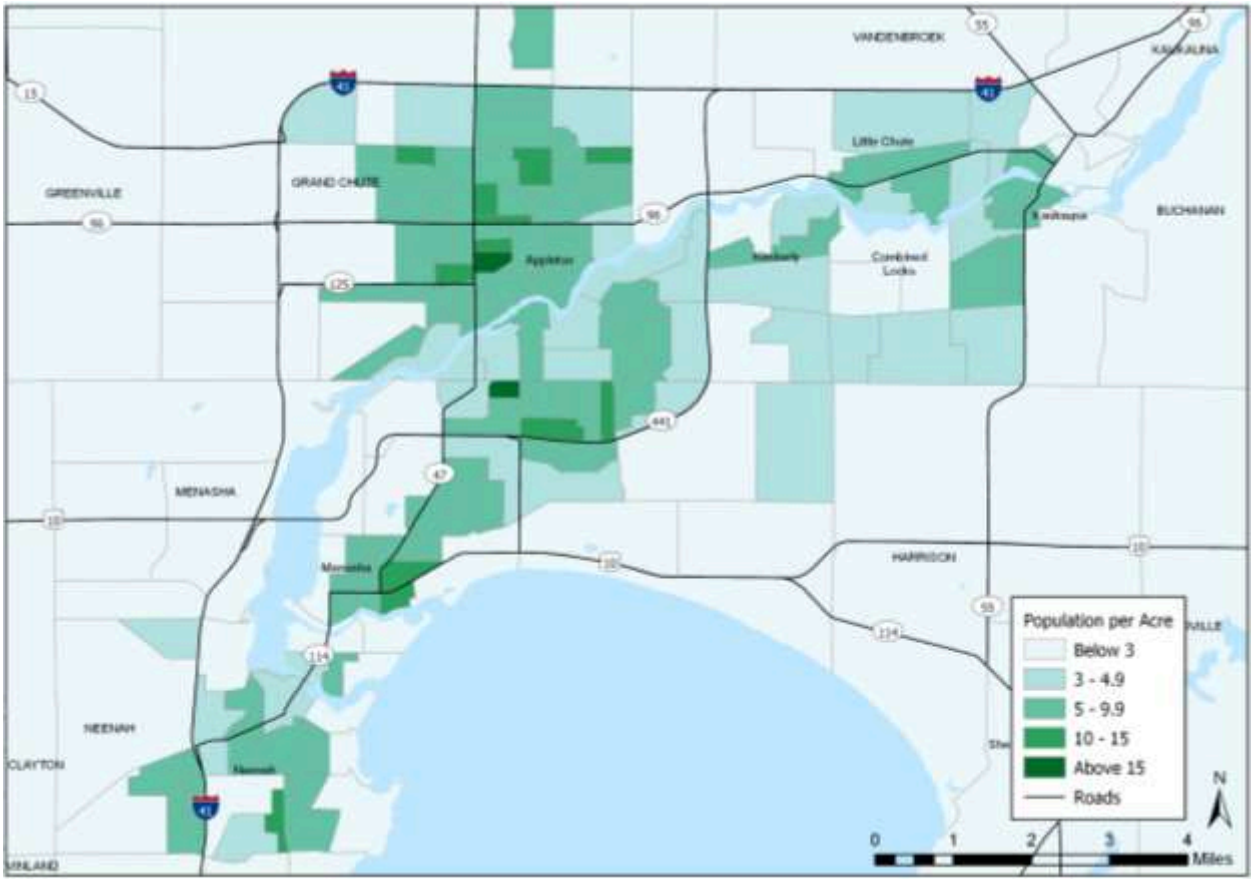
Consistent with the State of Wisconsin's Smart Growth planning requirements, each community within the study area has developed a comprehensive plan that includes recommended improvements to streets, sidewalks, and bike and pedestrian infrastructure. Core downtown areas in Appleton, Neenah, Menasha, and Kaukauna already have well-developed pedestrian networks that facilitate easy access to transit. Outlying areas, including highway-oriented commercial developments, are less likely to have adequate infrastructure in place to support transit use.

Demographics

Population Density

Figure 3 below shows the population density of the Fox Cities area (people per acre). Most of the high-density areas are served by fixed route transit, except for some areas in the City of Appleton north of Highway 41, portions of the City of Kaukauna, and portions of the Town of Harrison.

Figure 2. Population Density by Census Block Group



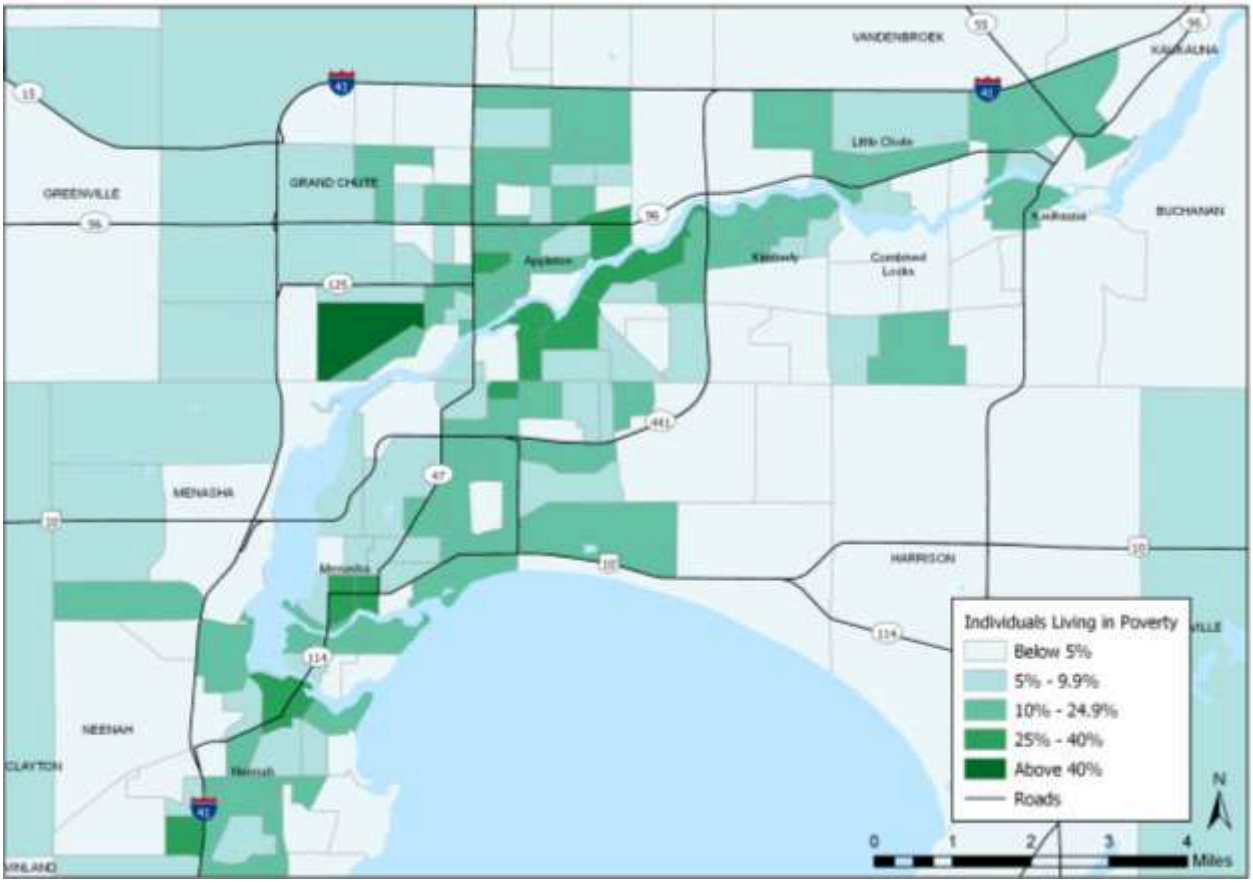
Source: U.S. Census Bureau, 2012-2016 American Community Survey

Population Below the Federal Poverty Line

As in many regions, customers with limited income make up a significant proportion of transit ridership in the Appleton-Fox Cities area. Per Valley Transit's 2014 On-Board Survey, 43 percent of Valley Transit riders have a combined household income of less than $10,000 per year, and 70 percent have a household income of less than $20,000. Individuals with low incomes are less likely to be able to afford car ownership and therefore more likely to depend on transit as a primary mode of transportation.

Figure 4 below shows the percentage of individuals living in poverty by Census block group in the Appleton-Fox Cities area. Moderate concentrations of individuals living in poverty are found throughout the Valley Transit service area, including in downtown and central Appleton, downtown Menasha, and downtown Neenah. The area with the highest percentage of individuals living in poverty is the Westhaven neighborhood, located southeast of downtown Appleton and just east of I-41.

Figure 3. Percentage of Individuals in Poverty by Block Group

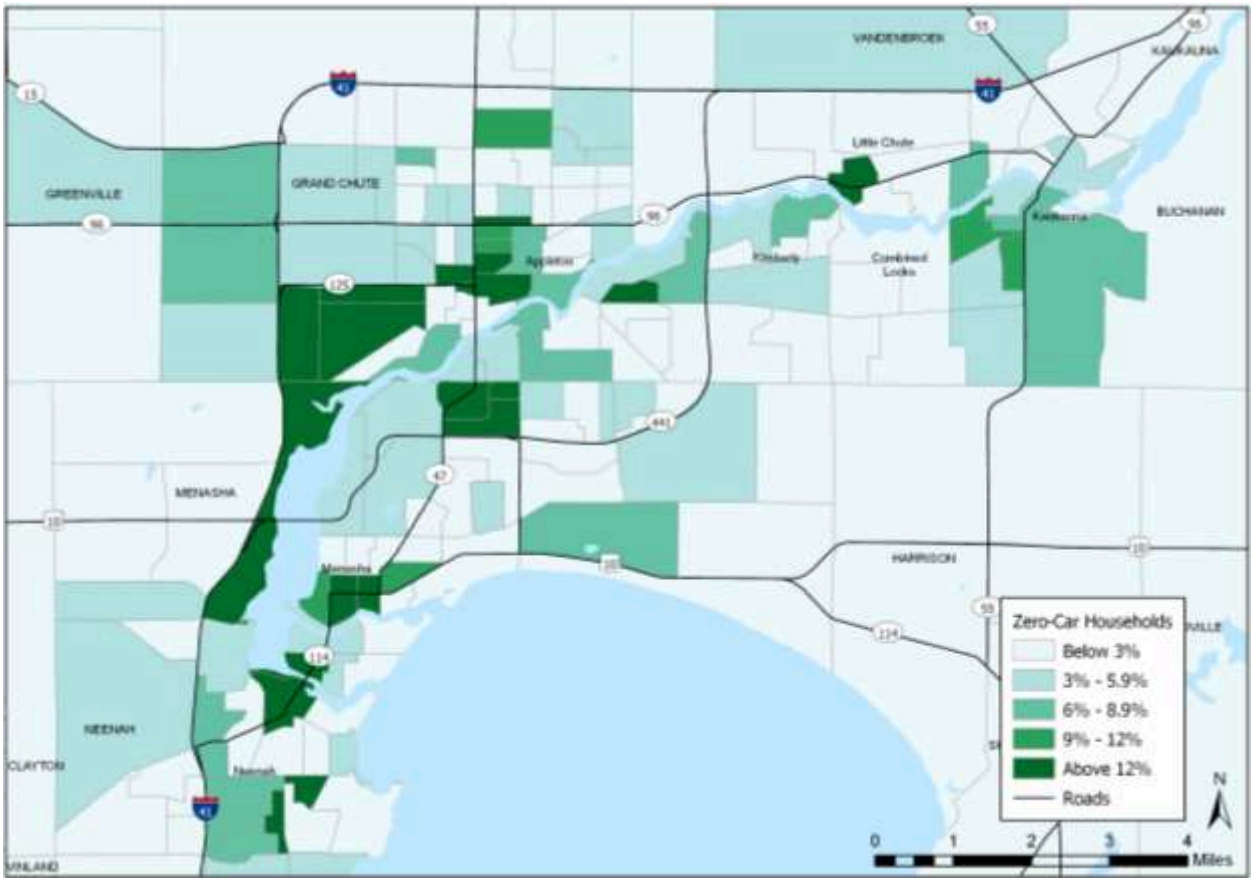


Source: U.S. Census Bureau, 2012-2016 American Community Survey

Households without a Car

Automobile ownership is indicative of transit reliance. In this section, each portion of the Valley Transit service area is compared by two measures: households with zero vehicles and households with one vehicle. Households that have no automobiles rely on transit, walking, ridesharing, or bicycling to meet mobility needs. Residents of these households are often the core of a transit market in a mid-sized urban area. Additionally, households with only one vehicle benefit from the flexibility that transit offers. Transit can allow a household with multiple members to save money by only paying to own and maintain one car, and allow for people to have meaningful job access if commute patterns change.

Figure 4. Percentage of Zero-Car Households by Census Block Group

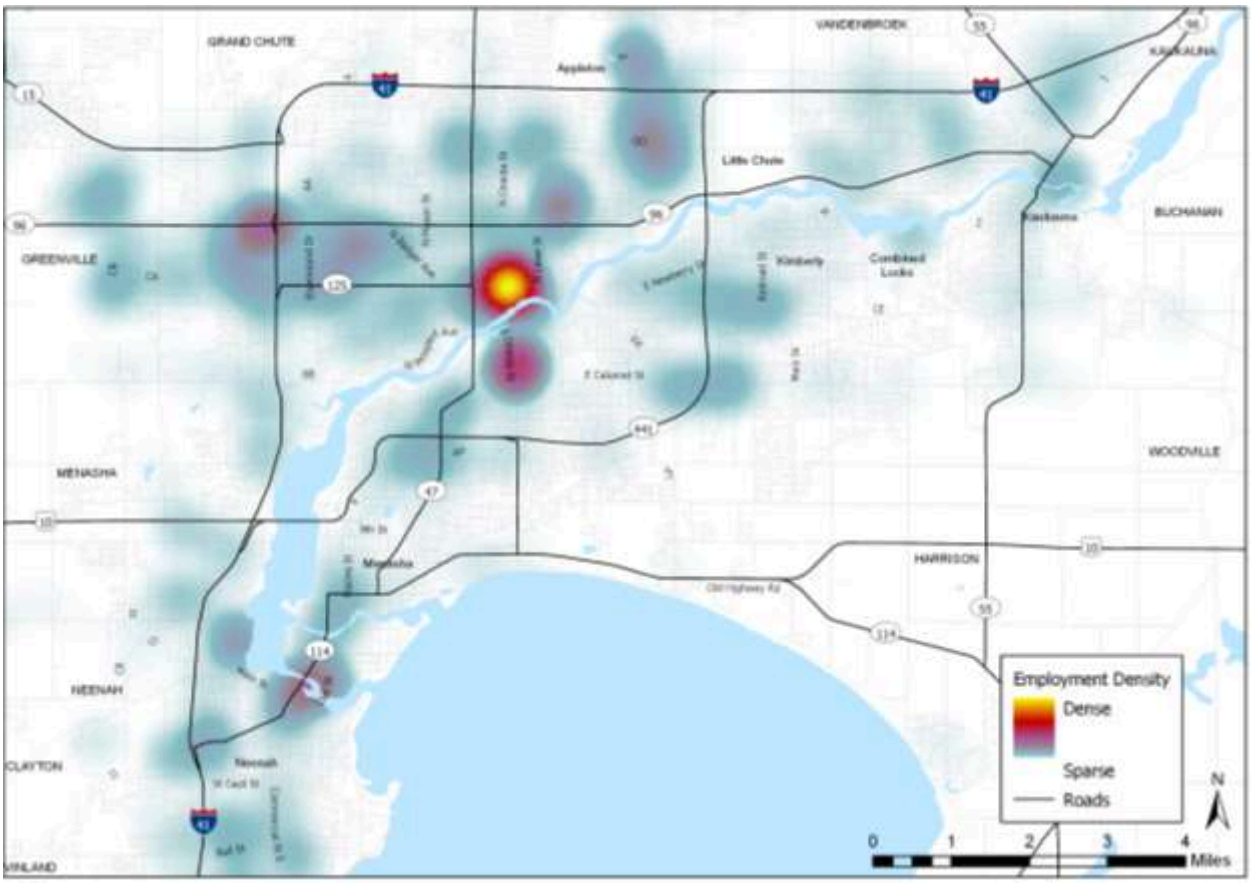


Source: U.S. Census Bureau, 2012-2016 American Community Survey

Employment and Earnings

Along with population, employment density is a primary driver of transit ridership. Figure 4 below shows a heatmap of employment density in the Fox Cities region, indicating that the densest concentration of jobs is located in downtown Appleton, with secondary centers in Grand Chute, southern Appleton, and downtown Neenah.

Figure 5. Employment Density Heatmap



Source: East Central Wisconsin Regional Planning Commission

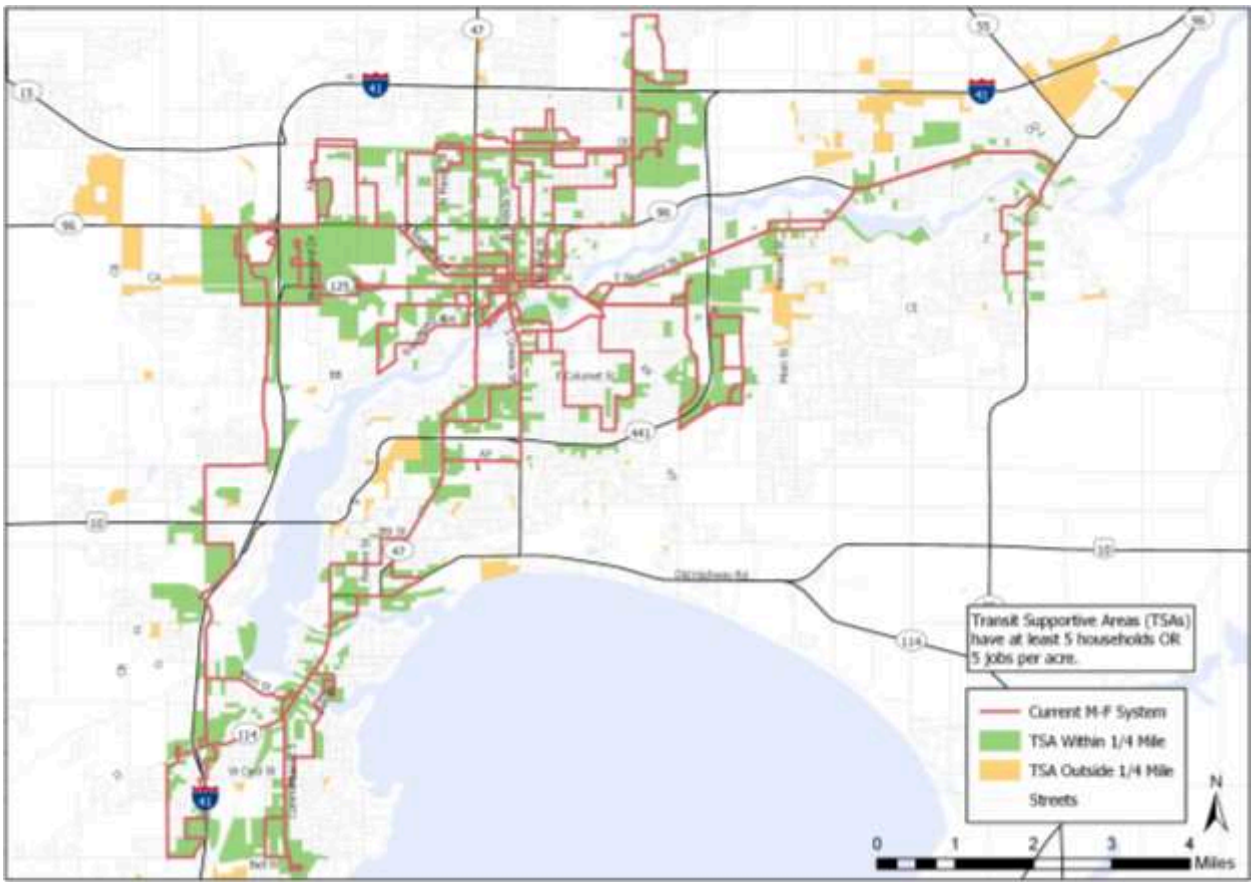
Transit-Supportive Areas

In order to summarize and quickly identify promising markets for transit, many transit agencies use a combined measure of population and employment density. In this analysis, transit-supportive areas (TSAs) are defined as Census blocks with at least 5 households per acre or at least 5 jobs per acre.

Transit-supportive areas in the Appleton-Fox Cities region are shown in Figure 5 below. TSAs that are located within ¼ mile of existing transit routes are shown in green; these areas indicate transit-supportive areas that are well-covered by current transit. Transit-supportive areas located more than ¼ mile of existing transit routes are shown in yellow; these areas indicate, conversely, areas of potential transit demand that are not served by the current transit network. These coverage metrics are consistent with Valley Transit's service availability standard, which considers residents to have access to transit if they live within ¼ mile of an existing bus route.

Existing Valley Transit routes offer service coverage to the majority of transit-supportive areas in the Appleton-Fox Cities region. TSAs not covered by existing transit are located along Route 96 west of Fox River Mall, as well as along Interstate 41 east of Appleton and north of Kaukauna.

Figure 6. Transit Supportive Areas Map



Source: Valley Transit; U.S. Census 2010 Households and LODES 7 Work Area Characteristics (2015)

Transit Service Mode Review

Below is a list of common transit-related terms used throughout this report.

Fixed Route

Fixed route services include all transit modes that operate scheduled trips along a pre-defined path. Many types of fixed route bus services exist, including the following:

Local

Local bus routes are the most common type in the Valley Transit service area. These routes operate with frequent stops, especially in downtown areas, where bus stops are located as little as one block apart.

Limited

Limited-stop bus routes may operate with fewer stops than local buses along at least part of their alignment. This enables limited-stop routes to achieve higher average travel speeds, especially on major arterial corridors.

Express

Express routes travel longer distances without stopping, often from outlying areas to a downtown center. These routes often operate along freeways or major arterials.

Commuter & Regional

Commuter bus routes are designed to provide rush-hour service to and from major job centers (often downtown areas). Regional bus routes connect multiple communities and typically offer all-day service. Both commuter and regional routes often operate as express or limited-stop services.

Demand Response

In contrast to fixed routes, demand-response services operate flexible, door-to-door or curb-to-curb service based on advance reservations. Common types of demand-response service offered by transit agencies include ADA paratransit, general public demand-response services, and shared-ride taxi services

ADA Paratransit

ADA paratransit refers to demand-response transportation service offered to customers who for reason of mental or physical disability are unable to use fixed-route bus or rail services. Pursuant to the Americans with Disabilities Act (ADA) of 1990, complementary ADA paratransit service must

be offered to all eligible residents who live within ¾ mile of fixed-route bus or rail transit service (excluding commuter and intercity routes).

General Public Demand Response

General public demand-response services are curb-to-curb services offered to customers regardless of eligibility for ADA paratransit. Many transit agencies brand this type of service as "Dial-a-Ride" or similar.

Shared-Ride Taxi

Some transit agencies, including Valley Transit, offer shared-ride taxi service to transit customers at a reduced price. This service is often offered where fixed-route transit is unavailable, or as an alternative to traditional ADA paratransit service.

Other Modes

Flex Route or Deviated Fixed Route

Flex routes or deviated fixed routes are bus routes that operate on a regular schedule and alignment, but may deviate upon request to serve destinations off the scheduled route.

Ride-Hailing Services & Transportation Network Companies

In the past 10 years, an increasing number of private transportation providers have begun to offer on-demand transportation service with smartphone-based reservations. Prominent examples of these so-called "ride-hailing" services include Lyft and Uber. Due to the rapidly evolving nature of technology and recent service offerings, these private providers are commonly referred to as "transportation network companies," or TNCs.

Valley Transit System Overview

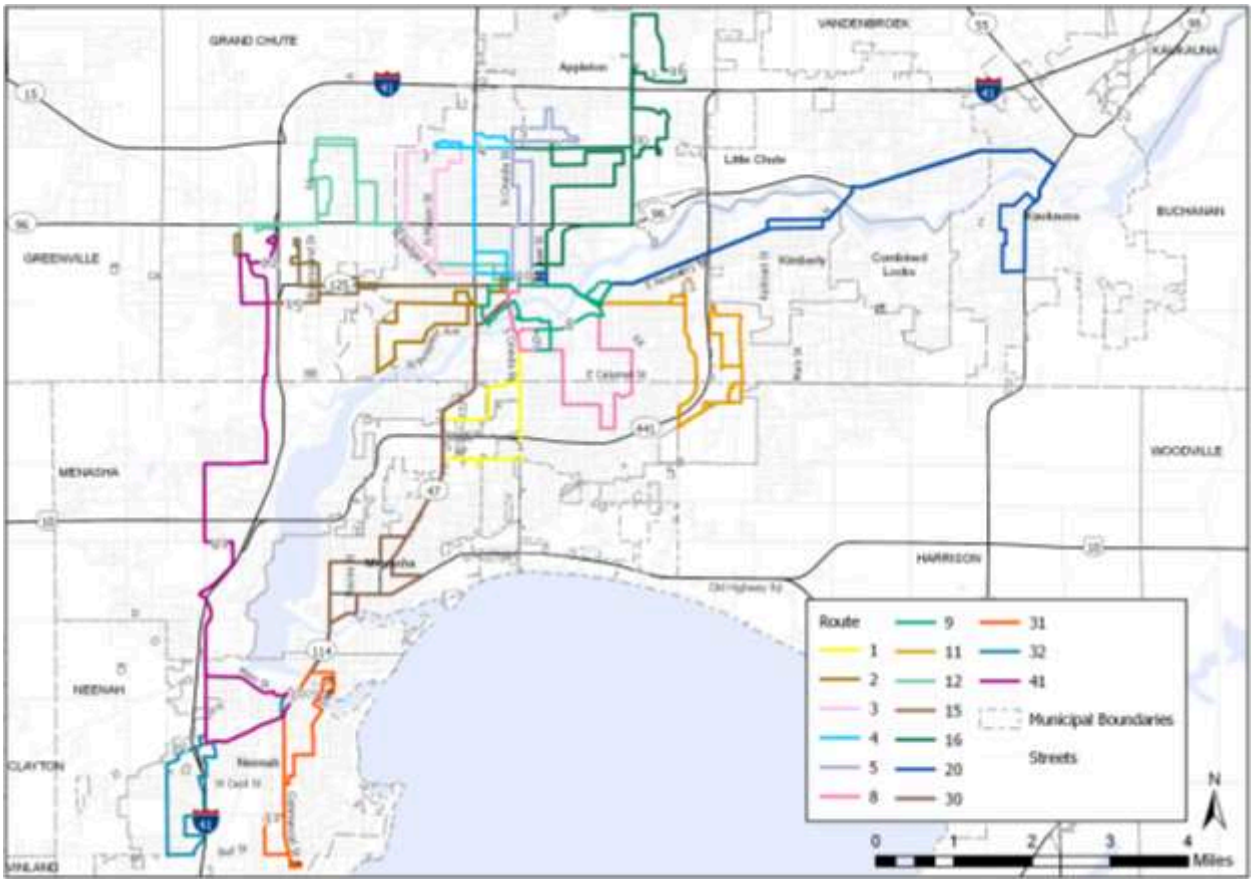
Existing Transit Service

Fixed Route

Valley Transit's core service consists of 18 fixed bus routes with service from 5:45 a.m. to 10:30 p.m. on weekdays and 7:45 a.m. to 10:30 p.m. on Saturdays. Most routes operate every 30 minutes during peak periods and every 60 minutes during off-peak periods. No Sunday service is currently provided.

Existing weekday bus routes are shown in Figure 7 below. Weekday span of service for each route is shown in Table 6 on the following page.

Figure 7. Existing Bus Routes (Monday-Friday Daytime Service)



Source: Valley Transit

Table 7. Fixed-Route Headways and Span of Service (Monday-Friday)

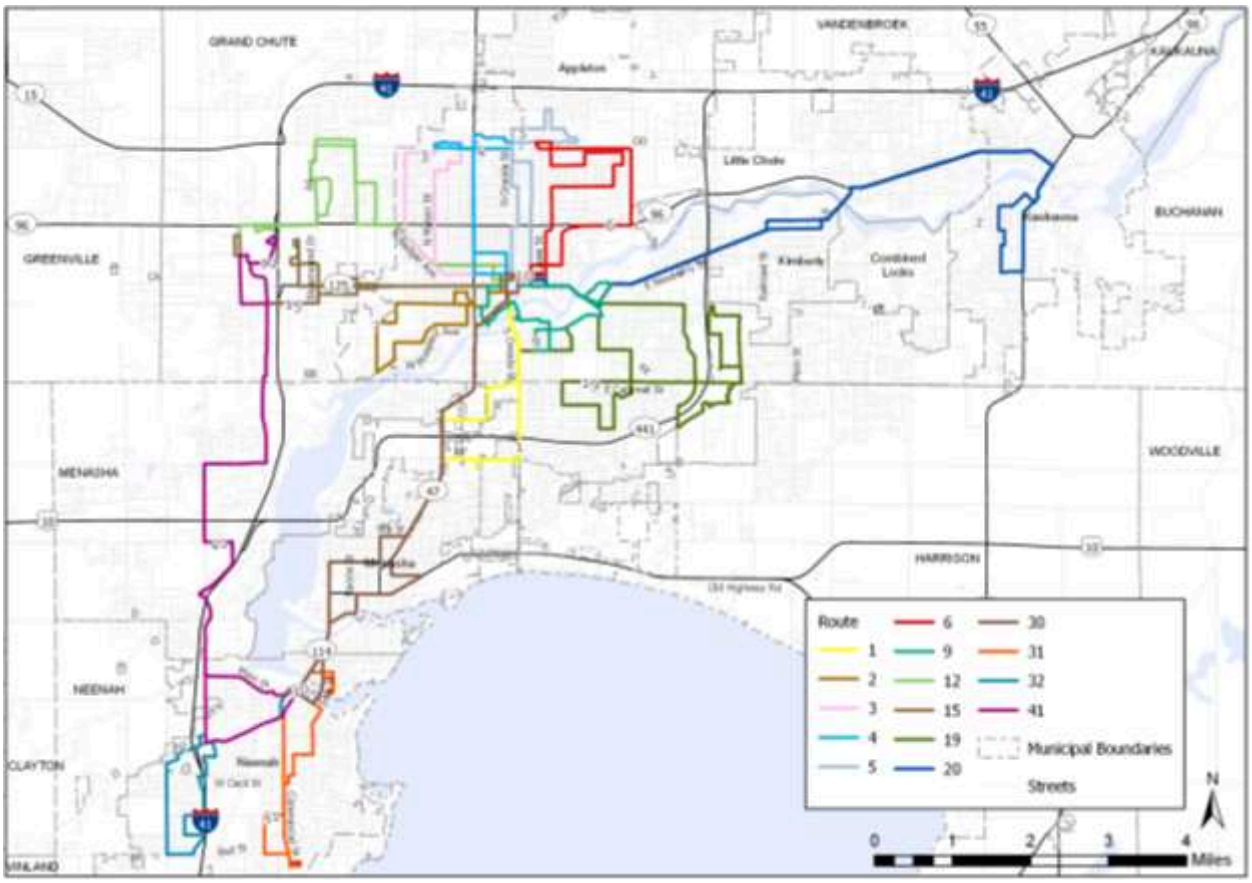
Route	Name	Round-Trip Cycle Time	Frequency (Peak)	Frequency (Midday)	Span of Service	Total Weekday Trips
1	Midway	30 minutes	30 minutes	60 minutes	6:15 AM – 9:45 PM	21.0
2	Prospect	30 minutes	30 minutes	60 minutes	6:15 AM - 10:15 PM	21.0
3	Mason	30 minutes	30 minutes	60 minutes	6:15 AM – 9:45 PM	21.0
4	Richmond	30 minutes	30 minutes	60 minutes	6:15 AM – 10:15 PM	21.0
5	North Oneida	30 minutes	30 minutes	60 minutes	6:15 AM – 9:45 PM	21.0
6	Meade	30 minutes	--	60 minutes	5:45 PM – 10:15 PM	5.0
8	Telulah	30 minutes	30 minutes	60 minutes	6:15 AM – 5:15 PM	16.0
9	The Link	30 minutes	30 minutes	30 minutes	6:15 AM – 10:15 PM	32.0
11	E. College - Buchanan	60 minutes	60 minutes	60 minutes	6:15 AM – 5:15 PM	11.0
12	Fox Valley Tech	60 minutes	60 minutes	60 minutes	6:45 AM – 9:45 PM	15.0
15	West College	60 minutes	60 minutes	60 minutes	6:15 AM – 10:15 PM	16.0
16	Northeast	60 minutes	30 minutes	60 minutes	6:15 AM – 5:45 PM	16.0
19	Southeast	60 minutes	60 minutes	60 minutes	5:15 PM – 10:15 PM	5.0
20	Heart of the Valley	60 minutes	60 minutes	60 minutes	5:45 AM – 10:45 PM	17.0
30	Neenah - Menasha	60 minutes	60 minutes	60 minutes	5:45 AM – 10:45 PM	17.0
31	East Neenah	30 minutes	60 minutes	60 minutes	6:15 AM – 5:45 PM	12.0
32	West Neenah	30 minutes	60 minutes	60 minutes	6:45 AM – 6:15 PM	12.0
41	West Fox Valley	60 minutes	60 minutes	60 minutes	7:15 AM – 6:45 PM	11.5

Valley Transit operates a modified bus network during weekday evening hours and on Saturdays. Several routes are combined or modified, including the following:

- Route 6 replaces weekday Route 16 to serve destinations in northeast Appleton.
- Route 19 replaces Route 8 and Route 11 to serve southeast Appleton, the Town of Harrison, and the Town of Buchanan.

The Valley Transit evening and weekend bus routes are shown below in Figure 8. Saturday span of service is shown in Table 7 on the following page.

Figure 8. Existing Bus Routes (Evening/Saturday)



Source: Valley Transit

Table 8. Fixed-Route Headways and Span of Service (Saturday)

Route	Name	Round-Trip Cycle Time	Frequency	Span of Service	Total Saturday Trips
1	Midway	30 minutes	60 minutes	8:15 AM – 9:45 PM	14.0
2	Prospect	30 minutes	60 minutes	8:45 AM - 10:15 PM	14.0
3	Mason	30 minutes	60 minutes	8:15 AM – 9:45 PM	14.0
4	Richmond	30 minutes	60 minutes	8:45 AM – 10:15 PM	14.0
5	North Oneida	30 minutes	60 minutes	8:15 AM – 9:45 PM	14.0
6	Meade	30 minutes	60 minutes	8:45 AM – 10:15 PM	14.0
9	The Link	30 minutes	30 minutes	8:15 AM – 10:15 PM	28.0
12	Fox Valley Tech	60 minutes	60 minutes	8:45 AM – 9:45 PM	13.0
15	West College	60 minutes	60 minutes	8:15 AM – 10:15 PM	14.0
19	Southeast	60 minutes	60 minutes	8:15 PM – 10:15 PM	14.0
20	Heart of the Valley	60 minutes	60 minutes	7:45 AM – 10:45 PM	15.0
30	Neenah - Menasha	60 minutes	60 minutes	7:45 AM – 10:45 PM	15.0
31	East Neenah	30 minutes	60 minutes	8:15 AM – 5:45 PM	10.0
32	West Neenah	30 minutes	60 minutes	8:45 AM – 6:15 PM	10.0
41	West Fox Valley	60 minutes	60 minutes	8:15 AM – 6:45 PM	11.0

Valley Transit II ADA Paratransit

Valley Transit's paratransit service, complimentary to the fixed-route service per guidelines in the Americans with Disabilities Act (ADA), is known as Valley Transit II. The program is administered by Valley Transit with service provided through a contract with Running, Inc., headquartered in Viroqua, WI. Valley Transit II's service area includes the cities of Appleton, Kaukauna, Menasha, and Neenah; the Villages of Combined Locks, Fox Crossing, Kimberly, and Little Chute; and portions of the towns of Buchanan, Grand Chute, Harrison, Kaukauna, Neenah, and Vandenbroek that are within 3/4 mile of the fixed route system. Service is also provided to seniors 60 and over who live in Outagamie or Calumet counties.

Valley Transit II operates service for ADA passengers from 5:30 a.m. to 10:30 p.m. Monday-Friday, and 7:30 a.m. to 10:30 p.m. Saturday. Additional demand response service is provided on Sunday from 7:30 a.m. to 2:00 p.m. Service for non-ADA older adults is provided 9:00 a.m. to 5:00 p.m. Monday-Friday.

The Connector

The Connector is a demand response service that extends service beyond the fixed route boundaries. The Connector's service area is bounded by Highway JJ to the north, Harwood Road to the east, County Road G to the south, and Highway 76 to the west and excludes areas within ¼-mile of existing fixed route service.

Service is provided from areas within the Connector service area to other areas in the service area, or to the nearest of six transfer points on the fixed route system. The fixed route system is then used for the remainder of the trip. Trips must be scheduled up to two hours in advance. The Connector service is available 20 hours a day Monday through Saturday from 4:00 a.m. to 12:00 a.m.

Other Services

Valley Transit provides and coordinates several additional specialized and rural transportation services to seniors and people with disabilities, as well as Appleton's summer Downtown Trolley.

Fares

Valley Transit offers a variety of fare types, including cash, an unlimited-ride Day Pass, 10-ride tickets, and a 30-day unlimited pass. Fixed-route fares for adults, seniors/customers with disabilities, and youth are shown in the table below.

Table 9. Fixed Route Fare Structure

Fare Category	Cash	Day Pass	10-Ride Ticket	30-Day Pass
Adult (Age 19-64)	$2.00	$4.00	$17.00	$60.00
Senior (Age 65+) / Disabled	$1.00	$4.00	$10.00	$40.00
Youth (Age 5-18)	$0.75	$4.00	--	$22.00
Children under 4	FREE	--	--	--

Fares for ADA Paratransit (Valley Transit II) start at double the cash fare, or $4.00. Valley Transit also offers Premium paratransit service for customers who need additional assistance. Paratransit fares are listed below.

Table 10. ADA Paratransit Fare Structure

Fare Category	Cash	Sheet of 10 Tickets
Basic	$4.00	$40.00
Premium	$6.00	$60.00
Sunday Service	$11.00	--
Companion (1 per eligible rider)	$4.00	--

Fares for The Connector vary based on trip origin and destination. For trips to or from the Valley Transit service area, customers will be picked up or dropped off at the closest Valley Transit bus stop and must pay a regular bus fare for the remainder of the trip. Customers whose trips do not connect with fixed-route bus service pay a higher fare, as shown in the table below.

Table 11. The Connector Fare Structure

Fare Category	Connector Fare (Cash Only)	Bus Fare
Trips TO The Connector Zone (From Valley Transit Bus)	$4.00	$2.00
Trips FROM The Connector Zone (To Valley Transit Bus)	$4.00	$2.00
Trips WITHIN The Connector Zone (Origin to Destination)	$6.00	--

Fleet

The Valley Transit fixed-route revenue fleet consists of seven 1994 Orion V buses, 16 2004 Orion VII buses, four 2005 Orion VII buses, and two 2010 ARBOC buses.

Table 12. Fixed-Route Fleet

Year	Type	Quantity	Age (Years)
1994	Large Heavy-Duty Bus	2	24
2003	Large Heavy-Duty Bus	5	15
2004	Large Heavy-Duty Bus	15	14
2005	Large Heavy-Duty Bus	4	13
2011	Medium Bus	2	7
2017	Large Heavy-Duty Bus	3	1
2017	Medium Bus	1	1
2018	Large Heavy-Duty Bus	1	0
Total/ Average		**33**	**12.2**

The average age of the fleet (as of 2018) is 12.2 years. The majority of buses are older than 12 years, which is the standard bus life used by the Federal Transit Administration (FTA).

Valley Transit's peak vehicle requirement is 21 vehicles with tripper service, and 18 vehicles without. The spare ratio (spare buses as a percent of peak vehicles in service) is 57 percent based on a peak requirement of 21 vehicles and a total fleet of 33 vehicles. This spare ratio is higher than the typical FTA recommendation of 20 percent; however, several of the current buses are being prepared for disposal.

Additionally, Valley Transit announced in 2018 that it plans to replace its entire fleet over the next five years. The agency is in the process of purchasing 15 new clean diesel buses with the assistance of a $7 million Volkswagen settlement grant. As new buses are delivered, older buses will be decommissioned.

Facilities

Operations Facility

The Valley Transit operations facility is located at 801 S. Whitman Avenue. All transit functions, including administration, vehicle storage, and maintenance, are housed in this facility.

Transfer Facilities

Valley Transit has two heated transfer facilities. The primary Valley Transit transfer center is located in downtown Appleton at 100 E. Washington Street. A secondary transfer center (owned by the City of Neenah) is located in downtown Neenah at the corner of W. Doty Avenue and Church Street. All even numbered bus routes are scheduled to depart their main transfer center at 45 minutes past the hour, while all odd number bus routes are scheduled to depart their main transfer center at 15 minutes past the hour. Routes providing service at 30 minutes headways in the peak depart at both 15 and 45 minutes past the hour.

At the Appleton Transfer Center, buses line up at posted route signs on each side of the facility. Passenger amenities consist of a heated waiting area, ticket purchase window, automatic ticket vending machine, public restrooms, food and drink vending machines, system map and schedules, benches, litter receptacles, lighting, and a courtesy phone connected directly to the Valley Transit administrative office.

Costs, Revenue & Funding

Valley Transit is supported by various funding sources, including assistance programs from the FTA, the State of Wisconsin, local support from nine municipalities and three counties in the Valley Transit service area, and user subsidies from transit passengers. Each funding source is defined and summarized in this section along with the eligibility and management requirements for each.

Public Transit Operating Aids: Wisconsin Department of Transportation Chapter 85.20 and Federal Transit Administration Section 5307

In Wisconsin, bus systems in communities with populations that are greater than 50,000 but with operating budgets less than that of Madison and Milwaukee fall under the funding category of Tier B. The State of Wisconsin sets an equalized percent share of state and federal funds that consists of Wisconsin Department of Transportation (WisDOT) 85.20 urban mass transit operating assistance and the Appleton urbanized area's FTA Section 5307 funding. Newly classified as a large urban area, the Appleton-Fox Cities region faces restrictions on the use of FTA Section 5307 funding for operating expenses.

WisDOT has oversight authority on the 85.20 program and manages the application process and distribution of these funds through statute and administrative rules Trans 4 and Trans 6. Each year local governments that operate public transit can apply for funding under this program. 85.20 funds supplement the non-federal share of operating expenses.

In 2017, Valley Transit received a total of $2.49 million in FTA Section 5307 funds and $2.52 million in WisDOT 85.20 operating assistance. Valley Transit notes that the current funding from WisDOT is less than was provided in 2011.

Wisconsin Chapter 85.21 Specialized Transportation Assistance for Counties

The 85.21 program is a grant that is made to each county in the State of Wisconsin to support the mobility needs of the elderly and disabled. Generally, each county is allocated a share of the annual state 85.21 appropriation proportionate to its share of the total statewide population of elderly persons and persons with disabilities.

Typical uses of 85.21 funding include providing transportation to medical activities, nutritional activities, and work-related activities. 85.21 funded projects can serve the general public on a space available basis. The funding can also be used to leverage FTA funds as non-federal share.

Valley Transit receives 85.21 funding from Outagamie, Calumet and Winnebago counties to support paratransit and rural transit for older adults and individuals with disabilities. Additionally, the local share of Route 9 (The Link) is funded by the 85.21 program as it connects senior housing to key destinations in downtown Appleton.

Federal Transit Administration Section 5339 Bus and Bus Facilities Program

This program is the primary program for federal transit capital assistance available to Valley Transit. The Bus and Bus Facilities Program is a federally-funded capital grant program contained within the Fixing America's Surface Transportation Act (FAST Act) authorization bill that provides capital funding to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities.

Valley Transit receives FTA Section 5339 funding via two channels. FTA apportions formula funds to the Appleton Urbanized Area on an annual basis. Additionally, discretionary Section 5339 funding is distributed via competitive solicitation overseen by WisDOT. Valley Transit was allocated $342,345 in Section 5339B funding in 2017 and was awarded $4 million in 2018. The agency has historically received competitive grant funds for vehicle replacement.

Local Funding Sources

Local Share of Operating Assistance

Valley Transit receives direct operating assistance from several local governments. This serves as match to FTA Section 5307 and WisDOT Chapter 85.20 funding. Three counties – Outagamie, Calumet, and Winnebago – supply their contributions from WisDOT Chapter 85.21 funding. Total local share for Valley Transit is approximately $2.26 million. Nine additional cities, towns, and villages contribute local share; in total, this funding category consists of approximately 22 percent of the transit system's operating expenses.

Passenger Fares and Other Revenues

In 2017, Valley Transit collected $1.43 million in passenger fares. In addition to individual customers that pay cash for bus fare and purchase passes, Valley Transit sells fare media and has revenue generating agreements with the Appleton Area School District, human service organizations (Community Care, Lakeland Care District, IRIS), United Way Fox Cities, Menasha Corporation, and Thrivent Financial for Lutherans. Valley Transit also receives about $96,000 in advertising revenue, building rental and concessions, and other non-transportation sources. Altogether, revenue-generating funding sources account for about 20 percent of operating expenses.

Figure 9. Local Share of Valley Transit Funding

Funding Source	Amount	Percent
City of Appleton (31%)		
Transfers	690,956	31%
Investment income	7,759	0%
Participating Municipalities (19%)		
Town of Grand Chute	142,479	6%
City of Neenah	95,304	4%
Village of Fox Crossing	52,997	2%
City of Menasha	46,773	2%
City of Kaukauna	27,808	1%
Village of Little Chute	20,235	1%
Village of Kimberly	17,968	1%
Town of Buchanan	15,012	1%
Town of Greenville	2,539	0%
Subtotal	**1,119,830**	**49%**

Funding Source	Amount	Percent
Specialized Transportation (10%)		
Outagamie County	182,567	8%
Winnebago County	43,350	2%
Calumet County	8,569	0%
Other (40%)		
Family Care	576,237	25%
New Hope	138,576	6%
Outagamie County - Link	73,593	3%
Connector	56,819	3%
Downtown Trolley	14,555	1%
City of Neenah - Elderly	41,651	2%
V. Fox Crossing - Elderly	7,350	0%
Subtotal	**1,143,267**	**51%**

Grand Total	**2,263,097**	**100%**

Source: Valley Transit, 2017

Existing Service Review

Data Overview

The following analysis of Valley Transit ridership and performance is based on 2016 and 2017 service and financial data collected by Valley Transit and those reported to the National Transit Database for years 2012 through 2016. These data were augmented with field observations to provide a holistic assessment of the existing service provided by Valley Transit.

Fixed Route Ridership and Performance

Systemwide Ridership by Year

Valley Transit systemwide ridership, including weekdays and Saturdays, totaled just over 969,000 trips in 2017. This represented a 4.3 percent decline since 2016, when 1.01 million trips were recorded. Weekday ridership declined by 5.1 percent, while Saturday ridership grew by 2.6 percent.

Table 13. Valley Transit Systemwide Ridership, 2016-2017

	Annual Passenger Trips		
	2016	2017	% Change
Weekday	905,592	859,684	-5.1%
Saturday	106,949	109,695	2.6%
Total	1,012,541	969,379	-4.3%

Source: Valley Transit, 2018.

Route-Level Ridership and Passengers Per Revenue Hour

Valley Transit operates a total of 22 fixed routes, including weekday daytime service, Monday-Saturday service, and routes with evening and Saturday service only. For this ridership analysis, Route 31-East Neenah and Route 32-West Neenah are combined, while school trippers and other specialized services are reported separately.

In terms of total ridership, Valley Transit's top-performing routes include Route 15-West College and Route 30-Neenah/Menasha, each with over 100,000 passenger trips in 2017. Route 12-Fox Valley Tech served over 100,000 riders in 2016, but suffered a loss of over 10,000 passenger trips in 2017. Meanwhile, ridership on Route 9-The Link, which serves downtown Appleton and Lawrence University, increased by over 10,000 trips, or 40.2 percent. The following table shows route-level ridership statistics for all routes in 2016 and 2017.

Table 14. Change in Valley Transit Ridership by Route, 2016-2017

Route	Annual Passenger Trips			Percentage of System Total	
	2016	2017	% Change	2016	2017
1	68,300	51,605	-24.4%	6.7%	5.3%
2	39,502	38,330	-3.0%	3.9%	4.0%
3	57,918	64,167	10.8%	5.7%	6.6%
4	46,551	43,631	-6.3%	4.6%	4.5%
5	41,909	39,665	-5.4%	4.1%	4.1%
6	8,307	6,822	-17.9%	0.8%	0.7%
8	48,877	39,556	-19.1%	4.8%	4.1%
9	26,210	36,744	40.2%	2.6%	3.8%
11	35,713	31,468	-11.9%	3.5%	3.2%
12	100,309	89,675	-10.6%	9.9%	9.3%
15	135,950	132,273	-2.7%	13.4%	13.6%
16	48,492	46,836	-3.4%	4.8%	4.8%
19	18,429	14,485	-21.4%	1.8%	1.5%
20	83,821	82,705	-1.3%	8.3%	8.5%
30	118,348	113,027	-4.5%	11.7%	11.7%
31/32	44,681	43,590	-2.4%	4.4%	4.5%
41	36,656	34,249	-6.6%	3.6%	3.5%
Trippers	43,865	46,317	5.6%	4.3%	4.8%
Specials	8,703	14,234	63.6%	0.9%	1.5%
Total	1,012,541	969,379	-4.3%	100.0%	100.0%

Source: Valley Transit, 2018.

In order to effectively allocate vehicles and operating cost between bus routes, transit agencies often examine ridership productivity, commonly reported as passengers per revenue hour. The project team conducted an analysis of Valley Transit's October 2017 schedules to determine the annual revenue hours for each route. To determine productivity, each route's total annual ridership is divided by total annual passenger trips, with the results shown in the table below.

Systemwide, Valley Transit averages 15.5 passengers per hour, with individual routes ranging from 6.8 to 27.5 passengers per hour. Valley Transit's highest-ridership routes (Route 15 and Route 30) are also the most productive, while Route 6-Meade and Route 19-Southeast are the agency's least productive routes. Routes 6 and 19 are designed to offer hourly service during periods of low demand (evenings and Saturdays only), so low performance for these routes is expected. However, despite a 40 percent increase in ridership in 2017, Route 9-The Link has the lowest productivity among routes with full weekday service, at 7.2 rides per hour.

Table 15. Ridership and Productivity by Route, 2017*

Route	Annual Passenger Trips	Annual Revenue Hours	Passengers per Revenue Hour
1	51,605	3042	17.0
2	38,330	3042	12.6
3	64,167	3042	21.1
4	43,631	3042	14.3
5	39,665	3042	13.0
6	6,822	1002	6.8
8	39,556	2040	19.4
9	36,744	4808	7.6
11	31,468	2805	11.2
12	89,675	4501	19.9
15	132,273	4808	27.5
16	46,836	4080	11.5
19	14,485	2003	7.2
20	82,705	5115	16.2
30	113,027	5115	22.1
31/32	43,590	3580	12.2
41	34,249	3632	9.4
Total	908,828	58,696	15.5

Source: Valley Transit, 2017.
*Includes all weekday and Saturday service on each route. Excludes trippers and specials.

Stop Level Ridership

Figure 10 below shows Valley Transit's average daily ridership by stop, based on Valley Transit boarding and alighting samples from 2017. Ridership activity is concentrated along Valley Transit's highest-ridership routes, including Route 15 – West College, Route 30 – Neenah/Menasha, and Route 12 – FVTC. The highest-ridership stops are Valley Transit's transit centers in Downtown Appleton and Downtown Neenah.

After transit centers, Valley Transit's highest-ridership stops are located at Fox River Mall, Walmart, Goodwill, and Northland Mall. High-ridership retail corridors include College Avenue west of downtown Appleton, Northland Avenue, Highway 47 (Appleton Road) in Menasha, and Winneconne Avenue in Neenah.

Figure 10. Daily Ridership Activity by Stop – Boardings + Alightings

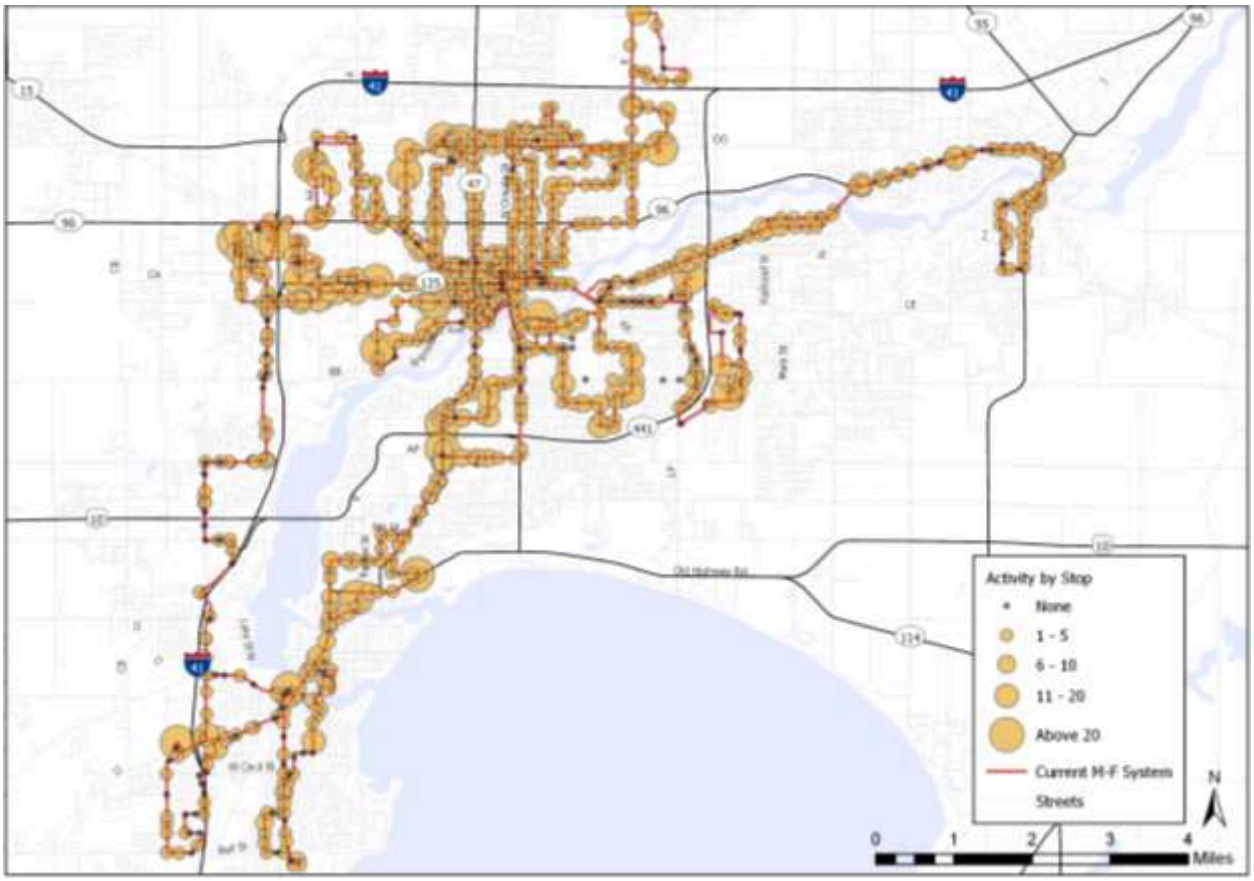


Figure 11. Daily Ridership Activity by Stop - Heatmap

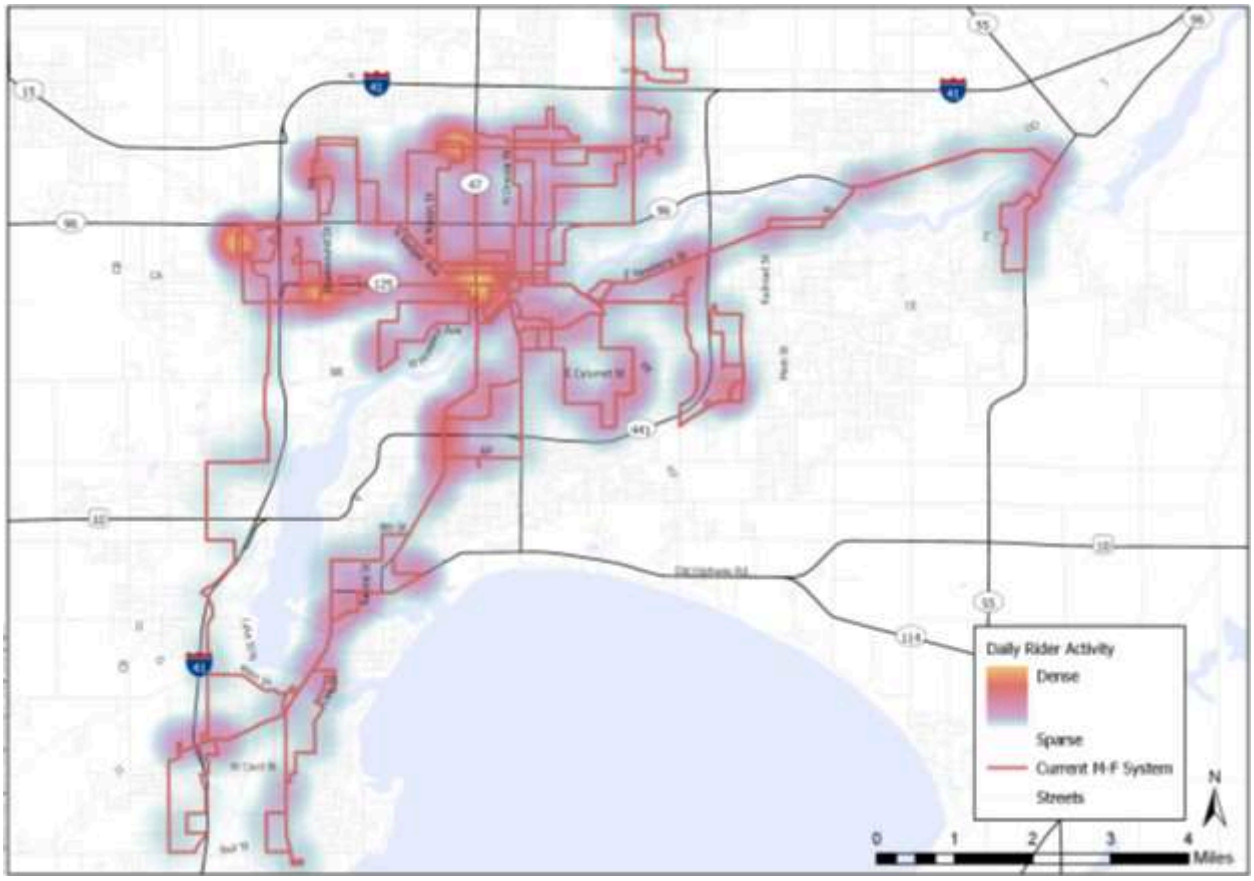


Table 16. Top 25 Stops by Ridership

Rank	Name/Location	Avg. Daily Boardings	Avg. Daily Alightings	Total Daily Ridership Activity
1	Transit Center	1202	1129	2334
2	Church @ Doty - Neenah Transit Center	178	171	350
3	FR Mall stop @ Mall E Entrance	71	91	161
4	Mutual Way @ N. Wal-Mart entrance	39	44	82
5	Hwy 47 at Goodwill	19	21	39
6	Radio Shack East of Wal-Mart	19	19	38
7	FVTC (East Building Entrance)	9	24	32
8	Northland Mall - Kohls Mall Entrance	17	15	31
9	Northland Mall - Festival East entrance	17	14	31
10	Eagle Flats	19	11	30
11	Lawrence @ Bluemound after turn	27	2	29
12	Elizabeth Ct.	17	11	28
13	Perkins @ tracks	15	13	28
14	Spencer & Mason	14	14	28
15	Racine after Second (library)	11	17	28

16	Hwy 47 at Shopko entrance	13	15	27
17	Westhill 100' N. of N. Frontage Rd.	10	16	26
18	Wal-Mart Food Center entrance	17	8	25
19	N. Frontage @ Perkins (Consumer Drugs)	7	18	25
20	Linwood & Marquette	17	7	24
21	Target exit & Ring Rd.	13	11	24
22	Valley Pkg. - Roemer Rd.	16	8	23
23	VP Kensington	14	9	23
24	Fremont @ South Madison (St. E's)	11	12	23
25	Lawrence before Lilas	17	4	20

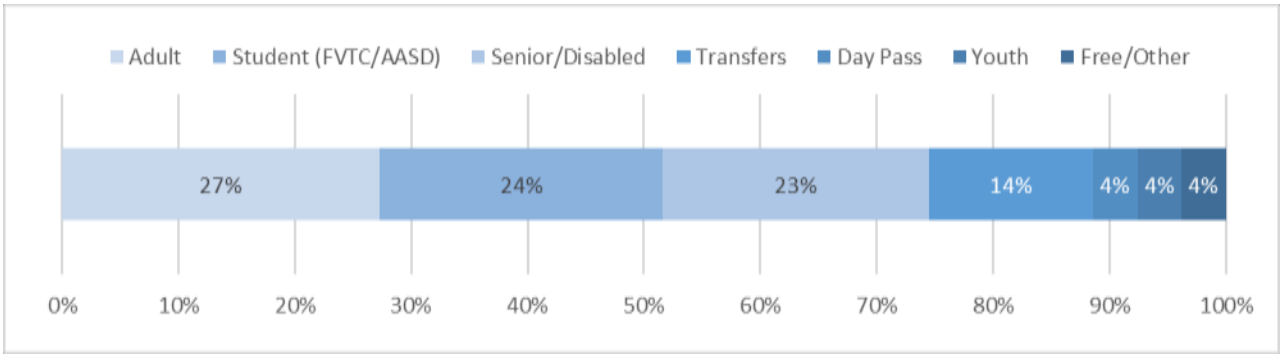
Source: Valley Transit NTD Sample Ridership.
*Includes all weekday and Saturday service on each route. Excludes trippers and specials.

Current Year Ridership by Fare Type

Valley Transit offers a variety of fare types, including regular adult fares, reduced fares for seniors and passengers with disabilities, day passes, youth fares, and student passes for Fox Valley Technical College (FVTC) and the Appleton Area School District (AASD). Free transfers between routes are also available.

Regular adult fares (including 30-day passes and 10-ride tickets) are the most common fare category for trips on Valley Transit, at 27 percent. FVTC and AASD students account for 24 percent of all trips, narrowly exceeding seniors and passengers with disabilities, at 23 percent. Transfers account for 14 percent of total ridership, as shown in the chart below.

Figure 12. Valley Transit Ridership by Fare Type, 2017



Source: Valley Transit.

Transfers and Connectivity

Like many transit systems, Valley Transit is designed as a hub-and-spoke bus network, with transfers occurring primarily at the Downtown Transit Center. This design is naturally efficient for trips from one side of the service area to another, but opportunities for efficient crosstown trips are limited.

Also, depending on the origin and destination, travel times can be significantly longer than other modes of travel.

Table 16 below shows a matrix of approximate transfer times between Valley Transit weekday daytime routes. Most routes connect at the Downtown Transit Center, with the exception of Routes 31/32 (Neenah) and Route 41 (Neenah/Fox River Mall). Transfers typically fall into three categories:

- **Direct connections** (0-minute wait all day)
- **Peak-only connections** (0-minute wait at peak, 30-minutes off-peak)
- **No scheduled connection** (30-minute wait all day)

The four most productive and busiest routes (12, 15, 20, and 30) have the highest potential number of long transfer waits. Ordinarily, these routes provide the most competitive travel times compared to automobile travel. However, for trips requiring a transfer, a 30-minute wait eliminates the relatively acceptable auto/bus travel time that might otherwise be achieved.

Additional service on these primary routes (12, 15, 20, and 30) would guarantee connections with all routes that serve the Downtown Transfer Center, eliminate 30-minute wait times for transfers, improve connectivity through the entire system, and improve overall mobility for all passengers.

Table 17. Weekday Transfer Times by Route

Weekday Connection Matrix																
Wait Time for Transfer																
Peak/midday																
Route	to 1	2	3	4	5	8	9	11	12	15	16	20	30	31	32	41
from 1	xx	0	0/30	0	0/30	0	0	0/30	0	0/30	0	0	0	NA	NA	NA
2	0	xx	0	0/30	0	0/30	0	0	0/30	0/30	0/30	0/30	0/30	NA	NA	NA
3	0/30	0	xx	0	0/30	0	0	0/30	0	0/30	0	0	0	NA	NA	NA
4	0	0/30	0	xx	0	0/30	0	0	0/30	0	0/30	0/30	0/30	NA	NA	NA
5	0/30	0	0/30	0	xx	0	0	0/30	0	0/30	0	0	0	NA	NA	NA
8	0	0/30	0	0/30	0	xx	0	0/30	0/30	0	0/30	0/30	0/30	NA	NA	NA
9	0	0	0	0	0	0	xx	0	0	0	0	0	0	NA	NA	NA
11	0/30	0	0/30	0	0/30	0/30	0	xx	30	0	0/30	30	30	NA	NA	NA
12	0/30	0/30	0	0/30	0/30	0	0	30	xx	30	0	0	0	NA	NA	30 (Mall)
15	0	0/30	0	0/30	0	0/30	0	0	30	xx	0/30	30	30	NA	NA	0 (Mall)
16	0/30	0	0/30	0/30	0/30	0	0	0/30	0	0/30	xx	0	0	NA	NA	NA
20	0/30	0	0/30	0	0/30	0	0	30	30	30	0	xx	0	NA	NA	NA
30	0/30	0	0/30	0	0/30	0	0	30	0	30	0/30	0	xx	0	30	0
31	NA	NA	NA	NA	NA	NA	0	NA	NA	NA	NA	NA	30	xx	0	30
32	NA	NA	NA	NA	NA	NA	0	NA	NA	NA	NA	NA	0	0	xx	0
41	NA	NA	NA	NA	NA	NA	NA	NA	30 (Mall)	0 (Mall)	NA	NA	0	0	30	xx
	6 and 19 are evening routes and not included															
	12 and 15 meet at Mall and DTC, 30 minute wait at each location															

Source: Valley Transit schedules

On-Time Performance

A weekday sample of arrivals and departures of all buses at the Downtown Transfer Center was conducted from September 10 to September 14, 2018. As shown in the table below, 93.9 percent of all arrivals and departures occurred on time, while 6.1 percent were late.

On-time performance is highest for Route 19, which recorded no late arrivals or departures during the sample period. Four routes (Routes 1, 2, 20, and 30) had over 10 percent late trips. Routes 1 and 2 had an unusually high rate of late trips due to construction, while Routes 20 and 30 likely experienced delays due to their longer alignments and higher passenger activity.

The table below shows the number and percentage of late trips by route, according to the sample data. These figures represent on-time performance at the downtown terminal only; it is possible (and likely) that some routes have higher or lower on-time performance elsewhere in the service area.

Table 18. On-Time Performance by Route, September 2018*

Route	Late Arrivals/ Departures	Percent Late	Late+5min Arrivals/Departures
1	21	10.0%	2
2	24	11.4%	3
3	9	4.3%	2
4	12	5.7%	2
5	7	3.3%	4
6	1	2.0%	0
8	8	3.8%	2
9	6	1.9%	0
11	7	6.4%	0
12	12	7.5%	1
15	7	4.4%	1
16	9	4.3%	2
19	0	0.0%	0
20	18	11.3%	5
30	19	11.9%	3
31/32	N/A	N/A	N/A
41	N/A	N/A	N/A
Total	160	6.1%	27

*Sample data. Includes only routes with arrivals and departures at Valley Transit's Downtown Transit Center.

Late trips were also analyzed by time of day. Of 160 total late arrivals and departures, 80 (50 percent) occurred between 3:45 and 5:45 PM. In order to improve systemwide on-time performance most efficiently, efforts should be targeted at the PM peak hours.

Table 19. Late Trips by Time of Day, September 2018

Time Period	Late Arrivals/ Departures	Percent of Total Late Trips
Early AM (6:15)	0	0.0%
AM Peak (6:45-8:45)	35	21.9%
Midday (9:15-3:15)	43	26.9%
PM Peak (3:45-5:45)	80	50.0%
Evening (6:15-9:45)	2	1.3%
Total	152	100.0%

*Sample data. Includes only routes with arrivals and departures at Valley Transit's Downtown Transit Center.

Demand Response Ridership and Performance

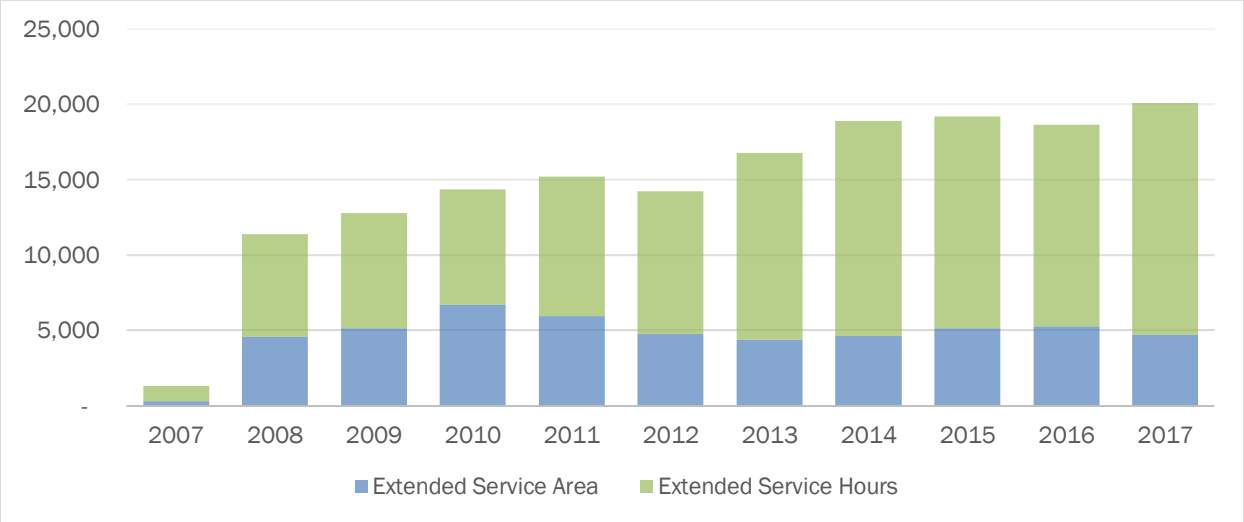
Cost and Revenue Data

In 2017, Valley Transit's combined demand-response system (including Valley Transit II and The Connector) completed a total of 157,412 trips at a cost of $2,153,720, for an average per-trip cost of $13.75. Fare revenues totaled $781,655, or 36 percent of total operating expenses. This compares favorably with the average fixed-route fare recovery ratio of 15.8 percent.

The Connector

The Connector accounted for 20,088 trips in 2017, an increase of 7.6 percent. Of these trips, 76.5 percent were provided to extend the hours of Valley Transit service (Extended Service Hours), while 23.5 percent were provided to customers traveling outside the Valley Transit service area (Extended Service Area). The breakdown of these trips over time is shown in Figure 13 below.

Figure 13. Connector Trips by Type (Extended Service Area vs. Extended Service Hours)



Source: East Central Wisconsin Regional Planning Commission

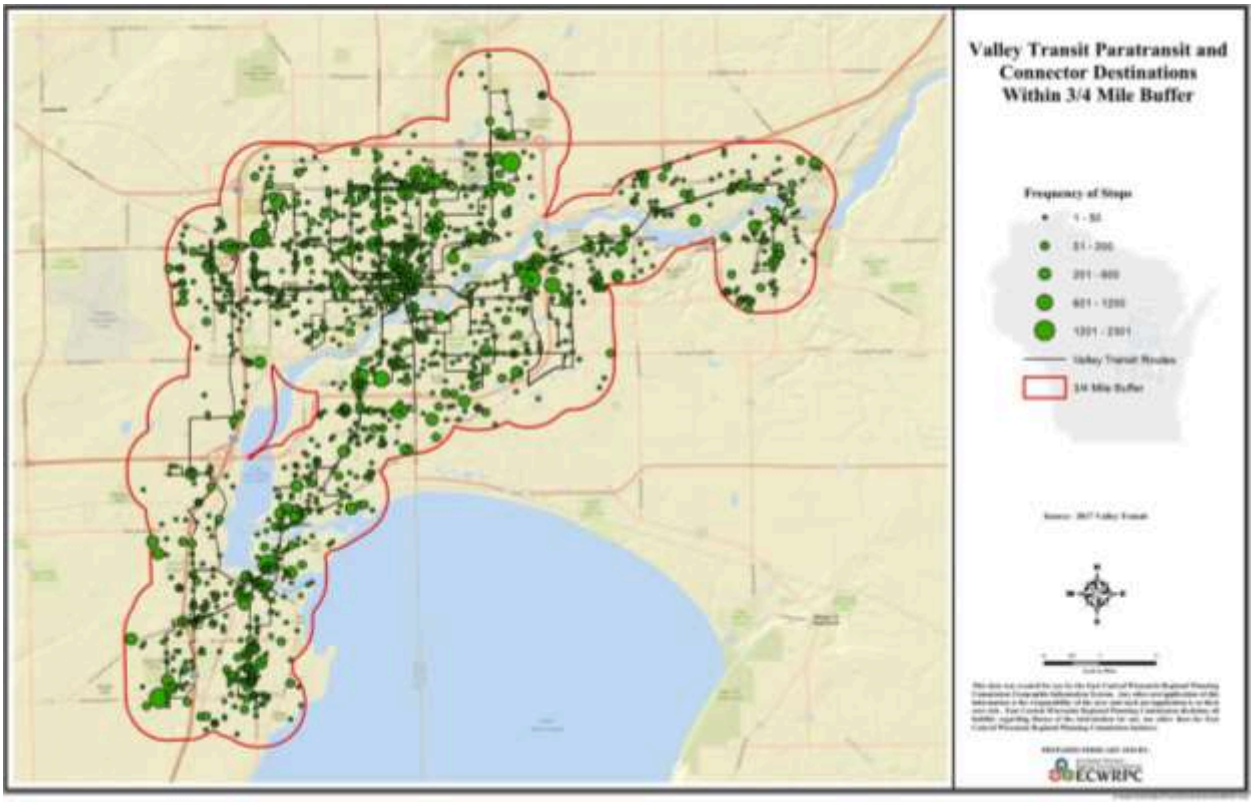
ADA Paratransit (Valley Transit II)

In 2017, Valley Transit II accounted for 137,324 trips, or 87 percent of total demand-response ridership. This total includes both Basic (door-to-door) and Premium (door-through-door) trips.

Origin and Destination Data

Below is an ECWRPC analysis of Valley Transit II and Connector trips by origin and destination. Figure 14 shows the frequency of trip destinations visited by Valley Transit II and Connector passengers that are located within 3/4 mile of an existing fixed route (the statutory ADA service boundary). General ridership patterns largely mirror those of fixed-route service, with dense trip concentrations in downtown Appleton and major destinations in retail corridors. Additional destinations of high demand include Valley Packaging's locations on Kensington Drive and Roemer Road, as well as Encircle Health and other medical facilities.

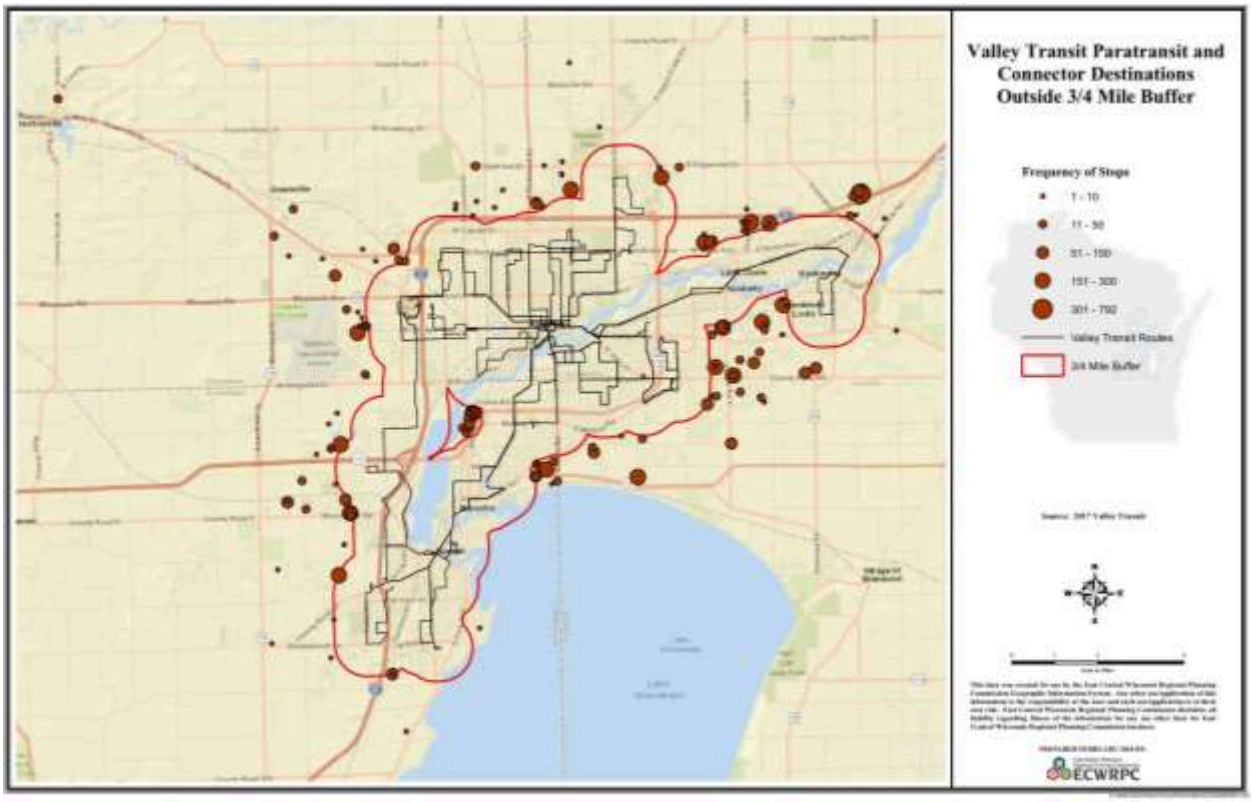
Figure 14. Paratransit and Connector Destinations Within 3/4 Mile Buffer



Source: East Central Wisconsin Regional Planning Commission

Figure 15 shows the frequency of trip destinations visited by Valley Transit II and Connector passengers that are located **outside** the statutory ADA service boundary. The vast majority of these destinations are likely served by The Connector only, though some ADA trips may also be offered in areas not required by federal law. Areas of high ridership density include the northwest and southeast corners of Menasha (located just west and east of Route 1 and Route 30), as well as the communities of Buchanan, Combined Locks, and Little Chute. Other notable destinations include employment centers just outside the ADA boundary in Neenah, Grand Chute, and the north side of Appleton.

Figure 15. Paratransit and Connector Destinations Outside 3/4 Mile Buffer



Source: East Central Wisconsin Regional Planning Commission

Areas of high Connector demand could indicate potential markets for future fixed-route bus service. Based on the trip patterns above, it appears that new service in Buchanan and Combined Locks could help additional customers access the Valley Transit system without using The Connector. Minor route extensions to other areas could also be warranted, depending on available resources.

Level of Service Review

A level-of-service (LOS) assessment was completed to gauge the system's performance relative to a set of national benchmarks. Transit systems typically use the LOS assessment to guide planning for future improvements. Each quality-of-service factor measured in this analysis is important to Valley Transit's operations, as each directly influences how passengers perceive the quality of a transit trip. Levels of service are graded on an A-F scale according to a traveler's point of view, with "A" representing an optimum condition and "F" representing an undesirable condition. Generally, a goal of improving the LOS one grade for the weakest areas produces the greatest result for future investment.

The levels of service and methodologies employed in this analysis are derived from the *Transit Capacity and Quality of Service Manual* (TCQSM), TCRP Report 100. It is important to note that the LOS assessment is not a definitive rating of the system's performance and local decision makers should employ their own locally developed standards to rate service. LOS assessments are often used to measure year-to-year improvements in the service provided. For this assessment, service coverage, frequency, and span were analyzed. Other LOS measures were not analyzed due to limited data availability.

The following three tables show the TCRP LOS grading charts for frequency, span of service, and service coverage. Valley Transit's performance is shown in bold.

Table 20. TCRP Level-of-Service Grading Chart: Frequency

LOS	Average Headway (minutes)	Vehicles per Hour	Comments
A	<10	>6	Passengers do not need schedules
B	10-14	5-6	Frequent service, passengers consult schedules
C	15-20	3-4	Maximum desirable time to wait if bus/train missed
D	**21-30**	**2**	**Service unattractive to choice riders**
E	**31-60**	**1**	**Service available during the hour**
F	>60	<1	Service unattractive to all riders

Source: TCRP Report 100.
Valley Transit performance shown in **bold.**

Table 21. TCRP Level-of-Service Grading Chart: Span of Service

LOS	Hours of Service per Day	Comments
A	19-24	Night or "owl" service provided
B	17-18	Late evening service provided
C	**14-16**	**Early evening service provided**
D	12-13	Daytime service provided
E	4-11	Peak hour service only or limited midday service
F	0-3	Very limited or no service

Source: TCRP Report 100.
Valley Transit performance shown in **bold.**

Table 22. TCRP Level-of-Service Grading Chart: Service Coverage

LOS	Percent of Transit-Supportive Areas Covered	Comments
A	90.0-100.0%	Virtually all major origins & destinations served
B	**80.0-89.9%**	**Most major origins & destinations served**
C	**70.0-79.9%**	**About ¾ of higher-density areas served**
D	60.0-69.9%	About two-thirds of higher-density areas served
E	50.0-59.9%	At least ½ of the higher-density areas served
F	<50.0%	Less than ½ of higher-density areas served

Source: TCRP Report 100.
Valley Transit performance shown in **bold.**

Peer Review

A review of key performance indicators for Valley Transit and a select group of peer systems was conducted using data from the National Transit Database (NTD). The NTD is an accepted data source for peer analysis because its data are readily available and consistently reported.

The following peer analysis compares Valley Transit *fixed-route bus* performance to a peer group in five categories using eight specific measures, as summarized in Table 23. As part of its Cost Efficiency Report and Management Performance Review initiatives, WisDOT measures transit system performance using at least six core measures (Table 23), in accordance with Section 85.20 of the Wisconsin Statues.

Table 23. Performance Objectives and Performance Measures

Performance Objective	Performance Measure	WisDOT Core Measure
Cost Effectiveness	Operating Expenses Per Passenger Trip	X
Cost Efficiency	Operating Expenses Per Revenue Hour	X
Service Effectiveness	Passenger Trips Per Revenue Hour	X
Market Penetration	Passenger Trips Per Capita	X
	Revenue Hours Per Capita	X
Passenger Revenue Effectiveness	Average Fare Per Passenger Trip	
	Operating Ratio (Passenger Revenues Per Operating Expenses)	X
	Subsidy Per Passenger Trip	

In this analysis, Valley Transit fixed-route performance is assessed relative to the average values of a peer group, using data available for the most current year. Year 2016 NTD data are used. This was the most recent year of NTD data available for all peer systems at the time of analysis. Consistent with the WisDOT approach, performance in this analysis is considered "satisfactory" within one standard deviation of the peer average. The system's performance is considered "outside the satisfactory range" (unsatisfactory) if it falls more than one standard deviation from the peer average.

Peer Group

In the development of the national peer group, an attempt was made to select peer systems that meet the following criteria:

- Located in cold-weather states in the Midwest;
- Relatively similar service area characteristics (i.e., population density and low-income and college student populations), and;
- Similar service models (i.e., primarily traditional fixed route service).

The Urban Integrated National Transit Database (Urban iNTD)[1] was used to develop an initial list of peers. This list was filtered to include only the most applicable peers, based on the criteria listed above and previous Valley Transit peer analyses.

The peer group includes systems in Illinois, Iowa, Kansas, Michigan, Montana, Ohio, and Wisconsin. Table 24 contains key 2016 statistics for Valley Transit and the selected peer systems.

Table 24. Peer Group – Key Statistics (2016)

Peer System	Service Area Population	Annual Vehicle Revenue Hours	Annual Unlinked Passenger Trips
Billings, MT	109,059	38,794	516,800
Canton, OH	375,586	141,187	2,341,142
Cedar Rapids, IA	158,890	70,577	1,317,389
Decatur, IL	81,337	68,818	1,267,963
Eau Claire, WI	74,601	48,255	869,952
Fort Wayne, IN	268,485	103,084	1,797,322
Green Bay, WI	175,748	79,406	1,323,000
Kenosha, WI	99,894	63,323	1,247,739
La Crosse, WI	71,201	58,547	1,032,964
Muskegon, MI	172,188	45,118	553,978
Racine, WI	112,100	77,010	1,172,205
Sioux City, IA	122,128	44,751	1,039,222
Topeka, KS	127,473	55,616	1,155,180
Wichita, KS	382,386	116,116	1,233,899
Valley Transit	216,154	67,186	1,036,081
Peer Group Average	169,815	71,853	1,193,656
Valley Transit as % of Average	127%	94%	87%

Source: National Transit Database, 2016

Valley Transit Performance Relative to Peer Group

The following are results of the single-year (2016) analysis of Valley Transit fixed-route bus performance relative to the peer group using the eight performance measures listed in Table 23.

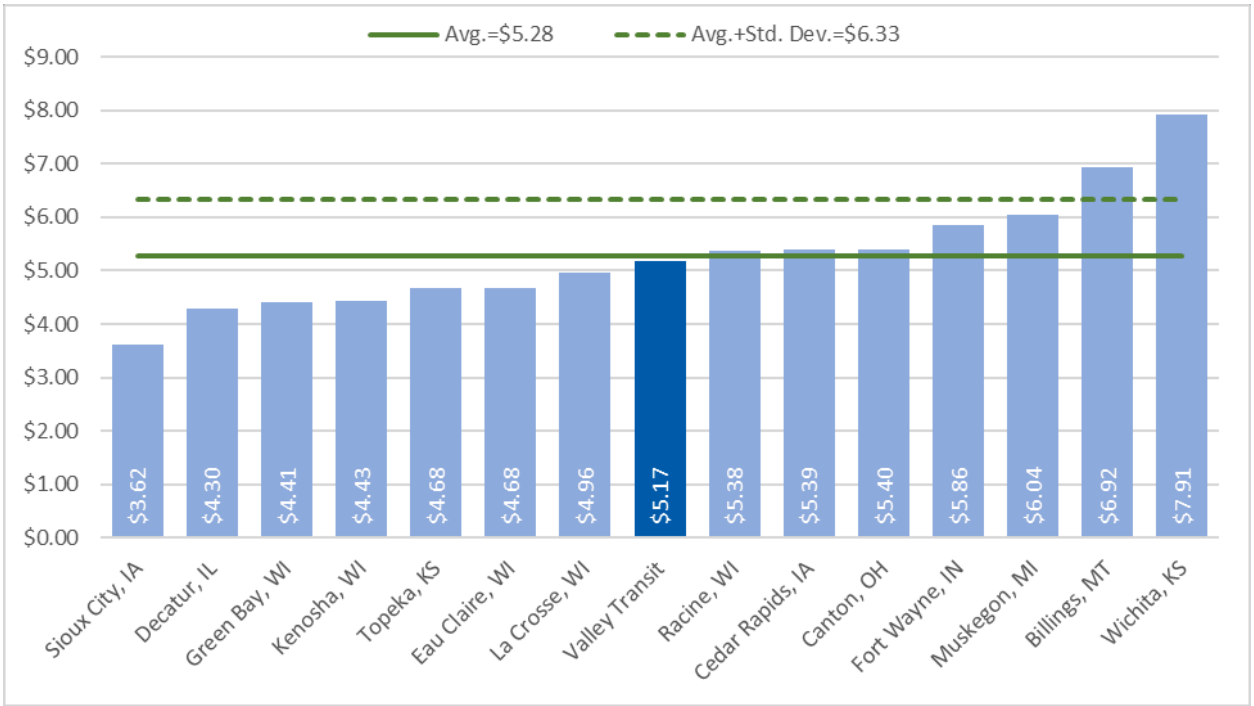
[1] Urban iNTD is a tool developed by the Florida Department of Transportation (FDOT), based on Transit Cooperative Research Program (TCRP) research. http://www.ftis.org/urban_iNTD.aspx.

Cost Effectiveness

Cost effectiveness addresses transit use in relation to the level of resources expended. The primary measure for comparison under this area is operating expenses per passenger trip. The lower the cost per passenger trip, the more cost effective the service.

Relative to the peer group, Valley Transit in 2016 performed better than average, with a cost per fixed-route passenger trip of $5.17 (Figure 16).

Figure 16. Peer Comparison: Operating Expenses Per Passenger Trip (2016)



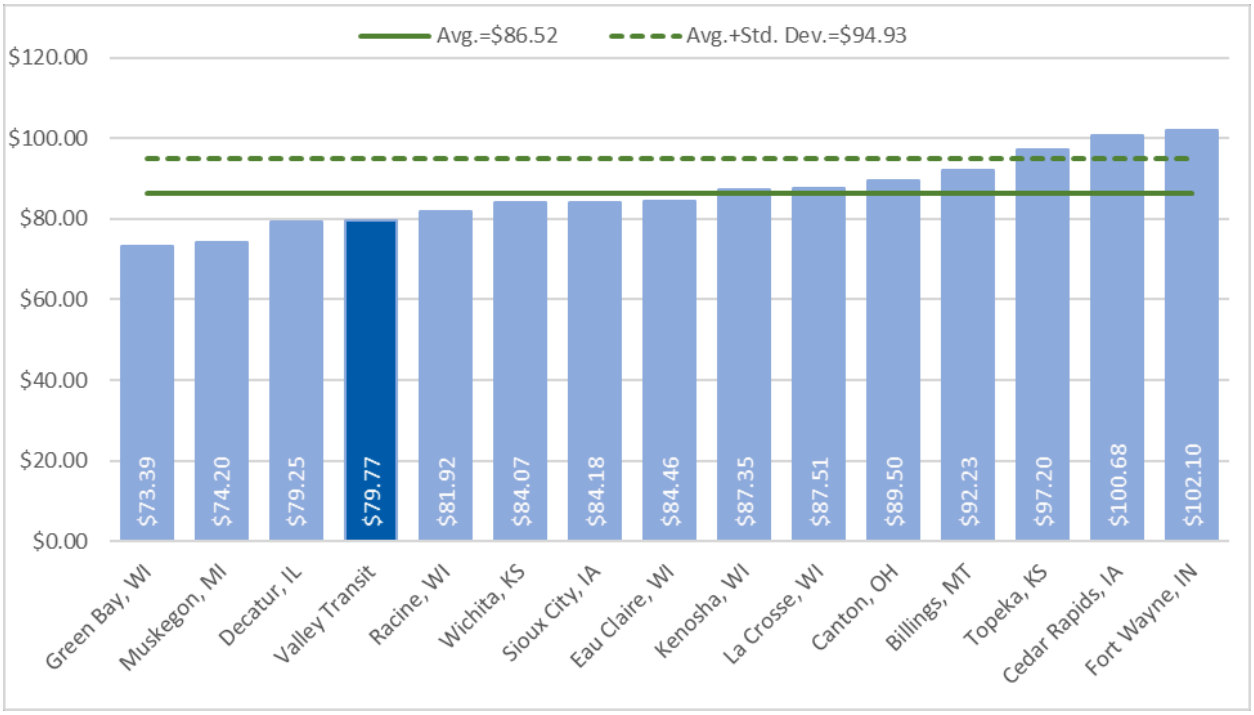
Source: National Transit Database, 2016

Cost Efficiency

Cost efficiency examines the amount of service produced in relation to the amount of resources expended. Operating expenses per revenue hour is the measure used to assess service efficiency.

Valley Transit in 2016 incurred a cost per fixed-route revenue hour of $79.77 (Figure 17) – well below the peer average of $86.52.

Figure 17. Peer Comparison: Operating Expenses Per Revenue Hour (2016)



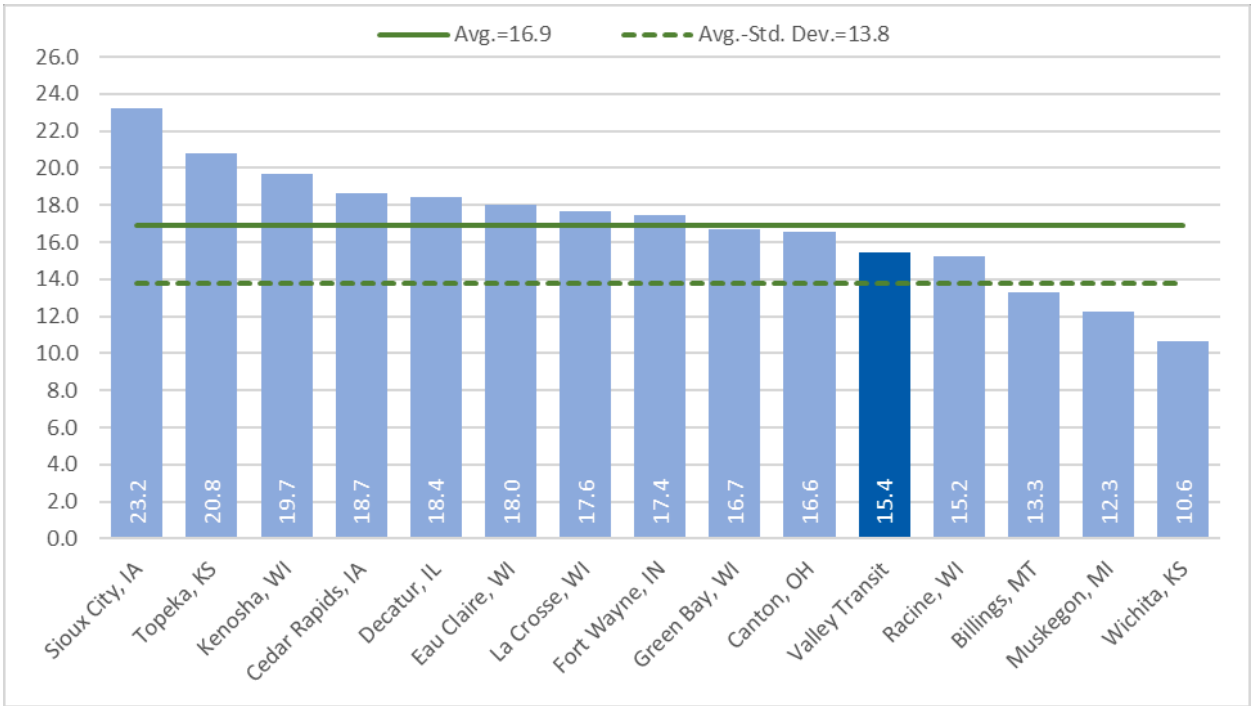
Source: National Transit Database, 2016

Service Effectiveness

Service effectiveness is a measure of the consumption of public transportation service in relation to the amount of service available. Passenger trips per revenue hour is the measure used to assess service effectiveness.

Valley Transit in 2016 provided 15.4 fixed-route passenger trips per revenue hour (Figure 18); this was worse than the peer group average, but within satisfactory range.

Figure 18. Peer Comparison: Passenger Trips Per Revenue Hour (2016)



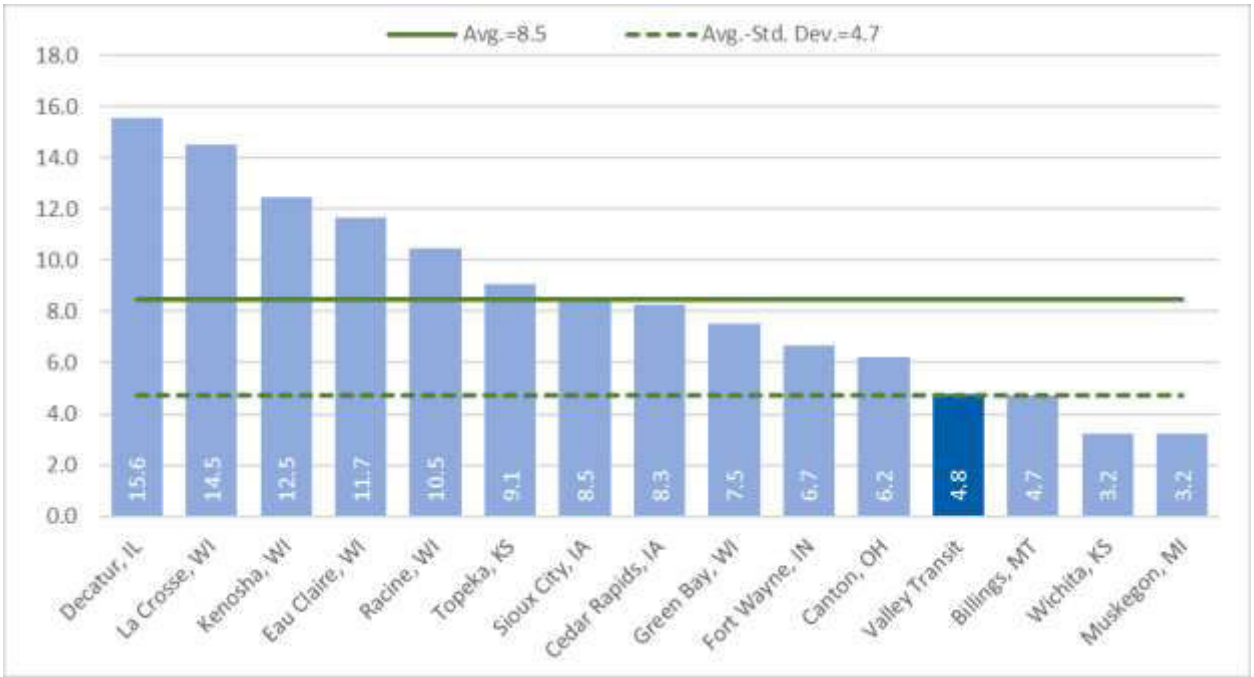
Source: National Transit Database, 2016

Market Penetration

Passenger trips per capita is an indicator of overall usage of the transit system in the service area. This measure can be interpreted as the average number of times each service area resident uses the transit service each year. Like all data in this analysis, the service area population is derived from NTD.

Relative to the peer group, Valley Transit in 2016 performed worse than average, but within satisfactory range, in the measure of passenger trips per capita. With 4.8 fixed-route passenger trips per capita, Valley Transit's performance was close to slipping into unsatisfactory range, defined as less than 4.7 (Figure 19).

Figure 19. Peer Comparison: Passenger Trips Per Capita (2016)

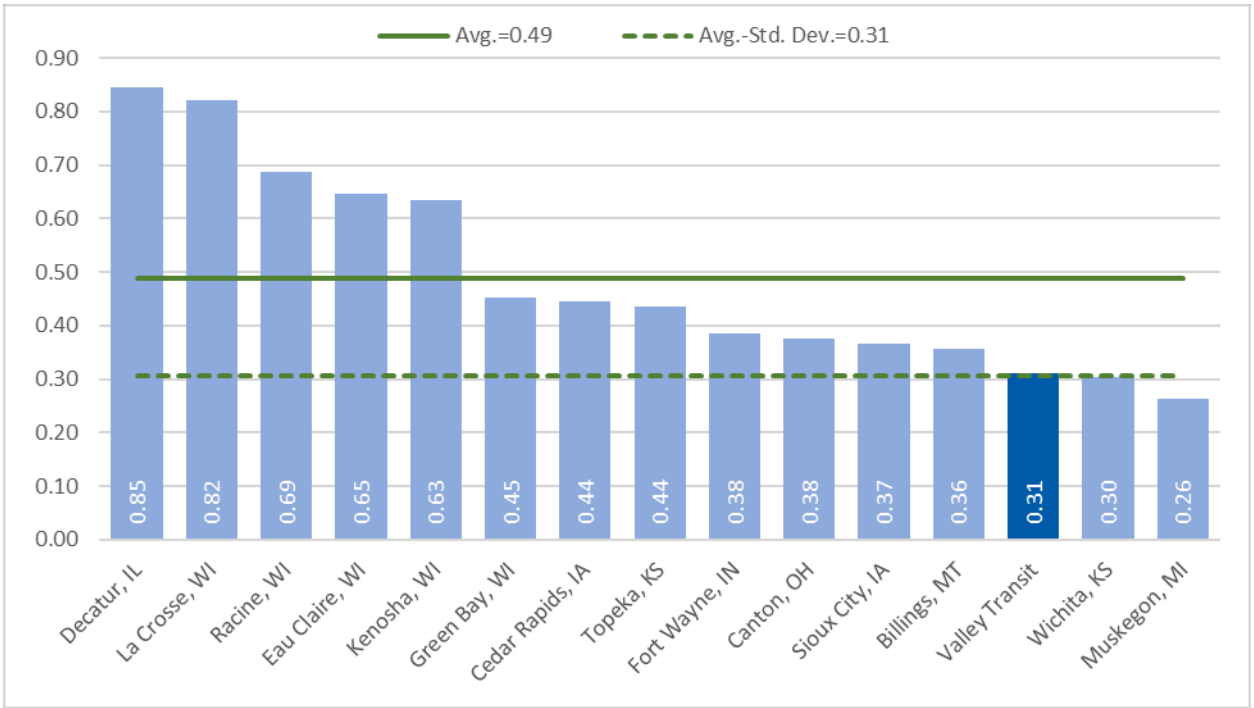


Source: National Transit Database, 2016

Revenue hours per capita is the performance measure used to assess service availability, and the second measure of market penetration.

In 2016, Valley Transit provided 0.31 revenue hours of fixed-route service per person living in the service area (Figure 20). As with passenger trips per capita, this performance was worse than average and very close to dropping into unsatisfactory range.

Figure 20. Peer Comparison: Revenue Hours Per Capita (2016)



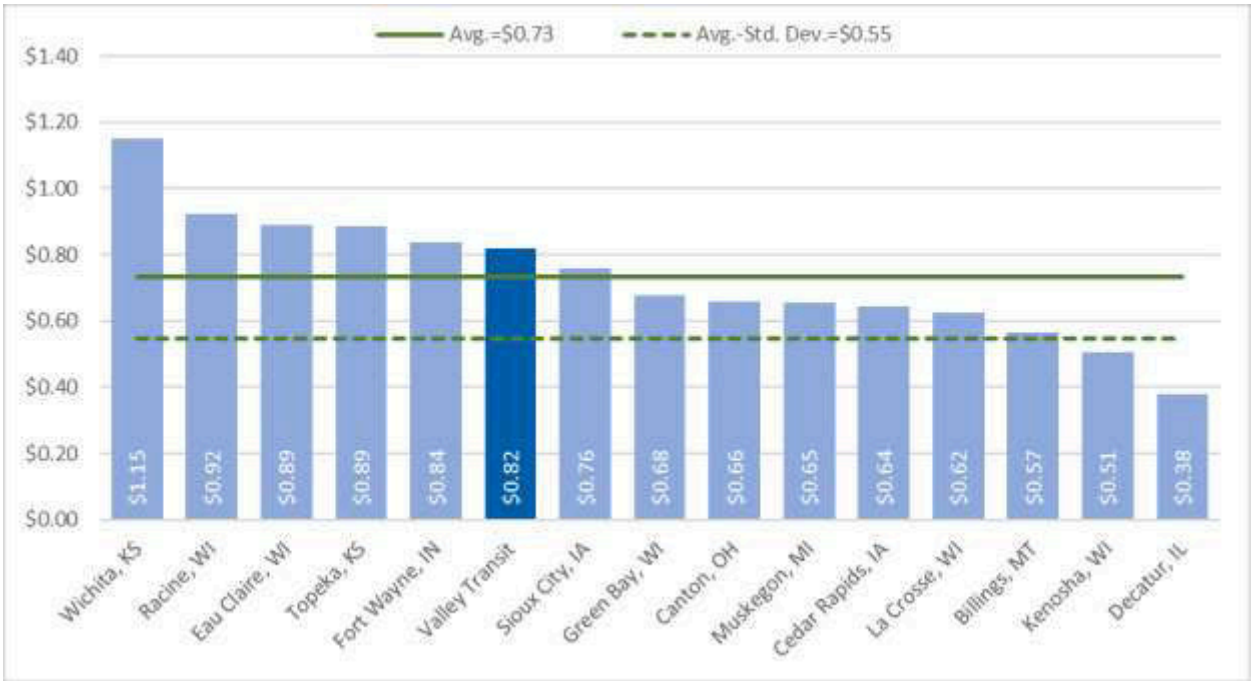
Source: National Transit Database, 2016

Passenger Revenue Effectiveness

Passenger revenue per passenger trip, or average fare per passenger trip, measures the amount each passenger is paying to use the service. The higher the average fare, the more cost is being borne by the passenger. Generally, a higher average fare – within certain limitations – is a positive finding for a public transit system.

Relative to the peer group, Valley Transit in 2016 performed better than average, with an average fare collected per fixed-route passenger trip of $0.82 (Figure 21).

Figure 21. Peer Comparison: Fare Revenue Per Passenger Trip (2016)



Source: National Transit Database, 2016

The operating ratio of revenues to operating expenses measures the level of operating expenses that are recovered through passenger fare payment. This measure is also simply referred to as the operating ratio or farebox recovery.

In 2016, Valley Transit performed better than average in the important measure of operation ratio. Fares covered 15.8 percent of the cost to operate Valley Transit fixed-route service (Figure 22).

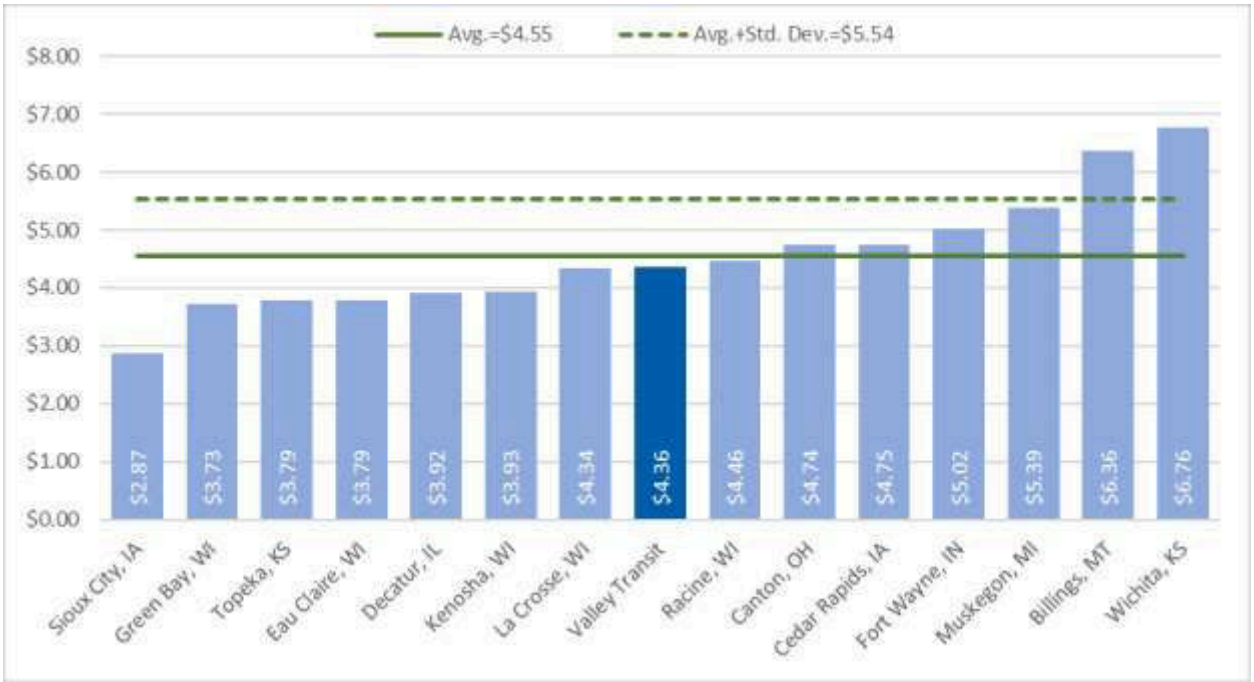
Figure 22. Peer Comparison: Operating Ratio (2016)

Source: National Transit Database, 2016

Net expense (subsidy) per passenger trip is used to measure the cost of each passenger trip that is paid for by public operating subsidy. Subsidy per passenger trip is calculated by subtracting passenger revenues from total operating expenses and dividing by total trips. The higher the operating subsidy, the more local, state, and federal resources are required to cover expenses.

Relative to the peer group, Valley Transit in 2016 performed better than average, with subsidy per fixed-route passenger trip of $4.36 (Figure 23).

Figure 23. Peer Comparison: Subsidy Per Passenger Trip (2016)



Source: National Transit Database, 2016

In 2016, Valley Transit performed better than average or within satisfactory range in all eight measures (Table 25).

Table 25. Peer Performance Summary

Performance Objective	Performance Measure	Valley Transit 2016 Performance Relative to Peer Group
Cost Effectiveness	Operating Expenses Per Passenger Trip	▲
Cost Efficiency	Operating Expenses Per Revenue Hour	▲
Service Effectiveness	Passenger Trips Per Revenue Hour	●
Market Penetration	Passenger Trips Per Capita	●
	Revenue Hours Per Capita	●
Passenger Revenue Effectiveness	Average Fare Per Passenger Trip	▲
	Operating Ratio	▲
	Subsidy Per Passenger Trip	▲
Key to Symbols	▲ Better than peer average	
	● Worse than peer average, but within satisfactory range (+/- one standard deviation)	
	▼ Outside satisfactory range	

Areas for improvement for Valley Transit fixed-route service include service effectiveness and market penetration. In both measures of market penetration – passenger trips per capita and revenue hours per capita – Valley Transit performance nearly fell outside satisfactory range in 2016.

Community Engagement

Community engagement and outreach for the Valley Transit Service Review included public meetings, focused discussions with stakeholder groups, input from the Steering Committee, and ongoing dialogue with Valley Transit and ECWRPC staff. This section summarizes the key messages from outreach efforts to date and will continue to be updated through the plan's adoption. Future efforts include public outreach to help prioritize improvements, steering committee meetings, and final plan adoption.

Steering Committee

Beyond transit agency staff, the project Steering Committee was the primary means of engagement and dialogue throughout the course of the Valley Transit Service Review process. Inclusive of a broad cross section of the community, the Steering Committee included representatives of Valley Transit's funding partners, workforce development professionals, human service agency advocates, and various elected officials. Meetings were held on an approximately monthly as was warranted by project milestones. A full roster of Steering Committee membership is attached in Appendix A.

Table 26. Steering Committee and Valley Transit Staff Comment Summary

Category	Theme
Service Improvement Themes and Concepts	▪ Routes should operate at 30-minute frequency or better ▪ Lack of Sunday service a barrier to employment and leisure trips ▪ Bi-directional service where possible ▪ Reducing travel times to make service more competitive ▪ Provide service and information that is simple and convenient ▪ Development of multiple satellite transfer points outside of downtown Appleton ▪ Introduce service along Richmond Road to serve the DMV office, new Meijer store, and additional development near I-41 ▪ Service to Appleton International Airport, with schedule tailored to times with the most arrivals and departures ▪ Fast, direct service between downtown Appleton and the Fox River Mall ▪ Potential for strategic park-and-ride facilities and services in the future if traffic congestion and/or parking prices increase ▪ Explore public private partnerships with business and new mobility providers to augment and enhance existing service
Destinations and Points of Interest	▪ Desire to reinforce downtown as key destinations ▪ Partnership Community Health Center and Department of Corrections Probation and Parole offices in Grand Chute ▪ Growing business/industrial park in Grand Chute, immediately east of 2 Mile Road, approximately between Wisconsin Avenue and College Avenue; businesses include Plexus, VF Outdoors, Miller Electric, Asten Johnson, Convergys, etc. ▪ New sports facility northwest of the Fox River Mall ▪ Ridership demand generated from the Marketplace shopping center is slowly diminishing ▪ Senior housing near Cooks Avenue and 13th Street in Kaukauna

Category	Theme
	▪ Eagle Point Senior Living in Appleton
Potential Future Service Areas	▪ Newer development west of Fox River Mall in Grand Chute ▪ Greenville ▪ Service in Kimberly and Combined Locks between Kimberly Avenue and College Avenue ▪ Service to Kimberly High School
Other Considerations	▪ Embrace new technology to better communicate information with riders, while simplifying and improving convenience ▪ Emphasis on regional coordination and partnerships ▪ Physical environment – including development patterns, pedestrian and bicycle infrastructure – are key factors to successful and efficient operation of transit ▪ 54 percent of current Valley Transit ridership is work-related; Appleton Area School District and FVTC riders also play an outsized role ▪ Transit should play a more active role in regional land use and economic development initiatives, minimizing issues like pedestrian access and employer transportation at the beginning ▪ Route maps with bus stops are important to helping new users learn how to navigate the system ▪ Service in Neenah seems to be working well ▪ Explore potential for relocating Neenah transit center to provide additional public amenities ▪ Any crosstown route design should consider transfer opportunities with north-south routes ▪ Tradeoff between pedestrian safety (front-door service) and faster routes (staying on main roads) ▪ Areas with potentially vulnerable riders (e.g., Valley Packaging, schools) need front-door transit service ▪ Lack of sidewalk network and concerns about pedestrian safety west of Fox River Mall and around Woodman's on Westhill Boulevard ▪ The north side of Wisconsin Avenue does not have sidewalks in Grand Chute; this area sees high speed traffic ▪ Wisconsin Avenue east of downtown Appleton is not a particularly pedestrian friendly environment ▪ No sidewalks and poor pedestrian environment along nearly all of Northland Avenue ▪ What will the Fox River Mall look like in 5-10 years? Anticipated improvements? ▪ Appleton North High School students sometimes use Route 16 during the midday to attend classes at Lawrence University and FVTC ▪ Questions raised about demand for transit service north of Evergreen Drive in Appleton, which is currently served by Route 16 ▪ Build on successful partnerships with area schools

Stakeholder Meetings

Several small group meetings with Valley Transit stakeholders were conducted in the Fox Cities over the course of several days in June 2018. These settings offered informal opportunities to share experiences and ideas related to Valley Transit and the large community, and how public transportation could be improved in the Fox Cities. The following stakeholder groups were represented in small group stakeholder meetings:

- Appleton Downtown, Inc.
- City of Appleton – Common Council
- City of Neenah
- Fox Cities Transit Commission
- Fox Valley Technical College
- Making the Ride Happen – Lutheran Social Services
- Options for Independent Living
- Outagamie County Public Health
- Valley Transit staff

Strengths, Weaknesses, Opportunities, and Threats

A key component of Valley Transit's 2015 Strategic Plan was the identification of strengths, weaknesses, opportunities, and threats. The findings from the Strategic Plan were presented to stakeholders; these acted as a starting point for new discussions with stakeholders about the strengths, weaknesses, opportunities, and threats facing Valley Transit and the community today.

Table 27 summarizes input collected from stakeholders during multiple discussions in the summer of 2018. Stakeholder noted that findings from the 2015 Strategic Plan remained true; and several additions were made, primarily in the form of opportunities.

Table 27. Summary of Engagement: Strengths, Weaknesses, Opportunities, Threats

Category	Theme
Strengths	▪ Positive perception of Valley Transit staff and management ▪ Diversity of transit services offered ▪ Community and political support for transit ▪ Well-operated service ▪ Good use of technology with features like Google Transit ▪ Strong downtowns with social and physical infrastructure that benefit transit ▪ Strong history and partnerships with communities, schools, businesses, and non-profit organizations
Weaknesses	▪ Service limitations: limited service frequency, no Sunday or holiday service, unserved destinations, spoke and hub system; travel times ▪ Long travel times and limited service scheduled diminish accessibility ▪ Negative perception of the downtown transit center and transit generally ▪ Inadequate and unstable funding ▪ Limited ability to attract "choice riders" ▪ Automobile-oriented culture in the Fox Cities ▪ Low density development in some areas of community ▪ Accessibility of vehicles for seniors ▪ Inconveniences for people with disabilities ▪ Winter maintenance and accessibility of bus stops ▪ Driver and operations staff shortages

Category	Theme
	▪ Time and inconvenience associated with scheduling a Valley Transit II trip, including the 24-hour advance scheduling requirement, is burdensome
Opportunities	▪ Transit service improvements ○ Provide more frequent service that operates later in the evening and on Sundays and holidays ○ Increase convenience of transit service to better match that of the automobile by providing service that is fast, reliable, and easy to use ○ Serve additional destinations on west and north side of existing service area; for example, development around new Meijer store north of I-41 at Richmond Street, and west of the Fox River Mall ○ Transit connection between the Appleton International Airport and the new Fox Cities Exhibition Center in downtown Appleton, allowing visitors to experience the community without having to rent a car; potential partnership ○ Streamline Route 15 to reduce turns in and out of parking lots ○ Streamline routes north of the Fox River to simplify service ○ Design direct routes based on the existing street grid network, with more circuitous routes on the edges of the service area ○ Potential areas to serve in the future: Fox Cities Stadium; new amateur sports facility in Grande Chute; Greenville ▪ Introduce new technologies to improve public information, system reliability, and marketing efforts ▪ Marketing and outreach opportunities ○ Strengthen existing and pursue new opportunities for collaboration and partnership with community organizations and public agencies ○ Marketing campaigns to target potential users, done in collaboration with community partners ○ Engage in a more intentional and active partnership with private sector businesses to address transportation needs for second- and third-shift workers ○ Identify Valley Transit as a transportation provider, not just transit ▪ Continued emphasis multimodal transportation and last-mile considerations ○ Strengthen connection to pedestrian and bicycle networks through policy and infrastructure ○ Explore integrations with shared mobility options (e.g., bike share, car share, transportation network companies) ▪ Changing demographics and behavior trends that suggest a greater interest in public transportation ▪ Emphasizing the connection between land use and more dense development with transit service ▪ Enhance service/policies to make it more welcoming to families with young children and people with disabilities ▪ Fleet opportunities ○ Evaluate fleet mix to ensure various rider needs continue to be met ○ Invest in fleet to ensure Valley Transit buses are attractive, clean, comfortable, and incorporate technology (e.g., GPS and Wi-Fi) ▪ A growing community-wide emphasis on equity and a more holistic approach to public health ▪ As staffing levels improve, opportunities to address strategic recommendations ▪ Nearby redevelopment could spur a more active and welcoming environment at the downtown transit center
Threats	▪ Inadequate and unstable funding ▪ Medical and social service providers moving facilities further from the downtown cores and

Category	Theme
	outside of the existing fixed-route service area ▪ Negative perception of the downtown transit center and transit generally ▪ Low density, sprawling community ▪ Increasing use of services like Uber and Lyft ▪ Losing Valley Transit drivers due to long hours and difficult schedules resulting from staffing shortages ▪ Valley Transit driver and operations staff shortages limit service expansion, and sustainability and reliability of service

Stakeholder Meetings and Pop-Up Events

Pop-up meetings were held at the Valley Transit Downtown Transit Center and Fox Valley Technical College in an attempt to meet current and potential riders where they are. Feedback collected from stakeholder meetings and pop-up events are summarized below.

Valley Transit User Experience and Suggestions

The project team collected feedback from current Valley Transit users regarding their experience with the service, priorities, and suggested changes. Feedback collected as part of these efforts are summarized in the tables and figures to follow.

Table 28. Summary of Engagement: "Why do (or don't) you use Valley Transit?"

Prompt	Response Theme
Why **do** you use Valley Transit?	▪ Don't have access to a car or don't drive ▪ Work trips ▪ Shopping trips ▪ Social trips ▪ Safety ▪ Affordability ▪ Environmental benefit ▪ Traffic/congestion ▪ Convenience ▪ School trips
Why **don't** you use Valley Transit?	▪ Doesn't connect to destinations in the surrounding region (e.g. Green Bay) ▪ Doesn't fit my schedule

Figure 24. Summary of Engagement: "How would you prioritize Valley Transit service improvements?"

Respondents were asked to select two to three priorities to invest in, based on the categories below.

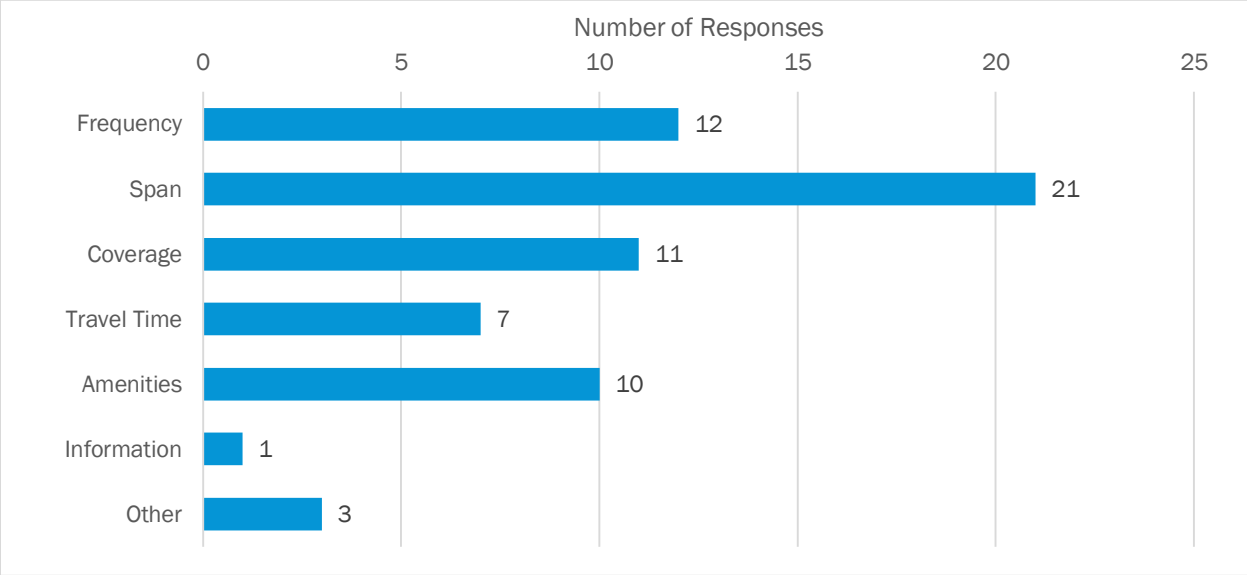


Figure 25. Summary of Engagement: "Do you agree or disagree with the following statements?"

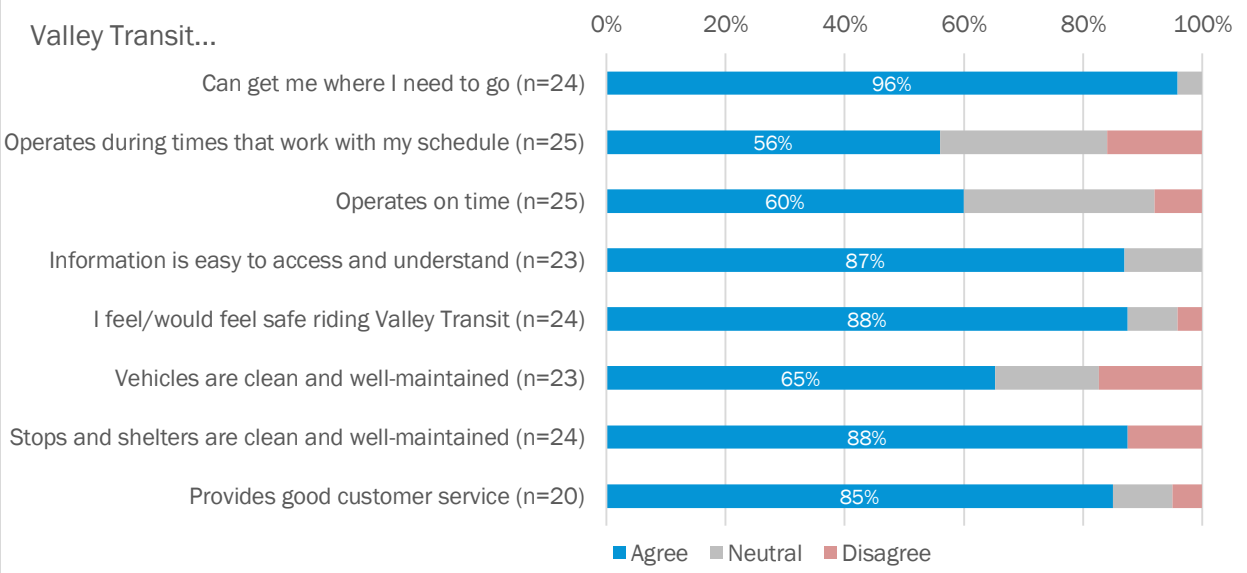


Table 29. Summary of Engagement: Service Ideas and Improvements

Prompt/Category	Response Theme
Where do you want to travel to that you can't today using Valley Transit service?	▪ Partnership Community Health Center and other services in Grand Chute, west of the Fox River Mall ▪ Meijer store and other new destinations northwest of I-41 and Richmond Street in Grand Chute ▪ Kaukauna industrial parks near I-41 and Delanglade Street in Kaukauna ▪ Kaukauna High School ▪ Buchanan ▪ Green Bay
Service Ideas and Improvements	▪ Crosstown service on Northland and Wisconsin Avenues, eliminating need to first go to the downtown transit center when traveling from northeast Appleton to FVTC and Fox River Mall ▪ Saturday 30-minute frequency on Routes 15, 30, 19 ▪ Weekday 30-minute frequency on Routes 20 and 30

To summarize, the greatest areas for improvement center on scheduling. Comments are consistent with Valley Transit not operating during hours that are convenient, and travel times and frequencies that limit the utility of the service. Additionally, common themes were found between the Steering Committee comments on emerging employment and retail centers, as well as fleet modernization being a critical need.

Service Planning: Objectives & Assumptions

Connection to Objectives

Service planning recommendations were developed based on the project objectives identified by the steering committee and ECWRPC staff. Individual objectives that directly relate to service planning are listed in the table below:

Table 30. Project Objectives Related to Service Planning

#	Project Objective	Relation to Service Planning Recommendations
1	Partake in the I-41 Initiative and Commuter Service Study to ensure coordination	Recommendations note potential for connections to regional commuter or first- and last-mile services.
8	Increase fixed route frequency and geographic reach of service	Recommendations increase or maintain frequency on highly productive routes. Unproductive routes are streamlined to offer faster trips. Proposed new routes offer expanded regional connections.
10	Work with Appleton International Airport to connect passengers to greater Appleton area through transit	Recommendations include the option to extend service to Appleton International Airport to serve employee shifts or high-demand air travel times.
19	Work to make transit as convenient as the personal automobile	Recommendations prioritize streamlining existing routes to offer more competitive travel times between major destinations.
26	Collaborate with regional entities to develop a multi-modal transportation system/network (integration with all modes of travel)	Recommendations note the importance of coordinating with other agencies to offer regional connections, including to GO Transit Route 10.

The service planning recommendations also reflect input received throughout the public engagement process for the Valley Transit Service Review. Specific themes addressed include the following:

Table 31. Key Themes Related to Service Planning

Source	Comment/Theme	Relation to Service Planning Recommendations
Steering Committee	▪ Routes operating at 30-minute frequency or less	Recommendations include increased service frequency, especially on high-ridership routes.
Steering Committee	▪ Bi-directional service where possible ▪ Reducing travel times to make service more competitive	Recommendations reduce the number of one-way loop routes and offer more direct service to major destinations.
Steering Committee & Public Feedback	▪ Fast, direct service between downtown Appleton and the Fox River Mall ▪ Introduce service along Richmond Road to serve additional development near I-41	Recommendations include streamlining of Route 15, as well as restructuring and extension of Route 4 to serve Meijer.
Public Feedback	▪ Eliminate the need to go to the downtown transit center when traveling from northeast	Recommendations include crosstown service on Wisconsin Avenue and Northland Avenue.

	Appleton to FVTC and Fox River Mall	
Public Feedback	▪ Improved service in Buchanan, Kimberly, and Combined Locks	Recommendations include a route on East College Avenue between downtown Appleton and Kaukauna.
Public Feedback	▪ Improved frequency and span	Recommendations include improved frequency on high-ridership routes, and span that is equal to or better than current hours.

Service Planning Assumptions

In order to develop consistent cost estimates for existing and proposed service, standard assumptions were made regarding costs and days of service. These assumptions are documented below.

Costs

Estimates for existing and proposed services were developed based on a fully allocated cost per revenue hour drawn from 2016 NTD data. Based on the average growth in costs from 2012 to 2016, this fully allocated cost was adjusted by 1% annually to reach a 2018 cost per revenue hour of $81.37.

Table 32. Cost Assumptions

Cost Description	Rate
Per Revenue Hour ($2016)*	$79.77
Annual adjustment**	1.0%
Per Revenue Hour ($2018)	**$81.37**

* Fully allocated based on 2016 NTD reporting data
** Applied based on NTD average growth in costs from 2012 to 2016

Annual Service Days

All cost estimates are based on an assumption of service on 255 weekdays and 52 Saturdays per year, as shown in the table below.

Table 33. Annual Service Days

Day Type	# of Days
Weekdays (M-F)	255
Saturdays	52
Sundays (no service)	52
Observed Holidays (no service)	6
Total	**365**

Service Planning: Recommendations

Organizing Service Planning Concepts

Service planning recommendations are organized into two scenarios based on cost, complexity, and timeline for implementation:

- **Scenario 1: Modification of Current Services**
  Scenario 1 includes near-term modifications to existing Valley Transit routes. These recommendations are designed to improve frequency and/or on-time performance without major changes to route alignments.
- **Scenario 2: Service Expansion and Restructuring**
  Scenario 2 includes larger-scale route restructurings and proposed new services. These service concepts are designed to improve frequency on high-productivity routes, streamline low-productivity routes to offer faster trips, and expand service to offer new regional connections.

Each scenario includes multiple concepts that are not necessarily mutually exclusive. Cost estimates are provided for illustrative purposes; final implementation costs will depend on Valley Transit's service priorities and available resources.

Scenario 1: Modification of Current Services

Concept 1A: Frequency Enhancements

In the near term, frequency improvements should be prioritized based on ridership and productivity. Routes 12, 15, 20, and 30 currently function as core routes in the Valley Transit system, providing over 45 percent of the agency's annual ridership in 2017. These routes currently operate on an hourly schedule on both weekdays and Saturdays; this is a lower level of frequency than many of Valley Transit's lower-performing routes. As noted in the Transfers & Connectivity section, the limited service on Routes 12, 15, 20, and 30 leads to long wait times for transfers in Downtown Appleton and elsewhere on the system.

Improving weekday frequency on Routes 12, 15, 20, and 30 to every 30 minutes would help Valley Transit attract new riders, offer more attractive transfers, and make transit a viable alternative for more types of trips. This recommendation would require 4 additional vehicles and an increase in vehicle hours and miles compared to the existing service. A summary of impacts is listed below.

Proposed Frequency and Span

Table 34. Proposed Frequency and Span (Routes 12, 15, 20, and 30)

Route	Name	Service Day	Round-Trip Cycle Time	Proposed Frequency	Proposed Span	Total Daily Trips
12	Fox Valley Tech	Weekday	60 minutes	30 minutes	6:15 AM – 10:15 PM	32.0
15	West College	Weekday	60 minutes	30 minutes	6:15 AM – 10:15 PM	32.0
20	Heart of the Valley	Weekday	60 minutes	30 minutes	6:15 AM – 10:15 PM	32.0
30	Neenah / Menasha	Weekday	60 minutes	30 minutes	6:15 AM – 10:15 PM	32.0

Estimated Operating Costs

Estimated Operating Costs (Routes 12, 15, 20, and 30)

Route	Proposed Name	Service Day	Daily Revenue Hours	Annual Revenue Hours	Annual O&M Cost (2018)	Peak Buses Required
12	Fox Valley Tech	Weekday	32.0	8,160	$664,006	2.0
15	West College	Weekday	32.0	8,160	$664,006	2.0
20	Heart of the Valley	Weekday	32.0	8,160	$664,006	2.0
30	Neenah / Menasha	Weekday	32.0	8,160	$664,006	2.0
Annual Weekday Total (Routes 12, 15, 20, and 30)				32,640	$2,656,024	8.0

Net Increase (Routes 12, 15, 20, and 30)	+16,065	+$1,328,012	+4 peak buses

Concept 1B: Minor Route Modifications

The service changes below could result in improvements to on-time performance and reliability but would not result in major cost impacts. These are included as illustrative suggestions but have not been included in the full analysis of operating costs.

Route 2

Route 2 has a low-ridership loop to serve the Boys and Girls Club location at Badger Avenue and Lawrence Street. The loop adds travel time to passengers traveling to other destinations on Route 2, and Route 15 already offers a faster connection from Boys and Girls Club to downtown Appleton via College Avenue. Eliminating this loop could enhance on-time performance and offer streamlined trips to customers traveling to and from southwest Appleton. The estimated mileage savings would be approximately 0.5 miles per trip, or 3,041 miles per year.

Route 11

Detailed analysis is needed on a trip-by-trip basis to determine how often Route 11 buses need to serve Valley Packaging. Anecdotal evidence indicates that there are peak times before and after shifts. A few trips could serve the facility, and buses could detour on request at other times. Reducing the number of daily deviations could allow for improved on-time performance on most trips, while maintaining service for high-ridership trips. The mileage savings is approximately 0.8 miles per trip. If six trips per day are saved, the yearly mileage saving would be 1,224 miles per year.

Route 12

Route 12 is Valley Transit's third most productive route. However, it does have scheduled adherence problems due to its length and its many turns at signalized intersections that contribute to delays. In order to enhance on-time performance, some low-ridership areas on the route could be considered for elimination in favor of a more direct alignment on arterial streets. Currently, First Avenue between Lynndale and Bluemound is a low-ridership area served by westbound trips only. Rerouting westbound trips to use Northland would save approximately 0.15 miles per trip, or 675 miles per year.

Service along Lynndale between Glendale and Wisconsin could also be relocated to allow for bi-directional service on Perkins Street. This change is consistent with the project objective to reduce one-way loops where possible. Passengers traveling west of Lynndale may be impacted, but the housing developments east of Perkins are likely to be a more productive transit market. This recommendation would result in a negligible change in per trip mileage and running time.

Route 16

As with Route 11, Route 16 could be streamlined to offer service to Valley Packaging upon request or during shift times only. Additionally, Valley Transit could use an afternoon school tripper to offer an additional trip directly from Valley Packaging to the downtown transit center. This could save

passengers up to 30 minutes of travel time compared to riding on the full length of Route 16, and could offer better transfers to other downtown bus routes at 4:15 p.m.

Scenario 2: Service Expansion Concepts

Like all transit agencies, Valley Transit works to achieve a balance between frequency and service coverage while allocating resources to the areas of greatest demand. In the long term, Valley Transit's transit network could change significantly depending on the contributions of participating local governments or the creation of a regional transportation authority. Scenario 2 outlines service expansion concepts that could be implemented with increased funding, with a full analysis of the operating costs and capital needs for each route change.

Concept 2A: Route 15 Restructuring and Frequency Improvements

Existing Service

Currently, Route 15 operates hourly service on a lengthy but productive alignment along College Avenue between downtown Appleton and Fox River Mall. Prior to reaching the mall, westbound buses deviate north of College to serve several large retail developments, including The Marketplace (Big Lots/Office Depot), Westhill Plaza (Home Depot/Burlington), Woodman's Food Market, and Marcus Hollywood Cinema. Buses then continue via Spencer Street (south of College) to serve additional retail destinations before proceeding north to the mall. While this circuitous alignment helps, many customers reach their destinations with a short or minimal walk, it results in longer trips for passengers traveling to or from the end of the route (Fox River Mall).

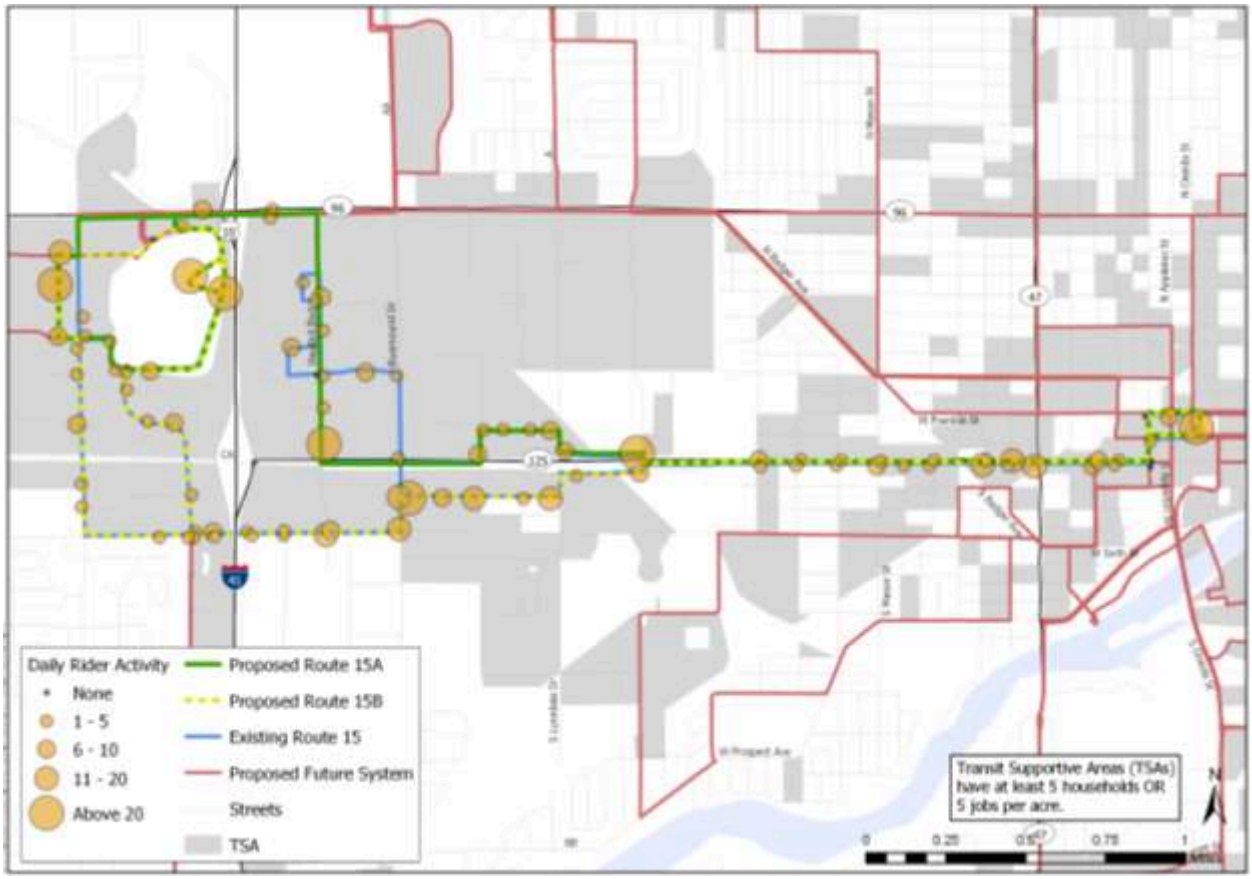
Proposed Alignment

Concept 2A recommends splitting Route 15 into two separate routes (15A and 15B). Both routes would continue to serve College Avenue but would operate two new, more direct branches to reach Fox River Mall.

Route 15A would serve retail destinations north of College Avenue and east of Interstate 41 in addition to Fox River Mall. After serving The Marketplace, westbound Route 15A buses would travel north along Westhill Boulevard, then west along Wisconsin Avenue to approach Fox River Mall from the north, as shown below.

Route 15B would serve retail destinations south of College Avenue and west of US-41 prior to reaching Fox River Mall. At Perkins Street, westbound Route 15B buses would leave the main travel lanes on College Avenue to operate westbound via the frontage road, Lawrence Street, and Spencer Street. After crossing Interstate 41, buses would continue north on Nicolet Road/Mall Drive to reach Fox River Mall, as shown below.

Figure 26. Proposed Alignment: Routes 15A and 15B



Proposed Frequency and Span

In order to maintain hourly service to all destinations currently served by Route 15, Routes 15A and 15B would each operate hourly service. Schedules would be designed to operate at offset 30-minute intervals, which would effectively deliver 30-minute service along College Avenue between Perkins Street and downtown Appleton. Given that Route 15 has the agency's highest ridership and productivity with only hourly service, it is expected that this additional frequency will help the route meet existing demand and attract new customers.

Table 35. Proposed Frequency and Span (Routes 15A and 15B)

Route	Name	Service Day	Round-Trip Cycle Time	Proposed Frequency	Proposed Span	Total Daily Trips
15A	W. College – North Route	Weekday	60 minutes	60 minutes	6:15 AM – 10:15 PM	16.0
15A	W. College – North Route	Saturday	60 minutes	60 minutes	8:15 AM – 10:15 PM	14.0
15B	W. College – South Route	Weekday	60 minutes	60 minutes	6:45 AM – 10:45 PM	16.0
15B	W. College – South Route	Saturday	60 minutes	60 minutes	8:45 AM – 10:45 PM	14.0

Estimated Operating Costs

Table 36. Estimated Operating Costs (Routes 15A and 15B)

Route	Proposed Name	Service Day	Daily Revenue Hours	Annual Revenue Hours	Annual O&M Cost (2018)	Peak Buses Required
15A	W. College – North Route	Weekday	16.0	4,080	$332,003	1.0
15A	W. College – North Route	Saturday	14.0	728	$59,240	--
15B	W. College – South Route	Weekday	16.0	4,080	$332,003	1.0
15B	W. College – South Route	Saturday	14.0	728	$59,240	--
Annual Total (Routes 15A and 15B)				9,616	$782,486	2.0
Net Increase (Compared to current Route 15)				+4,080	+$391,243	+1 peak bus

Concept 2B: North Service Area Restructuring (Routes 3, 4, 5, and 16)

Summary

Routes 3, 4, 5, and 16 operate one-way loops to serve north and northeast sections of the City of Appleton. While these routes provide coverage to large parts of the Valley Transit service area, their productivity is lower than the system average, with the exception of Route 3. Concept 2B recommends streamlining each of these routes onto a more direct north-south alignment, which will allow Valley Transit to offer true bidirectional service and faster travel times between major destinations.

Route 3 – Mason

Route 3 – Mason provides weekday and Saturday hourly service between downtown Appleton and Northland Mall, with 30-minute peak service on weekdays. Service operates bidirectionally on Franklin Street in downtown Appleton, then as a one-way loop. Northbound buses travel via Mason Street to Northland Mall, while southbound buses use Linwood and Badger Avenues to return to downtown.

Under this proposal, Route 3 would be restructured to offer bidirectional service on the highest-ridership segments of the existing loop, via Mason, Glendale, and Linwood. Service would be discontinued on Linwood and Badger south of Glendale, and on Mason north of Glendale, as shown below.

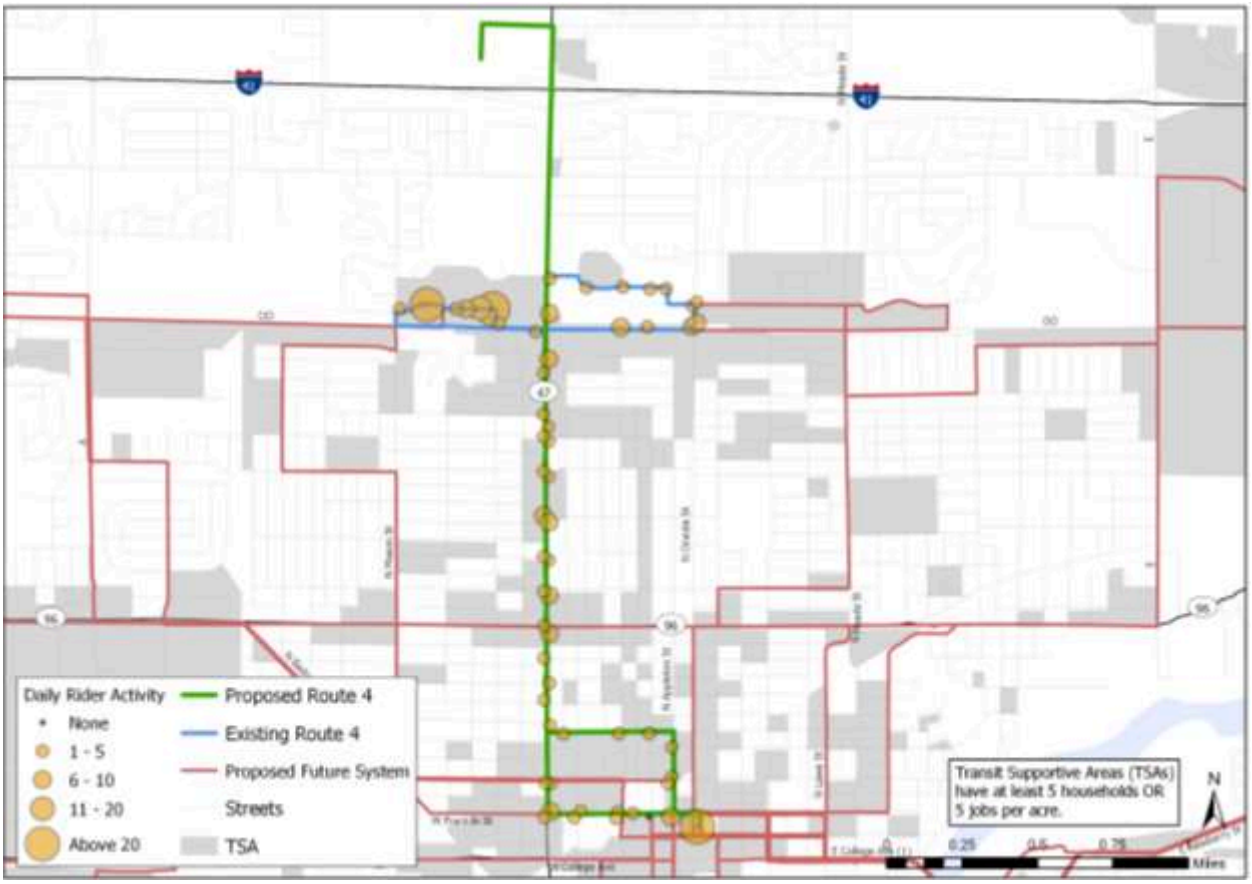
Figure 27. Proposed Alignment: Route 3 – Mason

Route 4 – Richmond

Like Route 3, Route 4 – Richmond also provides service between downtown Appleton and Northland Mall. Route 4 currently operates on a one-way loop both in downtown Appleton and along Northland Avenue, with bidirectional service along Richmond.

Under this proposal, Route 4 would operate a single bidirectional alignment along Franklin Street in downtown Appleton. At Northland Mall, the current one-way loop would be streamlined into a single small deviation, which would allow the route to be extended to serve the new Meijer store at Richmond and I-41. Destinations along Northland are largely within walking distance of the new route, but will also be served by a proposed crosstown service, as shown below.

Figure 28. Proposed Alignment: Route 4 – Richmond



Route 5 – North Oneida

Route 5 currently operates a one-way loop between downtown Appleton and Einstein Middle School, just north of Northland Avenue. Northbound buses travel via Oneida Street and Morrison Street to reach Northland, then make a clockwise loop on starting at Florida Avenue to serve the school, nearby residential areas, and businesses along 1st Avenue. Southbound buses travel primarily via Drew Street (1/4 mile east of Oneida) to return to downtown.

Under this proposal, Route 5 would be restructured to operate a single alignment along Oneida Street, Brewster Street, and Meade Street to reach Northland Avenue. There, northbound buses would travel west to Oneida, then north to make a streamlined counterclockwise loop on 1st Avenue/Winfield Place. Southbound buses would return to downtown via Meade, Brewster, and Oneida, as shown below.

Figure 29. Proposed Alignment: Route 5 – Oneida/Meade

Note: The proposed Route 5 service along Meade is intended to balance route spacing and coverage in conjunction with a simultaneous realignment of Routes 6/16, located just to the east.

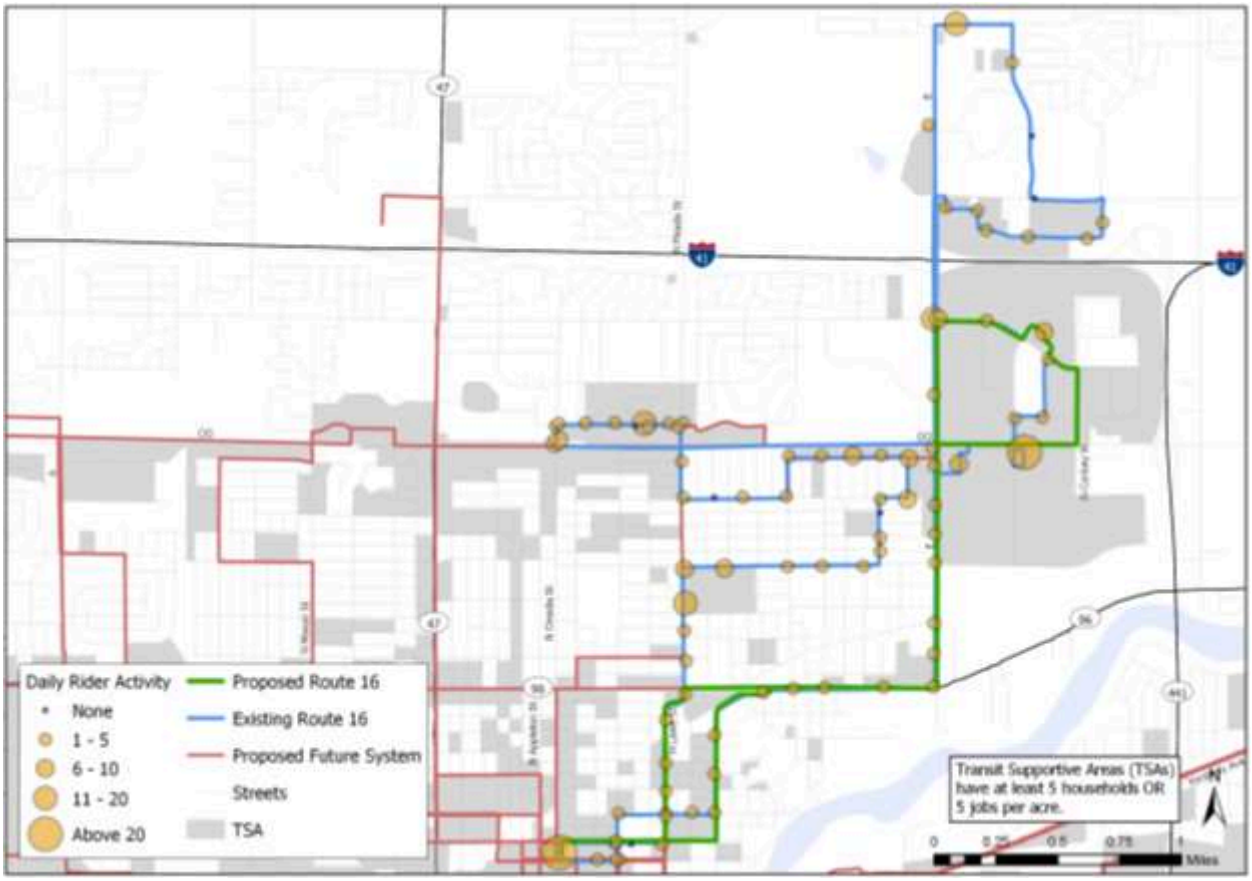
Route 6 – Meade / Route 16 – Northeast

Route 6 – Meade and Route 16 – Northeast combine to offer weekday and Saturday service to destinations in much of northeast Appleton. Route 6 – Meade provides weekday evening and Saturday service along a core one-way loop via Meade Street, Glendale Avenue, Pershing Street, Northland Street, Ballard Road, and Wisconsin Avenue. Weekday peak and midday service is provided by Route 16, which operates an extended one-way loop to serve Appleton North High School, located north of I-41 along Ballard Road.

Combined, Routes 6 and 16 are the most complex one-way loops in the Valley Transit system. In keeping with the previous recommendations, it is proposed that Routes 6/16 be consolidated into a single, bidirectional alignment where possible. As shown in the map below, the revised Route 6/16 – Northeast would operate primarily via Wisconsin Avenue and Ballard Road, with an abbreviated northern loop. From downtown Appleton, northbound buses would travel via Franklin, Rankin, Wisconsin, and Ballard, before making a loop via Capitol Drive to serve the ThedaCare Physicians-

Appleton North medical complex. Southbound buses would return via Conkley Street, Northland Ave, Ballard, Wisconsin, and Lawes Street.

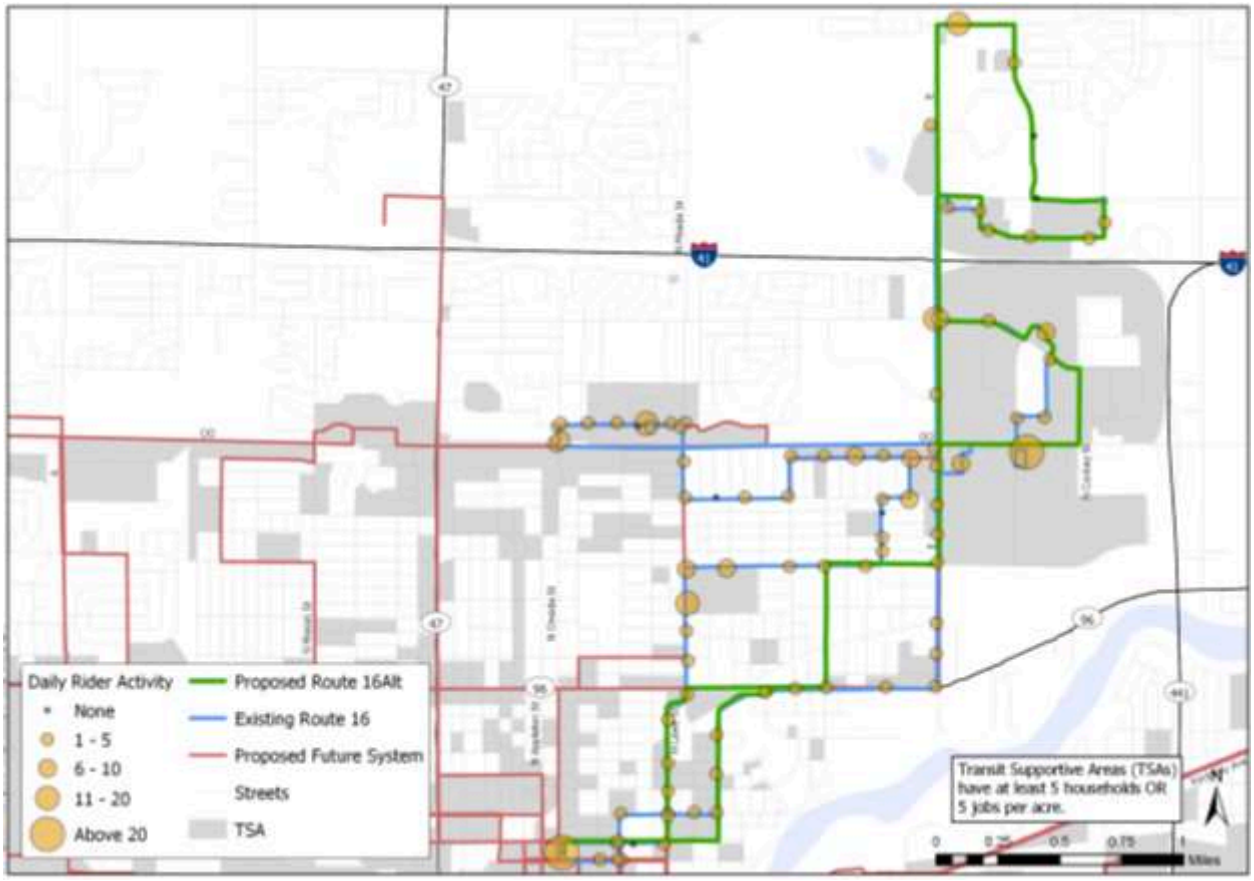
Figure 30. Proposed Alignment: Route 6/16 – Northeast



Note: This proposed alignment would not include mainline service to Appleton North High School. It is recommended that school trippers be retained to meet AM start and PM dismissal times.

An alternate alignment for Route 6/16 would maintain service to Appleton North High School and other destinations north of I-41. Due to the increased length of this alignment, the route would operate every 60 minutes instead of every 30 minutes, with no change to total cost.

Figure 31. Alternate Alignment: Route 6/16 – Northeast



Proposed Frequency and Span

Currently, Routes 3, 4, 5, and 16 each operate every 60 minutes, with weekday peak service every 30 minutes. It is proposed that midday and evening frequency be improved to 30-minute service, with 60-minute service on Saturdays only.

Table 37. Proposed Frequency and Span (Routes 3, 4, 5, and 6/16)

Route	Proposed Name	Service Day	Round-Trip Cycle Time	Proposed Frequency	Proposed Span	Total Daily Trips
3	Linwood	Weekday	30 minutes	30 minutes	6:15 AM – 10:15 PM	32.0
3	Linwood	Saturday	60 minutes	60 minutes	8:15 AM – 9:45 PM	14.0
4	Richmond	Weekday	30 minutes	30 minutes	6:15 AM – 10:15 PM	32.0
4	Richmond	Saturday	60 minutes	60 minutes	8:45 AM – 10:15 PM	14.0
5	Oneida/Meade	Weekday	30 minutes	30 minutes	6:15 AM – 10:15 PM	32.0
5	Oneida/Meade	Saturday	60 minutes	60 minutes	8:15 AM – 9:45 PM	14.0
6/16	Northeast	Weekday	30 minutes	30 minutes	6:15 AM – 10:15 PM	32.0
6/16	Northeast	Saturday	60 minutes	60 minutes	8:45 AM – 10:45 PM	14.0

* Note: The alternate proposal for Route 6/16 would operate every 60 minutes on weekdays, with 16 total trips. No impact on total cost.

Estimated Operating Costs

Table 38. Estimated Operating Costs (Routes 3, 4, 5, and 6/16)

Route	Name	Service Day	Daily Revenue Hours	Annual Revenue Hours	Annual O&M Cost (2018)	Peak Buses Required
3	Linwood	Weekday	16.0	4,080	$332,003	1.0
3	Linwood	Saturday	7.0	364	$29,620	--
4	Richmond	Weekday	16.0	4,080	$332,003	1.0
4	Richmond	Saturday	7.0	364	$29,620	--
5	Oneida/Meade	Weekday	16.0	4,080	$332,003	1.0
5	Oneida/Meade	Saturday	7.0	364	$29,620	--
6/16	Northeast	Weekday	16.0	4,080	$332,003	1.0
6/16	Northeast	Saturday	7.0	364	$29,620	--
Annual Total (Routes 3, 4, 5, and 6/16)				17,776	$1,446,493	4.0
Net Increase (Routes 3, 4, 5, and 6/16)				+3,570	+$290,503	-1 peak bus

Concept 2C: New Crosstown Routes (50, 55, 60)

Summary

During the public outreach process, a number of stakeholders expressed a desire and need for crosstown service, which would enable customers to travel between many of the region's major destinations without traveling downtown. Routes 50, 55, and 60 are three new east-west routes proposed to complement the north-south network outlined in Concept 2B.

Route 50 – Northland

Route 50 – Northland would offer crosstown service along Northland Avenue, providing connections to the revised Routes 3, 4, 5, and 6/16. With service to the Capital Drive business park, Northland Mall, Fox Valley Technical College, and Fox River Mall, Route 50 would improve connectivity between major destinations previously served by one-way loop routes.

Of the three crosstown routes proposed here, Route 50 serves the highest proportion of existing riders and should be considered the highest priority for implementation.

Figure 32. Proposed Alignment: Route 50 – Northland

Route 55 – E. College/Kaukauna

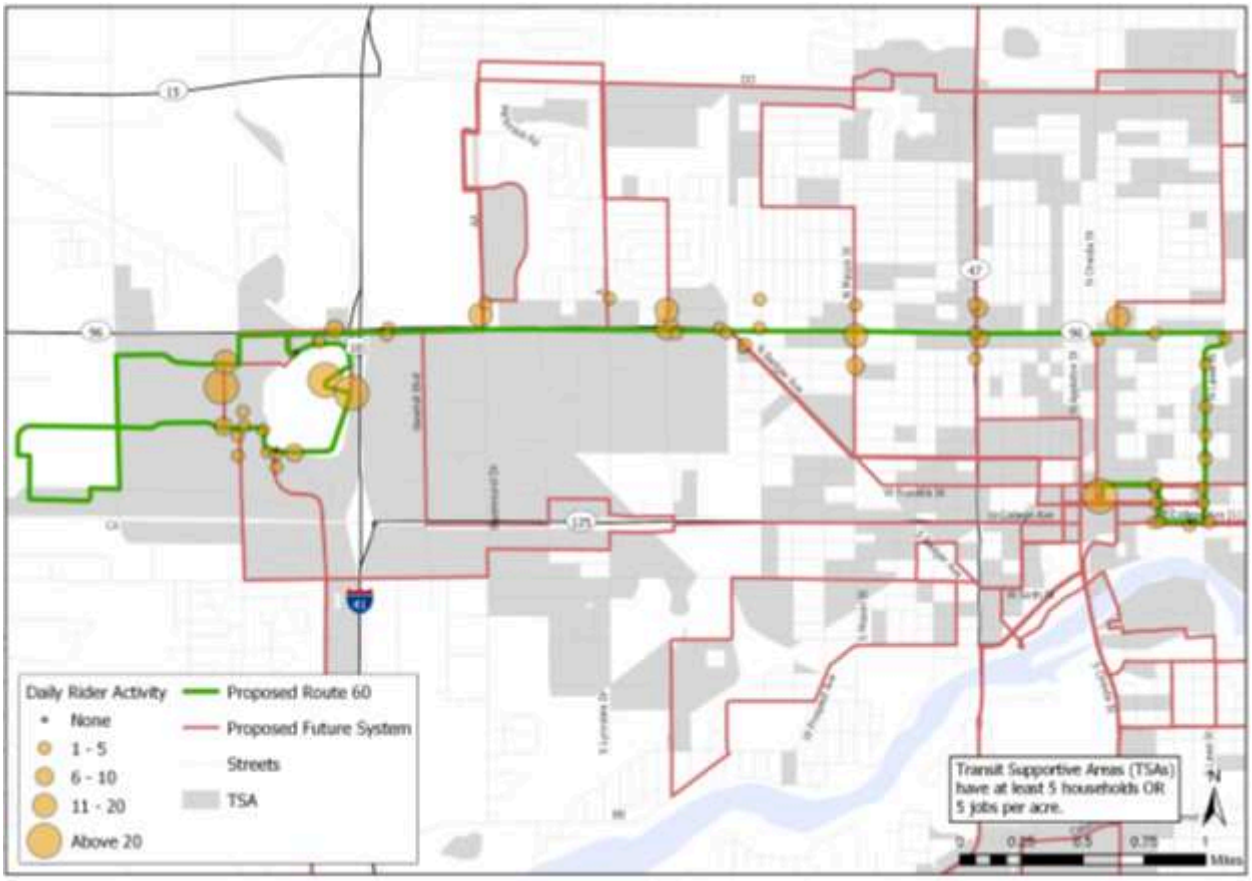
Route 55 – E. College/Kaukauna would offer new east-west service between downtown Appleton and Kaukauna via College Avenue. For residents of Kimberly, Buchanan, and Kaukauna, Route 55 would offer faster, more direct trips to downtown Appleton compared to the existing Route 11 and Route 20.

Figure 33. Proposed Alignment: Route 55 – E. College / Kaukauna

Route 60 – Wisconsin

Route 60 – Wisconsin would offer supplementary crosstown service along Wisconsin Avenue, with connections to Lawrence University, Fox River Mall, and business developments near Appleton International Airport. For residents of north central Appleton and Grand Chute, this route would provide east-west connections to routes 3, 4, 5, and 6/16 without requiring a transfer downtown. If desired, select trips on Route 60 could be extended to serve Appleton International Airport.

Figure 34. Proposed Alignment: Route 60 – Wisconsin



Proposed Frequency and Span

For each new route, frequency and span will be determined by the length of the route alignment, expected ridership, and connections to nearby services. These east-west services each have a longer route alignment than the typical north-south routes, with a 60-minute cycle time. Based on expected ridership, it is recommended that all three routes operate every 60 minutes.

Routes 50 and 60 are expected to serve many customers transferring from Routes 3, 4, 5, and 6/16, so it is recommended that these routes offer an equivalent span of service (approximately 6:15 AM to 10:15 PM). Route 55 is proposed to operate a slightly truncated span of service, similar to Routes 31 and 32 in Neenah (approximately 6:15 AM to 7:15 PM).

Table 39. Proposed Frequency and Span (Routes 50, 55, and 60)

Route	Proposed Name	Service Day	Round-Trip Cycle Time	Proposed Frequency	Proposed Span	Total Daily Trips
50	Northland	Weekday	60 minutes	60 minutes	6:15 AM – 10:15 PM	16
50	Northland	Saturday	60 minutes	60 minutes	8:15 AM – 10:15 PM	14
55	E. College/ Kaukauna	Weekday	60 minutes	60 minutes	6:15 AM – 7:15 PM	13
55	E. College/ Kaukauna	Saturday	60 minutes	60 minutes	8:15 AM – 7:15 PM	11
60	Wisconsin	Weekday	60 minutes	60 minutes	6:15 AM – 10:15 PM	16
60	Wisconsin	Saturday	60 minutes	60 minutes	8:15 AM – 10:15 PM	14

Estimated Operating Costs

Table 40. Estimated Operating Costs (Routes 50, 55, and 60)

Route	Name	Service Day	Daily Revenue Hours	Annual Revenue Hours	Annual O&M Cost (2018)	Peak Buses Required
50	Northland	Weekday	16.0	4,080	$332,003	1.0
50	Northland	Saturday	14.0	728	$59,240	--
55	E. College/ Kaukauna	Weekday	13.0	3,315	$269,753	1.0
55	E. College/ Kaukauna	Saturday	11.0	572	$46,546	--
60	Wisconsin	Weekday	16.0	4,080	$332,003	1.0
60	Wisconsin	Saturday	14.0	728	$59,240	--
Annual Total (Routes 50, 55, and 60)				13,503	$1,098,785	3.0
Net Increase (Routes 50, 55, and 60)				(NEW)	(NEW)	(NEW)

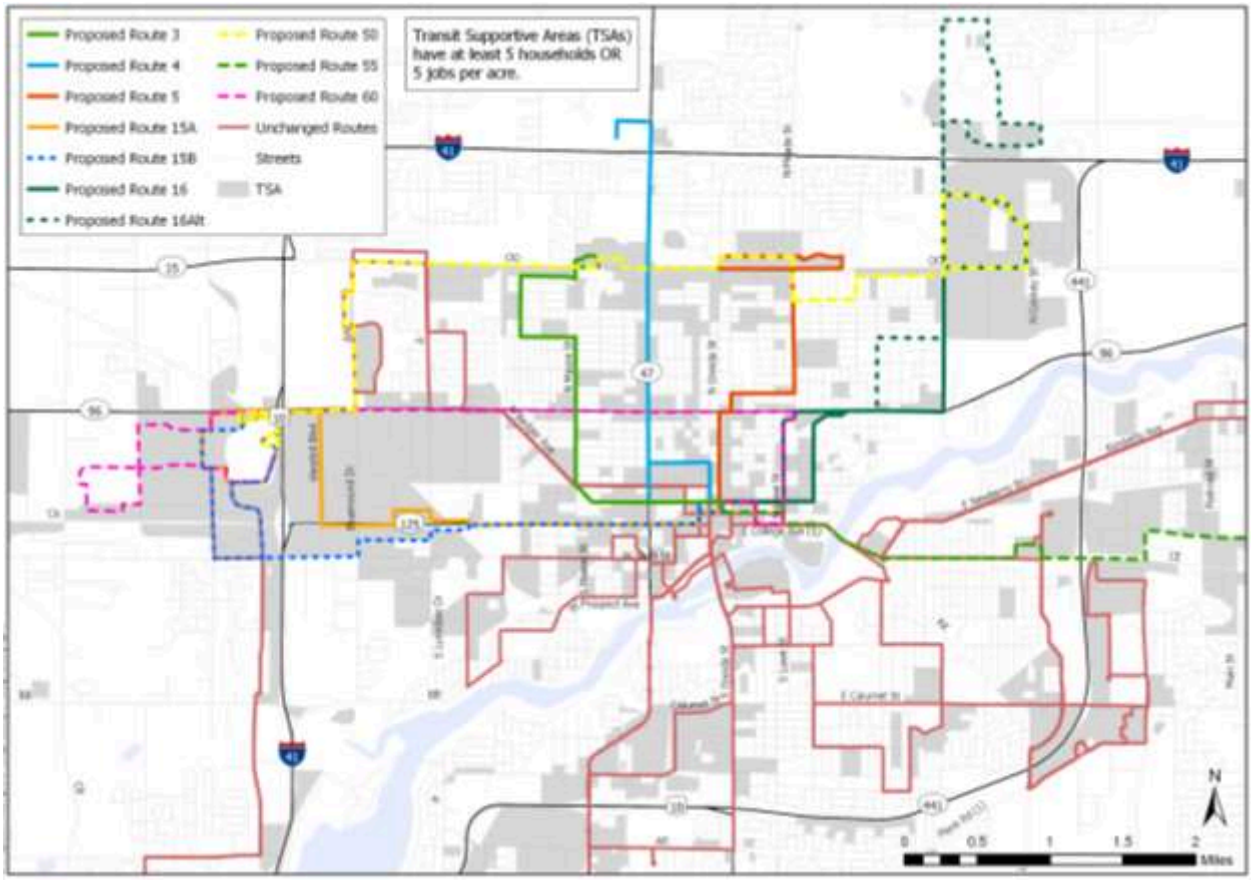
Summary of Expansion Concepts

The proposed transit network would allow Valley Transit to improve frequency on high-ridership routes while extending coverage to new parts of the region. Additionally, new crosstown routes would reduce the travel times for customers making east-west trips.

Transit Supportive Areas

The new service network maintains coverage to a majority of the region's transit-supportive areas, as shown in Figure 35 below.

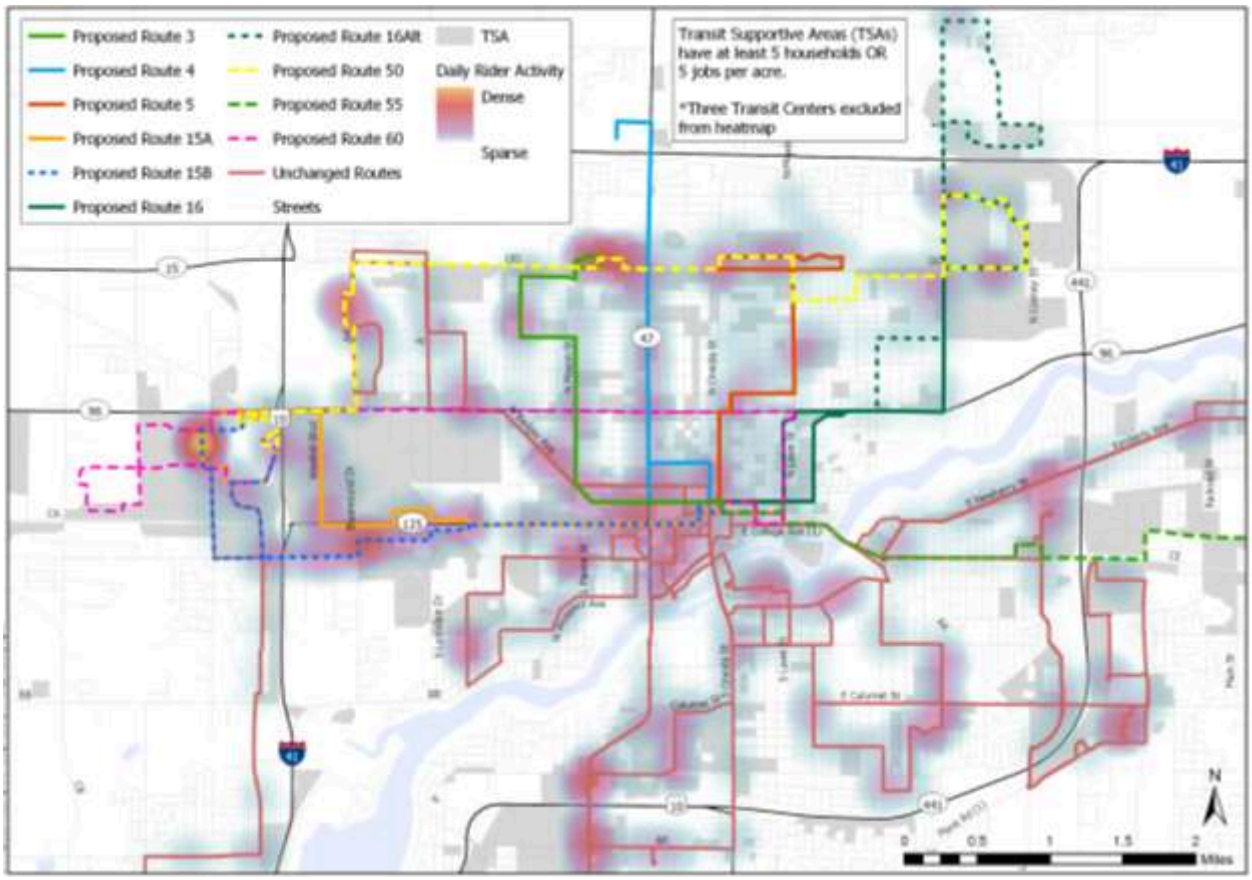
Figure 35. Proposed System Map & Transit Supportive Areas



Ridership

The proposed service network would maintain and improve coverage to existing high-ridership areas, including downtown Appleton, Fox River Mall, and the Northland Avenue corridor. Streamlined routes would offer faster trips between major destinations, enhancing the usability of the new service.

Figure 36. Proposed System Map and Existing Ridership Activity



Service Implementation Plan

Implementation of the proposed bus service concepts will depend on Valley Transit's funding priorities and available resources. Together with ECWRPC and community feedback, Valley Transit will determine the timeline and sequence of service improvements.

Implementation Priorities

In order to assist Valley Transit in identifying near-term projects, each recommendation has been assigned qualitative ratings for overall cost, expected ridership, and suggested priority. These rankings are listed in Table 41 on the following page, along with the annual operating costs and peak vehicle requirements of each proposed service concept. Assumptions are documented as follows:

- **Existing Service:** All future service concepts assume current service levels will be maintained on all routes that are not restructured or changed.
- **New or Revised Service (Scenario 1):** Scenario 1 includes frequency improvements on existing routes 12, 15, 20, and 30 (Concept 1A), as well as minor adjustments to existing routes to improve on-time performance (Concept 1B). Each of these changes can be implemented independently as needed.
- **New or Revised Service (Scenario 2):** Scenario 2 includes restructuring concepts, as well as new east-west service. Concept 2A (Route 15 Restructuring) can be implemented independently. It is recommended that Concept 2B (North Service Area Restructuring) be implemented in combination with one or more new crosstown routes from Concept 2C (ideally Route 50 – Northland). Routes 55 and 60 can be implemented independently in the future as resources allow.

Table 41. Implementation Matrix

Scenario	Annual O&M Cost (2018)	Est. Local Share (20%)	Peak Buses Required	Overall Cost	Expected Ridership	Suggested Priority
Existing Service	**$4,776,292**	**$955,258**	**21**	–	–	–
New or Revised Service (Scenario 1)						
Concept 1A: Frequency Improvements	+$1,307,264	+$261,453	+4	**High**	**High**	**Medium**
Concept 1B: Minor Route Changes	--	--	--	**Low**	**Low**	**Medium**
New or Revised Service (Scenario 2)						
Concept 2A: Routes 15A and 15B	+$391,243	$78,249	+1	**Medium**	**High**	**High**
Concept 2B: Routes 3, 4, 5, 6/16	+$290,503	$58,101	-1	**Low**	**Medium**	**Medium**
Concept 2C: Routes 50, 55, 60	+$1,098,785	$219,757	+3	**High**	**Medium**	**Low**

Potential Funding Criteria

During previous planning efforts, Valley Transit has expressed interest in pursuing a regional governance structure, such as a Regional Transit Authority (RTA). This structure would allow for the collection of dedicated local revenues on an equitable basis throughout the service area. However, since RTAs are not currently enabled by state legislation in Wisconsin, Valley Transit could instead develop a shared funding structure based on service data for each participating municipality. For illustrative purposes, this section presents potential funding criteria that could be used to apportion local share among participating governments, including revenue hours, number of bus stops, and level of service by municipality.

Table 42. Existing Revenue Hours by Municipality

Existing Service		
Municipality	**Revenue Hours**	**Percent**
Appleton	34,853	59%
Grand Chute	8,403	14%
Neenah	4,833	8%
Fox Crossing	3,503	6%
Menasha	2,744	5%
Kaukauna	1,429	2%
Little Chute	1,065	2%
Kimberly	988	2%
Buchanan	826	1%
Neenah - Town	29	0%
Combined Locks	26	0%
Grand Total	**58,699**	**100%**

Table 43. Existing Bus Stops by Municipality

Existing Service		
Municipality	**Number of Stops**	**Percent**
Appleton	486	52%
Grand Chute	121	13%
Neenah	115	12%
Fox Crossing	59	6%
Menasha	49	5%
Kaukauna	46	5%
Little Chute	20	2%
Kimberly	22	2%
Buchanan	16	2%
Combined Locks	0	0%
Grand Total	**934**	**100%**

Table 44. Existing Ridership by Municipality

	Average Daily Ridership Activity			
Municipality	**Boardings**	**Alightings**	**Total Activity**	**Percent**
Appleton	2165	2160	4155	65%
Grand Chute	426	429	815	13%
Neenah	308	317	606	10%
Fox Crossing	81	85	149	2%
Menasha	161	162	308	5%
Kaukauna	86	59	131	2%
Kimberly	41	36	70	1%
Little Chute	35	28	60	1%
Buchanan	23	37	57	1%
Neenah - Town	0	1	1	0%
Combined Locks	0	0	0	0%
Grand Total	**3326**	**3314**	**6352**	**100%**

Table 45. Level of Service by Municipality: Frequency (Existing)

Municipality	LOS	Average Headway (minutes)	Vehicles per Hour	Comments
Appleton	D	21-30	2	Service unattractive to choice riders
Grand Chute	D	21-30	2	Service unattractive to choice riders
Neenah	E	31-60	1	Service available during the hour
Fox Crossing	E	31-60	1	Service available during the hour
Menasha	E	31-60	1	Service available during the hour
Kaukauna	E	31-60	1	Service available during the hour
Little Chute	E	31-60	1	Service available during the hour
Kimberly	E	31-60	1	Service available during the hour
Buchanan	E	31-60	1	Service available during the hour
Neenah - Town	E	31-60	1	Service available during the hour
Combined Locks	E	31-60	1	Service available during the hour

Table 46. Level of Service by Municipality: Span of Service (Existing)

Municipality	LOS	Hours of Service per Day	Comments
Appleton	B	17-18	Late evening service provided (Multiple routes)
Grand Chute	C	14-16	Early evening service provided (Multiple routes)
Neenah	B D	17-18 12-13	Late evening service provided (Route 30) Daytime service provided (Routes 31, 32, 41)
Fox Crossing	D	12-13	Daytime service provided (Route 41)
Menasha	B	17-18	Late evening service provided (Route 30)
Kaukauna	B	17-18	Late evening service provided (Route 20)
Little Chute	B	17-18	Late evening service provided (Route 20)
Kimberly	B	17-18	Late evening service provided (Route 20)
Buchanan	B	17-18	Late evening service provided (Route 19)
Neenah - Town	D	12-13	Daytime service provided (Route 41)
Combined Locks	B	17-18	Late evening service provided (Route 20)

Table 47. Level of Service by Municipality: Service Coverage (Existing)

Municipality	LOS	Percent of TSAs Covered	Comments
Appleton	B	80.0-89.9%	Most major origins & destinations served
Grand Chute	B	80.0-89.9%	Most major origins & destinations served
Neenah	B	80.0-89.9%	Most major origins & destinations served
Fox Crossing	B	80.0-89.9%	Most major origins & destinations served
Menasha	B	80.0-89.9%	Most major origins & destinations served
Kaukauna	B	80.0-89.9%	Most major origins & destinations served
Little Chute	F	<50.0%	Less than ½ of higher-density areas served
Kimberly	D	60.0-69.9%	About two-thirds of higher-density areas served
Buchanan	B	80.0-89.9%	Most major origins & destinations served
Neenah - Town	B	80.0-89.9%	Most major origins & destinations served
Combined Locks	F	<50.0%	Less than ½ of higher-density areas served

Strategic Recommendations

Service Development Standards

The Valley Transit Strategic Plan identifies several performance measures that can be pursued to monitor existing service and evaluate the success of new service. Beyond the systemwide performance measures identified in the peer analysis and performance review, these can aid in decision making and service development changes.

Table 48. Strategic Plan Service Development Standards

Service Criteria	Description
Subsidy per Passenger (Annual Operating Cost – Annual Revenue) ÷ Annual Ridership	Subsidy per passenger measures the local, state, and federal funding that is used to support each ride. Service projects should be rated on how well they minimize reliance on public subsidy: Projects that have a lower than average subsidy per passenger on a systemwide basis: **High Rating** If the project does not have a high rating, this measure can be refined by taking the average subsidy for different service types: - High frequency fixed route (< 30 min freq.) - Regular fixed route - Circulators - Demand response
Passengers per Revenue Hour (Productivity) Annual Ridership ÷ Annual Revenue Hours	Productivity is a way of measuring how well Valley Transit serves the proposed market and how effective the proposed service will be. Productivity should be above the regional average. In the third year of operation a fixed-route service should carry at least 20 passengers per hour, and demand response service should carry at least three passengers per hour.
Capital Facility Coordination	Prior to making service changes or expansion, Valley Transit will make sure all capital facilities are funded, acquired, and/or constructed in coordination with the service change.
Benefits to People with Disabilities	New transit service should have a benefit to people with disabilities. This should be verified by reviewing demographics, and conducting outreach to regional human service agencies.

Service Criteria	Description
Benefits to Minority and Low Income Populations	Service modifications should benefit minority and low-income communities. Service changes will be compliant with Title VI of the Civil Rights Act.
Population and Employment Density	The type of service that an area can support should be determined by the level of population and employment density. A minimum threshold for fixed-route service (hourly in a suburban environment) is 3 households per acre and 4 jobs per acre. Additional guidelines are as follows: - High frequency service (15-30 minutes) complemented by local connecting and circulator routes requires densities of at least 18 people per acre and or 20 jobs per acre on multiple locations on the route - Lower density areas, or areas with few pockets of density, can support high frequency or express service during peak periods, and hourly circulator service.
Local Funding Support	Valley Transit should seek out sponsorship of service from local government, businesses, non-profit agencies, etc. Projects that provide "overmatch" will be prioritized.

This plan also proposes adding the following measures that can aid in determining service development decisions.

Table 49. Proposed Additional Service Development Standards

Sidewalk Score	This measure is calculated by determining the ratio of sidewalk length to street centerline length for each block group. A higher ratio means the block group has a better sidewalk network.
Transit-Supportive Land Use	This measure is calculated by determining the percent of block group acreage of land use codes that include: medium to high density residential, commercial, and institutional. These land use types have a higher propensity to use transit.
Intersection Density	This measure can be calculated using GIS and Census data to determine the ratio of roadway intersections per block group and dividing it by the total block group acreage. A higher density implies greater transportation connectivity and the opportunity for better walkability.

Cost Allocation Model

The cost calculations in this report were developed using fully allocated costs per vehicle revenue hour. This simplified methodology allocates all Valley Transit's total operations and maintenance expense to each revenue hour of existing service according to the formula below:

Total Operating and Maintenance Expenses / Total Existing Revenue Hours = Fully Allocated Cost Per Hour

This fully allocated cost per hour is used to create a basic estimate of the cost for new service.

Cost for New Service = Fully Allocated Cost Per Hour * Total New Revenue Hours

However, included in the fully allocated rate are certain costs that may not increase proportionally with an increase in service hours, such as maintenance expenses, administrative expenses, or the costs related to owning and maintaining a facility. As such, cost estimates based on the fully allocated cost model tend to overestimate the expenses related to service expansions.

In order to gain a more detailed understanding of the cost impacts of service changes, many transit agencies use a three-variable methodology. This model can be summarized using the following formula:

Annual Total Expense = (Vehicle Hour-Related Expenses * Vehicle Hours) + (Vehicle Mile-Related Expenses * Vehicle Miles) + (Fixed Expenses/Vehicle * Vehicles)

In order to estimate the cost of new service changes, agencies must first allocate all operating, maintenance, and administrative expenses into the appropriate cost category. Costs that vary with changes in vehicle hours include driver wages and related expenses, while maintenance-related expenses generally depend on the number of vehicle miles traveled. Fixed expenses are typically allocated on a per-vehicle basis.

Table 50 below shows a sample cost allocation for the three-variable model.

Table 50. Transit Cost Allocation: Sample Categories

Per-Hour Costs	Per-Mile Costs	Per-Vehicle Costs
Operating Expenses	Maintenance Expenses	Operating Expenses
Driver Wages and Salaries	Fuel and Oil	Vehicle Insurance
Driver Fringe Benefits	Tires and Tubes	Vehicle Lease
Purchased Transportation	Mechanic Wages and Salaries	Maintenance Expenses
	Mechanic Fringe Benefits	Facility Rental
	Materials and Supplies	Utilities
		Contracted Services
		Dispatch Expenses
		Dispatcher Wages and Salaries
		Dispatcher Fringe Benefits

		Telephone Expenses Computer Expenses Rent Administrative Expenses Administrative Salaries Administrative Fringe Benefits Materials and Supplies Nonvehicle Insurance Professional Services Travel Office Rental Utilities Equipment Rental/Service

Source: Center for Urban Transportation Studies, University of Wisconsin-Milwaukee. https://www4.uwm.edu/cuts/utp/cost.pdf

Reliability Improvements

Service reliability has been identified as an issue by Valley Transit staff and transit riders, and can have major implications on low frequency routes. Service reliability can be improved by shortening a route, increasing the average speed of the route, or adding buses to the route to change the overall cycle time. Average speed can be increased by reducing the number of times that a bus is required to stop to pick up passengers or by improving overall traffic speed through improved traffic operations, such as controlling signalized intersections or adding roundabouts on the route.

"Fill" or "Stub" Buses

"Fill" or "Stub" buses are used at certain times of the day to fill in for late trips. This usually occurs in the afternoon on school days or at other times where ridership peaks, or service delays occur. Expansion of the stub bus concept can be used to fill late trips at all times of the day. This can be done by a supervisor or extra driver that can fill parts of a route for unusual incidents, such as train delays, blocked roads for police or fire activity, malfunctioning traffic signals, etc. Information is not available on the current usage of stub buses. These buses can be staged downtown or strategically in parts of the service area.

The stub bus operator has a variety of techniques they can implement to improve reliability. The operator can: 1) Take transferring passengers from the late bus and deliver them to their destination, allowing all buses at the transfer center to leave on time; 2) Start the next trip of the late bus on time and allow the late bus to run express to catch up with the stub bus; and/or 3) Cover portions of routes with low ridership and many turns, improving reliability and reducing pressure for drivers to make up their time when they are late. Operationally, these can be extensions of tripper service or stand-alone segments of work.

Bus Stop Alignment

Bus stop spacing for a fixed route system is typically ¼ mile for regular route service; ¼ mile is generally recognized as the average distance people are willing to walk to reach local bus service. Higher quality services (express bus, bus rapid transit, light rail) can tolerate greater spacing.

However, bus stop placement must be done in such a way that balances providing access to transit service and maximizing travel speed and convenience. The ¼-mile spacing is intended as a general rule. Areas of higher activity – such as the downtown core of a city – may warrant closer spacing to manage higher boarding and alighting patterns. Areas with low activity – suburban areas with less intense land use or lower density – may not require close spacing. An excessive number of bus stops can reduce customer convenience and increase travel time, and therefore bus stops with **low ridership** that fall outside of these standards should be eliminated to improve system reliability. Bus stop removal should be compliant with both ADA and Valley Transit's Title VI Plan.

Rapid Bus Service

A fully developed transit system will have corridors that provide a high quality level of local bus service. Investments that support rapid bus service should be explored on Valley Transit's most productive routes and the Primary Transit Network. Rapid bus service is local bus service that experiences many of the outcomes of Bus Rapid Transit service, but with a lower per mile capital investment. It employs a variety of low cost, high benefit solutions that improve travel time and the customer experience. Enhanced bus strategies include:

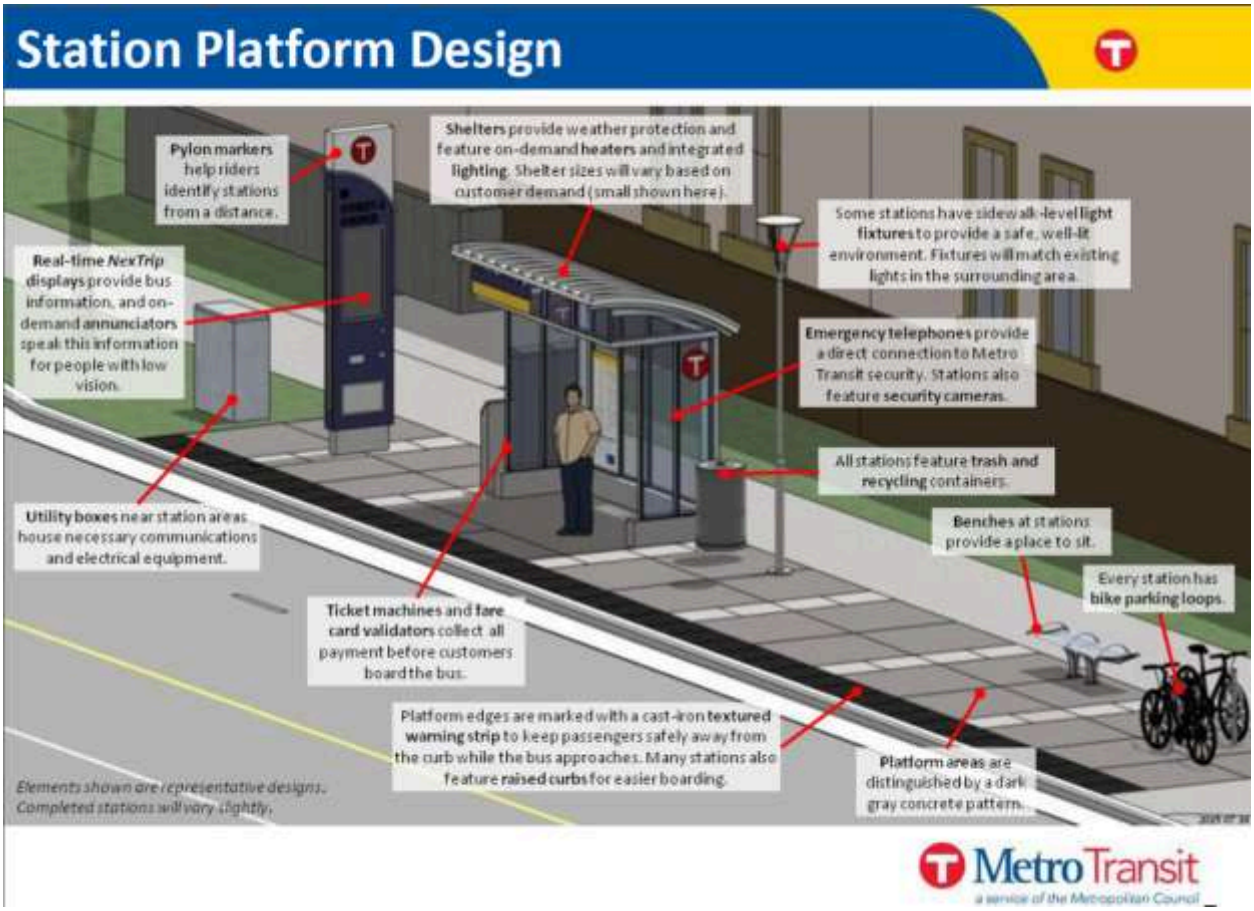
- Transit stations with heated, sheltered waiting areas that provide real-time information
- Limited stop, or express service
- Pre-boarding fare payment to speed the process of boarding the bus
- High frequency service
- Branded vehicles and signage
- Transit signal priority

The graphic on the following page shows an example of a rapid bus stop design that is deployed in St. Paul, MN.

Transit Signal Priority

Traffic control priorities for buses can be programmed when buses are behind schedule and software upgrades for the traffic control network can include these in future purchases. Typically, the earliest adopters of signal priority are emergency services and public safety. The transit agency should coordinate with local agencies if future traffic control initiatives could benefit transit service. Since Valley Transit does not own or manage traffic signals or their upgrade process, they should coordinate with funding partners to identify where this can most feasibly be deployed as a pilot program.

Figure 37. Rapid Bus Station Platform Elements



Infrastructure Improvements

Bus Stops and Shelters

A complete bus stop inventory with analysis of ADA accessibility and safe connections to a sidewalk network is needed to determine a strategy for bus stop improvements. When the inventory is complete, a plan can be developed for bus stop improvements. In general, bus stops are improved at the highest boarding or alighting locations, or where private sector involvement is available to pay the local share of capital improvements.

A ten-year plan to create ADA-compliant bus stops would be a reasonable goal, with one-tenth of all stops constructed each year. The other option is to budget a fixed dollar amount each year (typically $75,000 to $100,000) until all stops are compliant. Current stops with no passengers or very low passenger counts would be last to be improved. However, they should be surveyed each year to determine if the ridership has increased. If there continues to be a long-term trend with no passengers, the stops should be eliminated.

Sidewalk and Pedestrian Improvements

In order to support ridership and leverage its own investment in bus stops and shelters, Valley Transit should encourage local municipalities and property owners to invest in sidewalk and pedestrian improvements. A multi-pronged approach could include a customer survey to identify barriers to accessing bus stops, joint funding of infrastructure improvements in high-priority or high-ridership corridors, and establishing transit-supportive development guidelines to clarify what property owners and developers can do to make their sites pedestrian- and transit-friendly. If needed, Valley Transit can build on example policies from other regional transit agencies and/or state and federal partners. The Federal Transit Administration provides a set of planning tools for transit-supportive development at the following link: https://www.transit.dot.gov/funding/funding-finance-resources/transit-oriented-development/planning-transit-supportive.

Mobility Hub Concept

Mobility Hubs offer people the opportunity to easily connect to and switch between different transportation modes. They are typically located along major transportation corridors or centers of activity, and contain amenities that accommodate multimodal connections. These hubs can include infrastructure that supports pedestrian access, parking, and transfers between public transportation providers. These can vary widely in scale and the services they provide. To be effective, they must be right-sized for the needs of the users and transportation systems they serve. If located along a freeway or in a suburban area, mobility hubs care often developed in conjunction with park-and-ride facilities.

2018-2019 Commuter Study

ECWRPC is currently in the process of deploying a commuter study for communities along the I-41 Corridor. Valley Transit is a key partner in this study, and recommendations are intended to build on local transit planning efforts in I-41 Corridor communities.

GO Transit/Valley Transit Route 10

Route 10 provides a link between Neenah (in the Valley Transit service area) and Oshkosh. It is partially funded via support from Winnebago County and connects county residents to critical services in population centers. Beyond that, however, Route 10 is the entry point to the Valley Transit network from points south of the Fox Cities and serves as the basis for future regional connections.

The current schedule does not always provide for convenient transfer throughout most of the day. Depending on where a passenger's destination is within the Valley Transit service area, travel times can be exceedingly long or require 2-3 transfers to get to downtown Appleton or commercial areas in Grand Chute. The schedule for this route should be adjusted to maximize convenient transfers, both by increasing Route 30 frequency and adjusting the Route 10 schedule so that transfers can occur throughout the day. Additionally, there are peer examples of transit systems that share operations of service like this. In Rock County, WI Beloit Transit System and Janesville Transit

System jointly operate the Beloit-Janesville Express which deploys through routing and cost sharing of services. As demand grows for the service, additional trip times could be added to the schedule. Further market analysis will be completed as part of the Northeast Wisconsin Commuter Bus Study that is now in progress, and may have additional recommendations related to Route 10.

Downtown Neenah

The City of Neenah is exploring options to relocate the existing City-owned transfer center at Church St. and Doty Ave. in downtown Neenah. One suggested location is along the east side of Walnut St., across the street from Neenah City Hall. This location would offer restroom facilities during business hours, as well as layover locations for multiple buses if needed. In order to make this site available to buses and accessible to passengers with disabilities, the City of Neenah would need to remove at least 19 parking spaces and convert an existing grassy median into a paved surface.

If the City of Neenah decides to relocate the transfer center, Routes 30, 31, 32 and 41 will require minor alignment changes in downtown Neenah. It is recommended that Valley Transit conduct a running time analysis to determine the impact on service coverage and/or on-time performance prior to the implementation of any change.

Marketing and Research Strategies

In past performance reviews and planning projects, marketing has been an area of strength for Valley Transit. Compared to statewide peers, the agency has been an early adopter of social media and has been proactive in conducting outreach and developing partnerships. Currently, Valley Transit contracts with a public relations firm to support marketing activities.

As Valley Transit expands service and implements the recommendations included in this Service Review, additional marketing efforts will be necessary to communicate changes to existing routes and advertise the new travel options that are available. Outreach should include communication with existing funding partners, major employers, and existing riders (via on-board announcements, flyers, and in-person outreach). A concurrent paid media campaign could help raise the profile of the changes and attract new customers.

In the future, a modest plan of periodic ridership surveys would help Valley Transit monitor changes in rider demographics and provide insight into service improvements that can increase ridership and customer satisfaction. Survey work aimed at downtown employees and residents, as well as other important markets (students, people with disabilities, etc.), would provide guidance on specific opportunities to make service more useful. Expanding the existing contracts and agency functions to include market research would provide insight into where marketing efforts and service improvements would be most valuable.

Emerging Transportation Modes

Transit development plans and other long-range planning efforts are living documents that adapt as communities and technologies evolve and should be updated to reflect various changes to the transportation environment. Over the next five to ten years (the general time horizon of this project) advancements in transportation and consumer technology will have implications for public transit use in the Fox Cities. Technological advancements like transportation network companies (TNCs), car-sharing, and autonomous vehicles will change the way that people get around Valley Transit's service area, as well as how vehicles interact with public infrastructure. With changing demographics, including aging population, changing workforce patterns, and generational transportation preferences, people living in the Fox Cities will integrate types of transportation outside of self-operated and owned private vehicles into their travel. Parking structures, access to transit and transportation across the community, and infrastructure will adapt to these changes. At the time of this plan's conception the impacts of these transportation modes are not fully known, nonetheless they are presented here as concepts that should be monitored as transportation development decisions are made by Valley Transit and its partners. All of these changes have the potential to seamlessly integrate with and benefit public transit.

Transportation Network Companies

Transportation Network Companies (TNC) the most common of which are Uber and Lyft -- use websites and mobile applications to connect customers with non-commercial drivers. These companies are rapidly changing how people get around, offering an on-demand option for riders willing to pay for quick and easy-to-arrange service. Although most popular in urban centers, TNC services and drivers are becoming more common in suburban and rural locations, although service is less frequent and reliable. There have been various studies and inconclusive data on the impacts of TNCs along rates of drunk driving, congestion, and whether it competes with public transit, as well as variation in the effects of TNCs in different urban environments.[2] TNCs present in the Fox Cities region currently offer service in private vehicles.

Presently, TNCs are best suited to augment but not replace existing demand response services. This is largely due to the services not being fully accessible or otherwise compliant with state, federal, and local regulations supporting public transit service. However, there are numerous examples of successful partnerships between public transit agencies and TNC's, such as:

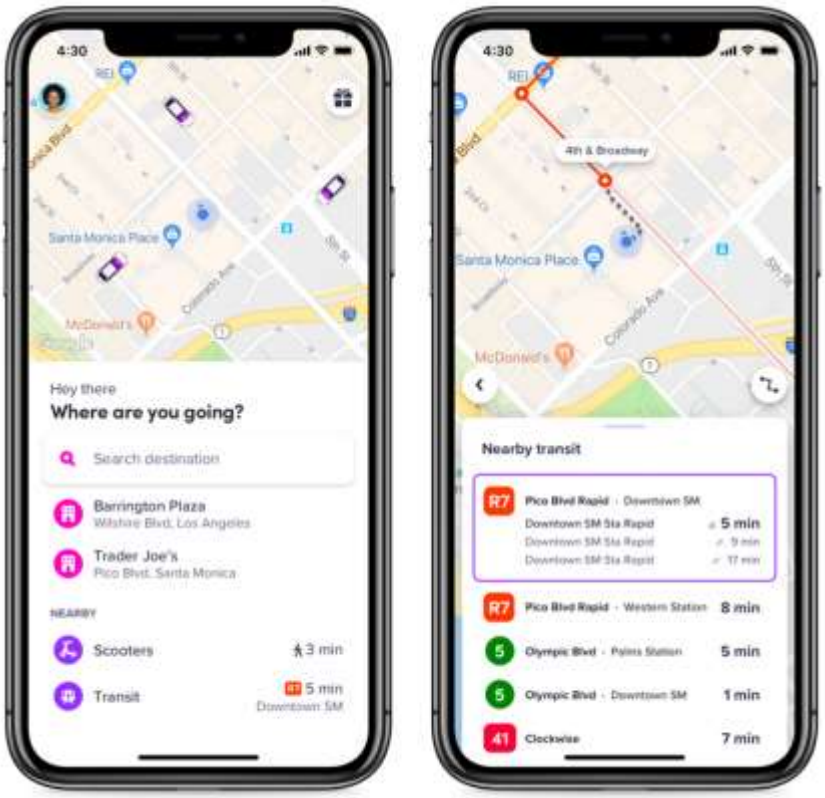
Mobile Device Integration

Transit agencies can link to TNC provider information and ride hailing through their own proprietary apps to provide a seamless integration of the services. Dallas Area Rapid Transit (DART) in Texas currently allows people to reserve and book an Uber ride through their app. Conversely, Lyft is integrating public transit and other modes into its mobile app. They have recently launched a pilot program in Santa Monica, CA and portions of the San Francisco Bay Area where

[2] App-Based, On-Demand Ride Services: Comparing Taxi and Ridesourcing Trips and User Characteristics in San Francisco, University of California Transportation Center (UCTC), Working Paper, November 2014

the Lyft app shows nearby transit options and schedules in addition to its own ride hailing services (Figure 37).

Figure 38. User Interface Lyft Pilot Program in Santa Monica, CA



Source: Lyft Website

Service Agreements

Public transit agencies also engage in contractual partnerships with TNC providers. These involve monetary investments or subsidies of TNC rides, discounts or promotions that are available to public transit users, and purchased transportation. These types of agreements vary widely by geographic area, but are commonly used to provide first-mile/last-mile transportation from a public transit stop (a model similar to the Valley Connector), rides to and from special events, demand response transportation in a geographic area, or service outside of the public transit provider's normal span. Regions that have developed these partnerships include Pinellas County, FL, San Diego, CA, Philadelphia, PA, Los Angeles, CA, and Boston, MA. Anecdotally, small urban areas are working with TNC providers in the Midwest, but implementation is largely still pending.

Ride Referral, Dispatch, Mobility Management

An industry trend is that TNCs are developing agreements with vendors of transit dispatch technology, and are positioning themselves to be integrated into these products. At the time of this plan's development the project team is aware of one such agreement between Lyft and Trapeze Group, that may potentially link the features of these systems into future products. This industry

space should be monitored closely by Valley Transit staff and legacy products should be upgraded with these agreements in mind.

Car Sharing Services

Car sharing services allow customers to use cars for a short amount of time. Care sharing services like Zipcar, Enterprise Car Share, Maven, and HourCar, require returning the car to a set home location, and currently serve larger cities in Wisconsin and its neighboring states. Other services, like Car2Go, a service which allowed drivers to leave the vehicle in public parking, operates in large metro areas throughout the U.S. TNCs offer greater utility for people who do not want to drive or are unable to drive, while car sharing services are marketed more toward those that don't mind driving but would prefer to pay for a service rather than manage the ownership and maintenance of a car. They typically offer options like vans, station wagons, or trucks for occasional use that offer flexibility to members. Typical partnerships with public transit include co-location of vehicles at major transit destinations, and discounts to transit users.

Automated Vehicles

Automated Vehicles (AVs) are passenger vehicles that require some or no human input to operate and navigate safely on the roadway. AVs can be owned and operated by private passengers, ride-sharing services, TNCs, or public transit agencies. At the time of this writing, small buses that travel up to 25 miles per hour and carry 12 people are being piloted around the world. While large-scale implementation of fully automated vehicles may take years or decades, transit operators should continue to monitor the applicability of implementing AVs as technology improves.

There are different levels of input that AVs need from human drivers to operate. Some AVs require a dedicated track, while others can operate on a roadway with the general-purpose traffic. These six levels of automation that are in the process of being accepted by USDOT are as follows:

- **Level 0 – No Automation:** The full-time performance by the human driver of all aspects of the dynamic driving task, even when enhanced by warning or intervention systems
- **Level 1 – Driver Assistance:** The driving mode-specific execution by a driver assistance system of either steering or acceleration/deceleration using information about the driving environment and with the expectation that the human driver performs all remaining aspects of the dynamic driving task
- **Level 2 – Partial Automation:** The driving mode-specific execution by one or more driver assistance systems of both steering and acceleration/deceleration using information about the driving environment and with the expectation that the human driver performs all remaining aspects of the dynamic driving task
- **Level 3 – Conditional Automation:** The driving mode-specific performance by an Automated Driving System of all aspects of the dynamic driving task with the expectation that the human driver will respond appropriately to a request to intervene

- **Level 4 – High Automation:** The driving mode-specific performance by an Automated Driving System of all aspects of the dynamic driving task, even if a human driver does not respond appropriately to a request to intervene
- **Level 5 – Full Automation:** The full-time performance by an Automated Driving System of all aspects of the dynamic driving task under all roadway and environmental conditions that can be managed by a human driver

In the future, it may be prudent to make changes to the roadway or transit facilities to accommodate AVs. An example of a roadway change for an AV is to dedicate parts of roadways to only AVs (in effect creating a track) putting in specialized paint or signage, or specialized sensors at bus stops and transit stations. It is unlikely that the tonnage or construction of roads will need to be changed as vehicles are likely to become lighter and carry less passengers. New parking structures should be built with adaptive reuses in mind as parking needs may change. Because the Valley Transit service area encompasses a landscape that transitions from suburban to rural, sustained attention to scale and appropriateness of innovative technologies for the range of communities is imperative.

As with any technological advance in transportation or otherwise, it is hard to know how quickly change from the status quo or adoption of new practices will take place. Being prepared for change so that technology does not out pace policy, roadway, and transit investments is important to make sure that Valley Transit is well integrated with the overall transportation system. An example of a pilot program currently underway is in Eau Claire, WI where Eau Claire Transit is partnering with the University of Wisconsin where researchers are studying autonomous vehicle applications in a public transit service environment. Valley Transit will continue to monitor and stay abreast of emerging trends to provide appropriate infrastructure for service that best serves residents and visitors.

Appendix A: Steering Committee Roster

Name	Representing Organization
Amie Bastian	Outagamie County Health and Human Services
Amy Erickson	Valley Transit
Amy Rolfs	Valley Packaging, Inc.
Anthony Snyder	Fox Valley Workforce Development Board
Bob Russo	Valley Packaging, Inc.
Carol Kasimor	City Neenah
Connie Kanitz	ESTHER
Dan Flannery	Goodwill NCW
Danielle Block	Village of Kimberly
David Kress	City of Appleton
David Vickman	Valley Transit
Dean Kaufert	City of Neenah
Debbie Warga	State of Wisconsin-DWD-Job Service
Debra Dillenberg	Appleton Housing Authority
Debra Ebben	Valley Transit
Don Merkes	City of Menasha
Eric Lom	City of Appleton
Ernesto Gonzalez	Casa Hispana
Eugene Rosin	City of Kaukauna
George Dearborn	Village of Fox Crossing
Greg Hartjes	Appleton Area School District
Holly Keenan	Making the Ride Happen-Lutheran Social Services
Jake Woodford	Lawrence University
James Fenlon	Village of Little Chute
James Rashid	World Relief
Jeff Sturgell	Village of Fox Crossing
Jennifer Stephany	Appleton Downtown, Inc.
Jerry Chapa	Valley Transit
Jim March	Town of Grand Chute
Joann Dewhurst	Calumet County
Joe Martin	Appleton City Council
Joel Gregozeski	Town of Greenville
John Meissner	Options for Independent Living
Kami Lynch	City of Appleton
Keir Dvorachek	City of Appleton
Ken Usterbowski	Valley Transit
Kyle Lobner	City of Appleton
Larry Wurdinger	Fox Cities Transit Commission

Lori Mueller	Partnership Community Health Center
Mark Rahmlow	Fox Cities Chamber
Mark Weisensel	Winnebago County Elderly Services
Mary Dorn	Outagamie County Health Department
Mary Parsons	Leaven Fox Cities
Patricia Sarvela	Partnerships Community Center
Patrick Tracey	Appleton International Airport
Patti Jorgensen	Fox Valley Tech
Peter Thillman	Fox Cities Regional Partnership
Phil Hunter	Bethel Lutheran Church in Menasha
Rhonda Hannemann	United Way Fox Cities
Rick Detienne	Fox Cities Transit Commission
Rob Peterson	Fox Cities Regional Partnership
Robert Verkins	Ascension
Ron McDonald	Valley Transit
Rosemary Davis	Outagamie County Health Department
Ryan McCartney	ThedaCare
Sarah Chisholm	Appleton Public Montessori School
Shannon Gerke-Corrigan	Fox Valley Tech
Stephen Hirshfeld	WisDOT
Tony Brown	Town of Buchanan
Tony Gonzalez	United Way Fox Cities
Travis Parish	Town/Village of Harrison

APPENDIX A-3

PLAN ADOPTION

City of Appleton

100 North Appleton Street
Appleton, WI 54911-4799
www.appleton.org

Meeting Minutes - Final
Fox Cities Transit Commission

Tuesday, February 25, 2020 | **3:00 PM** | **Council Chambers, 6th Floor**

1. Call meeting to order

2. Roll call of membership

Present: 13 - Kasimor, Detienne, Chairperson Buckingham, Nau, Vice Chair Dearborn, Brown, Wilson, Dexter, VandeHey, Stephenson, Firkus, Schultz and Wurdinger

3. Approval of minutes from previous meeting

20-0283 Approval of minutes from previous meeting

Attachments: Meeting Minutes 29-Jan-2020.pdf

Commissioner Wurdinger moved, seconded by Commissioner Firkus, that the Minutes be approved. Voice Vote. Motion Carried.

4. Public Hearings/Appearances

20-0284 Public Participation on Agenda Items

There was no public participation on the agenda items.

5. Action Items

20-0114 Transit Development Plan Discussion and Adoption

Attachments: Maps combined.pdf
City-of-Appleton-Transit-Development-Plan-2019.pdf

Commissioner Firkus moved, seconded by Commissioner Stephenson, that the Report Action Item be recommended for approval. Voice Vote. Motion Carried. Commissioner Nau abstained.

6. Information Items

20-0286 Approval of Payments

Attachments: January 2020 payments.pdf

This action item was moved to information items.

Commissioner Detienne moved, seconded by Commissioner Nau, that the Report Action Item be approved. Voice Vote. Motion Carried.

20-0287 Financial Report

Attachments: January 2020 Income Statement (PT).pdf
January 2020 Income Statement.pdf

This Presentation was presented.

20-0288 Ridership and Revenue

Attachments: January 2020 Ridership.pdf

This Presentation was presented.

20-0290 Paratransit Scheduling Software Update

This Presentation was discussed.

20-0291 Mobility Management Update

This Presentation was presented.

20-0292 Travel Training Specialist

This Presentation was presented.

20-0294 Micro Mobility - Scooter & Bike Share Programs

This Presentation was discussed.

20-0296 Request for Future Agenda Items

This Presentation was discussed.

7. Next Meeting Date & Time

- March 10, 2020, 3:00 PM - Cancelled
- March 24, 2020, 3:00 PM
- April 14, 2020, 3:00 PM
- April 28, 2020, 3:00 PM - Cancelled

8. Adjournment

A motion was made by Commissioner Detienne, seconded by Commissioner Nau, that this meeting was adjourned. The motion carried unanimously.

EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION

Martin Farrell, Chair
Jeff Nooyen, Vice-Chair
Eric Fowle, Secretary-Treasurer

COMMISSION MEMBERS

CALUMET COUNTY

Alice Connors
Hope Karth
Merlin Gentz
Rick Jaeckels

FOND DU LAC COUNTY

Martin Farrell
Brenda Schneider
Brian Kolstad
Allen Buechel
Charles Hornung

MENOMINEE COUNTY

Ruth Winter
Laure Pecore
(Jeremy Johnson, Alt.)
James Lowey

OUTAGAMIE COUNTY

Thomas Nelson
(Kara Homan, Alt.)
Daniel Rettler
Timothy Hanna
Jeff Nooyen
Michael Thomas
Kevin Sturn

SHAWANO COUNTY

Jerry Erdmann
Thomas Kautza
Chuck Dallas

WAUPACA COUNTY

Dick Koeppen
James Nygaard
Brian Smith
DuWayne Federwitz

WAUSHARA COUNTY

Donna Kalata
Larry Timm
Neal Strehlow

WINNEBAGO COUNTY

Mark Harris
Shiloh Ramos
(David Albrecht, Alt.)
Ernie Bellin
Lori Palmeri
VACANT
Robert Schmeichel

EX-OFFICIO MEMBERS

Jill Michaelson
Ronald McDonald