Richmond Regional Transportation Planning Organization

Western BRT Corridor Analysis
Survey Results

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Survey Information

A MetroQuest survey was developed to better understand the community's priorities, travel behaviors, and barriers to travel. The survey, branded as "West Broad Street BRT Corridor Analysis," ran from November 15 to December 16, 2022 and received 1,378 responses. The participation rate was 52.8% of visitors to the survey page, 57% by desktop and 43% mobile devices.

Methods of Survey Promotion

Promotion of this survey began with sharing information with study partners and stakeholders and the development of a Partner Toolkit. Survey flyers were also posted at Pulse Stations and several Broad Street bus stops, primarily for Routes 19, 50, and 76. Locations for these postings can be found in the Appendix. Two times were set aside on December 14, 2022 (8:00-10:30am and 4:00-6:30pm) for PlanRVA and GRTC staff to be present at and around the Willow Lawn Pulse Station to interact with transit riders and make them aware of the MetroQuest survey. Small flyers were designed with QR codes to serve as handouts.

Survey Comments

Answers that required a written response along with any general comments included in any part of the survey are listed in a separate document, *Western BRT Corridor Analysis Survey Results – Comments*.

Priorities for the Corridor

When asked to rank seven priorities (Bicycle accessibility, Corridor safety, Parking near transit, Pedestrian accessibility, Property access, Public transit service, and Reducing traffic congestion), Public transit service was ranked as the top priority, being placed in the first position by 520 survey participants. Reducing traffic congestion was the highest priority the second highest number of times at 198, followed by Corridor Safety at 187. When considering all of the rankings, the average (*Figure 1*) for each priority from highest to lowest is: Public transit service (1.9), Pedestrian accessibility (2.46), Reducing traffic congestion (2.5), Corridor safety (2.6), Parking near transit (2.78), Bicycle accessibility (2.89), then Property access (2.93).

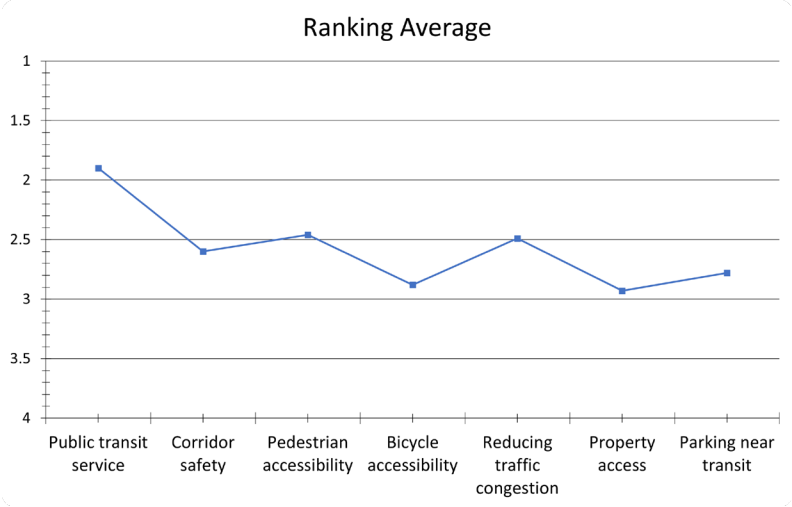

Figure 1. Average rank of each priority

When measured by the overall number of times each priority was included as a ranking (*Figure 2*), the highest priority is Public transit service (1019 times ranked), followed by Pedestrian Accessibility (988) at #2, and then Corridor safety (822) at #3.

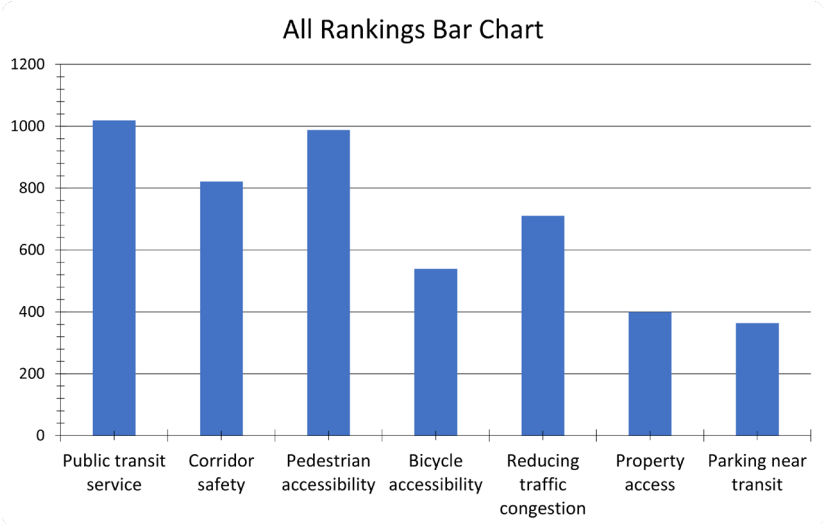

Figure 2. Number of times ranked per priority

A total of 86 comments were also submitted as part of this section.

Travel Survey

The second section of the survey is a general travel survey broken into four parts: (1) How You Travel, (2) When You Travel, (3) Travel and Work, and (4) Public Transit.

Part I: How You Travel

When asked the purpose of travel through the study corridor (*Figure 3*), participants responded with Shopping as the top answer (76.6%), followed by Work (45.1%), then Residential (33.2%). When describing Other, responses included recreation, dining, medical appointments, and other social activities.

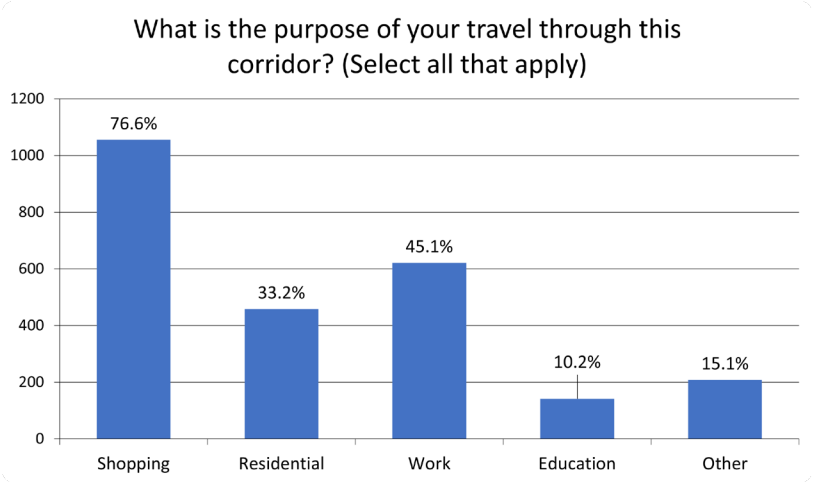

Figure 3. Purpose of travel through corridor

When asked about the form of transportation they currently use (*Figure 4*) out of Walking (including mobility devices), Bicycle, Public transit (GRTC), Taxi/Uber/Lyft, Personal vehicle, Carpool/Ride sharing, and Truck/Commercial vehicle, participants overwhelmingly chose a Personal vehicle (75.1%), followed by Walking (37.9%), and Public transit (36.2%).

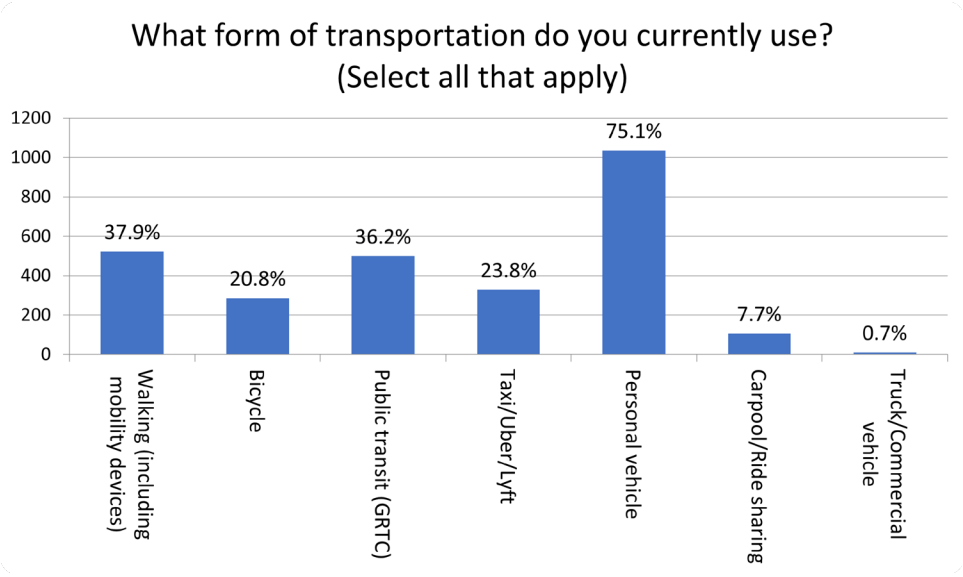

Figure 4. Current form of transportation

When asked what form of transportation previously listed they would use if it was more available, participants overwhelmingly chose Public transit (72%), followed by Walking (40.8%), and Bicycle (34.2%).

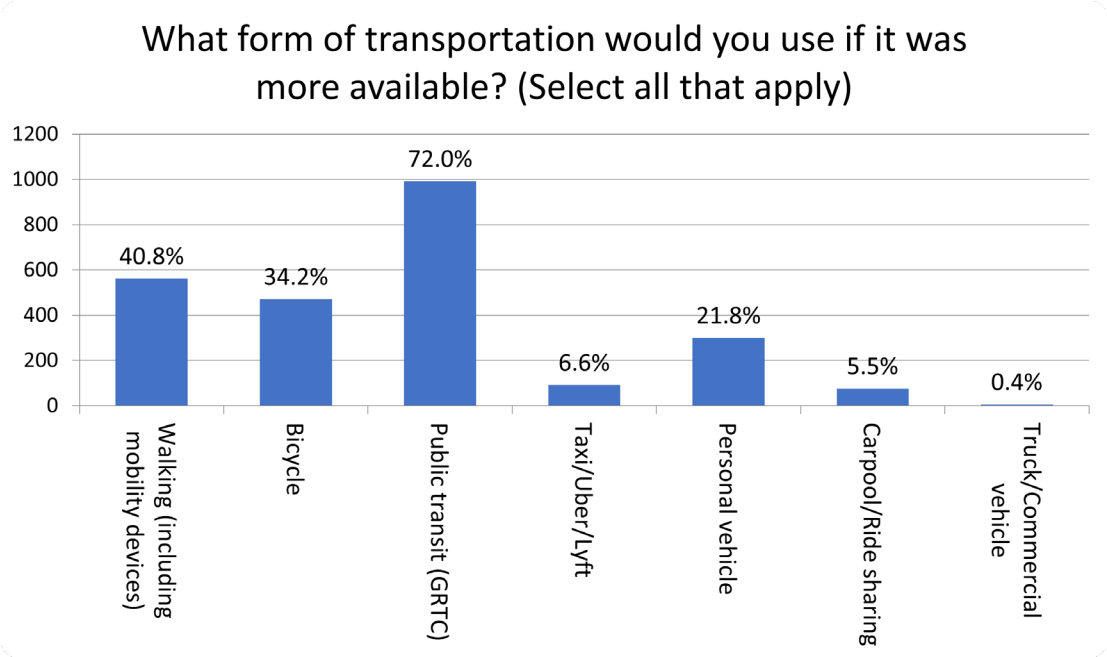

Figure 5. Preferred form of transportation

Part 2: When You Travel

When asked how often they travel along this corridor between Willow Lawn Drive and State Route 288 (*Figure 6*)from the options of Rarely/Never, Occasionally, Weekly, Daily, or Multiple times per day, most participants selected Weekly (29.9%), followed closely by Occasionally (27.5%), then Daily (16%).

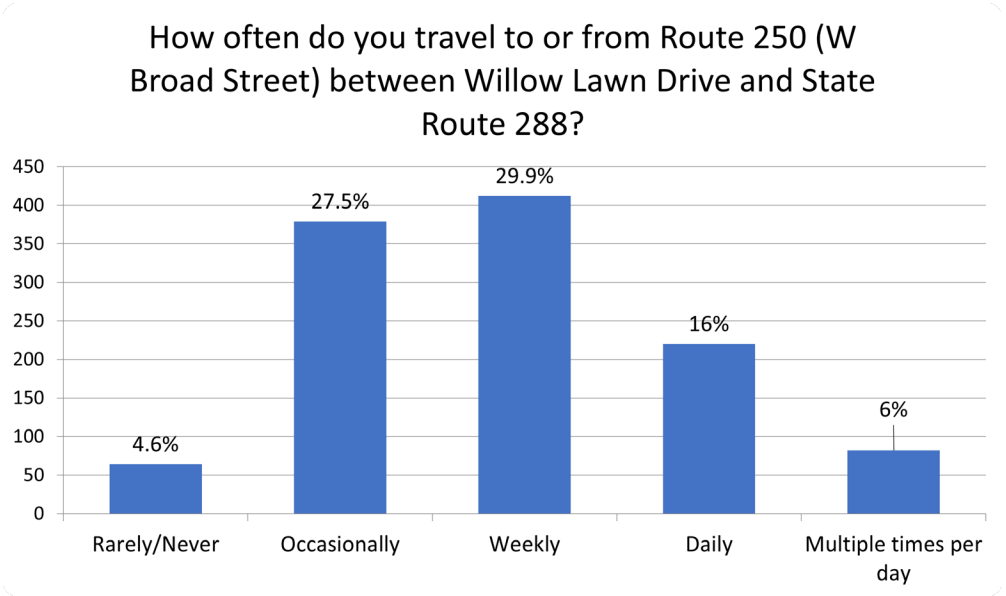

Figure 6. Frequency of travel to corridor

When asked when they travel through this corridor (*Figure 7*) between the options of Weekdays, Weekends, or Both, participants overwhelmingly chose Both (80.7%), followed by Weekends (10.8%), and Weekdays (8.5%).

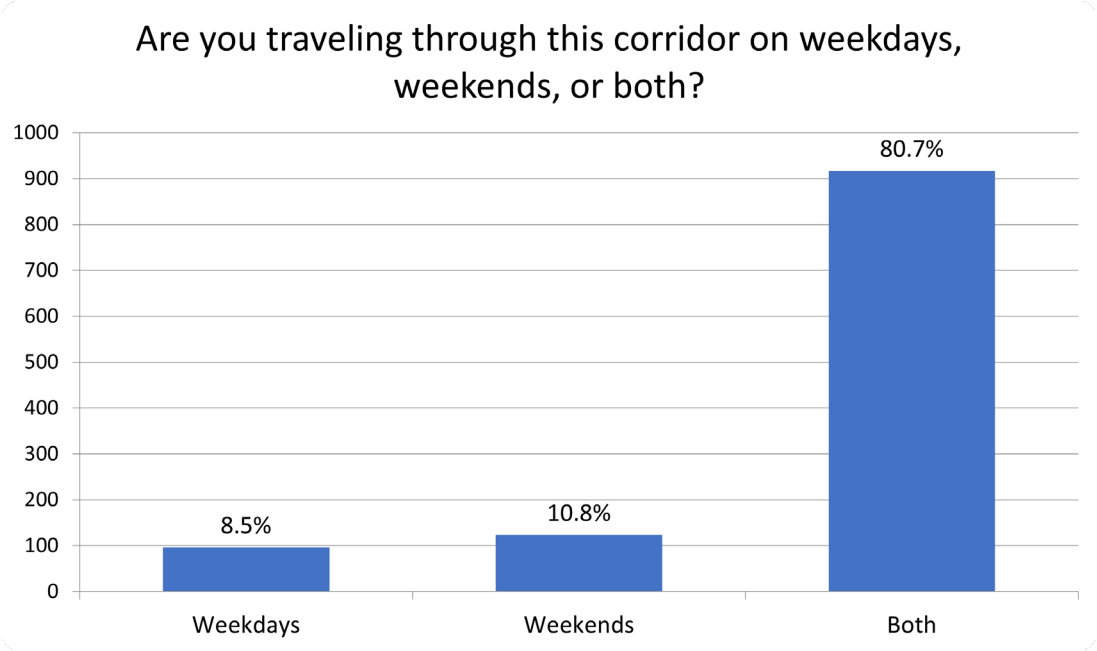

Figure 7. Days of travel through corridor

When asked the time of the day they typically travel through this corridor (*Figure 8*) between the options of Early morning, Morning rush hour, Midday, Afternoon rush hour, or Evening/Late night, participants indicated they typically travel during Midday (57.5%), followed by Afternoon rush hour (51.8%), and Evening/Late night (39.9%). This indicates heavier travel in the latter half of the day.

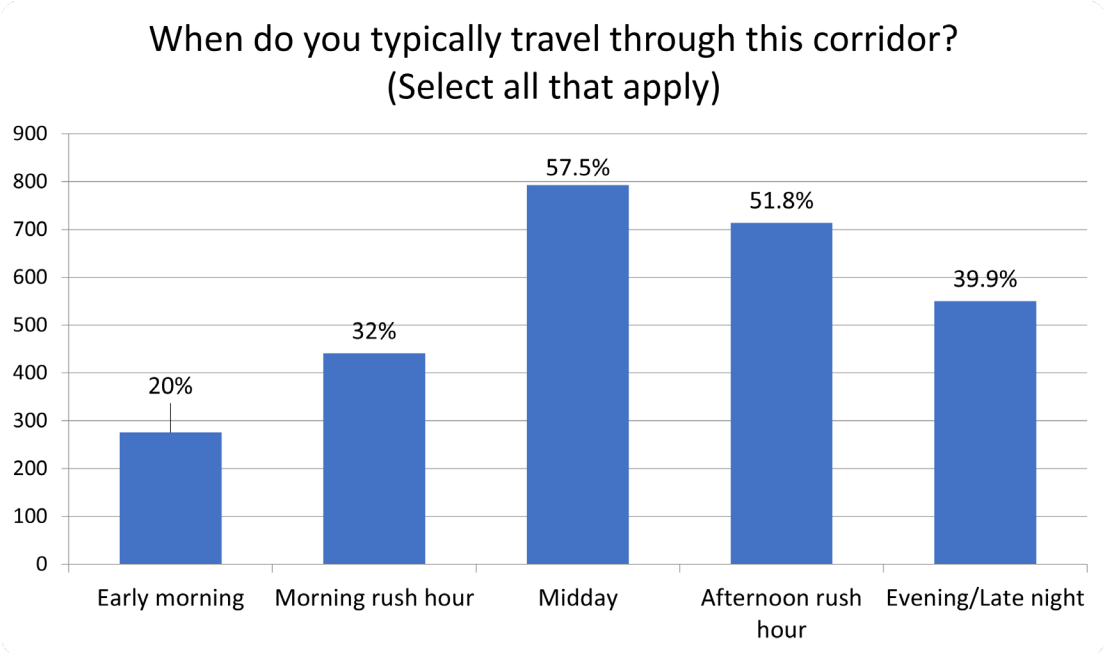

Figure 8. Time of day travel through corridor

Part 3: Travel and Work

When asked if a lack of reliable transportation has ever prevented them from finding or keeping a job, participants responded with No 66.2% of the time compared to Yes at 18.8%. A total of 85 participants indicated that lack of reliable transportation currently prevents them from working. Primary reasons include lack of transportation options to potential job sites (45.3%) and lack of transportation options near their home (36%).

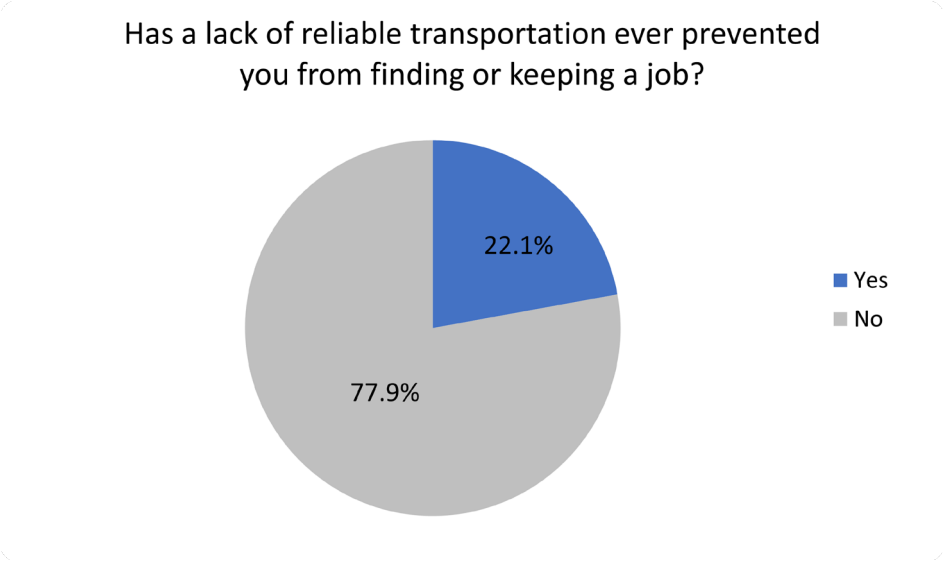

Figure 9. Transportation as a barrier to employment

Participants were then given an open-ended prompt to describe their ideal commute. Responses varied greatly through 543 individual responses to this question. Recuring themes include a desire for the ability to walk, bike, or take transit to work more often. Over 95% of responses were generally supportive of expanding access to transit, with many responses referencing the "first mile, last mile"— getting to transit stops by foot, bike, or other mobility device. Answers indicated that more sidewalks and bicycle facilities are needed along with essential infrastructure such as shelters and seating at transit stops. Many people specifically mentioned improving bus frequency and reliability as they keys to improving existing service or to simply make transit feasible for them.

Through the individuals who mentioned time, 10–30 minutes was generally the preferred amount of time spent on a commute. Beyond the common characteristics of reliability (34.9%), high-frequency (25.4%), and relatively short travel time (20.5%), the importance of safety in transportation was highlighted by 13.5% of people. Comfort was also a significant theme, mentioned by roughly 7% of respondents when describing their ideal commute. This took the form of individuals stating they would like time to relax, read, get exercise, get a start on the day, or simply not drive. Along with the previously mentioned 95% transit supportive comments, 5.7% of comments specifically mentioned wanting to be car-free or have less dependency on personal motor vehicles in their travel. A total of 2.3% of responses voiced opposition to transit when describing their ideal commute.

A full rundown of responses is included in a separate report.

Part 4: Public Transit

When asked how often they use transit, participants responded with Rarely/Never (31.2%), followed by Occasionally (23.1%), and Weekly (12.6%). Those who ride at least once a day made up 13.4%.

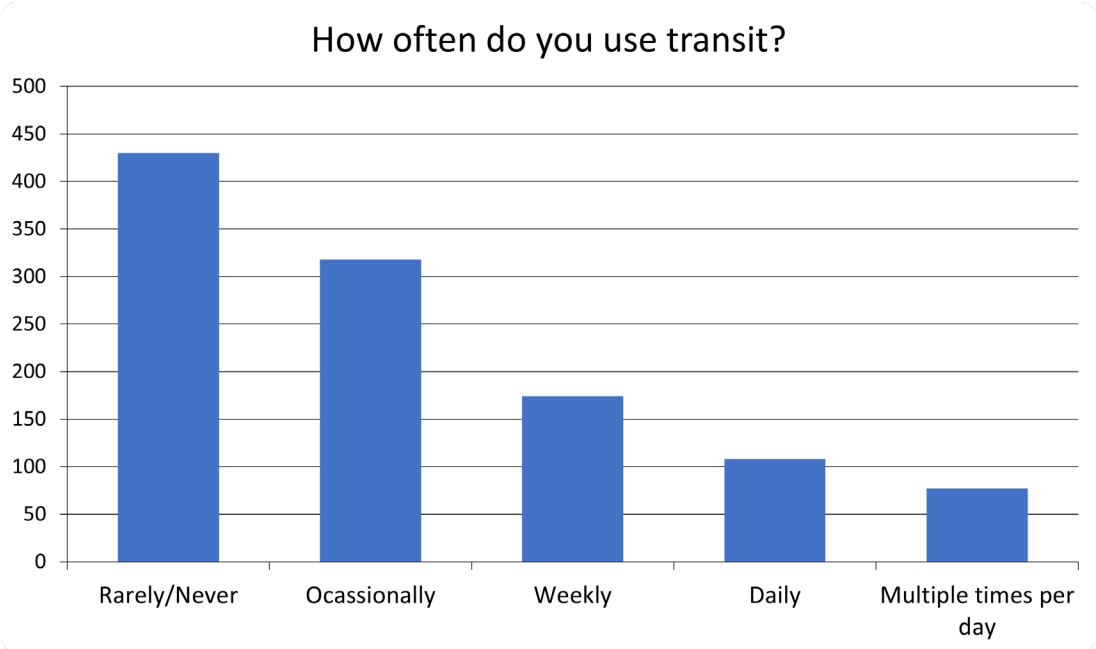

Figure 10. Use of transit

When asked if an expanded Pulse BRT down West Broad Street would impact how they consider traveling along this corridor, participants overwhelmingly responded with Yes (75.3%), compared to No (14.5%) and Not sure (10.2%).

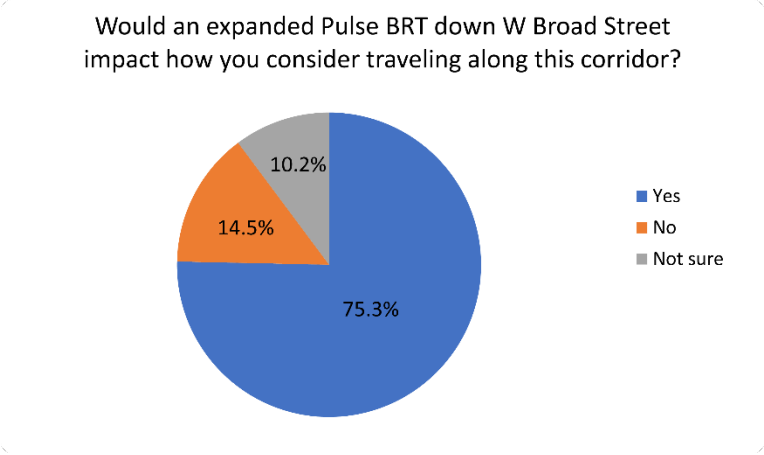

Figure 11. Impact of Pulse expansion on travel behavior

Asked which bus routes they use, participants largely responded with the Pulse. The 50, 19, 1A/B/C, and 2A/B/C were named as other common routes.

An open-ended question of which destinations/areas on this corridor should have more frequent service collected a number of varied responses that are included in a separate report. Common destinations mentioned include Short Pump, Innsbrook, Parham, Libbie Place, West Broad Village, various grocery stores, and various shopping centers along the corridor. Short Pump was mentioned as a destination the most at 253 times, followed by Innsbrook at 71.

Barriers along the Corridor

The survey included an interactive map that asked participants to drag markers on a map of the study area to give input on barriers that they see in along the corridor. Barriers include Inadequate crosswalks, Missing sidewalks, Inadequate ADA facilities, Inadequate bicycle facilities, Inadequate lighting, No bus stop shelter/bench, Lack of parking near transit, and Speeding/aggressive driving. A total of 3,618 individual data points were recorded as barriers along with 1,273 comments.

Marked barriers submitted by participants can be viewed in an interactive ESRI map.

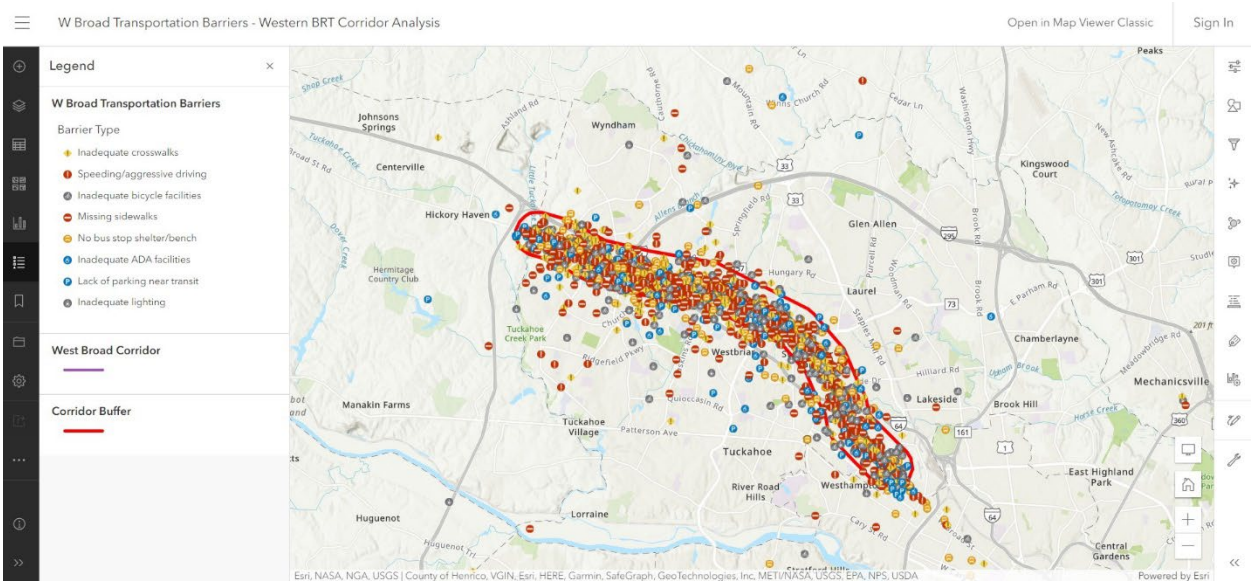

Figure 12. Interactive ESRI web map

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Demographic Data

A brief wrap-up questionnaire was included at the end of the survey, after initial responses were recorded. These questions covered location, age, and gender, then asks for any final comments about the corridor. A total of 422 comments were submitted as part of this section.

A map showing the home zip code of participants is displayed in Figure 13. Responses show a concentration around the West End of Henrico County and the City of Richmond, primarily in the West End, Northside, and East End.

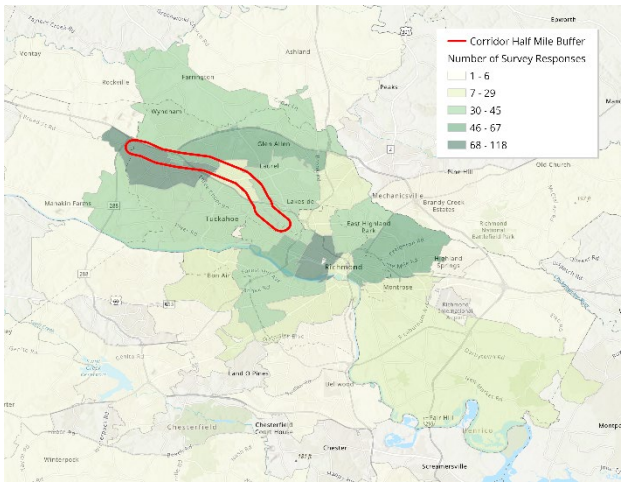

Figure 13. Number of survey responses by home zip code

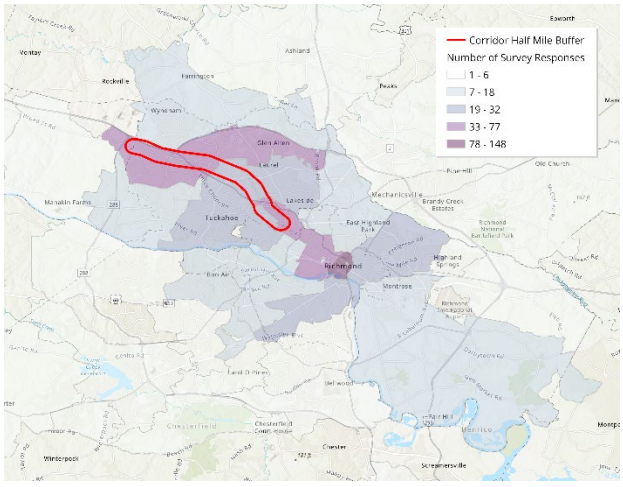

Figure 14. Number of survey responses by home zip code

A map showing the work zip code of participants is displayed in Figure 14. Responses show a concentration around similar areas such as the West End of Henrico County and the City of Richmond along with Richmond's West End, East End, and parts of Southside. However, this question shows a higher concentration of responses for Downtown Richmond.

The age range of survey respondents is displayed in Figure 15, with the primary age groups of 25–34 and 35–44 as the most represented, together comprising 52.2% of all participants.

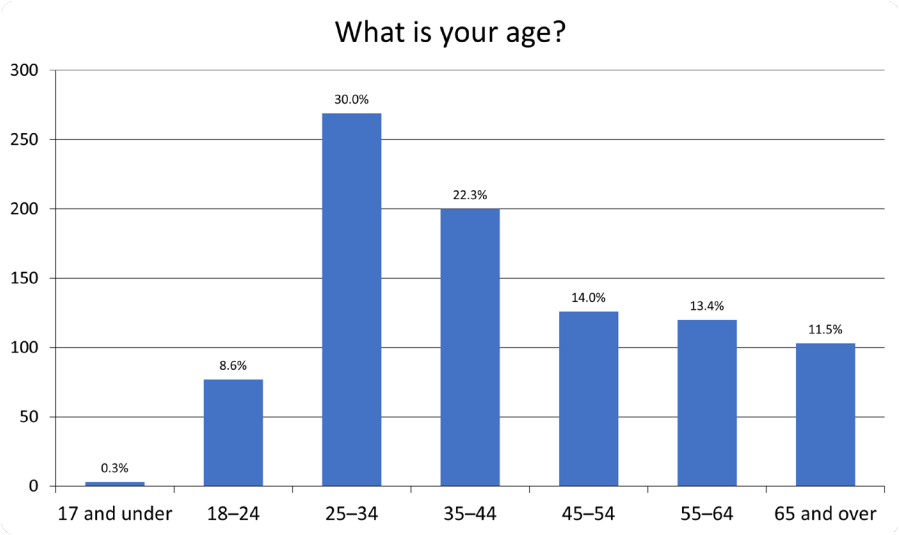

Figure 15. Age of survey participants

The gender breakdown of survey participants is displayed below (*Figure 16*), with men being the highest respondents (52.9%) and women the second highest (38.4%).

Individuals identifying as transgender, non-binary, or other made up 4.4% of respondents. A further 4.3% preferred not to disclose their gender.

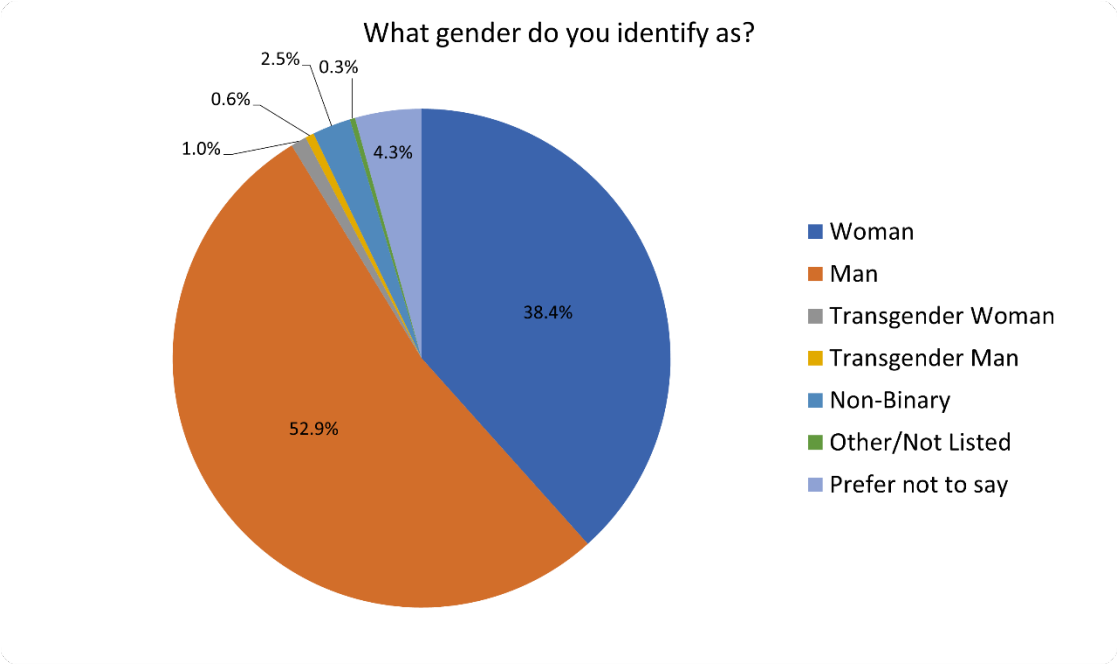

Figure 16. Gender breakdown of survey participants

Appendix

Survey Flyer Postings

Stop Name	Stop ID	Routes Served
*Pulse- Allison St Eastbound Station	3508	Pulse
*Pulse- Allison St Westbound Station	3509	Pulse
*Pulse- Arts District Eastbound Station	3512	Pulse
*Pulse- Arts District Westbound Station	3513	Pulse
*Pulse- Convention Center Eastbound Station	3514	Pulse
*Pulse- Convention Center Westbound Station	3515	Pulse
*Pulse- East Riverfront Eastbound Station	3524	Pulse
*Pulse- East Riverfront Westbound Station	3525	Pulse
*Pulse- Government Center Eastbound Station	3516	Pulse
*Pulse- Government Center Westbound Station	3517	Pulse
*Pulse- Main Street Station Eastbound Station	3520	Pulse
*Pulse- Main Street Station Westbound Station	3521	Pulse
*Pulse- Rocketts Landing Station	3526	Pulse
*Pulse- Science Museum Eastbound Station	3506	Pulse
*Pulse- Science Museum Westbound Station	3507	Pulse
*Pulse- Scotts Addition Eastbound Station	3504	Pulse
*Pulse- Scotts Addition Westbound Station	3505	Pulse
*Pulse- Shockoe Bottom Eastbound Station	3522	Pulse
*Pulse- Shockoe Bottom Westbound Station	3523	Pulse
*Pulse- Staples Mill Eastbound Station	3502	Pulse
*Pulse- Staples Mill Westbound Station	3503	Pulse
*Pulse- VCU Medical Center Eastbound Station	3518	Pulse
*Pulse- VCU Medical Center Westbound Station	3519	Pulse
*Pulse- VCU VUU Eastbound Station	3510	Pulse
*Pulse- VCU VUU Westbound Station	3511	Pulse
*Pulse- Willow Lawn Station	3501	Pulse
Bon Secours Parkway + Robert Atack Way	3780	19
Broad St + 12th St - N/S, W	352	1A, 1B, 1C, 7A, 7B, 56
Broad St + 4th - N/S, W	370	1A, 1B, 1C, 2A, 2B, 2C, 3C, 14, 78, 87
Broad St + 4th - S/S, E	371	1A, 1B, 1C, 2A, 2B, 2C, 3C, 12, 14, 78
Broad St + Adams St	440	3A, 3B, 3C, 14, 50, 78
Broad St + Allison St	391	50, 76
Broad St + Brownstone Blvd	3791	19
Broad St + Cabela Dr	3778	19
Broad St + Hagen Dr	3772	19
Broad St + Henry St	434	14, 50, 78
Broad St + Lauderdale Dr	3774	19
Broad St + Mordie Rd	499	18, 19, 50, 76, 79, 91
Broad St + Robinson St	2113	20
Broad St + Shafer St	432	14, 50, 77, 78
Broad St + Short Pump Town Center West	3775	19
Broad St + Willow Lawn Dr - N/S, W	3628	19, 76
Broad St + Willow Lawn Dr - S/S, W	405	19, 76
Broad St + 11th St - S/S, E	354	1A, 1B, 1C, 7A, 7B, 29, 56, 64, 82, 95
Main St + 25th St	1627	4A, 4B, 12, 13, 14

Stop Name	Stop ID	Routes Served
Willow Lawn Dr + Markel Rd - N/S, E	2379	50, 91
Willow Lawn Dr + Markel Rd - S/S, W	2378	18, 19, 50, 76, 79, 91

Survey Flyer Images

Survey flyer

Small survey flyer and handout