



Service Equity Analysis of Service Enhancements 2023-2024



Resulting from
increased funding
in the Final FY 24
Commonwealth's
Budget

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1. Authorities and Summary

The Pioneer Valley Transit Authority (PVTA) was established through Chapter 161B of the Massachusetts General Laws. This law establishes the initial service area and structure. In addition, “The affairs of an authority shall be managed by an administrator who shall be appointed by and serve at the pleasure of the advisory board of the authority...The administrator shall be the chief executive officer of the authority...” The administrator is given broad authority to exercise the powers given to the transit authority and is given the authorities at the will of the advisory board including managing facilities and equipment and the hiring of officers, agents, and employees. And including activities common to transit planning.

As a recipient of Section 5307 and 5310 funds from the Federal Transit Administration, PVTA is required to perform an Equity Analysis as part of FTA rules developed in response to Title VI of the 1964 Civil Rights Act and outlined in FTA Circular 4702.1B. Major service changes must be assessed for their potential discriminatory impact with regard to race, color, income, or national origin. Equity analyses are required regardless of whether or not the changes proposed would be beneficial or detrimental to riders.

PVTA enters into agreements with third-party management companies to manage transit bus operators. In 2023, DGR Management (managing both Valley Area and Springfield Area Transit Companies starting in October 2021), University of Massachusetts Transit Services, Hulmes Transportation Inc. LTD, Quaboag Valley CDC, and MV Transit (managing paratransit services). Important to this analysis, these third-party operators make employment decisions independently and based on quarterly contract bids created by PVTA through an open process.

1.1 Summary

This document is the equity analysis of PVTA’s Service Enhancements (2023-2024). The service enhancements are the result of increased funding in the Final Fiscal Year 2024 Budget for the Commonwealth of Massachusetts. On November 20th, 2023, the PVTA Board approved the use of funding to implement a series of free fare service pilots as well as the following service enhancement to bus routes B17, G1, G73E, P21E, R10, R14, and the Ware-Palmer Shuttle. The specifics of these route improvements are further described in this document.

The following routes rose to the major changes level, needing a Title VI Disparate Impact/Disproportionate Burden Analysis: **G73E, P21E, Ware-Palmer Shuttle**

This analysis assesses the potential impacts of service change proposals that qualify as major service changes as specified by PVTA’s local developed policies that may have disparate or disproportionate impacts on PVTA customers of color and/or low-income riders, depending on the nature of the service changes that are implemented. A demographic analysis of PVTA customers who may be affected is presented so that PVTA may determine whether or not there are adverse or disparate impacts on minority populations or disproportionate burden on low-income populations in the PVTA service area, as well as the types of measures that are likely to be effective and appropriate in mitigating adverse impacts on those transit customers.

A NOTE ON LANGUAGE: PVTA avoids the use of the term “minorities,” which is frequently used in federal documents, to refer to people of color or anyone who is not white. This word can be divisive and is therefore not consistent with the intent and purpose of an equity analysis. In fact, the majority of PVTA customers – more than 62% - are people of color. Therefore, this report uses the term “minorities” only when necessary to conform to federal regulations and definitions.

1.2 Fiscal Year 2024 Budget

The Final Fiscal Year 2024 Budget for the Commonwealth of Massachusetts was adopted on August, 9 2023. The Fair Share Amendment, also known as “The Millionaires Tax”, was approved by voters in November of 2022 and requires a new four percent (4%) surtax on income above \$1 million annually. This new revenue source is constitutionally dedicated to “quality public education and affordable public colleges and universities, and for the repair and maintenance of roads, bridges, and public transportation.” In fiscal year 2024, \$1 billion in new investments are recommended for programs. Goals from the program include strengthened state-municipal partnerships to develop and implement critical local transportation projects, and Innovative service pilots and increased rural connectivity for RTAs all focused on improving affordability, equity, and competitiveness across the Commonwealth.

In addition to the \$94 million in operating assistance, the final budget allocates an additional \$56 million for Regional Transit Authorities (“RTAs”) including the PVTA.

1.3 Agency Response

PVTA has taken an incremental approach to adjusting service based on the availability of bus operators and service contracts with its service operators. PVTA has plans to begin adding service in both the short- and long-term. In addition, to the service enhancements proposed for December of 2023, more enhancements are expected for the Spring of 2024. PVTA’s ultimate goals are the following:

- Expand weekend service throughout the region
- Restore service that was reduced due to staffing shortages
- Increase frequency on all routes to 30 minutes or less across the system

2. Description of Changes

The goal of the enhancements is to incrementally improve transit service based on operator availability by expanding weekend service, restoring service that was reduced due to staffing shortages and increase frequency on all routes to 30 minutes or less across the system. The enhancements are phased with express route frequency improvements to the P21E and G73E from 60-minutes to 45-minutes beginning December 24, 2023 and 30-minute frequency improvements in the Spring of 2024. For the Ware and Palmer Shuttles, the new route structure will be implemented December 18, 2023 and the addition of weekend service in early Spring.

Table 1: Approved Service Enhancements

Route	Proposed Change	Comments
P21E: Springfield/Holyoke via I391	<ul style="list-style-type: none"> 60 minutes to 45-minutes frequency Monday - Sunday Improving frequency to 30 minutes for the Spring Bid. 	
G73E: Springfield/Northampton via Holyoke Mall	<ul style="list-style-type: none"> All trips to serve Northampton at a 45-minute frequency Mon-Sat Adding new service on Sundays at a 45-minute frequency Improving to 30-minute frequency for the Spring Bid. 	Results in five less trips each day serving Holyoke Mall. However, the frequency change allows more trips to Northampton, eliminating confusion for some riders as not all trips go to Northampton now. As frequency improves to 30 min in the spring, service to both the Holyoke Mall and Northampton will increase significantly.
Ware-Palmer Shuttle	<ul style="list-style-type: none"> Reinstates the previous Ware and Palmer Town Circulators. Additional service to Wilbraham Big Y with six connections to Springfield Improving to weekend service for the Spring 	New routes will provide similar service to what was provided prior to the 2018 service reductions.
Other Minor Changes (Not required for analysis)		
B17: Wilbraham Rd/Parker St/Wilbraham Big Y	<ul style="list-style-type: none"> Provide consistent 45-minute service all day on Saturdays. 	Will eliminate a 90-minute service gap on Saturday mornings
G1: Chicopee/Springfield - Sumner/Allen	<ul style="list-style-type: none"> All trips will now service the Chicopee Big Y. 	Eliminates confusion on the part of riders when not all trips go to Big Y.
R10: Westfield/WSU/West Springfield	<ul style="list-style-type: none"> Provide consistent 45-minute frequency during weekdays All trips serving Walmart All trips serving Westfield State University except for first morning trip 	Improved frequency and more efficient travel time.
R14: Agawam/Feeding Hills/Springfield	<ul style="list-style-type: none"> Minor schedule adjustments 	Increase efficiency and improve On Time Performance.

3. Scope and Process

This document presents an equity impact analysis of service enhancements to specific routes proposed by PVTA due to increased funding anticipated by the Fiscal Year 2024 final budget of the Commonwealth of Massachusetts.

PVTA's policies require that all proposed major service changes undergo a Title VI Service Equity Analysis to evaluate potential disparate impacts (DI) on low-income persons and disproportionate burdens (DB) on people of color.

3.1 Scope

This document presents an analysis of the service enhancements approved as pilots at PVTA's November 2023 Advisory Board meeting and implemented by PVTA on December 18, 2023 and December 24, 2023. These service enhancements are considered "major," by meeting the threshold of changing the number of revenue miles by 50%, according to the definition requirements of PVTA's policies for major service changes, disparate impacts (DI) and disproportionate burdens (DB). Exceedance of PVTA's 20% DI and DB policy variance threshold by these changes is also reported. Also reported are public comments and responses from PVTA received during the 30-day comment period. Modifications to the changes based on public comment and the DI/DB analysis are also included in this report. In cases where the analysis proves exceedances have overcome the 20% threshold, analysis is provided to show that the proposal is the least discriminatory alternative available.

3.2 Process

PVTA utilized REMIX for this Title VI Disparate Impact/Disproportionate Burden Analysis. PVTA chose this methodology (using 5-Year ACS data from the Census Bureau) because it can take into account changes to both frequency and turn-by-turn routing. Survey data is also described within this document but can only provide a snapshot of existing riders on a given route. A disparate impact is the impact the change to the system would have on low-income communities. A disproportionate burden is the burden borne on people of color.

PVTA "drew" the route shapes and input the proposed timetables into REMIX. The REMIX program allows the user to automatically generate a Title VI report (based on Census data) by comparing existing service to a set of proposed changes. A complete REMIX methodology with PVTA's inputs is described within [Appendix D](#). The following data sources are used by REMIX within the analysis.

3.3 Data sources

- Demographic data comes from the US Census Bureau, 2017-2021 American Community Survey (ACS) 5-Year Estimates.
- Population is coded by table B03002, field B03002001.
- Low-income status is set at 100% of the US federal poverty level, depending on your individual agency. This is coded by the appropriate fields in table C17002.
- Minority status is coded by table B03002, by subtracting the white, non-Hispanic population (B03002003) from the total population (B03002001).
- Service area is a set of block groups determined by a shapefile your agency provides.
- Map and routing data are provided OpenStreetMap, Mapbox, and Valhalla.

4. Service Equity Analysis by Route

This section presents the following information for each of the service changes that were implemented on December 18, 2023 and December 24, 2023. These changes met the major service changes threshold as determined by the Title VI Update 2021 Appendix K. The Advisory Board approved public hearings on November 22, 2023 and subsequently the report and public comments are addressed. The Service Equity Analysis is scheduled to be approved by the January 24, 2024 Advisory Board meeting.

4.1 Summary of Service Equity Analysis by Route

Following are key points of the service equity analysis for each route.

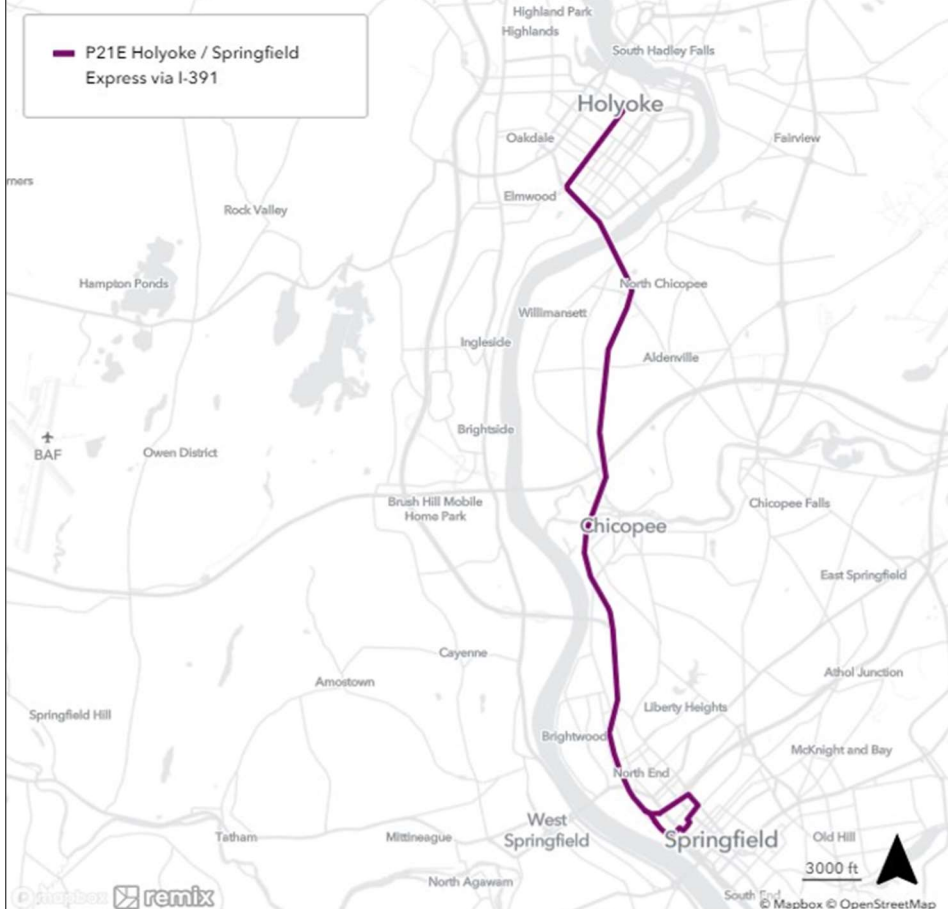
- Three of PVTA’s 44 bus routes are affected.
- Some of the enhancements will have a disparate impact/disproportionate burden on riders
- The enhancements, however, are improvements and less discriminatory than any alternative.
- The enhancements received favorable responses from the public.
- No mitigation is necessary at this time.

Route Description	Describes the travel corridor and route where the proposed change would occur, including trip frequency and key characteristics of the service.
Proposed Change or Changes	Description of the service change as implemented emergently.
Communities Affected	The municipality(ies) in which the proposed change(s) would occur.
Effective Date	Date the proposed service change would be implemented.
Major Service Change	<p>Determination whether or not the proposed service change would meet or exceed the PVTA 25% policy threshold in eliminated service on a single service day to be considered a “major service change”.</p> <ul style="list-style-type: none"> • The automatic passenger counters (APCs) were used to determine an accurate bus stop trips count for each route before and after the affected change. This process provides a more accurate picture than a review of trip patterns by direction and time when changes are made to the trip’s route or frequency changes occur on specific parts of the route.
Customers Affected	<p>An estimated percentage of customers affected per route based on the scheduled trips eliminated.</p> <ul style="list-style-type: none"> • The automatic passenger counters (APCs) were used to determine the spread of ridership impacted from the trip pattern by direction and time eliminated (different than the bus stop trips used to estimate Major Service Changes due to data availability) September 2021 Weekday trips were used to determine the percentage of riders affected on the route. No changes occurred on Saturdays or Sundays.
Disparate (Racial Discrimination) Impact Analysis	Explains whether or not there are likely to be differences in the adverse impacts that the proposed service change will have on customers of color in comparison to customers who are white. This is a federally required assessment known as a “disparate impact analysis.” The threshold for this impact is established in the Disparate Impact Policy adopted by the PVTA

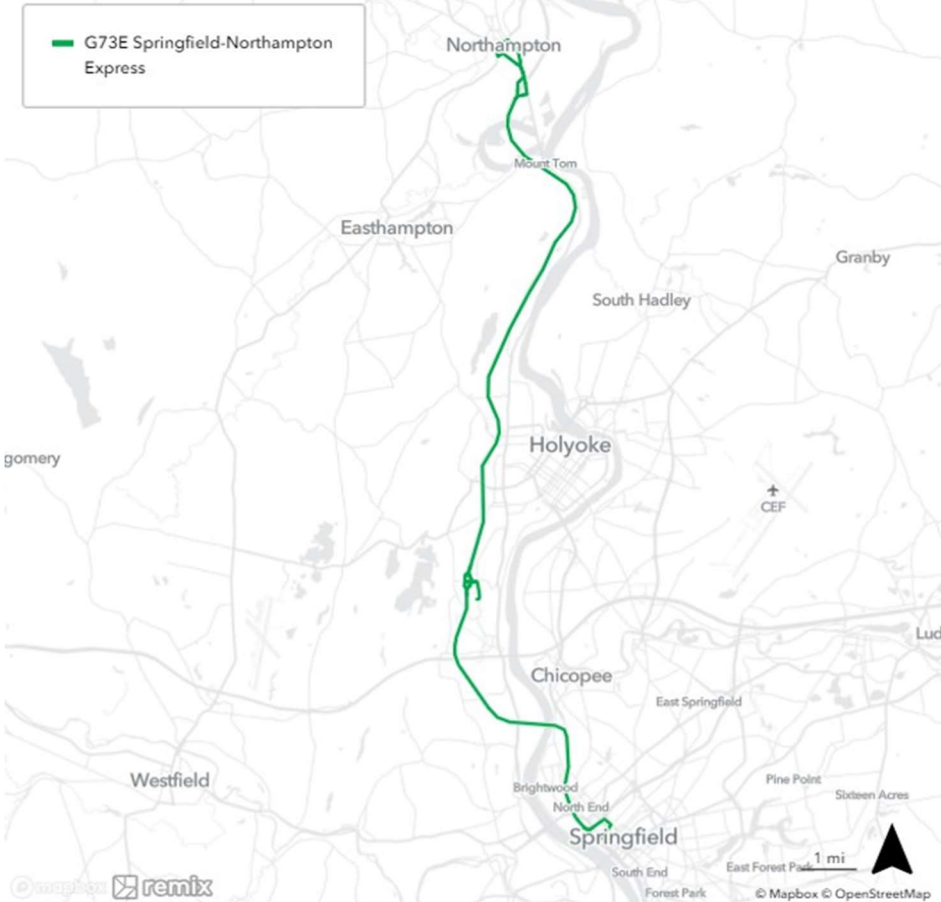
	<p>Advisory Board which states: “the Pioneer Valley Transit Authority has defined a disparate impact as a Major Service Change in which the adverse impacts of the change that people of color experience as compared to non-people of color is 20% or more. For the purposes of this document, the term ‘people of color’ is synonymous with the term ‘minority’ as used in Federal Circular 4702.1B (page 1-4).” (October 1, 2021)</p> <p>Therefore, if the difference in the proportion of customers of color who will be affected by the service change compared to white customers is more than +20%, then the change will be considered to have a disparate impact.</p> <p>For example, if rider surveys show that 60% of the riders on a route are people of color and the remaining 40% are white, then the difference (60% minus 40%) is +20%, which meets the +20% threshold to be considered a disparate impact. As another example, if 35% of riders are people of color and the remaining 65% are white, then the difference (35% minus 65%) is -30%, which is less than +20% and would not be a disparate impact.</p> <p>Data for this analysis are the systemwide customer surveys of 1,529 passenger rides in 2019 (Hampden County) and 1,577 passenger rides in 2022 (Hampshire County).¹</p> <p>Because our customer surveys indicate a majority of riders as people of color, we also include the impact as compared to the system average for discussion purposes. The system averages just under 60% people of color vs. just over 40% white riders, therefore much of the ridership on many of the routes would meet the disparate impact threshold.</p>
<p>Disproportionate (Low-income) Burden Analysis</p>	<p>This section explains whether or not the proposed change would have adverse impacts on customers who have low incomes in comparison to those who do not have low incomes. This is a federally required assessment known as “disproportionate impact analysis.” The threshold for this impact is established by the PVTA Advisory Board’s Disproportionate Impact Policy which states: “the Pioneer Valley Transit Authority has defined a disproportionate burden to be a change in service where low-income customers would experience a negative impact 20% or larger compared to non-low-income customers. For the purposes of this policy, “low income” is defined as a person reporting an income below the federal poverty line.” (October 1, 2021)</p> <p>For example, if 60% of the riders surveyed on a route are low-income (earning \$11,770/year or less), then the remaining 40% are considered not to be low-income, and the difference (60% minus 40%) is +20%. This meets the policy’s +20% threshold and would therefore be considered a disproportionate impact. In another example, if 35% of riders are low-income, then 65% are not low-income, and the difference (35% minus</p>

¹ The Public Hearing Presentation displayed a chart showing the difference between the system average and the affected population as the disparate impact and disproportionate burden. The percent people of color was also represented in this chart.

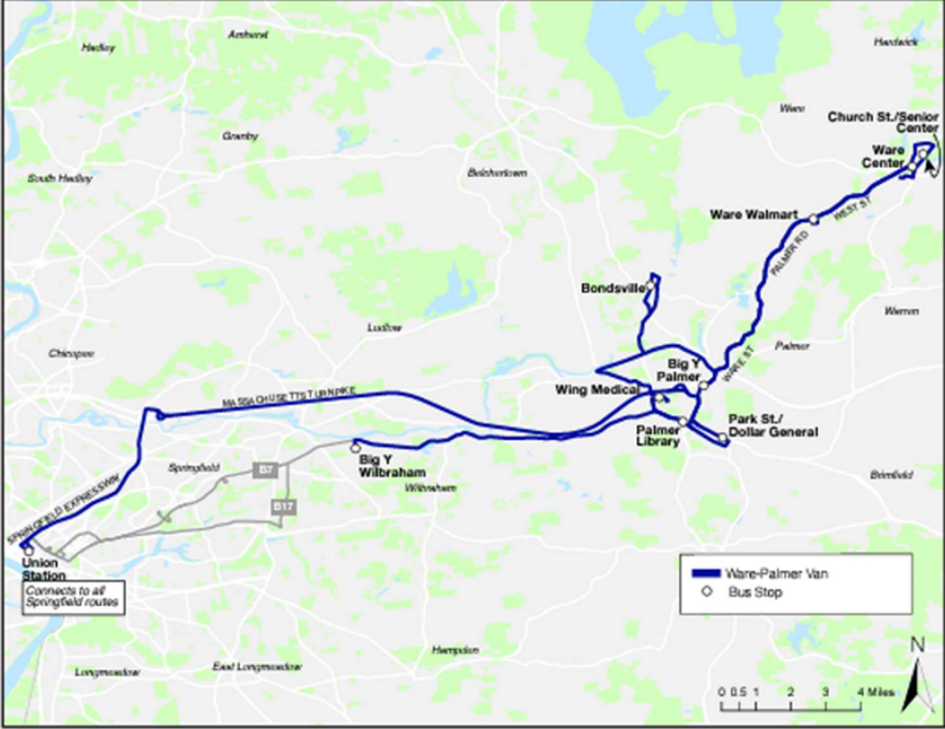
	<p>65%) is -30%, which is less than the +20% policy threshold, and so would not be considered a disproportionate impact.</p> <p>Data for this analysis are the systemwide customer surveys of 1,529 passenger rides in 2019 (Hampden County) and 1,577 passenger rides in 2022 (Hampshire County).</p> <p>Consistent with the disparate burden analysis, inclusion of a comparison against the system average is included.</p>
<p>ADA Van Service Impact?</p>	<p>Explains whether or not there would be an impact to ADA van service areas or hours because of the change to the hours or geographic coverage of the underlying fixed route on which the local ADA service is based.</p> <p>In this case, no changes were made to ADA Van Service due to the overlapping nature of service within the areas impacted.</p>
<p>Alternate Transit Service Available?</p>	<p>Description of alternate bus routes and transportation available to make trips in the corridor in which the service change occurs.</p>
<p>Least Discriminatory Alternative</p>	<p>This section provides information on whether or not there is another alternative that could achieve the business purpose of the approved service change that would be less discriminatory. This analysis is required by the PVTA Disparate and Disproportionate Impact and Disparate Burdens Policies (adopted September 23, 2015) which states: "...in the event that the proposed service change would have an adverse impact that affects customers of color or those with low-incomes (defined as the federal poverty level) more than the non-low income or non-minority populations with a disparity that exceeds the adopted 20% thresholds, PVTA must evaluate whether there is an alternative that has a more equitable impact... and demonstrate that a legitimate business purpose cannot otherwise be accomplished and that the proposed change is the least discriminatory alternative."</p>
<p>Mitigation and Modifications in Response to Public Comments</p>	<p>If the service change is expected to have either a disparate or disproportionate impact, mitigation must be proposed and implemented to lessen the effects on riders, as required by the PVTA Disparate and Disproportionate Impact Policies (adopted October 1, 2021) which state: "...PVTA must take measures to mitigate the impact of the proposed action on the affected minority population or low-income population..."</p> <p>This section describes the public comments received that pertain to the service change proposal. It also describes mitigation measures and modifications made by staff to the original December 2021 proposal to anticipated adverse impacts of the change on riders, as well as future and ongoing monitoring and evaluation and additional service changes to reduce adverse effects on riders.</p>

<p><i>P21E</i> Route Description</p>	 <p>Description:</p> <p>P21E is an express route to parent route P21 with a stop at Union Station and the Holyoke Transportation Center. The route serves as a connection to Holyoke from downtown Springfield.</p> <p>Headways and Schedule:</p> <p>The P21E provides 60-minute headways and runs Monday through Friday, 6:05am through 7:05pm and Saturdays from 8:05am to 6:05pm and Sundays from 9:05am to 5:05pm</p> <p>Ridership: 29,412 YTD Passengers (2023)</p>
<p>Proposed Change or Changes</p>	<p>PVTA proposes improving frequency from 60 to 45-minutes Monday-Sunday, and 30 minutes by the Spring 2024.</p>
<p>Communities Affected</p>	<p>Springfield, Holyoke</p>
<p>Effective Date</p>	<p>December 24, 2023</p>
<p>Major Service Change</p>	<p>Due to the increase in frequency, this exceeds the 25% threshold that defines PVTA’s “major service change.”</p>

Customers Affected	100% of Passenger Trips are expected to be affected by the change.
Disparate (Racial Discrimination) Impact Analysis	<p>Information from the 2019 PVTA Southern System Survey shows that ridership on the P21E is 68.57% People of Color (Minority).</p> <p>Based on the REMIX DI/DB Analysis, the change borne by People of Color (Minority) riders are 88.71% compared the system average of 35.51%. The Disparate Impact is calculated as the difference: 53.19%. Since this percentage is greater than 20%, this change is therefore a disparate impact based on race.</p>
Disproportionate (Low-income) Burden Analysis	<p>Information from the 2019 PVTA Southern System Survey shows that ridership on the P21E is 51.61% low-income.</p> <p>Based on the REMIX DI/DB Analysis, the change borne by low-income riders is 46.06% compared to the system average of 15.33%. The Disproportionate Burden is calculated as the difference: 30.73%. Since this percentage is lower than 20% the route is therefore a disproportionate burden on low-income riders.</p>
ADA Van Service Impact?	There is no impact on ADA Van Service. These bus stops and the service span are duplicative to other routes.
Alternate Transit Service Available?	The most viable alternative transit service is the P21 that provides non-express service to Holyoke with additional local stops in Chicopee. Travel time is 45 minutes from Union Station to the Holyoke Transportation Center (HTC) and similar duration for return trip. The P21 arrives every half hour with a longer span from 5:00am – 8:30pm.
Least Discriminatory Alternative	The enhancements to the P21E improve service and is less discriminatory than the alternative transit service.
Mitigation and Modifications in Response to Public Comments	The enhancements to the P21E improve service and received favorable responses from the public. While the changes to this route do pose both a disparate impact and disproportionate burden on people of color and low-income riders, these changes are positive in nature, providing more service for these populations. Therefore, no mitigation is necessary.

<p><i>G73E</i> Route Description</p>	 <p>Description:</p> <p>The G73E is an express route from Union Station to the Academy of Music in Northampton via Interstate 91 with stops at the Holyoke Mall. The route provides express connections between three major cities in the region, Springfield, Holyoke and Northampton.</p> <p>Headways and Schedule:</p> <p>The provides 60-minute headways.</p> <p>Ridership: 42,368 YTD Passengers (2023)</p>
<p>Proposed Change or Changes</p>	<p>PVTA proposes improving all trips to serve Northampton every 45-minutes Monday-Saturday, and 30 minutes by the Spring 2024. New service on Sundays.</p>
<p>Communities Affected</p>	<p>Springfield, Holyoke, Northampton</p>
<p>Effective Date</p>	<p>December 24, 2023</p>
<p>Major Service Change</p>	<p>Due to the increase in frequency, this exceeds the 25% threshold that defines PVTA’s “major service change.”</p>
<p>Customers Affected</p>	<p>100% of Passenger Trips are expected to be affected by the change.</p>

Disparate (Racial Discrimination) Impact Analysis	<p>Information from the 2019 PVTA Northern System Survey shows that ridership on the G73E is 41.49% People of Color (Minority).</p> <p>Based on the REMIX DI/DB Analysis, the change borne by People of Color (Minority) riders are 21.10% compared the system average of 35.51%. The Disparate Impact is calculated as the difference: -14.42%. Since this percentage is less than 20%, this change is therefore not a disparate impact based on race.</p>
Disproportionate (Low-income) Burden Analysis	<p>Information from 2019 PVTA Northern System Survey shows that ridership on the G73E is 32.20% low-income.</p> <p>Based on the REMIX DI/DB Analysis, the change borne by low-income riders is 13.59% compared to the system average of 15.33%. The Disproportionate Burden is calculated as the difference: -1.74%. Since this percentage is lower than 20% the route is therefore not a disproportionate burden on low-income riders.</p>
ADA Van Service Impact?	<p>There is no impact on ADA Van Service. These bus stops and the service span are duplicative to other routes.</p>
Alternate Transit Service Available?	<p>The most viable alternative transit service requires a transfer from the P21E to the B48 at the Holyoke Transportation Center (HTC). The P21E departs every 45 minutes and arrives within 15 minutes at HTC. The B48 departs hourly and arrives within 30 minutes at the Academy of Music in Northampton. Spans of service are 7am to 7pm for the P21E and 7:30am to 7:30pm for the B48.</p>
Least Discriminatory Alternative	<p>The enhancements to the G73E improve service and is less discriminatory than the alternative transit service.</p>
Mitigation and Modifications in Response to Public Comments	<p>The enhancements to the G73E improve service and received favorable responses from the public. The disparate impact and disproportionate burden are both less than 20%. Therefore, mitigation is not necessary.</p>

<p><i>Ware-Palmer Shuttle</i> Route Description</p>	 <p>Description: The Ware-Palmer Shuttle is a flex route from Union Station to various locations in the towns of Ware and Palmer.</p> <p>Headways and Schedule: The Ware-Palmer shuttle provides 2 trips to Union Station and 8 daily trips throughout Ware and Palmer</p> <p>Ridership: 8,983 YTD Passengers (2023)</p>
<p>Proposed Change or Changes</p>	<p>PVTA proposes to reinstitute Ware and Palmer circulators using two separate vehicles and increase connections to Springfield (six each day) by serving the Wilbraham Big Y. Weekend service will commence in early Spring 2024</p>
<p>Communities Affected</p>	<p>The municipality(ies) in which the proposed change(s) would occur. Ware, Palmer, Springfield, Wilbraham</p>
<p>Effective Date</p>	<p>December 18, 2023</p>
<p>Major Service Change</p>	<p>Due to the increase in frequency, this exceeds the 25% threshold that defines PVTA's "major service change."</p>
<p>Customers Affected</p>	<p>100% of Passenger Trips are expected to be affected by the change.</p>

Disparate (Racial Discrimination) Impact Analysis	<p>Information from route surveys shows that ridership on the Ware-Palmer Shuttle is predominately white.</p> <p>Based on the REMIX DI/DB Analysis, the change borne by People of Color (Minority) riders are 14.37% compared the system average of 35.51%. The Disparate Impact is calculated as the difference: -21.14%. Since this percentage is greater than 20%, this change is therefore a disparate impact based on race.</p>
Disproportionate (Low-income) Burden Analysis	<p>Information from route surveys shows that ridership on the Ware-Palmer Shuttle is low-income.</p> <p>Based on the REMIX DI/DB Analysis, the change borne by low-income riders is 16.30% compared to the system average of 15.33%. The Disproportionate Burden is calculated as the difference: 0.97%. Since this percentage is lower than 20% the route is therefore not a disproportionate burden on low-income riders.</p>
ADA Van Service Impact?	<p>There is no impact on ADA Van Service. These bus stops and the service span are duplicative to other routes.</p>
Alternate Transit Service Available?	<p>There is no alternative transit service to the Town of Palmer.</p> <p>The Town of Ware is served three times daily by the B79 from UMass Amherst with connections to Springfield Union Station via R29 every other hour from 7am to 9pm.</p>
Least Discriminatory Alternative	<p>The enhancements to the Ware-Palmer Shuttle restore service that was previously reduced and is less discriminatory than the alternative transit service.</p>
Mitigation and Modifications in Response to Public Comments	<p>The enhancements to the Ware-Palmer Shuttle received favorable responses from the public. Minor changes were made to better accommodate local needs expressed by the public. The disproportionate burden is less than 20% but the disparate impact is greater than 20%. The DI/DB Analysis is only able to calculate the differences of the change to this one route. Due to the nature of service delivery and connections to existing routes PVTa feels there is no alternative that would accomplish the same goals with the same positive impacts.</p>

5: Disparate Impacts and Disproportionate Burden (DI/DB) Analysis

The following is an analysis of the Disparate Impact and Disproportionate Burden associated with the proposed service enhancements. The Ware and Palmer Shuttles would have a disparate impact on riders of color. The P21E changes would have a disparate impact on riders of color and disproportionate burden on low-income riders.

5.1: DI/DB Analysis Definitions

An extensive methodology is provided as in [Appendix D](#).

People-Trips: is used as a metric that considers both access (bus stops) and population. This is a comparison metric that accounts for both the potential ridership population and the difference in frequency of trips to that population.

Low-Income and People of Color Percentages: Low-income and people of color percentages are calculated using REMIX's Title VI Analysis. REMIX uses geospatial analysis with Census Data to estimate the proportion of each community that is low-income and people of color and multiplies that by the change in service to each community.

System Averages: REMIX estimates this using 2021 5-Year ACS population estimates for the PVTA service area.

Table 2: Disparate Impacts and Disproportionate Burdens Analysis

	<i>People-Trips (Population Trips)</i>	<i>Low Income People-trips</i>	<i>Low Income People-Trips %</i>	<i>Comparison to System</i>
<i>G73E</i>	8,828,410	1,199,500	13.59%	-1.74%
<i>P21E</i>	18,816,100	8,666,645	46.06%	30.73%
<i>Ware/ Palmer Shuttle</i>	1,436,925	234,180	16.30%	0.97%
	29,081,435	10,100,325	% Burden	34.73%
		System Average	15.33%	
		Change from System		19.40%
	<i>People-Trips (Population Trips)</i>	<i>People of Color People-trips</i>	<i>People of Color People-Trips %</i>	<i>Comparison to System</i>
<i>G73E</i>	8,828,410	1,862,640	21.10%	-14.42%
<i>P21E</i>	18,816,100	16,691,300	88.71%	53.19%
<i>Ware/ Palmer Shuttle</i>	1,436,925	206,550	14.37%	-21.14%
	29,081,435	18,760,49	% Burden	64.51%
		System Average	35.51%	
		Change from System		29.00%

5.2: DI/DB Impact Analysis Results

A comparison to the system takes the percent of those potentially impacted by the change and subtracting the system average. A negative number shows that the population being positively impacted is less diverse than the system average. Any comparison to the system that is greater than 20% is either a disparate impact (income) or disproportionate burden (minority).

5.2.1: Route G73E

The enhancements show no disparate impact findings based on race or disproportionate burden on low-income populations. The enhancements are positive in nature and provide more service to protected classes. The G73E is an inter-city express route used to break down racial and income barriers by connecting workers in Hampden County to higher paying jobs in Hampshire County.

5.2.2: Route P21E

The enhancements show a disparate impact based on race and a disproportionate burden on low-income populations. The enhancements are positive in nature and provide more service to these protected classes. Therefore no mitigation is necessary.

5.2.3: Route Ware-Palmer Shuttle

Although the enhancements show no disproportionate burden on low-income populations, they do show disparate impact findings based on race. The Ware and Palmer Shuttles show that the population being positively impacted is less diverse than the system average, this change is the best possible option based on additional factors:

1. The enhancement is a restoration to pre-2018 service levels when the Ware and Palmer shuttles were operated as two separate routes. Ware and Palmer are two communities that are less diverse and are rural communities.
2. Wilbraham Big Y recently replaced Eastfield Mall as the hub near East Springfield (due to Eastfield Mall's closing and construction). The Wilbraham Big Y falls within a less diverse block group than the Eastfield Mall but retains access to the same neighborhoods and retains connections to more diverse Springfield routes, the B7 and B17.
3. The enhancements are made based on third-party contracting and access to the supply of driving hours, drivers, additional funding and the confines of state, federal and contracted regulation, and policies.
4. Enhancements increase access to employment for individuals living in East Springfield (a more diverse area). Employment includes manufacturing and warehousing within the Palmer Industrial Park among other locations. The connection between East Springfield and Palmer and Ware has solidified with additional trips connecting through the Wilbraham Big Y.

6: Public Outreach and Consultation

PVTA reached out for public comments and engagement about the service change proposals in public meetings, at public hearings, and through email comments. This section summarizes input received from the public through these processes. The service equity analysis was incomplete at the time of the public hearings and was thereby not included for discussion.

6.1 Public Hearings

PVTA performed seven (7) public hearings between December 4 through December 12th

These events were conducted both in-person and virtually in compliance with the Open Meeting Law, that recently extended the option for virtual attendance to public meetings. PVTA utilized Massachusetts Guidelines for Successful Virtual Public Meetings and complied with the existing FY2021 Public Participation Plan and FY2021 Title VI Update.

Here is a chart of those events and related comments.

Table 3: Comments by Public Hearings

<i>Date and Time and Location</i>	<i>Number of Comments</i>	<i>Summary of Comments</i>
<i>December 4, 3-4pm Union Station, Springfield</i>	<i>3 relevant comments about service enhancements</i>	<i>C: Commenter was shown a copy of the proposed P21E schedule and responded "yes" C: Commenter was shown a copy of the proposed P21E schedule and responded "Okay, Okay-wonderful" C: Commenter was shown a copy of the proposed G73E schedule and responded "Yes, OK to 45 min. Love the route, no need for problem. 45 (minutes) will be great wonderful to...all trips better connection, Smith College students free bus and Holyoke Mall. Nice Try-Transit"</i>
<i>December 5, 5-6pm Palmer Library</i>	<i>3 relevant comments about service enhancements</i>	<i>C: Where can people find these schedule changes? C: Our facility (Palmer Food Share) is located by St. Paul's Unitarian Church at 39 Walnut Street. Where would people get the shuttle to transfer from Palmer to Ware? A: Transfers can be made at the Big Y Palmer C: Park Street is an important stop for our patrons. PVTA and the flex route make such a big difference in our community.</i>
<i>December 7, 10am Virtual (Zoom)</i>	<i>1 relevant comment about service enhancements</i>	<i>C: Commenter was excited about Sunday service, service to Northampton and Ware-Palmer service. Keep up the good work!</i>
<i>December 7, 4:30pm Ware Senior Center</i>	<i>3 relevant comments about service enhancements</i>	<i>C: To get to Springfield now, you got to go to Palmer? C: The Ware Shuttle doesn't go to Wing Hospital? C: (PVTA Staff Question) Would it be difficult to make the transfer for another \$1.50 to Wing Memorial? <i>PVTA determined that no transfer fee will be charged to transfer from one shuttle to another</i></i>

<p><i>December 11 1pm Holyoke Media</i></p>	<p>1 relevant comment about service enhancements</p>	<p>C: I support the frequency increases for the P21E, G73E and am glad the PVTA is showing commitment to speed up journeys between the major centers of the Pioneer Valley. I am excited for the potential increases to 30 min frequencies in the Spring. My concern with 45-minute frequencies on the G73 is connecting to the hourly B43 to Amherst. I utilize the B43 which struggles with crowding on Sundays.</p>
<p><i>December 11 6pm Virtual (Zoom)</i></p>	<p>6 relevant comments about service enhancements</p>	<p>C: I am glad to hear about the G73E and P21E increasing frequency. Regarding the B17, I am having difficulty getting to school on holidays and Sundays. Can we get more frequency and Sunday service on this route so I can go to school?</p> <p>C: I have been having difficulty catching the B79 [from Ware] but have had some success taking the B79 from UMass. I have not been able to catch the bus at the designated place or time every time I have tried. Is there something you can do about that?</p> <p>C: Why can't I take a return trip from 7 to 9pm from Union Station to Ware?</p> <p>C: I am glad to hear about the G73E and P21E increasing frequency.</p> <p>C: I have another question. The Ware Shuttle does not arrive on time to make the connection [with the Palmer Shuttle] to Union Station, should I transfer to Springfield at the Wilbraham Big Y?</p> <p>C: The bus goes from the Ware Big Y to the Palmer Big Y and then I have to transfer?</p> <p>C: The B17 back to Union Station takes a loop right before getting into Union Station that takes a long time to bring the bus back to Union Station and basically nobody gets on the bus. It is faster to get off and walk from State Street to Union Station.</p>
<p><i>December 12 3pm Council Chambers Northampton</i></p>	<p>0 relevant comments</p>	<p>No Comments.</p>

*Other
Comments*

C: I am writing to express my support for increasing the frequency on the G73E route and adding service on Sundays. It appears that the proposed schedule would result in fewer buses per day in the near-term (19 trips vs. 23 trips) but I like that the proposed schedule reduces the maximum time between buses. Currently, there are a few times each day where if I miss one bus, I would have to wait a full hour or even 90 mins in the evening. If the bus runs every half hour, as proposed for the future, it will be much easier to plan on taking the bus, especially since I often use the G73E in combination with Peter Pan or Amtrak. Sunday service is important for a route that serves the Holyoke Mall and in a region where many people work jobs that are not on a Monday to Friday schedule. Reliable and convenient bus service does not just benefit those who depend on the bus for transportation or choose it as an alternative to driving, but it benefits everyone who counts on having employees able to commute reliably or who drives an experience less traffic than they would otherwise. Thank you for your service, and for the opportunity to comment on the proposed changes.
(Received 12/20/2023)

General comments are included within the Summary of Comments column. A full accounting of comments from these events are included as an appendix.

7. Conclusion

The goal of the Service Enhancements (2023-2024) is to incrementally improve transit service based on operator availability by expanding weekend service, restoring service that was reduced due to staffing shortages and eventually increase frequency on all routes to 30 minutes or less across the system.

The reason for the enhancements is due to new revenue sources anticipated in the Final Fiscal Year 2024 Budget for the Commonwealth of Massachusetts.

On November 20th, 2023 the PVTA Board approved the use of the funding to implement a series of free fare service pilots as well as the following service enhancement to bus routes B17, G1, G73E, P21E, R10, R14, and the Ware-Palmer Shuttle. Only the following routes rose to the level of needing a Title VI Service Equity Analysis: **G73E, P21E, Ware-Palmer Shuttle.**

The G73E and P21E will have headways reduced from 60 minutes to 45-minute frequency, and new Sunday service will be added to the G73E. Service frequency is expected to be enhanced on both routes to 30 minutes by Spring. The Ware-Palmer Shuttle will be restored as separate Ware and Palmer Town circulators as was seen prior to service reductions in 2018. Additional service to Wilbraham Big Y with six connections to Springfield. Weekend service is expected for the Spring.

PVTA performed seven (7) public hearings between December 4 through December 12th. These events were conducted both in-person and virtually in compliance with the Open Meeting Law, that recently extended the option for virtual attendance to public meetings. The enhancements generally received favorable responses from the public.

None of the enhancements will have a disparate burden on low-income individuals and only one enhancements will disproportionate impact on people of color. The enhancements are positive, less discriminatory than any available alternative transit service and could increase ridership from protected classes.

Enhancements to the Ware and Palmer shuttles show that the population being positively impacted is less diverse than the system average, this change is due to additional factors including the relocation of the East Springfield transit hub to Wilbraham Big Y due to the closing and construction of Eastfield Mall. Although Wilbraham is a less diverse area, connections can still be made to routes serving more diverse communities in Springfield.

Access to the Wilbraham Big Y also provides new grocery store opportunities to low-income populations in Springfield and rural communities in Ware and Palmer. The enhancements to the Palmer Shuttle also improves connections to employment centers including the Palmer Industrial Park.

The service enhancements are seen overall as a net improvement to the system and provide greater mobility to marginalized communities. The initial service enhancements were implemented as pilots by PVTA on December 18th and December 24th, 2023. Further enhancements are expected in Spring of 2024.

Appendix A: Presentation



Winter Service Enhancements

DECEMBER 2023

PREPARED BY PVPC

Background

With increased funding in the State's budget, the Pioneer Valley Transit Authority (PVTA) will begin to add service in both the short and long term.

The agency is taking an incremental approach to adjusting service on system routes.

PVTA's ultimate goals:

- Expand weekend service throughout the region,
- Restore service that was reduced due to staffing shortages,
- Increase frequency on all routes to 30 minutes or less across the system

Service Enhancements

P21E (SPRINGFIELD/HOLYOKE VIA I-391 EXPRESS) Effective December 24

- Improve frequency from 60 to 45-minutes Monday-Sunday
- Further frequency improvements to 30-minutes in the Spring.

G73E (SPRINGFIELD-NORTHAMPTON VIA HOLYOKE MALL) Effective December 24

- All trips will serve Northampton every 45-minutes Monday-Saturday
- New service on Sundays
- Further frequency improvements to 30-minutes in the Spring

WARE PALMER SHUTTLE (FLEX ROUTE) Effective December 18

- Reinstitute Ware and Palmer Circulators using 2 separate vehicles
- Wilbraham Big Y will be served increasing connections to Springfield (six each day.)
- Weekend service planned for early Spring.

Additional Service Enhancements

B17 (WILBRAHAM BIG Y via WORTHINGTON/WILBRAHAM RD)

- Provide consistent 45-minute service all day on Saturdays.

G1 (CHICOPEE/SUMNER-ALLEN-CANON CIRCLE)

- All trips will serve Chicopee Big Y

R10 (WESTFIELD/WSU/WEST SPRINGFIELD via ROUTE 20)

- Provide consistent 45-minute frequency weekdays
- All trips will serve Walmart
- All trips (but the first early morning trip) will serve Westfield State University

R14 (FEEDING HILLS/AGAWAM INDUSTRIAL PARK/SPRINGFIELD)

- Increase efficiency and improve on time performance

Challenges

P21E -SPRINGFIELD/HOLYOKE VIA I-391 EXPRESS

- None Expected

G73E -SPRINGFIELD-NORTHAMPTON VIA HOLYOKE MALL

Will result in four fewer trips each day serving the Holyoke Mall.

- Frequency change results in significantly more service to Northampton
- Eliminates confusion among riders when not all trips go to Northampton.
- Service to both the Holyoke Mall and Northampton will increase to every 30 minutes in Spring.

WARE AND PALMER SHUTTLES - FLEX ROUTES

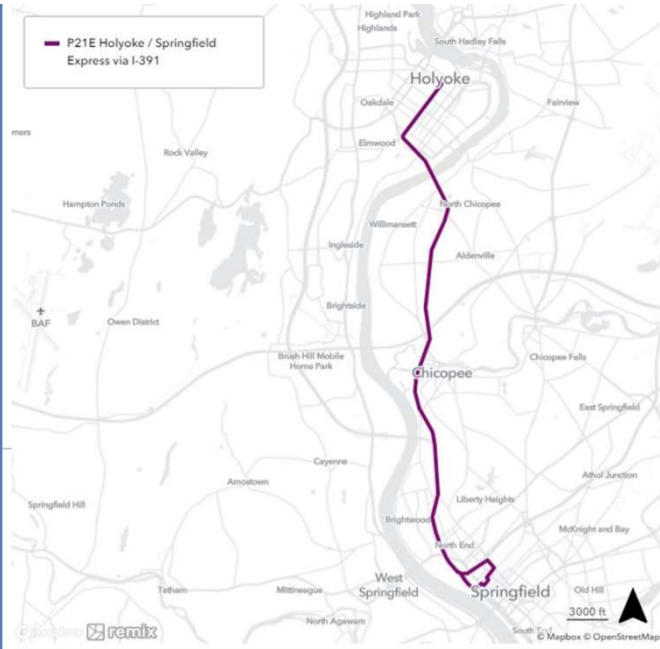
- None Expected
 - Route alignments will provide similar service to what was provided prior to the 2017 service reductions.

P21E SPRINGFIELD/HOLYOKE VIA I-391 EXPRESS

DEPART UNION STATION BAY 9	ARRIVE HOLYOKE TRANSF CENTER BAY 7	DEPART HOLYOKE TRANSF CENTER BAY 7	ARRIVE UNION STATION BAY 9
1	2	2	1
WEEKDAY			
6:05	6:20	6:35	6:50
7:05	7:20	7:35	7:50
8:05	8:20	8:35	8:50
9:05	9:20	9:35	9:50
10:05	10:20	10:35	10:50
11:05	11:20	11:35	11:50
12:00	12:20	12:35	12:50
1:05	1:20	1:35	1:50
2:05	2:20	2:35	2:50
3:05	3:20	3:35	3:50
4:05	4:20	4:35	4:50
5:05	5:20	5:35	5:50
6:05	6:20	6:35	6:50
7:05	7:20	7:35	7:50
SATURDAY			
8:05	8:20	8:35	8:50
9:05	9:20	9:35	9:50
10:05	10:20	10:35	10:50
11:05	11:20	11:35	11:50
12:00	12:20	12:35	12:50
1:05	1:20	1:35	1:50
2:05	2:20	2:35	2:50
3:05	3:20	3:35	3:50
4:05	4:20	4:35	4:50
5:05	5:20	5:35	5:50
6:05	6:20	6:35	6:50
SUNDAY			
9:05	9:20	9:35	9:50
10:05	10:20	10:35	10:50
11:05	11:20	11:35	11:50
12:00	12:20	12:35	12:50
1:05	1:20	1:35	1:50
2:05	2:20	2:35	2:50
3:05	3:20	3:35	3:50
4:05	4:20	4:35	4:50
5:05	5:20	5:35	5:50

Current P21E
Schedule

P21E Route Map



Proposed P21E Schedule

P21E

Depart Union Station Bay 9	Arrive HTC Bay 7	Depart HTC Bay 7	Arrive Union Station Bay 9
WEEKDAY			
6:00	6:14	6:25	6:41
6:45	6:59	7:10	7:27
7:30	7:45	7:55	8:12
8:15	8:30	8:40	8:57
9:00	9:15	9:25	9:42
9:45	10:00	10:10	10:27
10:30	10:45	10:55	11:13
11:15	11:30	11:40	11:58
12:00	12:15	12:25	12:43
12:45	1:00	1:10	1:28
1:30	1:45	1:55	2:13
2:15	2:30	2:40	2:58
3:00	3:15	3:25	3:43
3:45	4:00	4:10	4:28
4:30	4:45	4:55	5:13
5:15	5:30	5:40	5:56
6:00	6:14	6:25	6:41
6:45	6:59	7:10	7:26
7:30	7:44	7:55	8:10

P21E

Depart Union Station Bay 9	Arrive HTC Bay 7	Depart HTC Bay 7	Arrive Union Station Bay 9
SATURDAY			
8:00	8:15	8:25	8:41
8:45	9:00	9:10	9:26
9:30	9:45	9:55	10:11
10:15	10:30	10:40	10:56
11:00	11:15	11:25	11:41
11:45	12:00	12:10	12:26
12:30	12:45	12:55	1:11
1:15	1:30	1:40	1:56
2:00	2:15	2:25	2:41
2:45	3:00	3:10	3:26
3:30	3:45	3:55	4:11
4:15	4:30	4:40	4:56
5:00	5:15	5:25	5:41
5:45	6:00	6:10	6:26
6:30	6:45	6:55	7:11

P21E

Depart Union Station Bay 9	Arrive HTC Bay 7	Depart HTC Bay 7	Arrive Union Station Bay 9
SUNDAY			
9:00	9:14	9:25	9:40
9:45	9:59	10:10	10:25
10:30	10:44	10:55	11:10
11:15	11:29	11:40	11:55
12:00	12:14	12:25	12:40
12:45	12:59	1:10	1:25
1:30	1:44	1:55	2:11
2:15	2:29	2:40	2:56
3:00	3:14	3:25	3:41
3:45	3:59	4:10	4:26
4:30	4:44	4:55	5:11
5:15	5:29	5:40	5:55

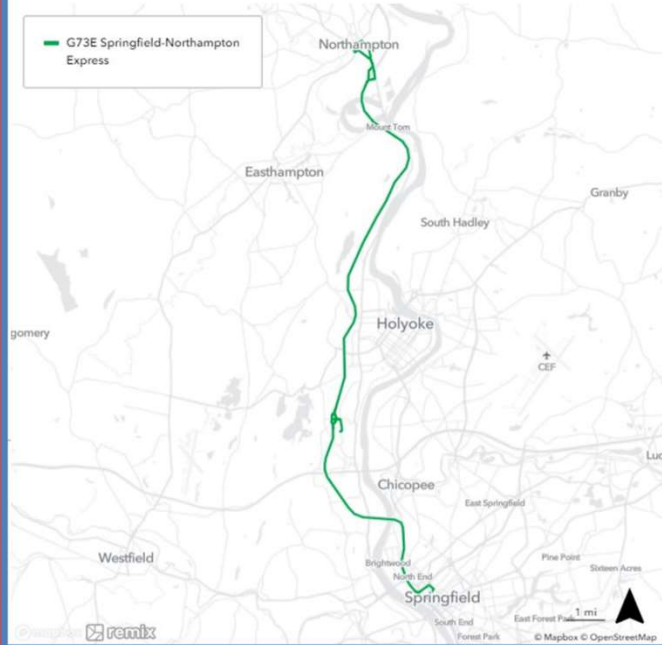
G73E BRENNAN EXPRESS
 SPRINGFIELD-NORTHAMPTON VIA HOLYOKE MALL

DEPART UNION STATION BAY 9	HOLYOKE MALL	ARRIVE ACADEMY OF MUSIC	DEPART ACADEMY OF MUSIC	HOLYOKE MALL	ARRIVE UNION STATION BAY 9
1	2	3	3	2	1
WEEKDAYS & SATURDAYS					
7:10	7:25	7:45	7:50	8:10	8:25
8:10	8:25	8:45	8:50	9:10	9:25
8:30	8:45	--	--	8:50	9:05
9:10	9:25	9:45	9:50	10:10	10:25
9:30	9:45	--	--	9:50	10:05
10:10	10:25	10:45	10:50	11:10	11:25
10:30	10:45	--	--	10:50	11:05
11:10	11:25	11:45	11:50	12:10	12:25
11:30	11:45	--	--	11:50	12:05
12:10	12:25	12:45	12:50	1:10	1:25
12:30	12:45	--	--	12:50	1:05
1:10	1:25	1:45	1:50	2:10	2:25
1:30	1:45	--	--	1:50	2:05
2:10	2:25	2:45	2:50	3:10	3:25
2:30	2:45	--	--	2:50	3:05
3:10	3:25	3:45	3:50	4:10	4:25
3:30	3:45	--	--	3:50	4:05
4:10	4:25	4:45	4:50	5:10	5:25
4:30	4:45	5:05	5:10	5:30	5:45
5:35	5:50	6:10	6:15	6:35	6:50
6:00	6:15	6:35	6:40	7:00	7:15
7:00	7:15	7:35	7:40	8:00	8:15
8:30	8:45	9:05	9:10	9:30	9:45

AM
PM

G73E Current
 Schedule

G73E Route
 Map





G73E Proposed Schedule

G73E					
Depart Springfield Union Station Bay 9	Holyoke Mall	Arrive Academy of Music - Northampton	Depart Academy of Music - Northampton	Holyoke Mall	Arrive Springfield Union Station Bay 9
WEEKDAYS AND SATURDAYS PROPOSED					
7:00	7:15	7:35	7:40	8:00	8:15
7:45	8:00	8:20	8:25	8:45	9:00
8:30	8:45	9:05	9:10	9:30	9:45
9:15	9:30	9:50	9:55	10:15	10:30
10:00	10:15	10:35	10:40	11:00	11:15
10:45	11:00	11:20	11:25	11:45	12:00
11:30	11:45	12:05	12:10	12:30	12:45
12:15	12:30	12:50	12:55	1:15	1:30
1:00	1:15	1:35	1:40	2:00	2:15
1:45	2:00	2:20	2:25	2:45	3:00
2:30	2:45	3:05	3:10	3:30	3:45
3:15	3:30	3:50	3:55	4:15	4:30
4:00	4:15	4:35	4:40	5:00	5:15
4:45	5:00	5:20	5:25	5:45	6:00
5:30	5:45	6:05	6:10	6:30	6:45
6:15	6:30	6:50	6:55	7:15	7:30
7:00	7:15	7:35	7:40	8:00	8:15
7:45	8:00	8:20	8:25	8:45	9:00
8:30	8:45	9:05	9:10	9:30	9:45

G73E					
Depart Springfield Union Station Bay 9	Holyoke Mall	Arrive Academy of Music - Northampton	Depart Academy of Music - Northampton	Holyoke Mall	Arrive Springfield Union Station Bay 9
SUNDAYS PROPOSED					
7:00	7:15	7:35	7:40	8:00	8:15
7:45	8:00	8:20	8:25	8:45	9:00
8:30	8:45	9:05	9:10	9:30	9:45
9:15	9:30	9:50	9:55	10:15	10:30
10:00	10:15	10:35	10:40	11:00	11:15
10:45	11:00	11:20	11:25	11:45	12:00
11:30	11:45	12:05	12:10	12:30	12:45
12:15	12:30	12:50	12:55	1:15	1:30
1:00	1:15	1:35	1:40	2:00	2:15
1:45	2:00	2:20	2:25	2:45	3:00
2:30	2:45	3:05	3:10	3:30	3:45
3:15	3:30	3:50	3:55	4:15	4:30
4:00	4:15	4:35	4:40	5:00	5:15
4:45	5:00	5:20	5:25	5:45	6:00
5:30	5:45	6:05	6:10	6:30	6:45
6:15	6:30	6:50	6:55	7:15	7:30
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7:45	8:00	8:20	8:25	8:45	9:00

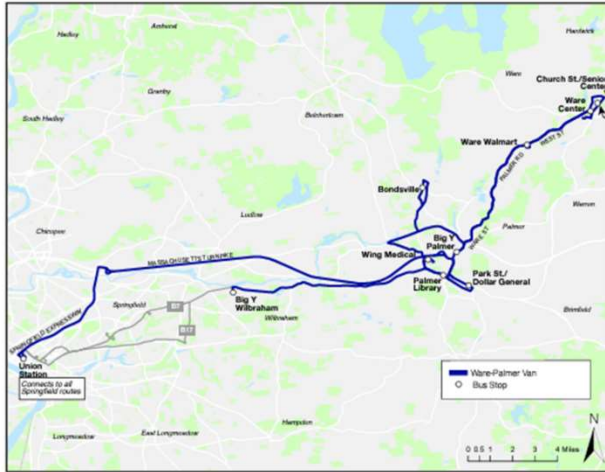
Current Ware-Palmer Schedule

Effective 6/26/2023

WARE-PALMER FLEX ROUTE

WEEKDAY (INBOUND)								WEEKDAY (OUTBOUND)										
CHURCH ST/ SENIOR CENTER	WARE CENTER	WARE WALMART	BIG Y PALMER	PARK ST/ DOLLAR GENERAL	PALMER LIBRARY	WING HOSPITAL	BIG Y WILBRAHAM	UNION STATION (ARRIVE)	UNION STATION (DEPART)	BIG Y WILBRAHAM	THREE RIVERS	BONDSVILLE	PARK ST/ DOLLAR GENERAL	BIG Y PALMER	WARE WALMART	WARE CENTER	CHURCH ST/ SENIOR CENTER	
7:00	7:03	7:10	7:22	7:27	7:31	7:36					7:42	7:48	7:52	7:56	8:08	--	--	
--	--	8:11	8:23	--	--	--	--	8:47	8:50	--	--	--	--	9:13	9:25	9:30	9:34	
9:38	9:41	9:48	10:00	--	10:04	--	10:22	--	--	10:24	--	--	--	10:48	11:00	--	--	
--	--	11:30	11:42	11:47	11:51	11:56						12:02	12:08	12:12	12:16	12:28	12:33	12:37
12:40	12:43	12:50	1:02	--	1:06	--	1:24	--	--	1:54	--	--	--	2:18	2:30	2:35	2:39	
2:40	2:43	2:50	3:02	3:07	3:11	3:16					3:22	3:28	3:32	3:36	--	--	--	
--	--	--	3:46	--	--	--	--	4:10	4:13	--	--	--	--	4:36	4:48	4:53	4:57	
5:01	5:04	5:11	5:23	5:28	5:32	5:37					5:43	5:49	5:53	5:57	--	--	--	



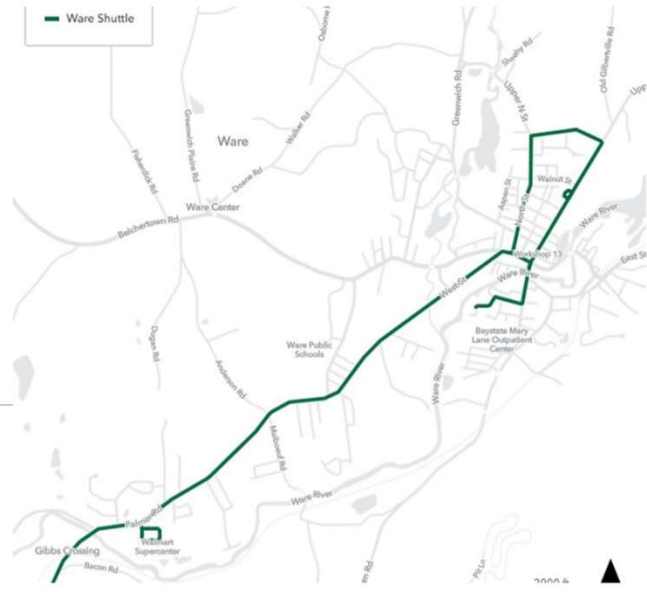
Ware-Palmer Route Current Map

Proposed Ware Schedule

WARE SHUTTLE							
WEEKDAY (INBOUND)							
Valley View (depart)	Church St (depart)	Ware Big Y	Ware Walmart (arrive)	Ware Walmart (depart)	Palmer Big Y	Palmer Library	Wilbraham Big Y (arrive)
7:00	7:04	7:09	7:13		7:25	to Palmer Shuttle	
8:50	8:54	8:59	9:03		9:15	9:20	9:33
--	10:13	10:19	10:23	10:33	10:45	10:50	11:03
11:50	11:54	11:59	12:03		12:15	--	--
13:20	13:24	13:29	13:33		13:45	13:50	14:03
--	14:43	14:49	14:53	15:03	15:15	15:20	15:33
from Springfield Union Station, departing 16:20					16:45	to Palmer Shuttle	

WARE SHUTTLE						
WEEKDAY (OUTBOUND)						
Wilbraham Big Y (depart)	Palmer Library	Palmer Big Y	Ware Walmart	Ware Big Y	Valley View (arrive)	Church St (arrive)
from Palmer Shuttle		8:10	to Springfield Union Station, arriving 8:35			
9:35	9:48	9:53	10:05	10:09	--	10:13
11:05	11:18	11:23	11:35	11:39	11:43	--
--	--	12:53	13:05	13:09	13:13	--
14:05	14:18	14:23	14:35	14:39	--	14:43
15:35	15:48	15:53	16:05	16:09	--	16:13
from Palmer Shuttle		17:26	17:47	17:51	17:55	17:59

Proposed Ware Route Map

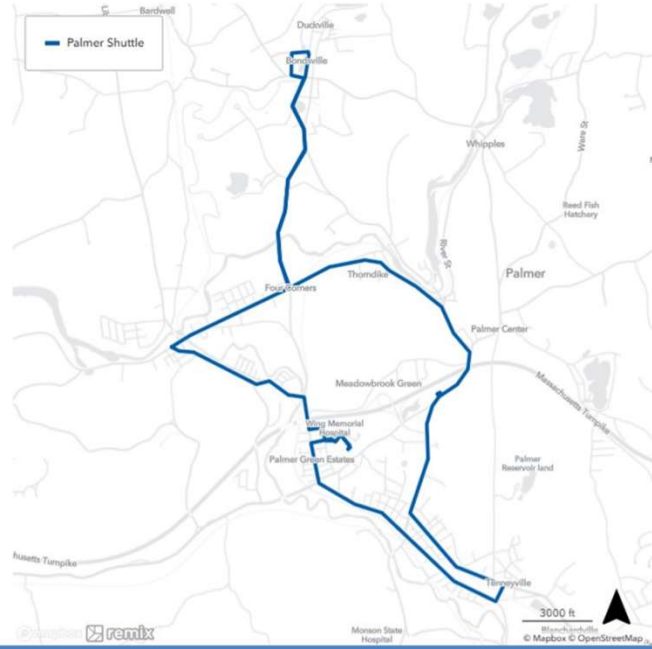


PALMER SHUTTLE

WEEKDAYS							
Palmer Big Y	Park St	Palmer Library	Wing Hospital	Three Rivers	Bondsville	Thorndike	Palmer Big Y
<i>Ware Shuttle from Valley View, departing at 7:00</i>							7:25
7:30	7:36	7:38	7:41	7:48	7:56	8:01	8:06
8:10	<i>to Springfield Union Station at 8:35</i>						9:00
9:15	9:21	9:23	9:26	9:33	9:41	9:46	9:51
10:00	10:06	10:08	10:11	10:18	10:26	10:31	10:36
10:45	10:51	10:53	10:56	11:03	11:11	11:16	11:21
11:30	11:36	11:38	11:41	11:48	11:56	12:01	12:06
13:00	13:06	13:08	13:11	13:18	13:26	13:31	13:36
13:45	13:51	13:53	13:56	14:03	14:11	14:16	14:21
14:30	14:36	14:38	14:41	14:48	14:56	15:01	15:06
15:15	15:21	15:23	15:26	15:33	15:41	15:46	15:51
15:55	<i>to Springfield Union Station at 16:20</i>						16:45
16:50	16:56	16:58	17:01	17:08	17:16	17:21	17:26
17:26	<i>Ware Shuttle to Church Street, arriving 17:59</i>						

Proposed Palmer Schedule

Proposed Palmer Route Map



Questions?

Public Hearings-In Person

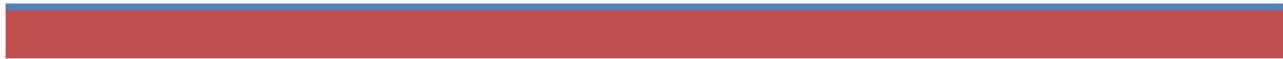
Monday, December 4, 2023 @ 3:00 pm
Union Station
55 Frank B. Murray St., 2nd Floor
Conference Room
Springfield, MA 01103

Tuesday, December 5, 2023 @ 5:00 pm
Palmer Public Library
1455 N. Main Street
Palmer, MA 01069

Thursday, December 7, 2023 @ 4:30 pm
Ware Senior Center
1 Robbins Road
Ware, MA 01082

Monday, December 11, 2023 @ 1:00 pm
Holyoke Media
1 Court Plaza
Holyoke, MA 01040

Tuesday, December 12, 2023 @ 3:00 pm
Northampton City Council Chambers
212 Main Street
Northampton, MA 01060



Public Hearings-Virtual

Thursday, December 7, 2023 @ 10:00 am
Zoom Meeting ID: 882 8937 6754
Passcode: 515967

Monday, December 11, 2023 @ 6:00 pm
Zoom Meeting ID: 882 8937 6754
Passcode: 515967



For More information

Submit comments by emailing PVTA at comments@pvta.com

Phone: 413-732-6248 ext. 2237

Mail comments to:
PVTA
c/o Paul Burns-Johnson
2808 Main Street
Springfield, MA 01107

Appendix B: Public Comments

P21E, G73E, Ware Palmer Shuttle Service Enhancements Public Hearing Dec. 4 at 3:00 PM

Union Station, 55 Frank B Murray St, Springfield, MA 01103

PVPC: Carl Jackson

PVTA: Sandra Sheehan, Paul Burns-Johnson, Alex Forrest, Brandy Pelletier

Jonathan McHatton, Nicole Rohan, Dave Klingener, Dawn Veautuer

Public Attendance: Mike Saletnick, Karen Saletnik, Paula Ouimelta

Carl Jackson, PVPC, opened the public hearing at 3pm.

No members of the public were in attendance.

Some public comments were obtained from the public at the Springfield Union Station transit center

Anonymous: Commenter was shown a copy of the proposed P21E schedule and responded "yes"

Anonymous: Commenter was shown a copy of the proposed P21E schedule and responded "Okay, Okay-wonderful"

Anonymous: Commenter was shown a copy of the proposed G73E schedule and responded "Yes, OK to 45 min. Love the route, no need for problems. 45 (minutes) will be great wonderful... all trips better connection, Smith College students, free bus and Holyoke Mall. Nice Try-Transit"

Mary Otto: Can you please have later bus route on G5 and more service on Saturday and have one on Sunday so we can go to church. Thank you, Mary Otto

Carl Jackson, PVPC, closed the meeting at 4 pm.

P21E, G73E, Ware Palmer Shuttle Service Enhancements Public Hearing Dec. 5 at 5:00 PM**Palmer Library, 1455 N. Main Street, Palmer, MA 01069****PVPC: Carl Jackson****PVTA: Sandra Sheehan, Paul Burns-Johnson, Alex Forrest, Brandy Pelletier****Dawn Veautuer, Paul Anziano****Public Attendance: Sarah Heinonen, Ryan Drago, Cathy Plouffe**

Carl Jackson, PVPC, opened the public hearing at 5pm.

Mr. Burns-Johnson provided a presentation on the service enhancements with particular focus on the Ware and Palmer Shuttles.

Mr. Anziano was also available to answer questions and stated that drivers will be passing out schedules and recommended trying transit while it's free to the end of the year.

Question and Answer

Cathy Plouffe: Where can people find these schedule changes?

Paul Burns-Johnson: Schedules are available here (passed her copies) and available online.

Paul Anziano: Drivers will be passing out schedules and recommended trying transit while it's free to the end of the year

Cathy Plouffe: Our facility is located by St. Paul's Unitarian Church, 39 Walnut Street. Where would people get the shuttle to transfer from Palmer to Ware?

Paul Burns-Johnson: We can discuss making this a designated stop on flex service.

Cathy Plouffe: Park Street is an important stop for our patrons. PVTA and the flex route make such a big difference in our community

Sarah Heinonen: Why was service reduced previously?

Paul Burns-Johnson: Due to budget cuts from 2018.

Sarah Heinonen: Will this restore service prior to the service cuts?

Paul Burns-Johnson: Yes, and will exceed what the route was with the spring service enhancements.

Sarah Heinonen: Are there any concerns with the route changes?

Paul Burns-Johnson: No. People are happy about the changes.

Sarah Heinonen: Has PVTA seen staffing shortages?

Paul Burns-Johnson: Yes.

Carl Jackson, PVPC, closed the public hearing at 6 pm.

P21E, G73E, Ware Palmer Shuttle Service Enhancements Public Hearing Dec. 7 at 10:00 AM

Virtual (Zoom)

PVPC: Carl Jackson, Rana Al-Jammal

PVTA: Sandra Sheehan, Paul Burns-Johnson, Alex Forrest, Brandy Pelletier

Nicole Rohan, Jonathan McHatton

Public Attendance: Elizabeth Mackenzie

Carl Jackson, PVPC, opened the public hearing at 10 am

Mr. Burns-Johnson provided a presentation on the service enhancements

Question and Answer:

Elizabeth Mackenzie: I'm excited about Sunday service, service to Northampton and Ware-Palmer service. Keep up the good work!

Carl Jackson, PVPC, closed the public hearing at 10:30 am

P21E, G73E, Ware Palmer Shuttle Service Enhancements Public Hearing Dec. 7 at 4:30 PM**Ware Senior Center, 1 Robbins Rd, Ware, MA 01082****PVPC: Peter Kuusisto****PVTA: Sandra Sheehan, Paul Burns-Johnson, Alex Forrest, Brandy Pelletier****Public Attendance: Mike Saletnik, Karen Saletnik, Paula Ouimelta**

Peter Kuusisto, PVPC, opened the meeting at 4:30 PM. A conversation was substituted for the three-minute maximum time limit per participant.

Paul Burns-Johnson presented slides describing upcoming enhancements. Focus was given to the Ware Palmer Shuttles.

Questions and Answers:

Karen Saletnik: To get to Springfield now, you got to go to Palmer?

Paul Burns-Johnson: You can get to Wilbraham Big Y from Ware. Depending on the route, you can go from Palmer to Union Station.

Karen Saletnik: Can you still get dial-a-ride from my home to Baystate Springfield?

Paul Burns-Johnson: Yes, there are no changes to Paratransit Service

Karen Saletnik: You can take service out of state.

Paul Burns-Johnson: Absolutely, you can travel to Union Station and down to Connecticut.

Karen Saletnik: There are no changes to Dial-a-ride?

Paul Burns-Johnson: No changes to Dial a ride service for seniors.

Karen Saletnik: What about Sundays, it's not going to be on Sundays?

Paul Burns-Johnson: Regular fixed-route service is seven days a week.

Karen Saletnik: When you need it, it's good [about the dial-a-ride service].

Paul Burns-Johnson: As long as you call in once every five years you will stay on the rolls.

Karen Saletnik: The ware shuttle doesn't go to Wing Hospital?

Paul Burns-Johnson: You can transfer at Palmer Big Y. And the 7am trip from Ware goes to Palmer Wing Memorial Hospital.

Paul Burns-Johnson: Would it be difficult to make the transfer for another \$1.50 to Wing Memorial?

Karen Saletnik: No problem. Could be difficult for those who are handicapped.

Paul Burns-Johnson: Baystate also provides two vans to shuttle patients to Wing.

Peter Kuusisto closed the meeting at 5:30 PM.

P21E, G73E, Ware Palmer Shuttle Service Enhancements Public Hearing Dec. 11 at 1:00 PM

Holyoke Media, 1 Court Plaza, Holyoke, MA

PVPC: Carl Jackson

PVTA: Sandra Sheehan, Paul Burns-Johnson, Alex Forrest, Brandy Pelletier,

Jonathan McHatton, Jesus Sanchez,

Public Attendance: David Borawski, Other Citizen (unknown)

Carl Jackson, PVPC, opened the public hearing at 1 pm

Paul Burns-Johnson presented slides describing upcoming enhancements.

Questions and Answers:

David Borawski: I support the frequency increases for the P21E, G73E and am glad the PVTA is showing commitment to speed up journeys between the major centers of the Pioneer Valley. I am excited for the potential increases to 30 min frequencies in the Spring. My concern with 45-minute frequencies on the G73 is connecting to the hourly B43 to Amherst. I utilize the B43 which struggles with crowding on Sundays.

Paul Burns-Johnson: G73 frequency will increase to every 30 minutes in the Spring resolving any issues connecting with B43

Carl Jackson closed the meeting at 1:00 PM.

P21E, G73E, Ware Palmer Shuttle Service Enhancements Public Hearing Dec. 11 at 6:00 PM**Virtual: Zoom Meeting****PVPC: Peter Kuusisto; SATCo: Jonathan McHatton****PVTA: Sandra Sheehan, Paul Burns-Johnson, Alex Forrest, Brandy Pelletier****Public Attendance: Ramon Soto, Loreto Ruiz**

Peter Kuusisto, PVPC, opened the meeting at 6:00 PM. A conversation was substituted for the three-minute maximum time limit per participant.

Paul Burns-Johnson presented slides describing upcoming enhancements. Focus was given to the Ware Palmer Shuttles.

Questions and Answers:

Loreto Ruiz: Why the break off from Union Station [on the Ware Shuttle]?

Paul Burns-Johnson: There are no changes to access to Union Station

Loreto Ruiz: How do you go from Union Station to Ware?

Paul Burns-Johnson: The last trip from Union Station will go to Palmer Big Y and then on to Ware.

Loreta Ruiz: Why can't I take a return trip from 7 to 9pm from Union Station to Ware?

Paul Burns-Johnson: Unfortunately, we are constrained by staffing limitations.

Loreto Ruiz: I have been having difficulty catching the B79 [from Ware] but have had some success taking the B79 from UMass. I have not been able to catch the bus at the designated place or time every time I have tried. Is there something you can do about that?

Paul Burns-Johnson: There have been some staffing shortages that have caused gaps in service. Additionally the Ware stop on this route can be challenging due to parking configuration along Route 9 but you should be able to flag the bus down or call the Quaboag Connector to have the driver watch for you.

Alex Forrest: PVTA uses a new Operator for the B79, added to the four existing operators of PVTA service. Each service is offered based on their own labor and resources.

Ramon Soto: I am glad to hear about the G73E and P21E increasing frequency. Regarding the B17, I am having difficulty getting to school on holidays and Sundays. Can we get more frequency and Sunday service on this route so I can go to school?

Paul Burns-Johnson: The B17 will increase frequency and add service to Sundays we are expecting in the Spring.

Ramon Soto: The B17 back to Union Station takes a loop right before getting into Union Station that takes a long time to bring the bus back to Union Station and basically nobody gets on the bus. It is faster to get off and walk from State Street to Union Station.

Alex Forrest: This is being considered in the future. It is good to hear an opinion about this section of the route. This change would likely happen provided turning onto Taylor Street is possible.

Loreto Ruiz: I have another question. The Ware Shuttle does not arrive on time to make the connection [with the Palmer Shuttle] to Union Station, should I transfer to Springfield at the Wilbraham Big Y?

Alex Forrest: The first trip continues without transfer into Union Station on the first trip of the day.

Loreto Ruiz: The bus goes from the Ware Big Y to the Palmer Big Y and then I have to transfer?

Alex Forrest: From Ware, the first and last trip from Ware Big Y rides through Palmer Big Y to Union Station. The difficulty is that you have to sit through all the other stops on the Palmer trip before the bus goes to Union Station, but there is no transfer.

Peter Kuusisto concluded the meeting at 6:30pm.

P21E, G73E, Ware Palmer Shuttle Service Enhancements Public Hearing Dec. 12 at 3:00 PM

Northampton City Council, 212 Main Street, Northampton, MA 01060

PVPC: Carl Jackson

PVTA: Sandra Sheehan, Paul Burns-Johnson, Alex Forrest, Brandy Pelletier, Jonathan McHatton

Public Attendance: None

Carl Jackson, PVPC, opened the public hearing at 3pm

No members of the public were in attendance

Carl Jackson concluded the public hearing at 6:30pm.

Zoraida Bonet

From: Rachel Belanger [REDACTED]
Sent: Tuesday, December 19, 2023 7:01 PM
To: Zoraida Bonet
Subject: Comments on Route Enhancements on the G73E

To Whom It May Concern:

I am writing to express my support for increasing the frequency on the G73E route and adding service on Sundays.

It appears that the proposed schedule would result in fewer buses per day in the near-term (19 trips vs. 23 trips) but I like that the proposed schedule reduces the maximum time between buses. Currently, there are a few times each day where if I miss one bus, I would have to wait a full hour or even 90 mins in the evening. If the bus runs every half hour, as proposed for the future, it will be much easier to plan on taking the bus, especially since I often use the G73E in combination with Peter Pan or Amtrak.

Sunday service is important for a route that serves the Holyoke Mall and in a region where many people work jobs that are not on a Monday to Friday schedule. Reliable and convenient bus service does not just benefit those who depend on the bus for transportation or choose it as an alternative to driving, but it benefits everyone who counts on having employees able to commute reliably or who drives and experiences less traffic than they would otherwise.

Thank you for your service, and for the opportunity to comment on the proposed changes.

Best,

Rachel Belanger
Northampton, MA

RECEIVED

DEC 20 2023

Pioneer Valley Transit Authority

Appendix C: Major Service Change Policy

Major Service Change Policy, Disparate Impact Policy, and Disproportionate Burden Policy

Major Service Change Policy

The Pioneer Valley Transit Authority is required by the Federal Transit Administration to have a threshold at which point a service change is considered a “Major Service Change.” Any service change exceeding that threshold is required to be presented to the public for comment and consideration, as outlined in the PVTA Public Hearing and Major Service Change Policy in Appendix 1 in the [Public Participation Plan](#).¹ In fulfillment of this requirement, the PVTA will hold public hearings and conduct an analysis on Disparate Impact and Disproportionate Burden when a proposed change meets the following criteria:

- Any change in PVTA fare policies, rates, or media is being considered; or
- An alteration of service to existing fixed route service that:
 - Cumulatively changes the number of vehicle revenue hours in the service area by 7.5% or more.

Or:

- Changes the number of vehicle revenue hours on any specific route by 50% or more; or
- Changes the location or number of stops on any specific route by 25% or more.
- The establishment of a new route.

Service or fare changes which are considered temporary or experimental, and which have a duration of 12 months or shorter, are not considered Major Service Changes.

Process for Restoring Service

Approximately 50% of PVTA operating funding is provided through state legislative appropriations, subject to gubernatorial approval. In FY17 and FY18, funding levels for the next fiscal year were not determined until after the start of the fiscal year. However, PVTA has a fiduciary responsibility to pass a balanced budget before the start of the fiscal year (July 1st) even if state funding levels may not be finalized until July, August, or even September.

As a response, PVTA bases the upcoming fiscal year budget on the Governor’s proposed budget, which is typically released in the winter of the prior fiscal year. However, there has been a great deal of uncertainty in recent years regarding final budget amounts. For instance, in 2018 the FY19 governor’s budget resulted in a projected \$3.1 million funding shortfall for the PVTA. In order to approve a balanced budget before June 1st, PVTA conducted a public process on a suite of service reductions in accordance with the Major Service Change Policy in force at the time. ²

Ultimately, the budget deficit for FY19 was reduced from \$3.1 million to \$800,000 due to additional funding from the state. However, this was not determined until the end of August, well after the start of the new fiscal year on July 1. In instances where a projected shortfall is reduced, PVRTA staff will use performance measures to systematically reinstate service using the following criteria:

- ☐ Percentage of people of color and low-income customers using the route
- ☐ Ridership and performance measures as compared to service standards

PVRTA will create a ranking of service reductions should additional funding be provided and rescind service cuts based on that ranking.

Disparate Impact Policy (Racial Discrimination)

In accordance with FTA Circular 4702.1B, and industry standards and best practices, the Pioneer Valley Transit Authority has defined a disparate impact as a Major Service Change in which the adverse impacts of the change that people of color experience as compared to non-people of color is 20% or more. For the purposes of this document, the term “people of color” is synonymous with the term “minority” as used in Federal Circular 4702.1B (page I-4).

Disproportionate Burden Policy (Low Income)

In accordance with FTA Circular 4702.1B, and industry standards and best practices, the Pioneer Valley Transit Authority has defined a disproportionate burden to be a change in service where low-income customers would experience a negative impact 20% or larger compared to non-low-income customers. For the purposes of this policy, “low income” is defined as a person reporting an income below the federal poverty line.

Appendix D: REMIX Methodology

PVTA utilized REMIX for this Title VI Disparate Impact/Disproportionate Burden Analysis. Disparate impact is the impact the change to the system would have on low-income communities.

Disproportionate burden is the burden borne on people of color.

PVTA “drew” the route shapes and inputted the proposed timetables into REMIX. Remix allows you to automatically generate a Title VI report (based on Census data) by comparing existing service to a set of proposed changes. This page outlines the methodology and data sources we use when generating this report.

Data sources

- Demographic data comes from the US Census Bureau, 2017-2021 American Community Survey (ACS) 5-Year Estimates.
- Population is coded by table B03002, field B03002001.
- Low-income status is set at 100% of the US federal poverty level, depending on your individual agency. This is coded by the appropriate fields in table C17002.
- Minority status is coded by table B03002, by subtracting the white, non-Hispanic population (B03002003) from the total population (B03002001).
- Service area is a set of block groups determined by a shapefile your agency provides.
- Map and routing data are provided OpenStreetMap, Mapbox, and Valhalla.

Methodology

1. Get the population near a route, including its low-income and minority percentage.

- For each route, build a shape that represents the area within quarter-mile of any of its stops.
- Intersect the catchment area with 2017-2021 ACS 5-year estimates. Get a list of block groups and the percentage overlap with each.
- For each block group, take the percentage of overlap and multiply it by the block group’s statistics.
- Get the population, minority population, and low-income population for each group and sum them together. This is the total population a route could serve.

2. Compare the number of people-trips, before and after.

- Multiply the population near a route by the number of trips it makes (per year) to get “people-trips”.
- Repeat for low-income and minority populations to get “low-income people-trips” and “minority people trips”.
- Compare these numbers between the before and after versions of the route, to get a set of people-trip differences. We match before and after using routes that have the same name.

3. Get the total difference in people-trips across the transit system.

- Repeat the process above for every route in the transit system.

- Sum together the difference in people trips. This will return three numbers: total difference in people-trips, total difference in low-income people-trips, and total difference in minority people trips.
4. Calculate the change borne by low-income and minority populations.
 - Divide the total difference in low-income people trips by the total difference in people-trips to get the percentage of change borne by those with low incomes.
 - Repeat for minority people-trips.
 5. Compare the percentage change to the average in the service area.
 - Calculate the average percentage of low-income and minority populations across the entire service area.
 - Subtract from the change borne by those populations.
 - Get two final numbers: the delta between the impact this set of transit changes had on low-income and minority populations compared to any average change.

Additional Raw Data

In addition to the methodology outlined above, Remix also produces a set of raw data you can use in your own methodology. Specifically, we provide:

- A list of Census block groups in the service area with population, low-income, minority information for each.
- A before and after count of trips in each block group.
- A service-area-wide average of minority and low-income populations

A Process Note

This analysis is rigorous and meets the needs of most transit agencies. PVRTA's Title VI Program Plan allows for either survey data or the use of the latest 5-Year ACS data (available through REMIX). This process complies with FTA Circular 4702.1B.