



MARIN COUNTY TRANSIT DISTRICT

NOVATO TRANSIT NEEDS ASSESSMENT

AUGUST, 2011



Executive Summary

The Novato Transit Needs Assessment identifies opportunities for improved transit service within Novato through an extensive outreach and data collection effort. This effort focused on developing financially feasible recommendations over a five year period to improve fixed route and dial-a-ride transit options in Novato. Specific activities completed to develop study recommendations include:

- Demand analysis featuring demographic and employment forecasts.
- Performance evaluation of those services currently operating in the service area (Marin Transit, Golden Gate Transit, Novato Dial-A-Ride).
- Peer review comparing Marin Transit's performance to similar systems.
- Ride check of 100 percent of Marin Transit trips operating in the study area to gauge ridership trends and on-time performance.
- Survey of fixed-route (Marin Transit and Golden Gate Transit) customers.
- Web-based survey of Novato Dial-A-Ride customers.
- Survey of the community at-large using three separate methodologies.
- Public outreach via stakeholder workshops, a public meeting, and participation in the *Let's Move Novato!* event.

Existing Conditions

Incorporated in 1960, Novato is located in northern Marin County and is part of the North Bay region in the San Francisco Bay Area. Novato is 30 miles north of San Francisco and 10 miles north of San Rafael. The city covers an area of approximately 28 square miles and is home to 51,904 residents, making it the largest city in Marin County in terms of size and the second largest in terms of population.

Based on the Marin County Travel Demand Model and 2009 regional estimates, Novato is projected to add approximately 1,200 residents between 2009 and 2035. This is a growth rate of two percent over this 26 year period or approximately 0.08% annually, with southern and central portions of Novato growing the most. In 2009, Novato businesses accounted for approximately 21 percent of the total employment in Marin County and are expected to take on a greater share of the County's employment by 2035.

Analyzing countywide results from the Marin County Travel Demand Model, Novato residents have a greater share of single-occupant vehicle trips (for commuting to work/school as well as for discretionary trips) than the rest of Marin County and generally ride public transit and walk less. In terms of ride-dependent populations, nearly one-quarter of residents are under 18 and approximately 17 percent are seniors. This concentration can be a strong market for transit service within Novato.

Students are a significant market for transit services in Novato. Novato High School, San Marin High School, and San Jose Middle Schools are easily accessed via fixed route transit services. With the closing of Hill Middle School in the fall, middle school students in Novato will be divided between San Jose Middle School and Sinaloa Middle School.

Aside from Route 71, all local Marin Transit routes that serve Novato operate below the Agency’s productivity goal of 20 passengers per vehicle service hour. When compared with the other routes within the Marin Transit system, Routes 49, 51, and 52 are three of the four lowest performing in the local system.

The Novato Dial-A-Ride functions more efficiently and effectively since the transition from the EZ Rider service in August 2009, with improved ridership and farebox recovery while successfully managing costs.

Outreach

The outreach effort solicited input from over 1100 participants through a variety of survey techniques. A summary of these events is shown in Exhibit ES.1 and includes:

- Fixed-Route Customer Survey
- Dial-A-Ride Customer Survey
- Community Survey
- Public Outreach

Based on the public outreach efforts, staff identified several barriers to transit use and corresponding service and capital improvements to support overall mobility and access to transit in Novato. These improvements include:

- **Bus Stop Improvements.** In terms of capital improvements, many Novato residents indicated a desire for bus stop enhancements including shelters, better route information, safety upgrades, and improved visibility. Some participants also noted that Novato’s lack of sidewalks creates barriers to accessing public transit.
- **Service Enhancements.** Participants shared a general consensus on service enhancements. In each meeting, participants asked that Route 51 operate more frequently as well as earlier in the day. For the Dial-A-Ride service, participants stated that closing the midday service gap as well as expanding service hours will enhance their mobility.
- **Marketing.** Several marketing issues and recommendations were discussed during the meeting. Many respondents were not aware that Marin Transit and Golden Gate Transit are separate operating entities. Participants requested easy to understand passenger information and a one-stop center for transit information.

Service Recommendations

The service recommendations are the product of comprehensive public outreach, operational assessments including ride checks and service evaluations, consultation with Marin Transit, Golden Gate Transit and City of Novato staff, and demographic analysis. In developing this service plan, the project team sought to identify service gaps and opportunities for improved service. The service plan is designed to be optimally responsive to the needs of the community with practical recommendations for sustainable services based on existing Marin Transit resources in Novato.

Exhibit ES.1 Outreach and Survey Summary

Name	Target Audience	Method	Date of Completion	Response Size
Customer Survey	Riders	Onboard Survey	October 26-29, 2010	413
Dial-A-Ride Survey	Riders	Mail	November, 2010	61
Community Survey	Non-Riders	Intercept	February 19, 2011	201
		Online Survey	February 18-March 17, 2011	239
Focus Group #1	Seniors	Roundtable	March 1, 2011	8
Focus Group #2	Low-Income / Limited English #1	Roundtable	March 3, 2011	13
Focus Group #3	Students-San Marin High School	Roundtable	March 15, 2011	3
Focus Group #4	Low-Income / Limited English #2	Roundtable	March 16, 2011	2
Focus Group #5	Hamilton Residents	Roundtable	March 16, 2011	3
Presentation	New Beginnings Center	Presentation	March 16, 2011	35
Community Meeting #1a	Elected Officials and Policymakers, Riders, Non-Riders	Meeting	March 15, 2011	5
Community Meeting #1b	Elected Officials and Policymakers, Riders, Non-Riders	Meeting	March 16, 2011	7
Community Meeting #2	Elected Officials and Policymakers, Riders, Non-Riders	Meeting	May 14, 2011	40
Stakeholder Outreach	Stakeholders*	Phone / email	May & June 2011	10
DRAFT recommendations feedback	Novato Residents - Riders, Non-Riders (participants from earlier surveys)	Online Survey	May 30, 2011	68
			Total:	1,108

*Groups that provided input include: Novato Bike and Pedestrian Advisory Committee, Novato Blue Ribbon Coalition, Novato Unified School District, Novato Chamber of Commerce, College of Marin-Indian Valley Campus, Hamilton Homeowners Association, Marin Grassroots

The improvements target needs in the next five years and are presented in two successive phases, each building upon the last. Each phase represents a “blueprint” for improving and enhancing Marin Transit’s performance and service delivery in Novato. These scenarios include administrative, operational, capital, and marketing recommendations.

Phase 1 Recommendations

The following recommendations are identified for implementation in the next 1-2 years:

- **Improve Reliability of Existing Transit Services** – Enforce a “no-early departure” policy and adjust schedule to account for running time delays
- **Consolidate Local Fixed Route Services (Create New Route 51 from existing Routes 51 and 52)** – Simplify local route structure and create a one-seat ride which connects San Marin to Alameda del Prado
- **Increase Peak Hour Frequency on Local Fixed Route Service (New Route 51)** – Increase peak hour frequencies on new local route 51 from 60 minutes to 30 minutes
- **Increase Span of Service on Local Service (New Route 51)** – Increase span on service on new local route to start service at 6:00 a.m. and operate until 9:30 p.m., expanding the existing span by 2.5 hours
- **Adjust Route 49 Alignment** – Extend route 49 from existing terminus at Ignacio interchange to Redwood and Grant via S. Novato Boulevard and reroute portions in Hamilton to service Bowling Circle and Bowling Drive
- **Introduce Weekend Shuttle Program (Routes 49 and new 51)** – Operate shuttle vehicle on fixed route services in Novato on the weekends. Improvement would include service to San Marin and Ignacio, currently not served on the weekends
- **Close Midday Service Gap for Novato Dial-A-Ride** – operate service during 11 a.m. and 3 p.m.
- **Phase 1 Bus Stop Improvements: Signage and Amenities** – upgrade stop signage and amenities at the high boarding locations
- **Create a Single Ride Guide Specific to Novato Transit Services** – create a Novato-specific ride guide which highlights all transit options available within the community
- **Create Novato-Specific Marketing Campaign** – increase awareness of existing services and proposed changes to service through a focused marketing effort
- **Create Marintransit.org Mobile Device-Compatible Website** – create website for the Agency which is compatible with mobility devices

Phase 2 Recommendations

The following recommendations are identified for implementation in the next 3-5 years:

- **Expand Novato Dial-A-Ride Service Hours** – Operate Novato Dial-A-Ride service from 6:00 a.m. to 8:00 p.m., increasing the current span by 3.5 hour a day.
- **Implement Community Circulator Transit System** – Discontinue operation of routes 49, 51, and 52 and replace with a system of local, shuttle circulators which would operate

on 30-60 minute headways and greatly expand the coverage of transit service within Novato.

- **Support Improved Bicycle and Pedestrian Infrastructure** – Continue to improve and expand bicycle and pedestrian infrastructure to enhance the access to and the safety at bus stops
- **Phase 2 Bus Stop Improvements: Major Transfer Stop Enhancements** – Improve major stops and transfer locations in Novato to increase operational efficiency and improve the safety for passengers

Capital and Funding Plan

Service cost estimates were developed based on Marin Transit’s existing contractor rates and escalation schedules and are consistent with other Bay Area transit operators that purchase transportation services. For this purposes of this report, we selected a possible start date of Fiscal Year 2012/13. For all years beyond this fiscal year, we assumed a three percent increase in inflation for capital costs. Exhibit ES.2 shows cost estimates of each recommendation by phase.

Funding for the recommendations can be obtained through a variety of sources, depending on the nature of the desired improvement. As state and local budget issues have placed some funding sources in jeopardy, transit agencies have developed innovative approaches to secure funding maintain service. Traditional funding sources include the following:

- Transportation Development Act (TDA) and State Transit Assistance (STA) funds.
- Federal Transit Administration (FTA) Section 5307 Operating and Section 5309 Capital funds.
- Marin County Measure A half-cent sales tax funds.
- Prop 1B Public Transportation Modernization, Improvement, and Service Enhancement Account Program (PTMISEA) bond funding, specifically for capital projects.

Pending reauthorization of the Federal transportation law, some new sources of funding for the programs in this Plan include:

- FTA Sections 5316 and 5317
- Sonoma Marin Rail Transit (SMART)
- Homeowners Associations.
- Employers
- Transportation Demand Management (TDM) Program Participants
- College of Marin (Indian Valley Campus).
- Development Agreements

Exhibit ES.2 Recommendations Cost Summary Table

Timeline	Recommendation	Estimated Cost		Type of Improvement	Responsible Entity	Potential Funding Source
		Operating (Annual)	Capital (One-Time)			
Phase 1 Improvements (Within 2 Years)	Improve Reliability of Existing Transit Services	\$500	\$0	Administrative	Marin Transit	N/A
	Enforce a "no early departure" policy	\$500		Administrative		
	Adjust schedules to account for running time delays	Varies		Service		
	Consolidate Local Fixed Route Services (Combine Routes 51 and 52)	(\$973,788)		Service	Marin Transit	Section 5316, Measure A, Section 5307
	Increase Peak Hour Frequency on Local Fixed Route Service (New Route 51)	\$350,921		Service	Marin Transit	
	Increase Span of Service on Local Service (New Route 51)	\$233,947		Service	Marin Transit	
	Adjust Route 49 Alignment	\$219,326		Service	Marin Transit	Section 5316, Measure A, Section 5307
	Introduce Weekend Shuttle Program (Routes 49 and new 51)	\$241,500		Service	Marin Transit	Section 5316, Measure A, Section 5307
	Close Midday Service Gap for Novato Dial-A-Ride	\$59,109		Service	Marin Transit	5316, 5317
	Phase 1 Bus Stop Improvements: Signage and Amenities		\$33,397	Capital	City of Novato and Marin Transit	Development agreements, 5309
	Create a Single Ride Guide Specific to Novato Transit Services		\$5,000	Marketing	Marin Transit	Measure A
	Create Novato-Specific Marketing Campaign		\$40,000	Marketing	Marin Transit	Measure A
	Create Marintransit.org Mobile Device-Compatible Website		Varies	Marketing	Marin Transit	Measure A
Phase 1 subtotal	net	\$131,515	\$78,397			
Phase 2 Improvements (within 5 years)	Extend Novato Dial-A-Ride Service Hours		\$51,720	Service	Marin Transit	5316, 5317
	Implement Community Circulator Transit System	total	\$4,213,224	Service	Marin Transit	Section 5316, Measure A, Section 5307
		net	\$187,644			
	Support Improved Bicycle and Pedestrian Infrastructure		\$395,948	Capital	City of Novato and Marin Transit	Development agreements, general fund
Phase 2 Bus Stop Improvements: Major Transfer Stop Enhancements	\$12,000	\$4,802,500	Capital	Marin Transit	5309, PTMISEA, STIP, Measure A	
Phase 2 subtotal	net	\$251,364	\$5,198,448			

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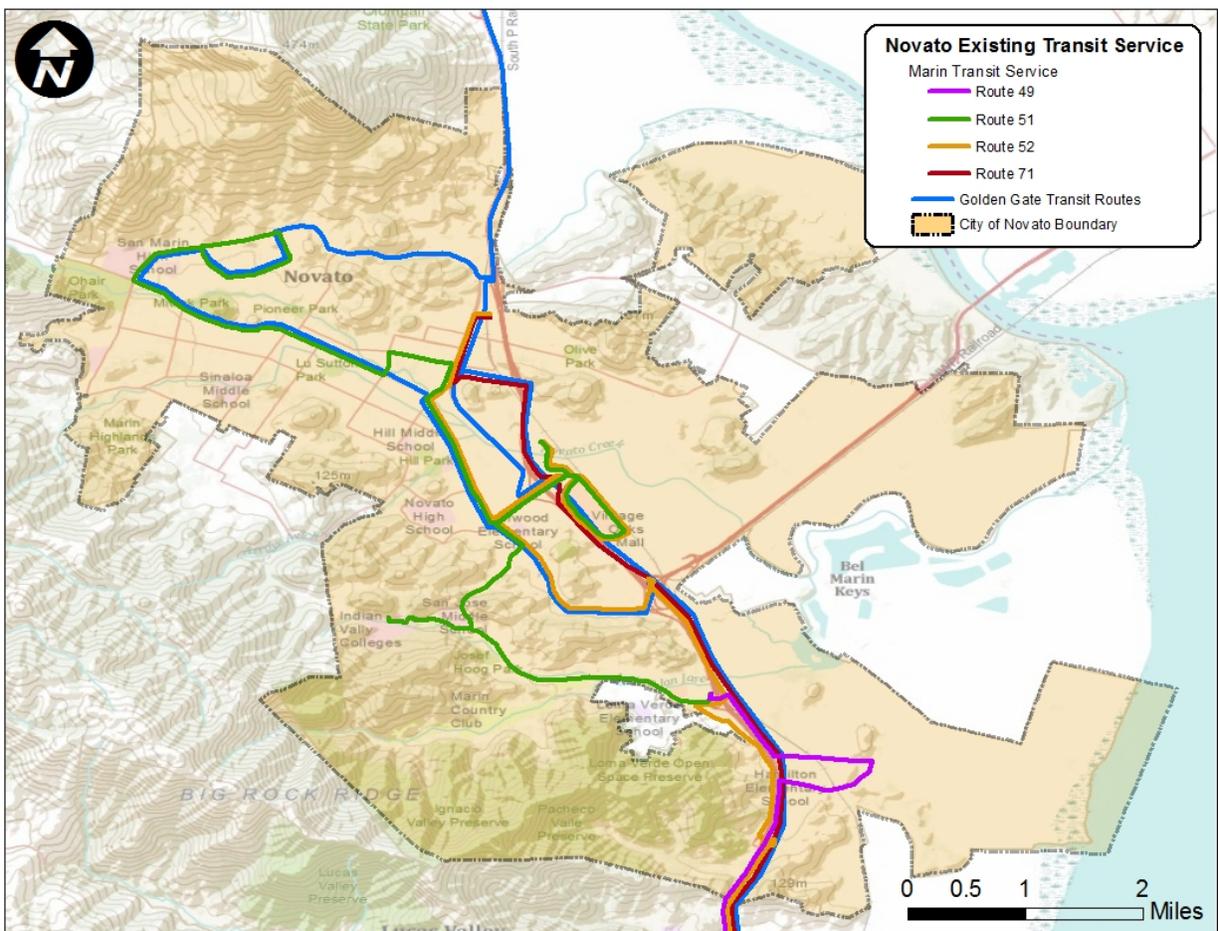
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1. EXISTING
CONDITIONS

CHAPTER 1 – EXISTING CONDITIONS

Incorporated in 1960, Novato is located in northern Marin County and is part of the North Bay region in the San Francisco Bay Area. Novato is 10 miles north of San Rafael and 30 miles north of San Francisco. The city covers an area of approximately 28 square miles and is home to 51,904 residents, making it the largest city in Marin County in terms of size and the second largest in terms of population. Though Novato is considered a “bedroom” community, it boasts some of the largest employers in Marin County. Key employment sectors include biotech and biomedical research, entertainment and media, financial services, healthcare, and retail. Significant employers include Fireman’s Fund Insurance, Novato Unified School District, BioMarin Pharmaceuticals, and Novato Community Hospital. Novato has comparable levels of transit service to other cities and communities within Marin County. Only San Rafael has a greater array of transportation services.

Exhibit 1.1 Transit Services in Novato



Marin Transit contracted with Moore & Associates to develop a Novato Transit Needs Assessment. The purpose of this project is to identify and quantify the mobility needs of the

Novato community and craft a menu of practical, cost-effective solutions that will enhance community mobility and increase transit service productivity. This effort included the following activities:

- Demand analysis featuring demographic and employment forecasts.
- Performance evaluation of those services currently operating in the service area (Marin Transit, Golden Gate Transit, Novato Dial-A-Ride).
- Peer review comparing Marin Transit’s performance to similar systems.
- Ride check of 100 percent of Marin Transit trips operating in the study area to gauge ridership trends and on-time performance.
- Survey of fixed-route (Marin Transit and Golden Gate Transit) customers.
- Web-based survey of Novato Dial-A-Ride customers.
- Survey of the community at-large using three separate methodologies.
- Public outreach via stakeholder workshops, a public meeting, and participation in the *Let’s Move Novato!* event.

This chapter represents a discussion of existing conditions within the study area and is a synthesis of findings identified through the following activities:

- Demand Analysis
- Service Evaluation
- Peer Review
- Ride Check

Complete chapters detailing each of the topics listed above can be found in the appendix to this report.

Demand Analysis

Based on the Marin County Travel Demand Model, Novato is projected to add approximately 1,200 residents between 2009 and 2035. This is a growth rate of two percent over the 26 year period or approximately 0.08% annually, with southern and central portions of Novato growing the most. In contrast, Marin County is projected to grow by more than seven percent over the same time period or 0.3 % annually. Novato will account for a smaller share of the county’s population in 2035 than in 2009.

From analyzing results from the Marin County Travel Demand Model, Novato residents have a greater share of single-occupant vehicle trips (for commuting to work/school as well as for discretionary trips) than the rest of Marin County and generally ride public transit and walk less. This reflects Novato’s low density development patterns, geographic distance from employment centers and limited, curvilinear road network (that is harder to serve via transit).

In terms of ride-dependent populations, nearly one-quarter of residents are under 18 and approximately 17 percent are seniors. This concentration can be a strong market for transit

service within Novato. These populations historically utilize transit services more than the general population. The Marin County Commission on Aging projects the senior population will continue to grow rapidly throughout Marin County as a whole.

Students are a significant market for transit services in Novato. Novato High School, San Marin High School, and San Jose Middle Schools are easily accessed via fixed route transit services. With the closing of Hill Middle School in the fall, middle school students in Novato will be divided between San Jose Middle School and Sinaloa Middle School. Marin Transit should work with Novato Unified School District to monitor student travel needs based on ridership patterns and align its services to best address these needs under federal requirements for school-related services. Marin Transit should also consider class schedules at the Indian Valley Campus of the College of Marin.

Novato has a higher unemployment rate and lower per capita income than Marin County as a whole. Both Novato and the county have lower unemployment and higher incomes than the rest of California. The central and southeastern portions of Novato (Ignacio and Hamilton) have the largest concentration of lower-income households. A higher percentage of Novato residents spent 30 percent or more of their annual income on mortgage or rent payments compared to either Marin County or the state. As Novato residents are spending a larger share of their incomes on housing, transit use is an attractive option for reducing transportation-related costs (particularly as gas prices increase).

In 2009, Novato accounted for approximately 21 percent of the total employment in Marin County which is projected to increase and account for 29 percent of total employment by 2035. This growth in employment has several important implications for providing transit services including demands for more express services, more single-seat transit options, better connections with the regional transportation and transit network, and improved mobility within Novato.

Based on a review of origin and destination data, the majority of intra-county trips occur between San Rafael and Novato or within Novato. The heavy intra-county travel in Marin County is expected to continue through 2035, with only San Francisco emerging as a top 10 destination outside Marin County. Given the significant level of travel (both current and projected) within the city of Novato, as well as between Novato and other Marin County communities, Marin Transit should focus on intracounty service while tailoring the level of service on transit lines operating within Novato to link residents with employment centers.

Service Evaluation

The service evaluation is a comprehensive analysis of Marin Transit's day-to-day operations that provides a snapshot of existing conditions. This analysis of system performance identifies operational successes and areas for improvement.

In 1964 Marin County residents voted to create the Marin County Transit District (Marin Transit). Within Novato, Marin Transit contracts with Golden Gate Transit to operate its fixed-route services and Whistlestop Wheels to operate the Novato Dial-A-Ride service. Golden Gate Transit also operates several regional routes in Novato that function as commuter and long-haul services linking Novato with Sonoma and San Francisco counties.

Operational data for both Marin Transit and Golden Gate Transit was obtained for operations in Novato. These routes include Marin Transit Routes 49, 51, 52, and 71 and Golden Gate Transit Routes 54, 56, 58, 70, 80, 101 and the Novato Dial-A-Ride program. The data covers fiscal years 2007/08 through 2009/10. Data compiled from field observations supplemented quantitative data to provide insight into day-to-day operations.

Overall ridership on GGT regional bus service declined over the two fiscal years while Marin Transit local ridership increased on all its big bus routes except Route 49. The District should consider implementing additional marketing campaigns and strategic service enhancements to maintain this trend in local transit use. Marin Transit's farebox recovery ratio for fixed-route service rose from 23 to 26 percent.

Aside from Route 71, all local Marin Transit routes that serve Novato operate below the agency's productivity goal of 20 Passengers/per vehicle service hour. When compared with the other routes in the Marin Transit system, the routes 49, 51, and 52 are three of the four lowest performing in the local system.

The Novato Dial-A-Ride functions more efficiently and effectively since the transition from the EZ Rider service in August 2009, with improved ridership and farebox recovery while successfully managing costs.

Golden Gate Transit's farebox recovery ratio was also above the 20 percent, though a weak economy reduced demand for commuter trips and service cuts resulted in declining ridership. Many respondents indicated in the Customer Survey the desire for more commuter bus service.

Peer Review

The consultant conducted a peer review to compare Marin Transit's performance for service within Novato with similar transit operators utilizing a quantitative methodology for assessing how efficiently and effectively a public transit agency provides service compared to peer transit providers. *Effectiveness* is defined as the extent that a service is achieving its intended goals, while *efficiency* is the amount of resources required to achieve the reported outcome.

The analysis examines the level of service each peer agency provides relative to the size of its service area and the number of persons residing therein. The peers include the Cities of Arcadia, Chula Vista, Petaluma, Roseville; and the Santa Cruz Metropolitan Transit District's service within the city of Watsonville. All peer data reflect actual FY 2008/2009 performance.

Compared to these peer agencies, Marin Transit is less cost-effective as measured by Operating Cost per vehicle service hour and Operating Cost per service mile, but has the second-lowest Operating Cost per Passenger. This indicates that while it may be more expensive for Marin Transit to put service on the road, it serves more riders for every dollar spent. Marin Transit's Passengers per service hour and Passengers per service mile indicators were also well above the peer average, indicating the services are performing well. Marin Transit is collecting the second-highest fare per passenger (\$1.11) in the peer group.

Ride Check

The consultant conducted a 100-percent ride check of all Marin Transit routes between September 20 and October 28, 2010. For the Novato Transit Needs Assessment, the team focused solely on those routes serving Novato: Routes 49, 51, 52, and 71. By analyzing ride check data, a snapshot is formed of current system activity and service delivery performance. The ride check was conducted under actual operating conditions and counted a total of 225 trips in Novato spread across all day-parts.

The ride check analysis revealed several key findings:

- **On-time performance is an issue for each Marin Transit route serving Novato.** In most cases, late departures caused the greatest decline in on-time performance yet early departures were also prevalent. The project team recommends Marin Transit enforce a “no early departure” policy.
- **In terms of boarding and alighting activity, Route 71 is the most productive of the Marin Transit routes.** Route 71 connects to several major transit centers (San Rafael, Marin City, and Novato).
- **Routes serving Novato (49, 51, and 52) are among the least productive routes in the Marin Transit network.** Alternative forms of service delivery should be explored for Novato that optimize agency resources and better serve existing and future demand for transit service.

2

2. OUTREACH AND NEEDS ASSESSMENT

CHAPTER 2 – OUTREACH AND NEEDS ASSESSMENT

This chapter is a synthesis of findings identified through the following survey and outreach activities conducted within Novato during the planning process. A summary of these events is shown in Exhibit 3.1 and includes:

- Fixed-Route Customer Survey
- Dial-A-Ride Customer Survey
- Community Survey
- Public Outreach

Complete chapters detailing each of the outreach activities can be found in the appendix to this report. This chapter summarizes those findings most critical to the needs of Novato residents.

Fixed-Route Customer Survey

The consultant conducted fixed-route customer surveys onboard Marin Transit and Golden Gate Transit buses traveling through Novato as well as at the downtown Redwood/Grant transfer point between October 26 and October 29, 2010. The survey had several objectives:

- Develop a demographic profile of transit riders through the study area,
- Codify current rider travel patterns,
- Assess customer satisfaction,
- Identify and prioritize potential service enhancements, and
- Identify marketing and outreach preferences.

In total 413 valid survey forms were collected, which represents a statistically-valid sample with a 95-percent confidence level and a +/- five-percent margin of error. Following collection of the surveys, the project team entered the results into the Statistical Package for the Social Sciences (SPSS) and ran frequencies and cross-tabulations.

Exhibit 3.1 Outreach and Survey Summary

Name	Target Audience	Method	Date of Completion	Response Size
Customer Survey	Riders	Onboard Survey	October 26-29, 2010	413
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Key findings from the fixed-route customer survey include:

- Only 61 percent of respondents are employed (full or part time), and approximately 15 percent are students.
- As many as 76 percent of respondents lack access to a personal vehicle, indicating there is an opportunity for Marin Transit to expand its service offerings to attract more choice riders.
- Approximately 65 percent of respondent households earn less than \$20,000, well below the Novato median household income of \$81,000.
- Work was the most frequently-cited trip purpose (47 percent), followed by Recreation/Social (17 percent) and School (10 percent).
- More than half of all respondents (53 percent) stated they use the bus five or more times per week, indicating customers in Novato use public transit as a viable commute option.
- More than 46 percent of respondents cited a lack of other travel options as their primary motivation for taking public transit, more than twice the number of respondents who used public transit because of convenience (27 percent).
- Approximately 65 percent of respondents indicated walking to and from the bus stop, while 19 percent indicated transferring from another bus service. This reinforces the importance of improving bicycle and pedestrian infrastructure along streets feeding into the transit route network.
- Very few (7 percent) riders use more than two buses to complete a given trip. The remainder is evenly split between using one or two buses.
- There is a direct relationship with length of patronage and frequency of use (i.e., those using the system for a long time ride often and first-time users ride much less often).
- Those using the service for work and school-related trips use the service more often than those using it for other purposes.
- The vast majority of riders (75 percent) use cash to pay their fare despite the savings associated with Clipper or non-cash media.
- Service span had the highest dissatisfaction rating (18 percent); followed by on-time performance (18 percent); and proximity of bus stop to home (17 percent).
- A quarter of respondents wanted more peak-hour service while a similar amount wanted more routes/extended service area. More weekend service (Saturday and Sunday) combined for over 34 percent of respondents with each day splitting nearly evenly.
- Most respondents (56 percent) indicated a willingness to pay higher fares for the desired service improvement (it is important to note this finding relates to riders on both Marin Transit and Golden Gate Transit, which has higher fares than Marin Transit).

[Dial-A-Ride Customer Survey](#)

The consultant conducted a survey of Novato Dial-A-Ride customers between November 1 and November 15, 2010. The survey had several objectives:

- Develop a demographic profile of Novato Dial-A-Ride customers,
- Codify current rider travel patterns,
- Assess customer satisfaction,
- Identify and prioritize potential service enhancements, and
- Identify marketing/public communications preferences.

The consultant utilized the Novato Dial-A-Ride customer database provided by Whistlestop Wheels to create the survey pool. The project team then mailed survey forms to each person on the list for a total of 213 potential respondents. We received 61 valid responses that translates to a 30-percent response rate. This response rate is significant enough to draw conclusions about the average Dial-A-Ride customer.

Key findings from the Dial-A-Ride customer survey include:

- While the Novato Dial-A-Ride is a general-public service, more than 80 percent of respondents are retired.
- As many as 83 percent of respondents do not have access to a personal vehicle, indicating the ridership base for the service is largely ride-dependent, consistent with general-public demand-response systems in general.
- More than 72 percent of respondent households earn less than \$34,000 annually.
- Recreation/social was the most frequently-cited trip purpose at just over 40 percent, work ranks as the least-common trip purpose (7.1 percent).
- Respondents were nearly evenly split between those riding less than once per month (37 percent) and those who use the service between two to four times per week (41 percent).
- Nearly 35 percent schedule trips one to two days in advance while nearly a quarter attempt to schedule their trip for the same day.
- Nearly 35 percent of respondents stated they would use a taxi to access their destinations if the Novato Dial-A-Ride was not available, while 30 percent stated they would use the Marin Access/Novato Health Express service. More than 15 percent indicated they would not make the trip, meaning the trip is discretionary or they do not have other options.
- Approximately 80 percent of respondents indicate they do not use the service to transfer to other services, while about 14 percent indicated they transfer to either Marin Transit or Golden Gate Transit.
- Only 7.7 percent of respondents fell into the adult fare category, meaning 92.3 percent of riders receive some form of discount fare.
- The service enhancement preferred by the majority of respondents (57.5 percent) is expanded service hours.
- As many as 82 percent of respondents indicated they would support a fare increase in the event the desired service enhancement was implemented.

Community Survey

The consultant conducted a general public survey in Novato using three separate techniques:

- Intercept survey,
- Online survey, and
- Focus groups.

For the intercept survey, staff went to several locations throughout Novato to conduct surveys in person. Between February 17 and February 20, 2011, a total of 201 responses were collected.

The second technique was an online version of the survey. A random-sampling methodology was utilized to generate a database of residential addresses throughout Novato. Bilingual postcards promoting the online survey were mailed to 2,000 households. Over the five-week period 260 residents took the survey, representing a 12-percent postcard response rate.

The third technique was collecting surveys from attendees of focus groups. The focus groups took place during the weeks of February 28 and March 14, 2011. The consultant collected 29 surveys via participants at the meetings and focus groups. In total, the team collected 490 valid responses.

The survey had several objectives:

- Assess overall community mobility preferences,
- Identify gaps in service and barriers to use, and
- Identify and prioritize potential transit service enhancements

Key findings from the community survey include:

- About 58 percent of respondents are employed and of those 58 percent, approximately 43 percent work in Novato.
- In contrast to the customer survey results, nearly 82 percent of respondents indicated they had access to a personal vehicle.
- More than 50 percent of those without access to a personal vehicle utilize Marin Transit or Golden Gate Transit for their mobility.
- The 94947 (western and central Novato) and 94949 (Hamilton/Ignacio) ZIP codes reported higher use of Golden Gate Transit than the general survey population.
- About 19 percent of respondents indicated difficulty in accessing work or employment opportunities, 30 percent of whom are already customers.
- About 58 percent of Novato residents had not used public transit within 90 days prior to taking the survey.
- The vast majority of those who use transit primarily use Golden Gate Transit (70 percent) followed by Marin Transit (15 percent). However, it is difficult to separate those who use Golden Gate Transit from those who use Marin Transit local service but assume it is Golden Gate Transit's responsibility.

- A significant number of respondents were dissatisfied with the convenience of the transit services as well as the trip duration. These are clear barriers to use and must be addressed to attract choice riders.
- Approximately one-quarter of respondents stated “nothing” would encourage them to start using transit or to use it more. This figure is typically 33-percent or higher in other communities. This indicates that the community has a significant number of potential “choice” riders who would be willing to use transit if certain enhancements were made.
- Providing better connections to destinations outside of Marin (i.e., improve commuter services) was the most popular service enhancement requested followed closely by expanded service area.
- Many respondents indicated the need for expanded and more frequent commuter service as well as rapid transit options in the Highway 101 corridor.

Public Outreach

The project team facilitated five focus groups, two community workshops, participated in the *Let's Move Novato!* event, and conducted a brief community survey regarding preferred service enhancements. The focus groups were held during the weeks of February 28 and March 14. The workshops were held during the week of March 14 and the *Let's Move Novato!* event was on Saturday, May 14, 2011.

The focus groups targeted seniors, low-income residents, residents with limited-English proficiency, youth, and residents of the Hamilton neighborhood. The focus groups addressed each attendee's perspective on public transit in Novato. These meetings yielded important feedback regarding service issues and potential enhancements to address shortcomings.

The project team also reached out to various stakeholder groups representing specific interests within the community. Meetings and discussions were held with the City of Novato's Bicycle and Pedestrian Advisory Committee, Novato Unified School District, the College of Marin Indian Valley Campus, the Blue Ribbon Coalition for Youth, the Hamilton Homeowners Association, and Marin Grassroots. Input on transit issues specific to these organizations were collected and included in the needs assessment.

Based on the public outreach efforts, staff identified several barriers to transit use and corresponding service and capital improvements to support overall mobility and access to transit in Novato. These improvements include:

- **Bus Stop Improvements.** In terms of capital improvements, many Novato residents indicated a desire for bus stop enhancements including shelters, better route information, safety upgrades, and improved visibility. Some participants also noted that Novato's lack of sidewalks creates barriers to accessing public transit.

- **Service Enhancements.** Participants shared a general consensus on service enhancements. In each meeting, participants asked that Route 51 operate more frequently as well as earlier in the day. For the Dial-A-Ride service, participants stated that closing the midday service gap as well as expanding service hours will enhance their mobility.
- **Marketing.** Several marketing issues and recommendations were discussed during the meeting. Many respondents were not aware that Marin Transit and Golden Gate Transit are separate operating entities. Participants requested easy to understand passenger information and a one-stop center for transit information.

3

3. SERVICE PLAN

CHAPTER 3 – SERVICE PLAN

The service recommendations are the product of comprehensive public outreach, operational assessments including ride checks and service evaluations, consultation with Marin Transit, Golden Gate Transit and City of Novato staff, and demographic analysis. In developing this service plan, the project team sought to identify service gaps and opportunities for improved service. The service plan is designed to be optimally responsive to the needs of the community with practical recommendations for sustainable services based on existing Marin Transit resources in Novato.

The improvements target needs in the next five years and are presented in two successive phases, each building upon the last. Exhibit 3.1 shows a summary of each recommendation by phase. Each phase represents a “blueprint” for improving and enhancing Marin Transit’s performance and service delivery in Novato. These scenarios include administrative, operational, capital, and marketing recommendations.

Exhibit 3.1 Recommendations Summary Table

Timeline	Recommendation	Type of Improvement	Responsible Entity
Phase 1 Improvements (Within 2 Years)	Improve Reliability of Existing Transit Services	Administrative	Marin Transit
	Enforce a "no early departure" policy	Administrative	
	Adjust schedules to account for running time delays	Service	
	Consolidate Local Fixed Route Services (Combine Routes 51 and 52)	Service	Marin Transit
	Increase Peak Hour Frequency on Local Fixed Route Service (New Route 51)	Service	Marin Transit
	Increase Span of Service on Local Service (New Route 51)	Service	Marin Transit
	Adjust Route 49 Alignment	Service	Marin Transit
	Introduce Weekend Shuttle Program (Routes 49 and New Route 51)	Service	Marin Transit
	Close Midday Service Gap for Novato Dial-A-Ride	Service	Marin Transit
	Phase 1 Bus Stop Improvements: Signage and Amenities	Capital	City of Novato and Marin Transit
	Create a Single Ride Guide Specific to Novato Transit Services	Marketing	Marin Transit
	Create Novato-Specific Marketing Campaign	Marketing	Marin Transit
Create Marintransit.org Mobile Device-Compatible Website	Marketing	Marin Transit	
Phase 2 Improvements (within 5 years)	Extend Novato Dial-A-Ride Service Hours	Service	Marin Transit
	Implement Community Circulator Transit System	Service	Marin Transit
	Support Improved Bicycle and Pedestrian Infrastructure	Capital	City of Novato and Marin Transit
	Phase 2 Bus Stop Improvements: Major Transfer Stop Enhancements	Capital	Marin Transit
Phase 2 Alternatives Considered but Not Recommended	Fixed-Route with Transfer	Service	Marin Transit
	Fixed-Route without Transfer	Service	Marin Transit

- **Phase 1 Improvements** are improvements that are feasible to implement in the next 1-2 years with minimal cost, or cost-neutral, implications. Consolidating and restructuring local service provides opportunities for increased frequencies, extended service hours, continued expansion of the Dial-A-Ride service hours, and extension of the fixed route service to provide a more direct link between Hamilton and the rest of Novato. Marketing recommendations include implementing a Novato-specific transit marketing campaign, developing a Novato transit ride guide, and creating a mobile device-compatible website. Capital improvements focus on enhancements to bus stop signage and amenities.
- **Phase 2 Improvements** incorporate the recommendations included in the phase 1 plus additional enhancements that may be feasible to implement over the next five years. In terms of transit operations, the first step is a comprehensive reassessment of how service is delivered based on the changing needs of Novato. To achieve this, the project team evaluated three separate approaches to the implementation of operational changes. In the first, Marin Transit eliminates all existing local fixed-route service in Novato and implements a Community Circulator concept that includes zone-based routes and timed transfers. Peak-hour frequency would increase to 30 minutes with off-peak and weekend frequencies at 30 to 60 minutes. The Novato Dial-A-Ride would continue to exist but qualifications to use the service would be tightened to include the senior and ADA community as well as those geographically not served by the circulator alignments.

A second operational scenario would be to implement more frequent service on the existing transit network. Peak-hour frequencies would increase to 15 or 20 minutes, with off-peak service at 30 minutes to 60 minutes.

A third operational scenario would be to implement a fixed-route service with limited stops within the city and increased direct service to the San Rafael Transit Center. This scenario features 30-minute headways during peak periods and 60-minute headways during off-peak periods. Each region of Novato would have its own direct route to the San Rafael Transit Center. The Novato Dial-A-Ride would provide local service within Novato.

Longer-term capital improvements focus on major bus transfer points, including Redwood and Grant in downtown Novato and the southern transfer locations along Highway 101 at Ignacio and Rowland. Initial planning work has already been completed in these areas.

The following describes recommendations included within each alternative along with their relative merits. Alignment or schedule changes are accompanied by exhibits that illustrate the proposed changes.

Phase 1 Improvements

In this scenario, the project team proposes several low-cost or cost-neutral operational, administrative, capital, and marketing enhancements:

Administrative Recommendations

1. Improve Reliability of Existing Transit Service

Schedule reliability is a function of early departures and late arrivals of vehicles based on the agency's published timetables. Early departures resulted in considerably reduced on-time performance for all Marin Transit routes serving Novato. While late departures were the primary factor impacting program on-time performance, early departures are entirely preventable and are generally more inconvenient for passengers.

To remedy early departures, the project team recommends Marin Transit work with its contractor to enforce a "no early departure" policy across all published time points. This will substantially improve on-time performance, service quality, and customer satisfaction. This recommendation will have negligible costs and is easily incorporated into routine driver training and staff meetings.

Although early departures are relatively easy to fix with few resources, late arrivals are the single largest cause of diminished on-time performance. Late arrivals were particularly acute during the evening peak day-part and during the middle part of the trip segment.

Since all routes experienced a significant number of late arrivals in the 2010 ride check analysis, the project team recommends that Marin Transit adjust the operating schedule in these sections by re-timing existing schedules, removing unproductive stops or trip segments, or adding several minutes of operating time to the runs. The late arrivals may be due to congestion rather than driver performance. Adjusting the schedules will give patrons a more realistic expectation of when the bus will arrive, thereby improving public perception of the service.

Given a ride check evaluation will be conducted again in 2011 and 2012, the project team recommends Marin Transit use those opportunities to monitor specific areas where service may be unreliable and note factors

that impact the driver's performance. Staff also recommends that Marin Transit work with its contractor to ensure on-time performance standards are achievable and consistent with similar agencies.

Service Recommendations

1. Consolidate Local Fixed Route Services (Combine Routes 51 and 52)

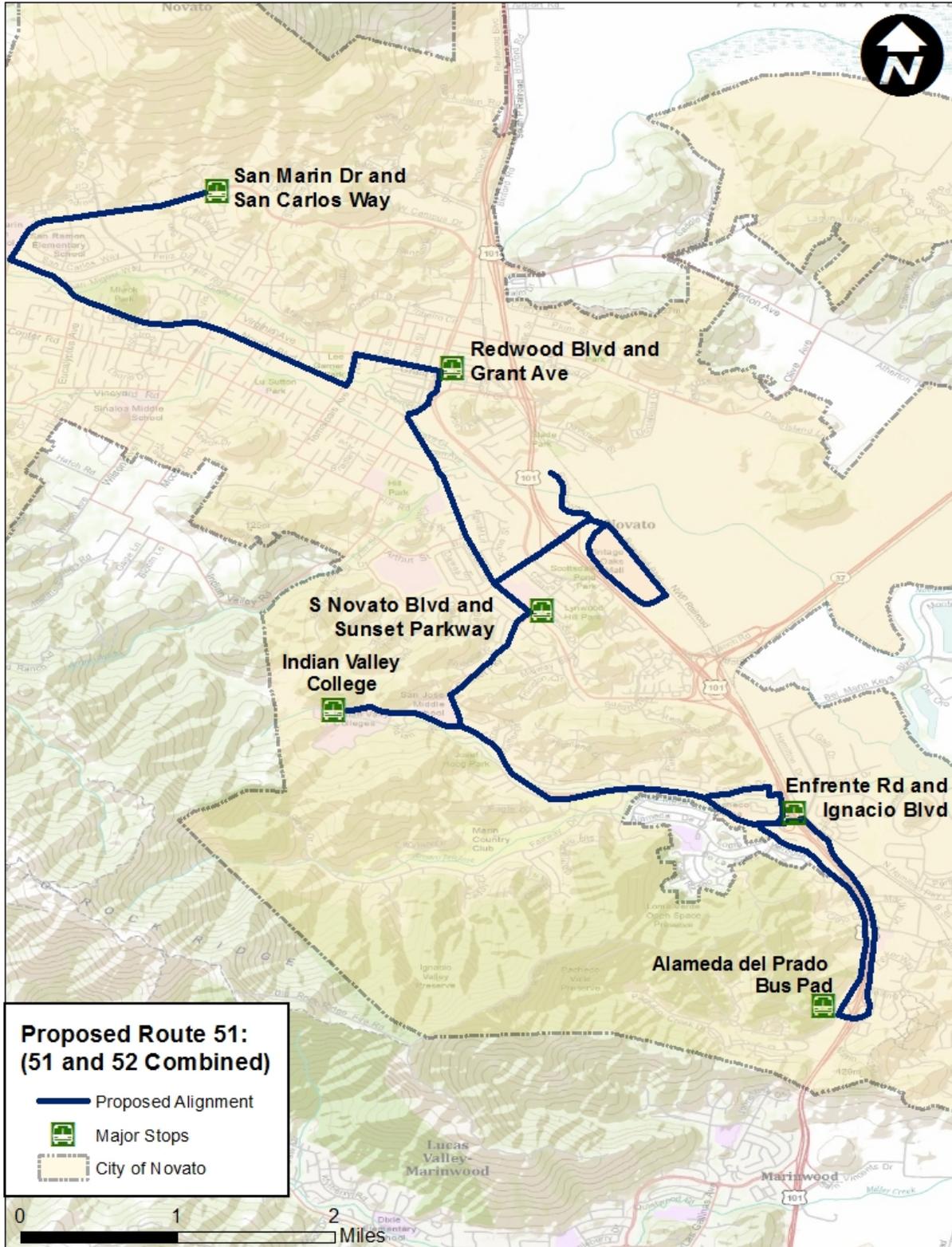
Routes 51 and 52 provide the majority of local service in Novato. Combining the two routes into a new Route 51 will provide a seamless connection between the northern, central, and southern portions of the City. This simplified route system will enable one seat bus service between San Marin, downtown Novato, Ignacio, and Alameda Del Prado.

Given Routes 51 and 52 serve much of the same area, Marin Transit will decrease operating costs by combing these routes while improving local service (see phase 1 service recommendations #2, #3, #4 and #5 below).

The proposed realigned Route 51 Northbound would serve the Alameda Del Prado corridor on the west side of Highway 101. It would then stop at Ignacio Boulevard and follow the current 51 route alignment to the Indian Valley Campus of the College of Marin, Vintage Oaks Shopping Center, and the Novato Community Hospital. Route 51 would then continue back to Novato Boulevard and head north to the downtown Redwood and Grant transfer point. Route 51 would then finish its northbound trip along its current alignment to serve the San Marin neighborhood. See Exhibit 3.6 for a proposed route map.

Ride check and farebox data reveal students make up a high percentage of the ridership on Routes 51 and 52 (40 percent and 30 percent of weekday ridership, respectively). Much of this ridership is concentrated among a few trips that serve the morning and afternoon school bell times while much of the day these vehicles carry few riders. This presents an opportunity for Marin Transit to explore use of different fleet sizes to target contrasting levels of demand. It will benefit Marin Transit to analyze ride check data to identify those routes and day parts where productivity is below 30 Passengers per vehicle service hour and could benefit from the use of smaller, shuttle-type vehicles.

Exhibit 3.6 Recommended Route 51 Realignment



2. **Increase Peak-Hour Frequency on Local Fixed Route Service (New Route 51)**

The Onboard Survey and Community Survey revealed many patrons use Marin Transit for commuting. This suggests that Marin Transit could attract additional riders (or attract existing riders to ride more frequently) if Route 51 had increased peak-hour frequency.

Route 51 operates on one-hour headways, which is inconvenient except those most dependent on the service. Increasing peak-hour frequency to 30 minutes between 6:00 a.m. and 9:00 a.m. and 3:00 p.m. to 6:00 p.m. would improve connections with other Marin Transit Local and Golden Gate Transit routes to reach employment centers outside of Novato.

3. **Increase Span of Service (New Route 51)**

Given the sizeable student ridership on Route 51, the project team recommends that Marin Transit adjust its service hours to meet early morning bell times at the Novato high schools and late night class schedules at Indian Valley College. Some schools in Novato have bell times as early as 7:10 a.m., making the current 6:53 a.m. northbound start time for the route inconvenient for some.

The project team recommends Marin Transit start northbound service around 6:00 a.m. and operate the last trip to Indian Valley College at 9:30 p.m. Adding service at these times should provide better opportunities for students to use transit.

4. **Adjust Route 49 Alignment**

The northbound Route 49 terminates at the Ignacio transfer point where riders must transfer to either Route 51 or 52 to reach the rest of Novato. The project team recommends extending Route 49 north to Downtown Novato, terminating at Redwood and Ranch. This new route alignment would travel the current 52 route along South Novato Boulevard with connections at the downtown Redwood and Grant transfer point. This location has the highest level of bus passenger activity in Novato.

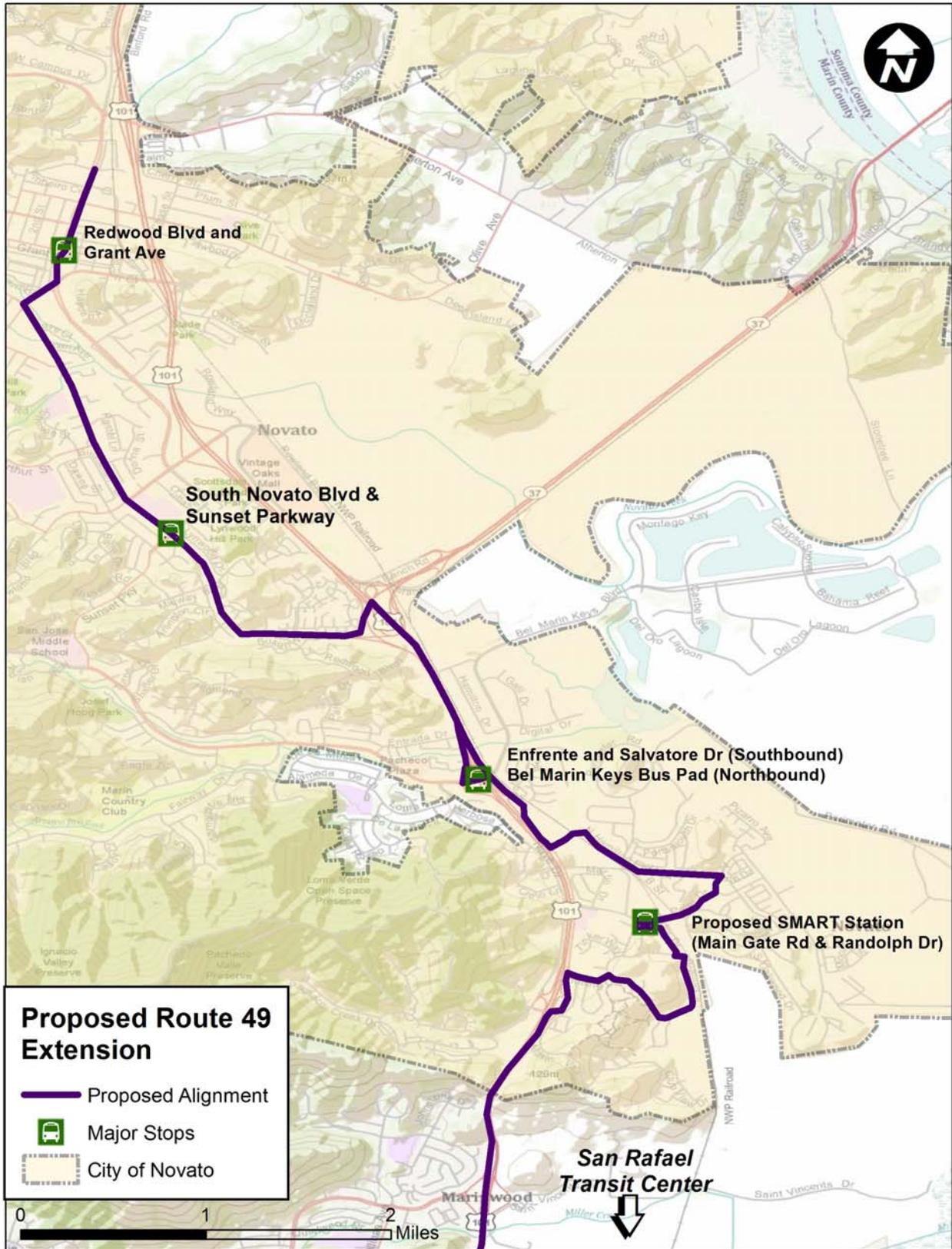
Within Hamilton, the Route 49 alignment is proposed to be modified to penetrate deeper into the neighborhood and serve many of the higher density, low-income neighborhoods. This realignment would include service along Bowling Circle with connections to Main Gate via Randolph Drive and Nave Drive via Bowling Drive.

Route 49's alignment south of Novato would be adjusted to more closely serve ridership demand and reduce travel time to the San Rafael Transit Center. Between the San Rafael Civic Center and San Rafael Transit Center, the consultant proposes that Route 49 would use Highway 101 and bypass local service east of Highway 101.

The extension of Route 49 to Redwood Boulevard and Grant Avenue provides the first seamless connection between the Hamilton neighborhood and downtown Novato. Elimination of local routing along Grand Avenue near the Dominican University in San Rafael streamlines the service and would reduce travel time by 10 minutes per trip. Route 49 service in this area overlaps with the Marin Transit Santa Venetia Shuttle (Route 233). Costs savings associated with trimming 10 minutes from Route 49 could be applied toward increasing frequency on Route 233 to every 30 minutes (from every 60 minutes).

Exhibit 3.7 shows the recommended new alignment.

Exhibit 3.7 Recommended Route 49 Realignment



5. **Introduce Weekend Shuttle Program (Routes 49 and New 51)**

Currently, there is no weekend service on Route 51 and the Route 52 weekend service terminates at Ignacio, leaving areas of San Marin and Alameda Del Prado without service. While full roll-out of the Community Circulator system in Novato is a suggested phase 2 recommendation, the project team recommends that Marin Transit introduce a shuttle service on the weekend in Novato as a pilot program in the near-term (next 1-3 years). The impetus for implementing this service as a weekend pilot program is in part to determine whether a shuttle-based service would realize cost savings over using larger buses and evaluate how riders respond to the service.

The current weekend service in Novato features Routes 49, 52, and 71 as well as Golden Gate Routes 70, 80, and 101 (Sunday service on 101 starting September 11, 2011). Based on typical rates for shuttle contractor service, replacing the existing local fixed-route service in Novato with a series of community circulator shuttles would result in a higher level of service at a lower cost per hour of service. Implementing the service on the weekend would also ensure smaller vehicles could be used as there would be no large loads associated with school trips that would require the use of larger buses with higher capacity. Weekend service with larger bus operations will continue on Routes 70, 71, 80, and 101. The proposed shuttle service would start at 7:30 a.m. and continue until 7:30 p.m., and continue hourly throughout the day.

6. **Close the Midday Service Gap for the Novato Dial-A-Ride**

According to the Marin County Commission on Aging, the senior population in Marin County is projected to grow faster than the overall population¹. This will increase demand for alternative means of transportation, particularly demand-response services such as the Novato Dial-A-Ride.

The Novato Dial-A-Ride currently has a four-hour service gap during the middle of the day (11:00 a.m. – 3:00 p.m.). This gap impacts the ability for Novato residents, particularly seniors and persons with disabilities, to make shopping trips, medical visits, or any other recreational/social activities during this time.

¹ Marin County Commission on Aging, *Live Long, Live Well: A Strategic Plan for Aging Services in Marin County: 2004-2014*

Given the public and customer support observed in the Community Survey and Dial-A-Ride Customer Survey, the project team recommends Marin Transit close the midday service gap during weekday service. The project team believes this would encourage more Novato residents to use the service and would significantly enhance the convenience of the service for existing customers.

Capital Recommendations

1. Phase 1 Bus Stop Improvements: Signage and Amenities

Besides the buses themselves, bus stops are the most visible aspect of a transit service in a community. Currently, bus stops in Novato – with the exception of the major transfer points – are unimproved and lack clear signage.

The project team recommends Marin Transit do an initial investment to upgrade bus stops to include (at a minimum) signage indicating the route number, stop ID, and destination. The minimum level of improvement should be at all bus stops regardless of boarding and alighting activity.

For the top 20 stops in passenger activity (shown in Exhibit 3.3), Marin Transit should implement bus benches, trash/recycling receptacles, route and destination signage as well as schedule information and bus shelters. In addition, any rider information displayed at these locations should be provided in both English and Spanish.

Taken collectively, these improvements should improve patrons' perceptions of the service (i.e., convenience, comfort, safety) as well as improve actual access to the system. In other words, more information will help patrons – especially those with limited experience with the service – navigate the transit system more easily.

Exhibit 3.3 Recommended Bus Stop Improvements

Stop Location	Boarding	Alighting	Passenger Activity	Recommended Improvement
Redwood Boulevard & Grant Avenue	347	266	613	Bike lockers
Enfrete Road & Salvatore Drive	249	144	393	Bike lockers; route information
US HWY 101 & Alameda del Prado Bus Pad	122	56	178	Bike lockers; route information
US HWY 101 & Bel Marin Keys Boulevard Bus Pad	75	96	171	Route information
S. Novato Boulevard & Arthur Street	65	89	154	Route signage; route information; bike racks
Redwood Boulevard & Olive Avenue	93	55	148	Route signage; route information; bike racks
S Novato Boulevard & Redwood Boulevard	75	69	144	Bus Shelter; bus bench; bike racks; route information
S Novato Boulevard & Sunset Parkway	42	64	106	Bus Shelter; bus bench; bike racks; route information
Rowland Boulevard & Vintage Oaks Entrance	40	53	93	Route information
US HWY 101 SB On Ramp & Rowland Boulevard	81	12	93	Route information
S Novato Boulevard & Diablo Avenue	40	50	90	Bike racks; route information
San Marin Drive & San Carlos Way (SMHS)	68	2	70	Bike lockers; route information
Hamilton Theater Parking Lot	30	31	61	Bus bench; route information
S Novato Boulevard & Rowland Boulevard	38	23	61	Bike racks; bus bench; route information
Nave Drive & Bolling Drive	31	27	58	Route information
Hamilton Parkway & Marin Airporter	46	10	56	Route information
Rowland Boulevard & Rowland Way	37	18	55	Route information
Vintage Way & Fresh Choice	38	8	46	Route information
US HWY 101 NB On Ramp & Rowland Boulevard	2	41	43	Route information
Nave Drive & New Hamilton Road	11	31	42	Bike racks; route information

Marketing Recommendations

1. Create a Single Ride Guide Specific to Novato Transit Services

Currently there is a master Transit Guide for Marin County showing all Marin Transit and Golden Gate Transit bus and ferry routes. Additionally, there is a ride guide specific to the Novato Dial-A-Ride service. The project team recommends Marin Transit create a ride guide that focuses on the transit services provided specifically in Novato. The project team thinks this would help patrons better navigate the system within Novato as well as improve awareness about how the existing services within Novato connect to areas outside the city. The ride guide should include route maps, a regional transit map similar to the one in the master Transit Guide, schedules, contact information, and fare schedules. The ride guide should also include information about how to use the Novato Dial-A-Ride.

2. Create Novato-Specific Marketing Campaign

One of the largest barriers to use of transit service in any community is a combination of lack of awareness of the service as well as a lack of clear understanding regarding the benefits transit provides with respect to cost savings, convenience, and the environment. This is particularly true in Novato, where a sizeable portion of the population relies upon their personal vehicles for the majority of their commute-related and discretionary trips.

The project team recommends that Marin Transit, in partnership with the City of Novato, implement a marketing plan starting in FY 2011/12. This marketing plan should be Novato-specific, and its scope would depend in large part on the scale and scope of planned service adjustments within the community. In the short-term as Marin Transit makes relatively minor tweaks to existing services, the marketing plan should focus on educating the community regarding the general benefits of using transit versus their personal vehicles. As service improves and the community circulator system is introduced on the weekends, marketing efforts should be more intensive and focus on educating the public on how to use the new system and how it will benefit them. In the longer-term, marketing efforts should be used to support the ultimate transition toward a full roll-out of the community circulator system across the entire service week. Some or all of the costs associated these marketing efforts could be recouped through increased ridership and fare revenue.

The Marketing Plan should include the following:

- Target Markets
 - Primary and secondary,
 - Demographic, and
 - Geographic.
- Situation Analysis
 - Strengths and weaknesses, and
 - Opportunities and threats.
- Mission and Objectives
- Advertising Plan
 - Print media,
 - Outdoor media,
 - Social media and
 - Direct mail.
- Public Communications
 - Community outreach,
 - Partnerships,
 - Feature articles and
 - Special event participation.
- Implementation Timeline
- Assessment Mechanism

3. Create MarinTransit.org Mobile Device-Compatible Website

Given the large number of cell phone users and the increasing popularity of “smart phones” and personal tablets, Marin Transit should consider creating a mobile device compatible version of its website. The mobile device compatible website would allow patrons to easily access trip planning services, schedules, and fare information.

Phase 2 Improvements

In this scenario, the project team recommends larger changes to the Marin Transit operations in Novato over the next three to five years. These recommendations build upon those included in the Phase 1 Improvements section above. We propose a service redelivery with community circulators and substantial upgrades to the key transfer locations in Novato.

The recommended complete overhaul of Marin Transit service in Novato is based on findings from the ride check and service evaluation indicating those routes serving Novato are among the least productive in the system (i.e., Routes 49, 51, and 52 are three of the four least-productive routes in the system). This is also the result of extensive public and stakeholder outreach that made it clear the current service structure is not meeting many of the community’s travel needs, with respect to either frequency or coverage. Instead of continuing to spend money on a service structure that has proven to be only marginally successful, we have evaluated a series of alternatives designed to make substantial improvements to program cost-effectiveness, ridership, and community mobility. The project team recommends these changes take place after the phase 1 improvements have been made. Based on current service contracts, and vehicle procurement needs, we estimate the earliest these changes could likely be rolled out would be approximately three years. The following describes each recommendation under this alternative.

Exhibit 3.8 Phase 3 Improvement Strengths and Weaknesses

Scenario	Strengths	Weaknesses
Community Circulator	Higher level of service for less cost	Less capacity than larger fixed-route vehicles
	Better serves existing and future travel demand	Need for multiple transfers
	High level of community support	No direct service to areas outside of Novato
	Able to serve areas otherwise inaccessible to 40' vehicles	
Fixed-Routes with Transfers	Riders already familiar with system	Misses significant existing and projected trip generators
	Would benefit commuters to/from Novato	Not likely to attract "choice" riders
	Ties in within existing services outside of Novato	
Fixed-Routes without Transfers	Faster direct service to San Rafael Transit Center	Misses significant existing and projected trip generators
	Would benefit commuters to/from Novato	Would rely on Novato Dial-A-Ride for local connections
	Slightly increased operating costs compared to status quo	

While this planning effort is focused on local bus service and separate from the Sonoma-Marin Area Rail Transit (SMART) effort, it is important not to lose sight of how this new

mode of transit will impact the mobility needs of Novato and determine how Marin Transit should coordinate its efforts to support this project. While still unclear, SMART will ultimately include at least one new station within Novato at Hamilton. Marin Transit should work with SMART to ensure local transit services are coordinated to effectively serve the SMART stations in Novato. The recommendation for introducing a community circulator system in Novato will be especially well-suited to serve the SMART stations in Novato, allowing riders easy access to/from the stations. In addition to Route 49, the Hamilton neighborhood is currently served by the Hamilton Shuttle, which is a local service funded through the Hamilton Homeowners Association. The community will benefit from enhanced coordination between SMART, Marin Transit, the City of Novato, and the Homeowners Association to limit service overlap, enhance service, and ensure a stable, secure funding stream is available.

Service Recommendations

1. Expand Novato Dial-A-Ride Service Hours

As a general public dial-a-ride service, the Novato Dial-A-Ride program should have hours reflecting the needs of the community it serves. Once the midday gap in service is filled, the project team recommends Marin Transit expand the service hours to 6:00 a.m. in the morning and to 8:00 p.m. in the evening.

This is the next logical step for the Novato Dial-A-Ride given the growth in ridership observed over the past fiscal year and the 57 percent of Dial-A-Ride customers who indicated later service as their preferred service enhancement.

2. Implement Community Circulator Transit System

The Community Circulator concept is a community-based shuttle that operates in zones. Each zonal route connects with another zonal route at specific locations to create timed transfers. This effectively creates a more efficient way for riders to move throughout their community and connect with routes serving other locations throughout the city.

The Community Circulator system in Novato would feature three routes that operate roughly within each ZIP code. Each route has bi-directional buses operating on 30-minute to 60-minute headways depending on the time of day and service day. Each route has designated transfer points that will allow easy movement throughout Novato.

Route A covers the ZIP codes of 94945 and 94947, the northern portion of Novato. This route is centered around the Redwood and Grant stop. Route A Westbound starts at the Olive Park parking lot, near Olive

Elementary School. The route heads eastbound on Olive Avenue and turns north onto Summers Avenue. Route A Westbound then travels west along Plum Street to Chase Street where it turns south. Once on Chase Street the route then turns westbound onto Olive Avenue. At Redwood Boulevard and Olive, Route A Westbound heads south to serve the Redwood/Grant transfer point. The route then heads southwest on Diablo Avenue and turns west onto Novato Boulevard. The route travels along Novato Boulevard until Wilson Avenue where the route turns south. The route then turns west onto Vineyard Road and stops at Sinaloa Middle School. Route A Westbound then continues on Vineyard Road to Sutro Avenue where it turns north. The route continues on Sutro Avenue until it turns into San Marin Drive. The route travels along San Marin Drive serving San Marin High School, San Andreas Drive, and San Carlos Way. Route A Eastbound follows the same streets in the reverse order.

Route B covers the 94947 and 94949 ZIP codes that form the central part of Novato. The clockwise Route B starts at Redwood and Grant and travels south to serve the Margaret Todd Senior Center. Route B then returns to Novato Boulevard and Diablo Avenue and heads south along Novato Boulevard to Novato Boulevard and Rowland Way. At Rowland Way, the bus turns west to serve the Novato Community Hospital and Vintage Oaks Shopping Center. The bus then travels on Rowland Boulevard where it turns south on South Novato Boulevard. The bus then enters the freeway and exists at Ignacio Boulevard. Route B then travels west on Ignacio Boulevard to the Indian Valley Campus of the College of Marin. The bus then egresses away from the campus on Ignacio Boulevard and travels north on Sunset Parkway. The bus then turns north on Novato Boulevard. Route B then returns to the Vintage Oaks Shopping Center and Novato Community Hospital via Rowland Way. Route B then heads west on Rowland Boulevard and turns north and travels along Novato Boulevard. At Tamalpais Avenue, the bus turns north and then east at Grant Avenue. The bus then returns to Redwood and Grant. The counterclockwise Route B follows the same streets in the reverse order.

Route C operates exclusively in the Hamilton neighborhood, the southern section of the city. The clockwise Route C starts at Enfrente Road and Ignacio Boulevard and travels east onto Bel Marin Keys Boulevard. The bus then turns west on Hamilton Drive circling back to Bel Marin Keys Boulevard. The bus then turns southeast on Gail Drive and then heads west on Digital Drive. From Digital Drive, Route C turns

south onto to Nave Drive from Bel Marin Keys Boulevard. The bus then turns northeast at Hamilton Parkway and again at Palm Drive, where it serves several senior housing units. Route B then turns northeast on South Palm Drive and then southeast on Hanger Avenue. The bus then turns southeast on Hangar Avenue until San Pablo Avenue. The bus then heads northwest on Hamilton Parkway and turns southwest on South Palm Drive and turns onto Palm Drive. The bus then follows Palm Drive, which turns into Main Gate Road, to Randolph Drive - the proposed location for the SMART station. The bus then heads south through Bolling Circle and then west along Bolling Drive. At Bolling Drive and Nave Drive, the bus heads south and across the freeway to the Alameda del Prado bus pad. The bus then heads north on Alameda del Prado until Ignacio Boulevard where it turns east. The bus then returns to Enfrente Road and Ignacio Boulevard. The counterclockwise Route C follows the same streets in the reverse order.

Based on feedback from the community as well as the physical layout of Novato, we feel a Community Circulator system will best meet the needs of transit users in Novato. For example, a large number of riders use the service to get to work. Under the Community Circulator concept, key transfer points such as Redwood Boulevard and Grant Avenue as well as Ignacio Boulevard and Enfrente Road would be served more frequently by the Community Circulator routes than by the existing service arrangement. The service would also feature smaller shuttle vehicles for the majority of weekday trips and all weekend trips. Full-size transit buses would be required to carry the large student loads during trips associated with school bell times.

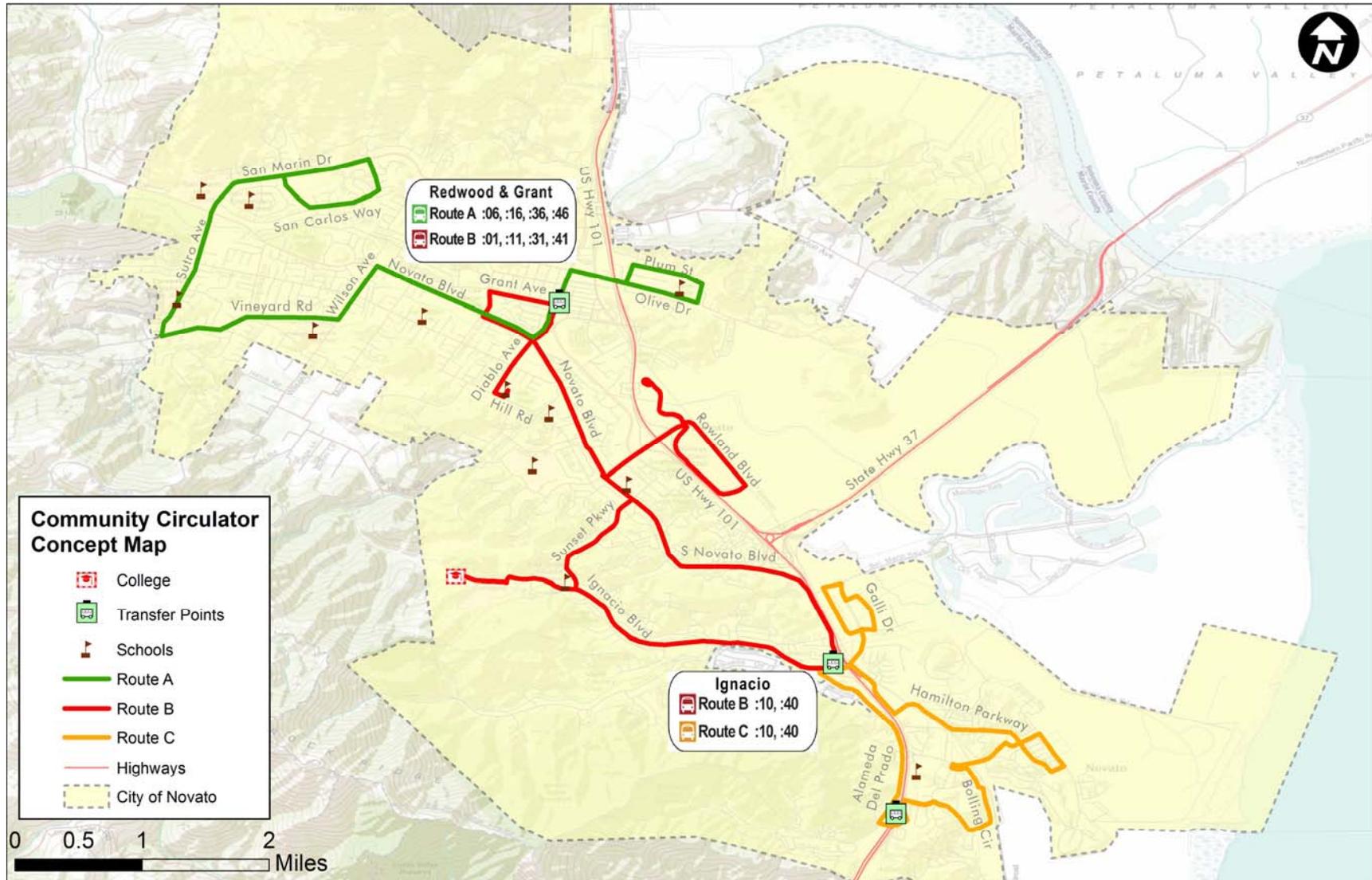
Additionally, future projects show Novato adding more jobs than residents. This translates to increased demand for travel to and within Novato. The Community Circulator option would serve the high job-growth areas within the city while also allow more frequent service between residential portions of the city and the employment centers.

Drawbacks to this scenario would be the initial unfamiliarity with the system that will require extensive marketing and public outreach. Additionally, the need to maintain on-time performance will be paramount for this scenario to work and there may be a future need for infrastructure improvements such as signal preemption to help maintain on-time performance during the peak-periods.

The project team recommends Marin Transit implement this service structure as a pilot program on the weekends in the near-term (i.e., next 1-2 years) to gauge its effectiveness and customer response as well as potentially reduce the cost of weekend service (see phase 1 service recommendation).

See Exhibit 3.9 for route.

Exhibit 3.9 Recommended Community Circulator Concept



An alternative service option that was evaluated and not recommended was an improved local service option based on the existing service delivery. Under this scenario, the existing transit network would remain in place. The key difference will be more frequent service on all routes. Peak-hour frequencies would range from 15- to 20-minutes with off-peak at 30-minutes. The advantage to this option is most transit users are already familiar with the system and thus would not require additional marketing or public outreach as with the Community Circulator option. Additionally, this network is already set-up to feed passengers into the Highway 101 corridor.

Drawbacks to this option are increased operating costs that may not translate directly to increased ridership. Additionally, the current transit services miss several key employment centers and do not capture the areas that are projected to add a substantial number of jobs by 2035.

Another alternative service options that was evaluated and not recommended was a service that minimizes transfers and increases direct connections to the County's regional hub in San Rafael. Under this scenario, each region of Novato would have a dedicated route that feeds into the Highway 101 corridor and connects to the San Rafael Transit Center. Frequencies would range between 30 minutes during the peak period and 60 minutes during the off-peak period.

The Northern Novato route would create a loop starting at Redwood Boulevard and Grant Avenue transfer point and traveling on San Marin Drive, Novato Boulevard, and then onto Highway 101 with direct service to the San Rafael Transit Center.

The Central Novato route would start at the Redwood Boulevard and Grant Avenue transfer point and head south stopping at the Vintage Oaks Shopping Center and Novato Community Hospital. The route would then serve the Indian Valley Campus of the College of Marin and enter Highway 101 from Ignacio Boulevard. From Highway 101, the Central Novato route would then terminate at the San Rafael Transit Center.

The Southern Novato would start at the Redwood Boulevard and Grant Avenue transfer point and enter Highway 101. The route would then exit at Ignacio Boulevard and serve the Hamilton neighborhood similar to the existing Route 49 alignment. The Southern Novato route would

then re-enter Highway 101 and terminate at the San Rafael Transfer Center.

All northbound alignments of the above mentioned routes will follow the same alignment but in reverse.

Intra-city service would be provided by the Novato Dial-A-Ride. Under this scenario, the Novato Dial-A-Ride would have more vehicles operating in Novato and have a longer service span.

The advantages of this system are quick and direct service with a high number of one-seat rides to the San Rafael Transit Center. Given the significant number of trips to areas outside of Novato, this scenario has the potential to attract commuters living in Novato who work in employment centers south of the city.

The drawback to this scenario is the lack of connectivity within the city of Novato. We suspect the Novato Dial-A-Ride may not be able to keep up with the projected employment growth in the city and the attendant increase in demand for travel. Additionally the Novato Dial-A-Ride has not had success in attracting non-senior riders, who will most likely be the customer base for intra-city commuting to work.

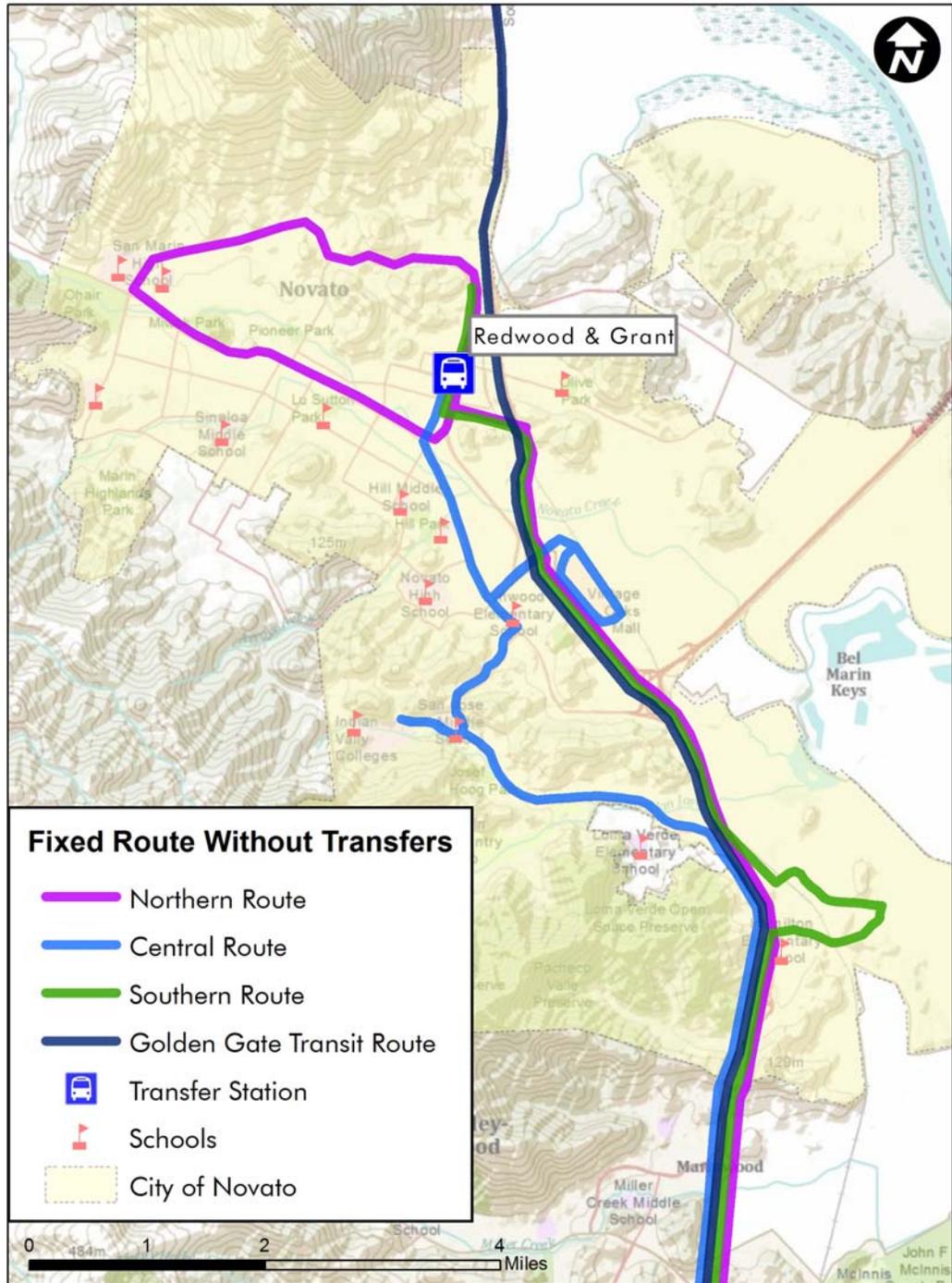
See Exhibit 3.10 for route map.

Capital Recommendations

1. Support Improved Bicycle and Pedestrian Infrastructure

One of the key physical barriers to the provision of public transit service in Novato is the irregular street pattern found throughout the city. Outside the core Downtown area, the roadway network was developed primarily to support automobile travel and lacks bicycle and pedestrian amenities that make walking and cycling a more attractive mode of transportation. This network structure also challenges the ability of buses to penetrate into neighborhoods and of pedestrians to access bus stops.

Exhibit 3.10 Proposed Fixed-Route without Transfers Alignments



Improvements to bicycle and pedestrian infrastructure will make bus stops more accessible. Our site visits, as well as feedback from public outreach efforts, indicate the lack of sidewalks throughout the city present not only a safety hazard but a barrier to accessing transit.

Marin Transit should work closely with the City of Novato to ensure streets with transit service and those leading to transit routes have ADA accessible sidewalks. For more isolated neighborhoods, the City should consider adding sidewalks along key routes.

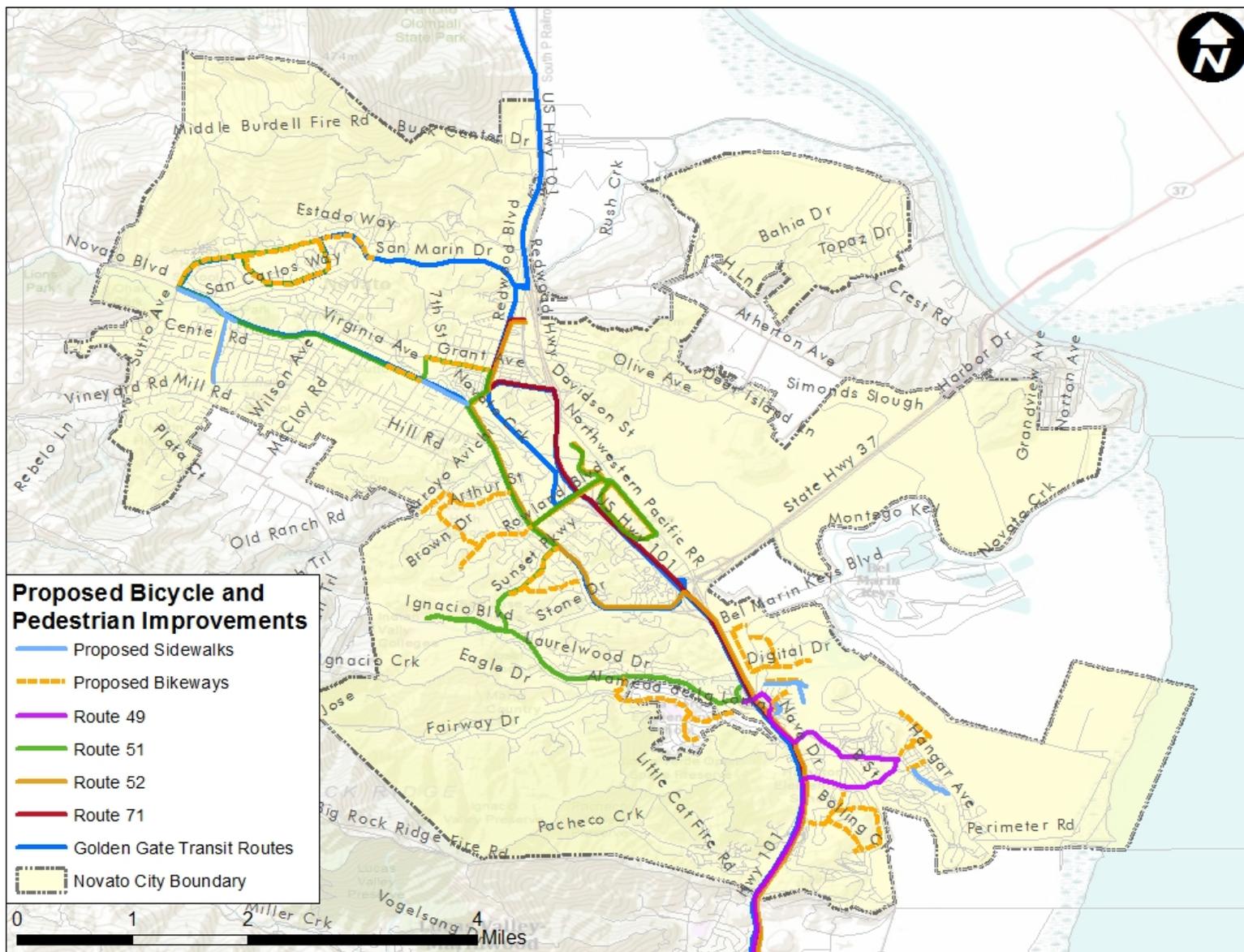
In terms of bicycle infrastructure, Novato already has fairly extensive bicycle paths along the main thoroughfares. Exhibit 3.4 shows the areas within Novato where it is recommended to add or expand bicycle and pedestrian infrastructure. Adding more bicycle lanes would allow more potential for riders to easily access transit services.

In addition to bicycle lanes, Marin Transit should work with the City to add bicycle racks or lockers at key bus stops (see Exhibit 3.3). The project team recommends the top boarding and alighting stops receive bike lockers, reflecting their cost and likely usage, while stops with less activity get bike racks. This allows more patrons the opportunity to securely “park” their bike and use the service.

Exhibit 3.4 Recommended Bicycle and Pedestrian Infrastructure Improvements

Location	Distance	Neighborhood	Type of Improvement
San Marin Drive and San Carlos Way	3.2 miles	San Marin	Bike Lane/Signage
Eucalyptus Avenue (between Vineyard Road & Novato Boulevard)	0.6 mile	San Marin	Signage
Novato Boulevard and Eucalyptus Avenue	1 mile	San Marin	Sidewalk
Novato Boulevard (between Grant Avenue & Diablo Avenue)	0.7 mile	Downtown	Sidewalk and Bike Lane/Signage
Grant Avenue (between Tamalpais Avenue & Redwood Boulevard)	0.4 mile	Downtown	Bike Lane/Signage
Bolling Drive & Bolling Circle (Loop)	1.5 miles	Hamilton	Bike Lane/Signage
San Pablo Court-Alconbury Way to Palm Drive	0.4 mile	Hamilton	Sidewalk
Palm Drive (between Hamilton Pkwy & Hangar Avenue)	0.2 mile	Hamilton	Bike Lane/Signage
Pizarro Avenue to Hangar Avenue	0.4 mile	Hamilton	Bike Lane/Signage
South Palm Drive (between Hamilton Pkwy & Hangar Avenue)	0.1 mile	Hamilton	Bike Lane/Signage
Roblar Drive	0.2 mile	Hamilton	Sidewalk and Bike Lane/Signage
Commercial Boulevard	0.3 mile	Hamilton	Bike Lane/Signage
Commercial Boulevard-Pamaron Way	0.5 mile	Hamilton	Sidewalk
Digital Drive	0.2 mile	Hamilton	Bike Lane/Signage
Galli Drive	0.4 mile	Hamilton	Bike Lane/Signage
Hamilton Drive	0.6 mile	Hamilton	Bike Lane/Signage
Palmer Drive	0.5 mile	Ignacio	Bike Lane/Signage
Connect Redwood Boulevard to Enfrente/Salvatore	0.3 mile	Ignacio	Bike Lane/Signage
Alameda de La Loma (between Ignacio Boulevard)	1.3 miles	Loma Verde (Unincorporated)	Bike Lane/Signage
Via Escondida	0.2 mile	Loma Verde (Unincorporated)	Bike Lane/Signage
Sunset Parkway between Ignacio Boulevard & Novato Boulevard	0.3 mile	Ignacio	Bike Lane/Signage
Midway Boulevard (between Sunset Parkway & Novato Boulevard)	0.4 mile	Ignacio	Bike Lane/Signage
Rowland Boulevard	0.6 mile	Marin Village	Bike Lane/Signage
Washington Street (between Rowland Boulevard & Arthur Street)	0.6 mile	Marin Village	Bike Lane/Signage
Arthur Steet-Indian Valley Road	0.8 mile	Marin Village	Bike Lane/Signage
	TOTAL 15.7 miles		

Exhibit 3.5 Recommended Bicycle and Pedestrian Infrastructure Improvements



2. Phase 2 Bus Stop Improvements: Major Transfer Stop Enhancements

The major transfer locations in Novato are Redwood Boulevard and Grant Avenue (Downtown) and Enfrente Road and Salvatore Drive (Ignacio). The Rowland Park and Ride lot is another location where local and regional services connect. Under current conditions, and with many of the proposed service alternatives, these locations are challenged operationally due to the volume of services and transfer activity that occurs at these locations.

Downtown, single lane approaches do not allow drivers the ability to bypass vehicles that may be loading or stopped for other reasons. Increased activity during peak periods will further challenge this arrangement, especially if local services are adjusted to meet regional services more consistently. A new configuration at this location would greatly improve the ability to operate efficient connection while maintain schedule reliability.

Bus stop conditions at Ignacio also impact operations and transfer activity. The ongoing South Novato Bus Stop Improvement project is currently working through the design work to allow regional and local services to achieve a more efficient connection. Marin Transit should continue this effort to address these shortcomings.

Safety conditions for waiting or transferring passengers at these locations was also identified in the outreach efforts and should be addressed during the implementation of improvements at these locations. Downtown, lighting improvements and landscape maintenance should be incorporated into any new design for the facility. At Ignacio and Rowland, high traffic volumes and speeds at the Highway 101 interchange create potentially dangerous conditions for bicyclist and pedestrians. Improvements should include infrastructure improvements to address these safety concerns.

Marin Transit and Golden Gate Transit are also in the process of adding GPS devices on all Marin Transit vehicles. The addition of GPS devices will allow Marin Transit to provide real-time bus arrival information to patrons. To take advantage of this, the project team recommends Marin Transit install real-time bus arrival displays at the major bus stops identified in the Ride Check Chapter.

The project team recommends a phased rollout with Redwood and Grant, Rowland Boulevard Bus Pad, and Ignacio Bus Pad/Enfrente Road

transfer centers as the first candidates for the installation of the real-time bus arrival displays.

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4. CAPITAL AND
FINANCIAL PLAN

CHAPTER 4 – CAPITAL AND FINANCIAL PLAN

In this chapter we present the estimated costs of the proposed recommendations as well as potential funding sources for each recommendation. Additionally, we identify the responsible stakeholder for each recommendation. Exhibit 4.1 presents a summary of the recommendations and their associated cost, type of improvement, responsible entity for implementation, and potential funding sources. Exhibit 4.2 includes a detailed estimate for each recommendation.

Service cost estimates presented in this section are based on Marin Transit’s existing contractor rates and escalation schedules and are consistent with other Bay Area transit operators that purchase transportation services. For this purposes of this report, we selected a possible start date of Fiscal Year 2012/13. For all years beyond this fiscal year, we assumed a three percent increase in inflation for capital costs.

Exhibit 4.1 Cost Summary Table

Timeline	Recommendation	Estimated Cost		Type of Improvement	Responsible Entity	Potential Funding Source
		Operating (Annual)	Capital (One-Time)			
Phase 1 Improvements (Within 2 Years)	Improve Reliability of Existing Transit Services	\$500	\$0	Administrative	Marin Transit	N/A
	Enforce a "no early departure" policy	\$500		Administrative		
	Adjust schedules to account for running time delays	Varies		Service		
	Consolidate Local Fixed Route Services (Combine Routes 51 and 52)	(\$973,788)		Service	Marin Transit	Section 5316, Measure A, Section 5307
	Increase Peak Hour Frequency on Local Fixed Route Service (New Route 51)	\$350,921		Service	Marin Transit	
	Increase Span of Service on Local Service (New Route 51)	\$233,947		Service	Marin Transit	
	Adjust Route 49 Alignment	\$219,326		Service	Marin Transit	Section 5316, Measure A, Section 5307
	Introduce Weekend Shuttle Program (Routes 49 and new 51)	\$241,500		Service	Marin Transit	Section 5316, Measure A, Section 5307
	Close Midday Service Gap for Novato Dial-A-Ride	\$59,109		Service	Marin Transit	5316, 5317
	Phase 1 Bus Stop Improvements: Signage and Amenities		\$33,397	Capital	City of Novato and Marin Transit	Development agreements, 5309
	Create a Single Ride Guide Specific to Novato Transit Services		\$5,000	Marketing	Marin Transit	Measure A
	Create Novato-Specific Marketing Campaign		\$40,000	Marketing	Marin Transit	Measure A
	Create Marintransit.org Mobile Device-Compatible Website		Varies	Marketing	Marin Transit	Measure A
Phase 1 subtotal	net	\$131,515	\$78,397			
Phase 2 Improvements (within 5 years)	Extend Novato Dial-A-Ride Service Hours		\$51,720	Service	Marin Transit	5316, 5317
	Implement Community Circulator Transit System	total	\$4,213,224	Service	Marin Transit	Section 5316, Measure A, Section 5307
		net	\$187,644			
	Support Improved Bicycle and Pedestrian Infrastructure		\$395,948	Capital	City of Novato and Marin Transit	Development agreements, general fund
Phase 2 Bus Stop Improvements: Major Transfer Stop Enhancements	\$12,000	\$4,802,500	Capital	Marin Transit	5309, PTMISEA, STIP, Measure A	
Phase 2 subtotal	net	\$251,364	\$5,198,448			

Phase 1 Improvements

The phase 1 improvements are relatively low-cost or cost neutral enhancements to the provision of transit service within Novato. Service enhancements are achieved through consolidation of weekday services and shifting weekend service to a lower cost shuttle operation. These recommendations could be implemented within a two-year timeframe.

Improve Reliability of Existing Transit Service

For this recommendation, Marin Transit strictly enforces a “no early departure” policy and readjusts bus schedules to take into account late arrivals. Enforcement of a “no early departure” policy will cost about \$500 and consist mostly of an hour-long driver and road supervisor meeting on the importance of not departing from stops early.

Operating costs could potentially increase if additional revenue time is added to the schedules to account for late trips.

Local Service Improvements – Route 51

Route 51 enhancements include consolidation of local services, increased weekday peak hour frequencies, and increased weekday span of service.

We estimate the consolidation of Route 52 may yield a savings of approximately \$974,000 per year. This savings would allow for the combined cost of the following enhancements:

- Increasing span of service on Route 51
- Increasing peak-period frequency on Route 51

We recommend the service span for Route 51 be extended by two trips in each direction during the morning and by two trips in each direction during the late evening. This will add a total of eight revenue hours to the route. Based on the current rates to operate this service, it is estimated that this improvement would cost an estimated \$234,000 annually.

During the peak-periods, we recommend Marin Transit add six trips during the AM Peak period and six trips during the PM Peak period in both directions. This will result in 12 total new trips. Based on the current rates to operate this service, it is estimated that this improvement would cost an estimated \$350,000 annually.

Route 49 Enhancements

For Route 49 the project team recommends extending this route to downtown Novato and readjusting the alignment in Hamilton.

The extension of Route 49 to northern Novato would add approximately 3.5 service hours per day. Based on the current rates to operate this service, it is estimated that this improvement would cost an estimated \$205,000 annually.

We estimate the realignment in the Hamilton neighborhood would add approximately 15 minutes per service day. Based on the current rates to operate this service, it is estimated that this improvement would cost an estimated \$15,000 annually.

Introduce Weekend Shuttle Program

The weekend shuttle program is another way for Marin Transit to add service without increasing operating costs. Using hourly rates for similar shuttle operations contracted by the agency, shifting the weekend service to a shuttle operation might save approximately \$113,000 per year.

Currently, Route 51 does not operate on the weekend which means portions of Novato such as San Marin and Alameda del Prado do not have weekend service. Utilizing a shuttle service on the weekend would allow Marin Transit to expand service to those areas in a cost-effective manner. Assuming hourly rate costs for similar shuttle operations, the cost of providing weekend service along Route 51 is estimated to be \$214,500 per year.

We also propose shifting the weekend operation of Route 49 to a shuttle system. Currently, the weekend service for Route 49 costs \$328,000 annually. By shifting to a shuttle program concept, we estimate Marin Transit could reduce the cost to \$214,500, translating to an annual cost savings of approximately \$113,500 per year.

In total, we estimate the net cost of introducing a weekend shuttle program to be \$101,000 per year (\$214,500 from Route 51 plus the \$113,500 in projected annual cost savings from Route 49).

Marin Transit currently has a fleet of shuttle vehicles which are not in operation during weekend hours. Utilizing these vehicles for this service would save Marin Transit the capital expenses related to purchasing of new vehicles.

Close the Midday Service Gap for the Novato Dial-A-Ride

There is a four-hour gap in the middle of weekday Novato Dial-A-Ride service. Based on the current operating cost of this service, the annual operating cost will increase by \$59,109 if the four hour gap is eliminated. Following the initial year of operation, the operating cost for the Dial-A-Ride is assumed to increase by three percent per year.

Bus Stops Improvements – Phase 1

Along with improving bicycle and pedestrian infrastructure, Marin Transit should work with the City of Novato to improve bus stops. These improvements include adding shelters, benches, route-specific signage, route and transit network information, and trash/recycling where appropriate. Any physical improvements will require that the City address Americans with Disabilities Act path of travel. Passenger information is exempt from this requirement.

The project team recommends that Marin Transit consider adding bus shelters at current stops that have a high level of passenger activity. The estimated cost is \$2,310 to \$13,315 inclusive of installation. The price range varies on size, design, and installation costs. Current Novato shelters are maintained in the City of Novato's contract with an advertising agency.

Stops that do not qualify for shelters but still have significantly ridership activity should be improved with benches. The cost to add a bus bench is estimated to be about \$2,325 per bench. As with shelters, Marin Transit may be able to generate advertisement revenue from new benches that could help offset installation and maintenance costs. See Exhibit 3.3 for an inventory of stops requiring improvements.

For improved stop signage, we estimate the cost to be \$41.50 per sign though this cost is variable depending on size, amount of text, etc. Providing route and transit network information ranges from \$500 to \$1,000, including the cost of design, printing, and installation.

Marin Transit was recently awarded funds through the Federal Transit Administration's State of Good Repair grant program. These funds will be used throughout the County to improve bus stops and rider information. Marin Transit will install new bus stop blades and additional route information at all stops. Physical improvements to bus stops within Novato will require additional ADA path of travel funding.

Create a Ride Guide specific to Novato Transit Services

The cost of the new ride guide will be approximately \$2,500. This cost includes staff time for content, design, and printing costs.

Create a Novato-Specific Marketing Campaign

The consultant team recommends that Marin Transit invest a minimum of \$40,000 over two to three years, or approximately \$20,000 annually, for a comprehensive marketing campaign.

Create MarinTransit.org Mobile Device-Compatible Website

Given the prevalence of smart phone application developers, the cost of developing a “transit app” is negligible. In some cases, Marin Transit could encourage development through a contest and offer a cash prize or other compensation. In research regarding “transit apps,” there are many instances of students or application developers unilaterally developing “transit apps” for free that rely on advertising revenue.

Phase 2 Improvements

The phase 2 improvements represent significant changes to the transit network operating in Novato as well as more costly capital projects. These recommendations are for actions in a three- to five-year timeframe.

Support Improved Bicycle and Pedestrian Infrastructure

Adding and improving bicycle and pedestrian infrastructure is one of the most cost-effective approaches to improving access to transit as well as encouraging the use of alternative modes of transportation such as public transit, bicycling, and walking.

Bicycle infrastructure includes such amenities as bike lanes, signage, bike racks, and bike lockers. The cost of adding bike lanes is approximately \$5,000 to \$10,000 per mile. The low-end estimate is the cost of restriping a street to include a bicycle lane. The high-end estimate includes restriping, creating dedicated lanes, improved signage, and other traffic calming measures.

The project team recommends Marin Transit and the City of Novato consider adding bike racks and bike lockers at selected bus stops. The cost of purchasing and installing bike racks is estimated at between \$200 and \$600 per rack, and bike lockers cost between \$1,000 and \$4,000 per locker. To offset some of these costs, some cities and transit agencies rent the lockers for a nominal fee. For example, San Francisco rents lockers for \$25 for three months; Caltrain for \$5 per month; and Portland for \$10 per month.

For pedestrian infrastructure, the project team recommends the City of Novato add sidewalks along arterials and feeder streets that connect to existing transit services. A large number of customers access transit via walking (see Customer Survey results in Appendix E). Adding sidewalks will improve safety, bring the City more into compliance with American with Disabilities Act (ADA) requirements, and increase the appeal of walking for the general public. The cost of adding a new sidewalk is estimated to be \$102,285 per mile.

In total these improvements should cost approximately \$400,000. Based on the bicycle lanes identified in Exhibit 3.4, we estimated a potential need for approximately 13 miles of bicycle lane and signage improvements. We estimate the proposed bicycle lanes and signage would cost \$100,000. Adding 12 bike racks and lockers would cost

approximately \$13,000. We also identified the need for an additional three miles of sidewalk improvements which should cost approximately \$287,000.

The City of Novato would be the appropriate responsible entity for implementation of all the sidewalk and bicycle improvements.

Phase 2 Bus Stop Improvements: Real-Time Information Signs and Amenities for Stops

Marin Transit is designing and implementing a Bus Stop Improvement Program for two transfer locations in south Novato that will result in significantly improved bus stop amenities at the Rowland Interchange and Ignacio/Bel Marin Keys bus pads. Proposed improvements include adding sidewalks, improving traffic flows, adding security systems, moving stops to more convenient locations, and new signal controls. The total cost of these improvements is estimated to be \$750,000.

Improvements to the Downtown Novato Redwood Boulevard and Grant Street Transit Hub will address the operations and safety issues. Marin Transit has identified this as a high priority project in the Regional Transportation Plan, with a cost identified at \$4.0 million.

Implementing real-time information infrastructure on a transit system includes Global Positioning System (GPS) equipment installed on transit vehicles, real time information signs, and on-going maintenance costs.

Based on the experience with implementing real-time bus information signs, the cost of installing on-board GPS equipment is approximately \$5,000 per vehicle. Real-time arrival signage should cost between \$5,000 and \$8,000 per sign. Annual maintenance and warranty costs are approximately \$1,200 per vehicle and \$800 per sign.

Extend Novato Dial-A-Ride Service Hours

During this phase, the project team recommends the Novato Dial-A-Ride have expanded operating hours. The project team recommends adding 3.5 hours each day during the week that should cost approximately \$51,720 per year.

Community Circulator Option

In this scenario, all existing fixed-route services with the exception of Route 71 would be replaced with Community Circulators. Based on current contractor rates escalated to future year of implementation, it would cost approximately \$4.2 million per year to shift to a circulator shuttle operation concept. This represents a four-percent decrease in Operating Costs over the existing level of service for the routes serving Novato (i.e., Routes 49, 51, 52, and 71) with a net savings of \$152,000 for the first year of implementation.

Fixed-Route with Transfers Option

(Alternative Considered but not Recommended)

This option is essentially the existing transit network with more frequent service. If this option is implemented, the cost is estimated to be \$5.1 million per year. This represents an 18-percent increase in Operating Costs over the existing level of service or an additional \$782,000 for the first year of implementation.

Fixed-Route without Transfers Option

(Alternative Considered but not Recommended)

This option has three routes serving each region of Novato that would provide direct service to and from the San Rafael Transit Center. If this option were implemented, the cost is estimated at \$4,526,901 per year. This represents a four-percent increase in Operating Cost over the current level of service or an additional \$162,000 for the first year of implementation.

Funding

Funding for the recommendations can be obtained through a variety of sources, depending on the nature of the desired improvement. As state and local budget issues have placed some funding sources in jeopardy, transit agencies have developed innovative approaches to secure funding maintain service. Traditional funding sources include the following:

- Transportation Development Act (TDA) and State Transit Assistance (STA) funds.
- Federal Transit Administration (FTA) Section 5307 Operating and Section 5309 Capital funds.
- Marin County Measure A half-cent sales tax funds.
- Prop 1B Public Transportation Modernization, Improvement, and Service Enhancement Account Program (PTMISEA) bond funding, specifically for capital projects.

Pending reauthorization of the Federal transportation law, some new sources of funding for the programs in this Plan include:

- **FTA Section 5316:** The FTA’s Job Access and Reverse Commute (JARC) program provides money to assist in developing new or expanded transportation services that connect welfare recipients, other low income persons, and others to jobs and employment related services. Job Access projects are targeted at developing or expanding transportation services (i.e. shuttles, vanpools, new bus routes, connector services to mass transit, and guaranteed ride home programs for welfare recipients and low income persons). The eligibility threshold of the “Job Access” portion of JARC is 150% of the federal poverty level or lower. Reverse Commute projects have no such income-limiting provision and provide transportation services to suburban employment centers from urban, rural, and other suburban locations for all populations (i.e., irrespective of income level). These funds would especially critical as Novato has a large employer base but is considered a “reverse commute” community.

- **FTA Section 5317:** The purpose of this program is to support services and facility improvements that address the transportation needs of persons with disabilities above and beyond those required by the Americans with Disabilities Act (ADA). Funding supports capital and operating costs. The foundation of the New Freedom program is larger fixed-route urban systems that are required to have parallel or complementary paratransit systems. Eligible programs include extended hours or days, expansion of service area, or other operating parameters not available under previous funding mechanisms or other grant programs.
- **Sonoma Marin Rail Transit (SMART):** The ballot measure authorizing and funding SMART included funding for a shuttle bus system serving the SMART stations. Additional transit service is expected to be provided by the SMART agency for services that connect to the station(s) in Novato.
- **Homeowners Associations:** The Hamilton Field of Marin Association is obligated to fund a local, community-based transit service as part of the community's development agreement. The Hamilton Shuttle is currently under-used when compared to services operated by Marin Transit and the two entities would benefit from improved coordination. This may include having the Hamilton Field of Marin Association directly contribute to Marin Transit to fund enhanced transit service in Hamilton in lieu of funding the Hamilton Shuttle.
- **Employers:** Marin Transit should work with employers to promote transit as a viable alternative to the personal automobile. Marin Transit could also work with employers to offer subsidized bus passes and/or secure funding from groups of employers for enhanced service during peak hours serving those businesses.
- **Transportation Demand Management (TDM) Program Participants:** Marin Transit should coordinate with the City of Novato to maximize the impact the City's TDM programs on reducing congestion and auto use.
- **College of Marin (Indian Valley Campus):** Students are a critical part of Marin Transit's customer base. There are successful examples of agencies working with local colleges to offer special subsidized transit passes in exchange for dedicated funding on a per-student basis. Many colleges have agreements in place with local transit operators to allow students to ride the bus for free or at heavily-reduced cost simply by swiping a student ID card.
- **Development Agreements:** Marin Transit should work with the City of Novato to add transit considerations to future development agreements and ensure transit-related elements are considered when approving new developments. Stipulations can range from requiring developers to install sidewalks, bike infrastructure, and bus stop amenities to securing dedicated operating funding streams such as the agreement with the homeowners association in the Hamilton neighborhood.

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Exhibit 4.2 Cost Estimate Matrix

Timeline	Recommendation	Estimated Costs					Responsible Entity	Potential Funding Source
		FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17		
Phase 1 Improvements (Within 2 Years)	Improve Reliability of Current Transit Service							
	Enforce "No Early Departure Policy"	\$500	\$500	-	-	-	Marin Transit	N/A
	Readjust Schedule for Late Arrivals	\$0.00	\$0.00	-	-	-	Marin Transit	N/A
	Consolidate Routes 51 and 52							
	Elimination of Route 52	(\$973,788)	(\$1,022,477)	(\$1,073,601)	(\$1,127,281)	(\$1,183,645)	Marin Transit	N/A
	Route 51 Enhancements							
	Increase frequency on Marin Transit Route 51 During Peak Hours	\$350,921	\$368,467	-	-	-	Marin Transit	Measure A
	Increase Span of Service on Local Service (New Route 51)	\$233,947	\$245,645	-	-	-	Marin Transit	
	Route 49 Enhancements							
	Adjust Route 49 alignment	\$219,326	\$230,292	-	-	-	Marin Transit	Measure A
	Introduce Weekend Shuttle Program (Routes 49 and new 51)							
	Introduce Weekend Shuttle Program (new Route 51)	\$214,500	\$225,225	-	-	-	Marin Transit	Measure A
	Phase 1 Bus Stop Improvements: Signage and Amenities							
	Bus Bench	\$4,650	\$4,650	-	-	-	Marin Transit	Development agreements, 5309
	Signage	\$3,486	\$3,486	-	-	-	Marin Transit	
	Information	\$750	\$750	-	-	-	Marin Transit	
	Bus Shelters	-	\$15,625	-	-	-	City of Novato/Marin Transit	
	Fill-in the Mid-day Service Gap for Novato Dial-A-Ride							
	Operate Between 11:00 a.m. to 3:00 p.m.	\$59,109	\$60,882	-	-	-	Marin Transit	Section 5316, Section 5317
	Create a single Ride Guide Specific to Novato Transit Services							
	Ride Guide	\$2,500	\$2,500	-	-	-	Marin Transit	Measure A
Increase Marketing of Current Services								
Marketing Plan and Materials	\$20,000	\$20,000	-	-	-	Marin Transit	Measure A	
Create Mobile Device-compatible Website for MarinTransit.org								
Mobile App Creation	Varies	Varies	-	-	-	Marin Transit	Measure A	
PHASE 1 SUBTOTAL		\$135,901	\$155,544					
Phase 2 Improvements (within 5 years)	Novato Dial-A-Ride Enhancements							
	Expand Morning and Evening Service Hours for Novato Dial-A-Ride	-	-	\$51,720	\$54,306	\$57,022	Marin Transit	Section 5316, Section 5317
	Implement Community Circulator Transit System							
	Elimination of Existing Fixed Route Services (49, new 51)	-	-	(\$3,051,792)	(\$3,204,382)	(\$3,364,601)	Marin Transit	N/A
	Community Circulator	-	-	\$4,213,224	\$4,339,621	\$4,469,809	Marin Transit	Section 5316, Measure A, Section 5307
	Support Improved Bicycle and Pedestrian Infrastructure							
	Bike Lanes & Signage	-	-	\$48,375	\$48,375	-	City of Novato	Development agreements, general fund
	Bike Racks	-	-	\$1,400	\$1,400	-	Marin Transit	
	Bike Lockers	-	-	\$7,500	\$2,500	-	Marin Transit	
	Sidewalk	-	-	\$143,199	\$143,199	-	City of Novato	
	Add real-time information signs and amenities to bus stops							
	South Novato Bus Stop Improvements	-	-	\$750,000	-	-	Marin Transit	5309, PTMISEA, STIP, Measure A
	Downtown Novato Transit Hub Improvements	-	-	-	\$4,000,000	-	Marin Transit	
AVL Equipment - Vehicle Installation	-	-	\$30,000	-	-	Marin Transit		
Real-time arrival signs	-	-	\$22,500	-	-	Marin Transit		
On-going Maintenance Real Time Project	-	-	\$12,000	\$12,000	\$12,000	Marin Transit		
PHASE 2 SUBTOTAL				\$1,154,525	\$4,269,738	(\$9,415)		
YEAR TOTAL*		\$135,901	\$155,544	\$1,154,525	\$4,269,738	(\$9,415)		



A. DEMAND
ANALYSIS

APPENDIX A – DEMAND ANALYSIS

Incorporated in 1960, Novato is located in northern Marin County and is part of the North Bay region in the San Francisco Bay Area. Novato is approximately 10 miles north of San Rafael and 30 miles north of San Francisco. The city covers an area of approximately 28 miles and is home to 51,904 residents.

Novato is a “bedroom” community, characterized by a significant portion of residents commuting between Novato and San Francisco, San Rafael, and the East Bay for employment purposes. Ironically, Novato boasts some of the largest employers in Marin County. Key employment sectors include biotech and biomedical research, entertainment and media, financial services, healthcare, and retail. Significant employers include Fireman’s Fund Insurance, Novato Unified School District, BioMarin Pharmaceuticals, and Novato Community Hospital.

Major Transportation Corridors

The primary transportation corridor through Marin County and Novato is Highway 101. Highway 101 is one of major north-south highways in California, linking many communities in Marin County as well as providing connections to the broader San Francisco Bay Area and beyond. State Route 37 links Novato and Marin County with the other areas of the North Bay region including the cities of Vallejo, Sonoma, and Napa.

There are several main arterials within the city of Novato. Atherton/San Marin Drive offers an east-west connection through the northern portion of the city and provides and creates the northernmost interchange with Highway 101. Rowland Boulevard offers east-west connectivity through the central part of Novato and provides access to Novato Community Hospital and Vintage Oaks Shopping Center. Ignacio Boulevard in the southern portion of the city provides east-west connectivity between the Hamilton and Ignacio neighborhoods as well as access to the College of Marin’s Indian Valley Campus.

Novato/South Novato Boulevard is the primary north-south arterial in Novato connecting the northern and southern areas of the city. Many shopping centers, social service agencies, and educational institutions including the Novato Branch of the Marin County Free Library are located along this arterial. The other primary north-south roadway is Redwood Boulevard which connects the San Marin/Highway 101 interchange with Downtown Novato.

Public transit routes largely utilize the above-mentioned corridors. Key transfer points for transit service occur at Redwood Boulevard and Grant Avenue in downtown Novato and the bus pad stop along Highway 101 at Rowland and Ignacio Boulevards. These locations are served by both Marin Transit local routes and Golden Gate Transit regional routes.

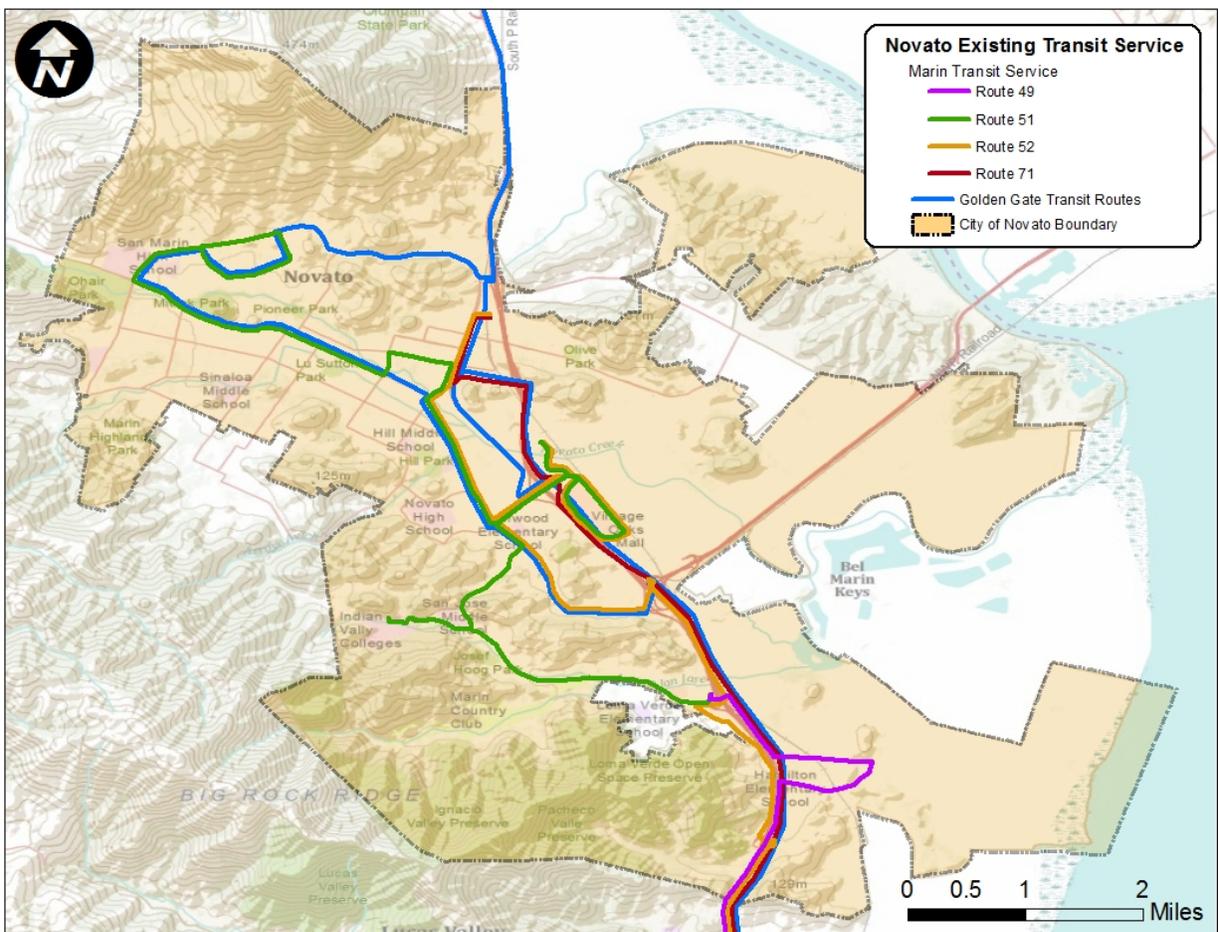
Mobility Inventory

Exhibit A.1 provides a summary of fixed-route, demand-response, commuter bus, and private bus services operating throughout Novato. Novato has comparable levels of service to other cities and communities within Marin County. Only San Rafael has a greater array of transportation services.

Exhibit A.1 Mobility Inventory

Service Provider	Type of Transportation	Description
Marin Transit	Fixed-Route	Routes 49, 51, 52, 71
	Demand-Response	Novato Dial-A-Ride
	Paratransit	Local Senior/ADA service
Golden Gate Transit	Fixed-Route	Routes 54, 56, 58, 70, 80, 101
Marin Airporter	Private Transportation	Hamilton Terminal Ignacio to/from SFO
Hamilton Field of Marin Association	Paratransit	Hamilton Shuttle (Peak-hour only)
Novato Human Needs Center	Paratransit	Senior and disabled transportation

Exhibit A.2 Transit Services in Novato



Source: Marin Transit and Golden Gate Transit

Population Profile

Exhibit A.3 shows the population projections for Novato and Marin County. Between 2009 and 2035, Novato is projected to add approximately 1,200 residents. This translates to an extremely modest growth rate of two percent, or less than 0.1% annually. By contrast, Marin County is projected to grow by more than seven percent, or 0.3% annually. This means Novato will account for a very small share of the county’s population in 2035 than in 2009.

Exhibit A.3 Population Projection

Location	Population		Percent Change
	2009	Projected 2035	2009-2035
Novato*	59,594	60,790	2.0%
Marin County	252,941	271,566	7.4%

*Number includes unincorporated Marin County

Source: 2009 Marin Travel Demand Model

Exhibit A.4 shows the number of Novato residents who are under 18 (youth) and over 65 (senior) years old. About 23 percent of Novato residents are under 18 while about 16 percent fall into the senior age group. According to the Marin County Commission on Aging, the senior population in Marin County is projected to grow faster than the overall population¹. This should translate to an increased demand for alternative means of transportation (i.e., transit and paratransit).

In terms of youth and student demand, Hill Middle School near the San Marin neighborhood will be closing. This means the former Hill Middle School students will be attending San Jose Middle School. Marin Transit will have to work with Novato Unified School District to monitor ridership patterns on its buses to be able to respond to this change and align its services accordingly.

Exhibit A.4 Ride Dependent Populations: Youth and Seniors

Location	Youth	Senior
Novato	11,769	8,123
Percent of total	22.7%	15.7%
Marin County	52,214	42,192
Percent of total	20.7%	16.7%
California	9,295,040	4,246,514
Percent of total	25.0%	11.4%

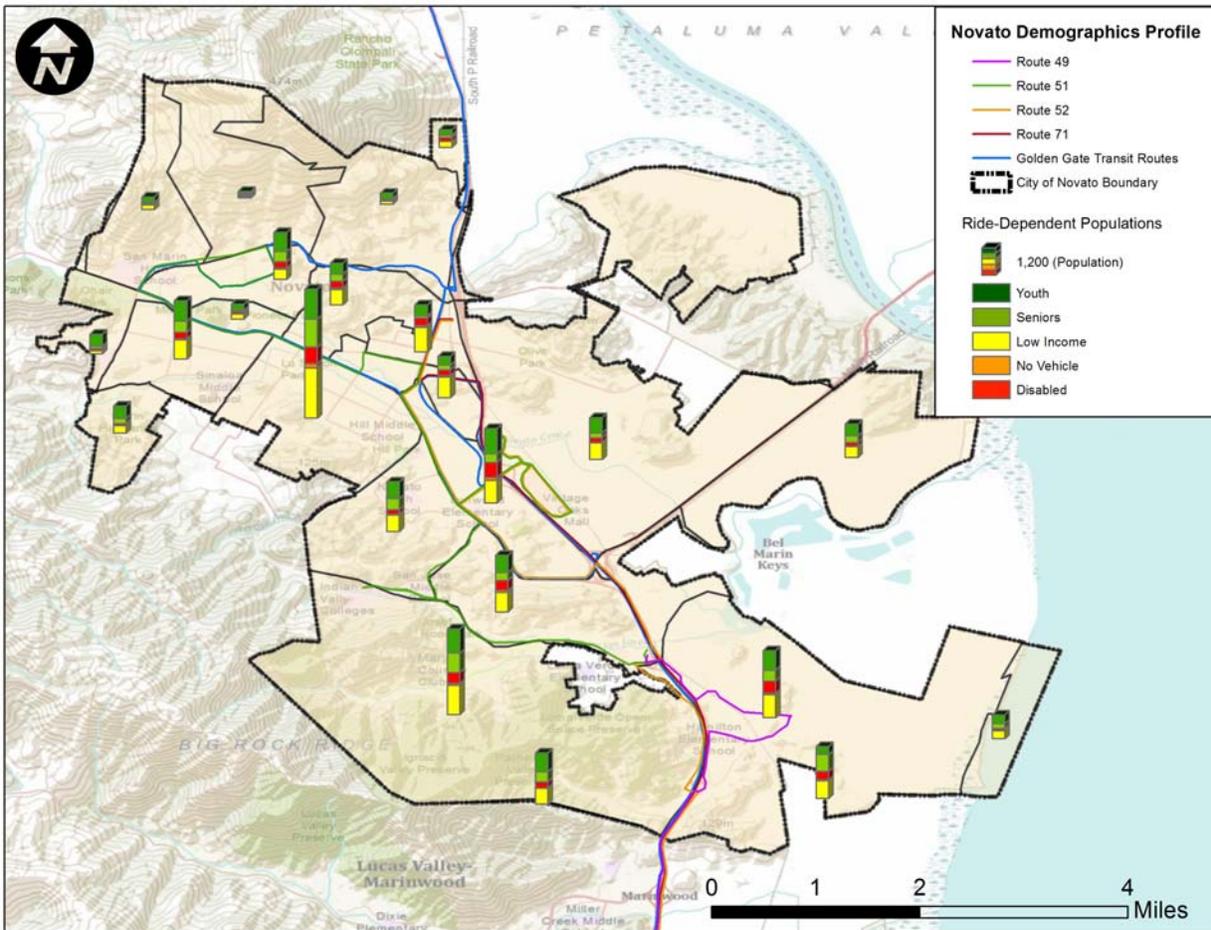
Source: US Census 2010

Exhibit A.5 shows the geographic distribution of ride-dependent populations (youth, senior, low-income, disabled, and zero vehicle households). The current Marin Transit route alignments

¹ Marin County Commission on Aging, *Live Long, Live Well: A Strategic Plan for Aging Services in Marin County: 2004-2014*

serve many of the areas with high concentrations of ride-dependent populations. However, there are areas such as Hamilton which would benefit from better access to transit service. This is especially true given the fact there are sizeable clusters of multi-family dwellings south of Main Gate Road and there is a planned Sonoma-Marín Area Rail Transit (SMART) train station planned in the Hamilton neighborhood.

Exhibit A.5 Ride-Dependent Populations by Census Block Group



Source: US Census 2000

Exhibit A.6 presents the projected population growth by Traffic Analysis Zone (TAZ). Population growth, where expected, is projected to occur in the southern and central portions of Novato. Currently the central portion of Novato is well served by transit while the southern neighborhoods of Hamilton and Ignacio are not as well served due to a variety of factors including limited road network which does not readily support traditional bus service as well as several streets which lack sidewalks. This should be an area where Marin Transit may wish to add service in future years to accommodate the forecasted growth in this neighborhood.

Population growth in Novato is projected to be very minimal over the next 25 years.

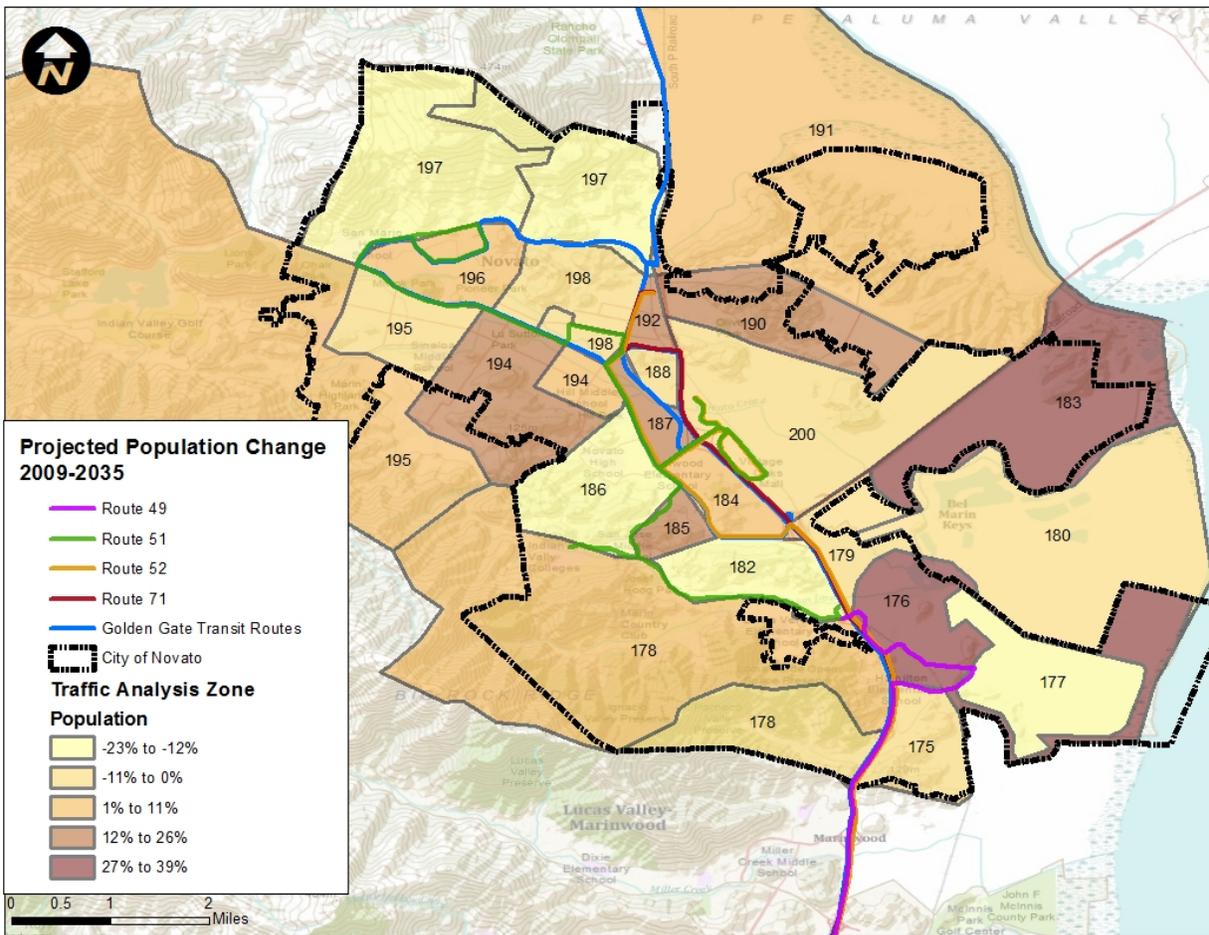
Exhibit A.6 Population Projection by Traffic Analysis Zone

TAZ	2009 Household Population	2035 Household Population	Net Change	Percent Change
176	2,815	3,906	1,091	38.8%
183	745	1,021	276	37.0%
187	1,105	1,397	292	26.4%
189	260	312	52	20.0%
191	2,132	2,549	417	19.6%
192	314	366	52	16.6%
185	1,572	1,796	224	14.2%
190	2,414	2,683	269	11.1%
194	6,553	6,901	348	5.3%
196	4,452	4,649	197	4.4%
178	4,471	4,614	143	3.2%
193	4,366	4,484	118	2.7%
184	3,719	3,785	66	1.8%
195	7,876	7,845	-31	-0.4%
179	536	529	-7	-1.3%
180	1,844	1,816	-28	-1.5%
175	1,579	1,547	-32	-2.0%
188	731	716	-15	-2.1%
181	375	367	-8	-2.1%
197	2,676	2,344	-332	-12.4%
177	1,924	1,678	-246	-12.8%
186	3,634	2,972	-662	-18.2%
182	3,501	2,693	-808	-23.1%
198	-	-	-	-
199	-	-	-	-
200	-	-	-	-

Source: 2009 Marin Travel Demand Model

The following map (Exhibit A.7) illustrates the percent change in household population by Traffic Analysis Zone in Novato, comparing the 2009 estimates and 2035 projections (Exhibit A.6). When comparing the 2009 actual population concentrations with the 2035 forecasted concentrations, the maps indicate the northern and eastern TAZ zones of Novato (191 and 183) are expected to experience higher growth rates. The areas with the largest concentrations of population are found in the northwestern portions of the city.

Exhibit A.7 Projected Population Growth by Traffic Analysis Zone



Source: 2009 Marin County Travel Demand Model

Economic Profile

Exhibit A.8 shows an economic comparison of Novato to Marin County and the State of California. Novato has a higher unemployment rate as well as lower per capita income than Marin County at-large. In general, Novato and Marin County have lower unemployment and higher incomes than the statewide average for California.

Additionally, Novato residents have a greater share of single-occupancy vehicle trips than the rest of Marin County and walk or use public transit less as a commute mode. This is surprising given the lower income levels observed in Novato when compared to Marin County as a whole. Generally, higher incomes suggest more frequent use of personal vehicles. However, Novato’s geographic distance from employment centers and limited transit service levels might lead more residents to opt for a personal vehicle than use public transit or walking for commuting purposes.

In terms of income, Novato has a lower median household income than Marin County but higher than California at-large. In terms of Social Security income (which typically applies to seniors), Novato residents earn less than Marin County and California. Novato residents received less public assistance income which includes welfare, food stamps, etc., than Marin County and more than California at-large.

Exhibit A.8 Economic Profile

Location	2011 Unemployment Rate*	Commute to Work			Income				
		Drive Alone	Public Transit	Walked	Median Household Income	Social Security Income	Public Assistance Income	Median Family Income	Per Capita Income
Novato	9.5%	74.2%	5.0%	0.9%	\$80,923	\$15,100	\$5,623	\$98,409	\$40,483
Marin County	8.0%	67.1%	8.3%	2.9%	\$87,728	\$16,436	\$7,453	\$111,166	\$53,284
California	12.3%	73.0%	5.2%	2.8%	\$58,931	\$15,156	\$5,371	\$67,038	\$27,885

*Not seasonally adjusted

Source: California Employment Development Department, 2009 American Community Survey

Exhibit A.9 shows the number of Novato residents who are low-income, disabled, or have no access to a personal vehicle. Novato and Marin County have roughly the same proportion of low-income residents while Novato has slightly more residents proportionally who do not have access to a personal vehicle. Novato proportionally has a larger disabled population than Marin County which might be attributable to the large senior population in the city.

Note, the data in Exhibit A.9 is from the 2000 Census. This is the most recent data available.

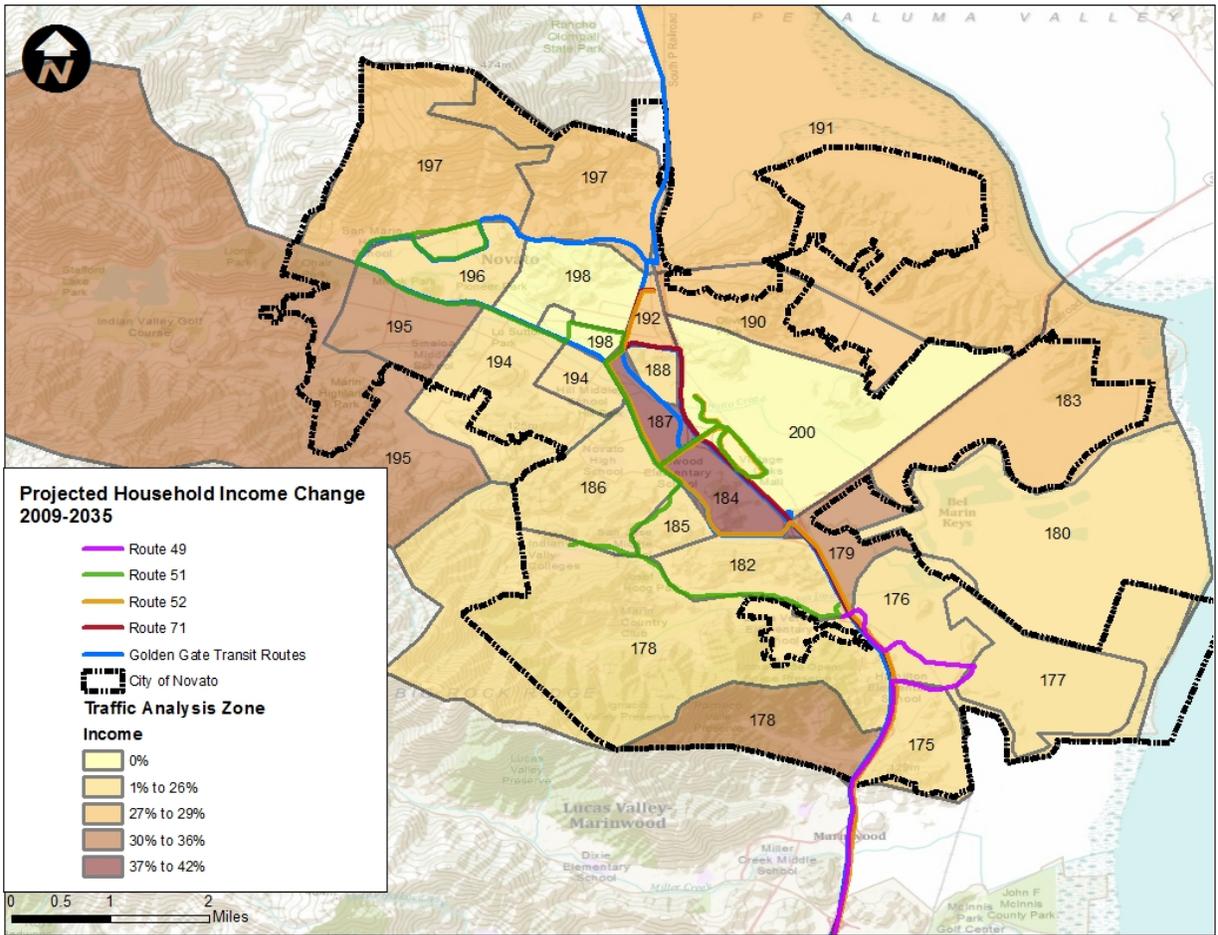
Exhibit A.9 Transit Dependent Populations: Low-income, Disabled, Zero Vehicle Households

Location	Low-Income	Disabled	Zero-Car Household
Novato	2,622	7,409	1,036
<i>Percent of total</i>	<i>5.5%</i>	<i>15.6%</i>	<i>5.6%</i>
Marin County	15,601	34,758	5,094
<i>Percent of total</i>	<i>6.3%</i>	<i>14.1%</i>	<i>5.1%</i>
California	4,706,130	5,923,361	1,091,214
<i>Percent of total</i>	<i>13.9%</i>	<i>17.5%</i>	<i>9.5%</i>

Source: US Census 2000

The following map illustrates the percent change in household income by TAZ for Novato. The central and southeastern portions of Novato contain the largest concentrations of lower-income households. This trend is expected to remain true through 2035. Both maps suggest residents with higher income generally reside in areas outside the traditional downtown core along the periphery of the urbanized area. This suggests the central and southern portions of the city have a greater need for transportation alternatives including public transit.

Exhibit A.10 Projected Household Income Change by Traffic Analysis Zone



Source: 2009 Marin County Travel Demand Model

Exhibit A.11 lists the top employers in Novato as of 2010. With respect to the top three employers, only the Novato Unified School District is located within the core urbanized area and is currently served by local transit.

Exhibit A.11 Top Employers in Novato

Name	Industry	Number of Employees (2010)	Address
Fireman's Fund Insurance Company	Insurance	953	777 San Marin Drive # 2160, Novato, CA 94945
Novato Unified School District	Education	841	1015 7th Street, Novato, CA 94945
BioMarin Pharmaceuticals	Pharmaceuticals	607	105 Digital Drive, Novato, CA 94949
Novato Community Hospital	Medical	335	180 Rowland Way, Novato, CA
Target Store	Retail	284	200 Vintage Way, Novato, CA
Safeway	Grocery	277	900 Diablo Avenue, Novato, CA
			470 Ignacio Boulevard, Novato, CA
			5720 Nave Drive, Novato, CA
Buck Institute	Biomedical Research	265	8001 Redwood Boulevard, Novato, CA 94945
Costco Wholesale	Retail	259	300 Vintage Way, Novato, CA
Brayton Purcell	Legal	230	222 Rush Landing Road, Novato, CA
Bank of Marin	Financial	222	504 Redwood Boulevard # 100, Novato, CA

Sources: Novato City Budget; California Employment Development Department

Exhibit A.12 presents the employment projections for Novato and Marin County. In 2009, Novato had an estimated 29,162 jobs which is expected to grow by over 54% in 2035 to 45,049. Novato’s 2009 employment accounted for approximately 21 percent of total employment in Marin County. By 2035, Novato is projected to account for 29 percent of total employment, an eight percent increase.

Novato is projected to add over 15,000 jobs by 2035.

In contrast to the slow population growth, the rapid growth in jobs suggests Novato will continue to move away from a traditional “bedroom community”. This has several important implications for providing transit services including more express service to Novato, more single-seat transit options, better connections within the regional transportation and transit network, and more local circulator service for residents who live and work in Novato.

Exhibit A.12 Employment Projections

Location	Employment		Percent Change
	2009	Projected 2035	2009-2035
Novato*	29,162	45,049	54.5%
Marin County	139,388	156,686	12.4%

*Includes unincorporated Marin County

Source: 2009 Marin Travel Demand Model

Exhibit A.13 Employment Projections by Traffic Analysis Zone

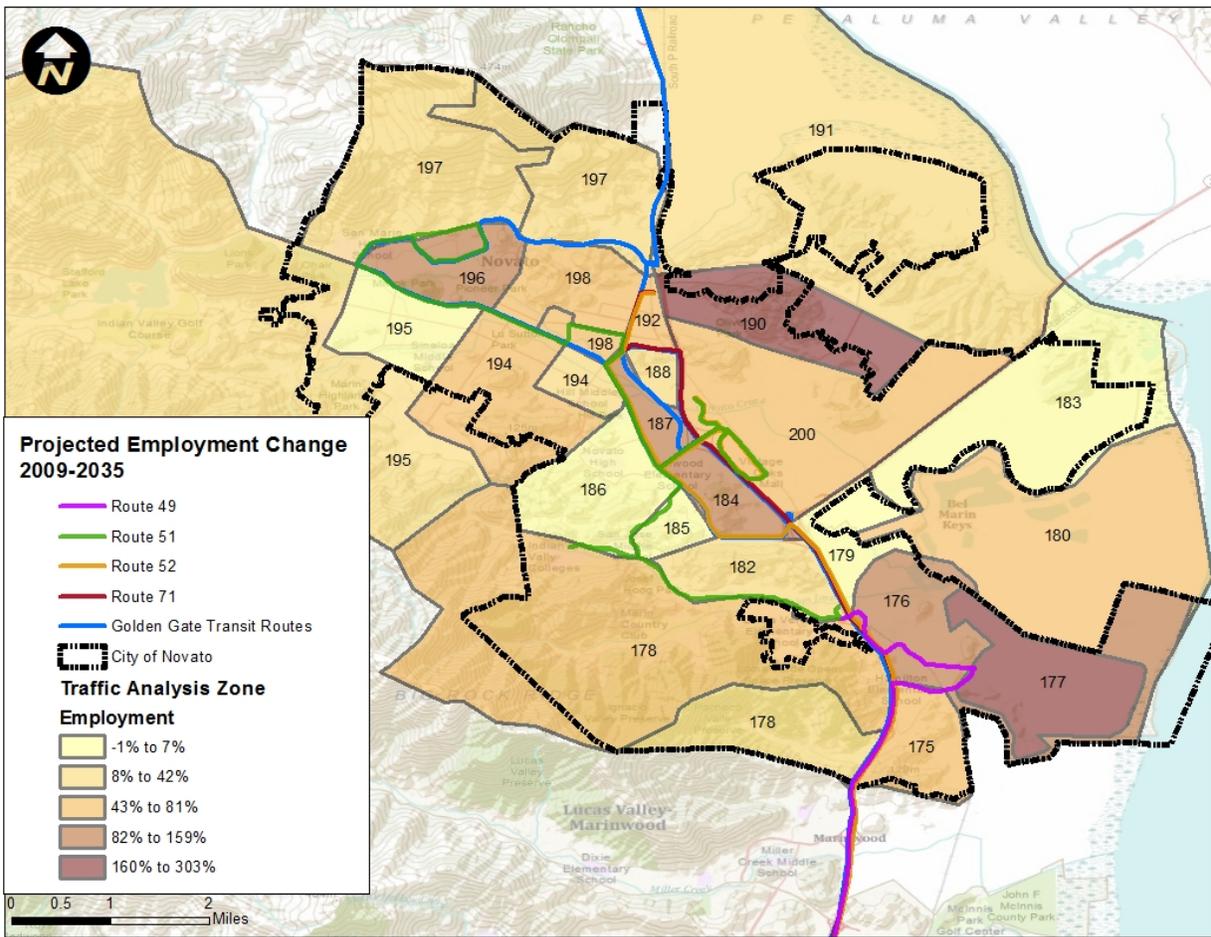
TAZ	2009 Total Employment	2035 Total Employment	Net Change	Percent Change
200	392	1,695	1,303	332.4%
189	183	738	555	303.3%
177	638	2,185	1,547	242.5%
187	816	2,117	1,301	159.4%
176	678	1,603	925	136.4%
196	206	482	276	134.0%
184	140	326	186	132.9%
175	536	943	407	75.9%
198	1,131	1,970	839	74.2%
191	750	1,262	512	68.3%
181	523	840	317	60.6%
192	1,776	2,825	1,049	59.1%
178	820	1,283	463	56.5%
188	1,003	1,420	417	41.6%
194	1,811	2,458	647	35.7%
197	4,244	5,678	1,434	33.8%
193	2,152	2,879	727	33.8%
179	6,744	8,870	2,126	31.5%
190	643	843	200	31.1%
199	1,954	2,546	592	30.3%
182	35	42	7	20.0%
183	531	567	36	6.8%
185	572	604	32	5.6%
180	11	11	0	0.0%
186	355	351	-4	-1.1%
195	518	511	-7	-1.4%

Source: 2009 Marin Travel Demand Model

As illustrated in Exhibits A.12, A.13, and A.14, substantial employment growth is projected to occur in the southern and central portions of the city. TAZ 179, which is part of the Hamilton community, is projected to add 2,126 jobs over the next 25 years. Future planning for transit services should monitor this growth in employment and adjust service to meet new demands.

In terms of percent growth, TAZs 200, 189, and 177 (all east of Highway 101) are expected to have the largest growth rate. This translates to the emergence of new employment centers and consequently a potential significant increase in travel demand. Only TAZ 200 is currently served by transit. Future planning for transit services should monitor growth in employment on the eastern edges of the city and adjust service to meet new demands.

Exhibit A.14 Projected Employment Growth by Traffic Analysis Zone



Source: 2009 Marin County Travel Demand Model

Housing Profile

Exhibit A.15 summarizes the housing profile for Novato, Marin County, and California. The median home value and median rent were lower for Novato compared to Marin County but higher than the state median. Alternatively, a greater percentage of Novato residents spent 30 percent or more of their annual income on mortgage or rent payments compared to either Marin County or the state. Since Novato residents are spending a larger share of their incomes on housing, this suggests auto ownership may present a financial burden to families and transit use may be an attractive option for reducing transportation-related costs (particularly if gas prices increase).

Exhibit A.15 Housing Profile

Location	Median Rooms per Structure	Owner Occupied		Renter-Occupied	
		Median Value	Percentage of owners spending more than 30% on income on mortgage	Median Rent	Percentage of renters spending more than 30% on income on rent
Novato	5.8	\$705,700	54.4%	\$1,428	60.2%
Marin County	5.4	\$880,000	50.6%	\$1,487	53.0%
California	5.1	\$479,200	51.6%	\$1,116	54.5%

Source: 2009 American Community Survey

Travel Demand

The following exhibits illustrate existing and projected travel demand for Novato for a typical weekday. These estimates were derived using the 2009 Marin County Travel Demand Model. In 2009, the top 10 origin and destination points to and from Novato were located within Marin County. Of note, the majority of intra-county trips occurred between San Rafael and Novato or between points within Novato. The heavy travel within Marin County continues on through 2035 with only San Francisco emerging as a top 10 destination outside Marin County.

Current and projected travel demand to and from Novato will occur in areas within the City and communities in Marin County.

Given the significant level of travel (both current and projected) within the city of Novato as well as between Novato and other Marin County communities, we recommend the District focus its resources on continuing to enhance intra-county service (and in particular, service between Novato, San Rafael, and Sausalito). Additionally, the District should consider increasing frequency on those transit lines within Novato which link residents with employment centers.

Exhibit A.16 2009 Origin and Destination Travel Demand

2009 Trips from Novato				
Origin	Destination	Person Trips	Auto Trips	Transit Trips
Novato	San Francisco	13,019	7,812	5,201
Novato	Marin (excluding Novato)	118,422	101,576	16,846
Novato	Sonoma	3,999	3,652	347
Novato	San Mateo	1,828	1,772	2
Novato	Santa Clara	744	720	5
Novato	Alameda	2,001	1,910	14
Novato	Contra Costa	1,556	1,495	12
Novato	Solano	649	630	12
Novato	Napa	293	285	3
2009 Trips to Novato				
Origin	Destination	Person Trips	Auto Trips	Transit Trips
San Francisco	Novato	7,694	6,742	953
Marin (excluding Novato)	Novato	104,513	96,327	8,187
Sonoma	Novato	9,524	9,393	131
San Mateo	Novato	1,684	1,619	1
Santa Clara	Novato	1,062	994	1
Alameda	Novato	2,524	2,420	6
Contra Costa	Novato	3,883	3,712	6
Solano	Novato	2,373	2,246	33
Napa	Novato	548	528	0

Source: 2009 Marin County Travel Demand Model

Exhibit A.17 2035 Projected Origin and Destination Travel Demand

2035 Projected Trips from Novato				
Origin	Destination	Person Trips	Auto Trips	Transit Trips
Novato	San Francisco	17,370	10,936	6,435
Novato	Marin (excluding Novato)	120,198	103,550	16,648
Novato	Sonoma	7,223	6,290	933
Novato	San Mateo	2,217	2,150	6
Novato	Santa Clara	900	874	3
Novato	Alameda	2,316	2,219	21
Novato	Contra Costa	2,032	1,952	33
Novato	Solano	1,027	988	32
Novato	Napa	370	357	6
2035 Projected Trips to Novato				
Origin	Destination	Person Trips	Auto Trips	Transit Trips
San Francisco	Novato	8,537	7,472	1,065
Marin (excluding Novato)	Novato	123,022	111,115	11,907
Sonoma	Novato	13,437	13,145	291
San Mateo	Novato	1,548	1,506	1
Santa Clara	Novato	782	751	1
Alameda	Novato	4,217	4,031	10
Contra Costa	Novato	7,072	6,745	9
Solano	Novato	3,470	3,287	38
Napa	Novato	771	742	0

Source: 2009 Marin Travel Demand Model

Exhibit A.18 2009 Top 10 Origin and Destinations

Region	Region	Total Trips
San Marin	San Rafael	526
San Marin	San Rafael	511
San Marin	Sausalito	505
San Marin	West Marin	485
San Marin	San Rafael	476
San Marin	San Rafael	442
San Marin	Corte Madera	428
San Marin	San Marin	428
Marin Village	San Rafael	420
San Rafael	Marin Village	404

Exhibit A.19 2035 Projected Top 10 Origin and Destinations

Region	Region	Total Trips
San Marin	San Rafael	507
San Marin	San Rafael	496
San Marin	West Marin	463
Marin Village	San Rafael	433
San Rafael	Marin Village	431
San Marin	San Rafael	431
San Marin	San Rafael	424
Marin Village	San Rafael	416
San Marin	San Rafael	408
San Marin	Marin Village	402

Exhibit A.20 2009 Top 10 Origin/Destinations for Automobiles

Region	Region	Automobile Trips
San Marin	San Rafael	494
San Marin	San Rafael	478
San Marin	West Marin	473
San Marin	San Rafael	443
San Marin	San Rafael	389
San Rafael	Marin Village	388
San Marin	Marin Village	384
San Marin	Corte Madera	384
Marin Village	West Marin	373
San Rafael	Marin Village	368

Exhibit A.21 2035 Projected Top 10 Origin/Destinations for Automobiles

Region	Region	Automobile Trips
San Marin	San Rafael	481
San Marin	San Rafael	462
San Marin	West Marin	452
Marin Village	San Rafael	406
San Marin	San Rafael	404
San Rafael	Marin Village	394
Marin Village	West Marin	383
San Marin	San Rafael	381
Tamalpais Valley	Marin Village	375
San Rafael	Marin Village	367

Exhibit A.22 2009 Top 10 Origin and Destinations for Transit

Region	Region	Transit Trips
Marin Village	Sausalito	197
San Marin	Sausalito	190
Ignacio	Sausalito	133
San Rafael	Vintage Oaks Shopping Center	130
San Marin	Sausalito	128
San Marin	Sausalito	113
Marin Village	San Rafael	110
Marin Village	San Rafael	110
San Marin	San Rafael	108
Marin Village	Sausalito	104

Exhibit A.23 2035 Projected Top 10 Origin and Destinations for Transit

Region	Region	Transit Trips
San Rafael	Vintage Oaks Shopping Center	149
Marin Village	Sausalito	131
Marin Village	Hamilton	124
Marin Village	San Francisco	122
Marin Village	San Rafael	121
San Marin	San Rafael	117
Marin Village	San Rafael	115
San Marin	Sausalito	114
Marin Village	San Rafael	108
San Marin	San Francisco	108

Source: 2009 Marin Travel Demand Model

B

B. SERVICE
EVALUATION

APPENDIX B – SERVICE EVALUATION

Marin Transit and the Golden Gate Transit District each provide public transit services within the city of Novato. Collectively they average 2.4 million unlinked trips annually. This number is impressive in terms of the relatively small population of Marin County (approximately 251,000) and the low-density development prevalent throughout the county and within Novato.

Since FY 2007/08, aggregate annual ridership declined. However, when segregated out by operator, Marin Transit experienced increased ridership on all lines except Route 49. Despite the increasing number of patrons, ridership continues to fall below Marin Transit's performance standards for fixed-route service. This raises two questions:

- Is the current Marin Transit service plan effectively addressing the mobility needs of Novato residents?
- If not, what service changes are needed to realize sustainable growth?

Objectives of Evaluation

This section includes an evaluation of Marin Transit's day-to-day operations, providing a snapshot of existing conditions. It serves as the primary tool for analyzing historic performance and includes subjective and objective elements into the service planning process. The analysis of system performance data is used to identify operational successes as well as areas for improvement.

Evaluation Approach

Operational data for both Marin Transit and Golden Gate Transit was obtained for the fixed-route services in Novato. The data covers Fiscal Years 2007/2008 through 2009/2010. Data compiled from field observations supplemented their data to provide insight into day-to-day operations.

Program Overview

In 1964, Marin County residents voted to create the Marin County Transit District, now known as Marin Transit. Within Novato, the Marin Transit District contracts with Golden Gate Transit for its fixed-route service and Whistlestop Wheels for the Novato Dial-A-Ride service. Golden Gate Transit also operates several of its own routes in Novato which function chiefly as commuter and long-haul services linking Novato with Sonoma and San Francisco counties.

Marin Transit Fixed-Route Alignments

Marin Transit operates three four fixed-route services in Novato which are summarized in Exhibit B.1.

Exhibit B.1 Marin Transit Fixed-Route Service Summary

Route	Service Span	Frequency
Route 49 Northbound	Weekdays: 6:15 a.m. to 8:07 p.m. Saturdays: 6:15 a.m. to 8:07 p.m. Sundays and holidays: 8:00 a.m. to 7:46 p.m.	60 minutes
Route 49 Southbound	Weekdays: 6:14 a.m. to 8:10 p.m. Saturdays: 7:04 a.m. to 7:55 p.m. Sundays and holidays: 8:04 a.m. to 7:55 p.m.	60 minutes
Route 51 Northbound	Weekdays: 6:53 a.m. to 8:01 p.m.	60 minutes
Route 51 Southbound	Weekdays: 7:12 a.m. and 7:18 p.m.	60 minutes
Route 52 Northbound	Weekdays: 6:28 a.m. to 6:48 p.m. Saturdays: 8:36 a.m. to 8:02 pm. Sundays and holidays: 8:48 a.m. to 7:14 p.m.	60 minutes
Route 52 Southbound	Weekdays: 6:34 a.m. to 7:10 p.m. Saturdays: 8:36 a.m. to 7:36 p.m. Sundays and holidays: 9:36 a.m. to 8:02 p.m.	60 minutes
Route 71 Northbound	Weekdays: 6:03 a.m. to 8:49 p.m. Saturdays: 11:32 a.m. to 5:23 p.m. Sundays and holidays: 3:32 p.m. to 7:23 p.m.	30 minutes peak 60 minutes to four hours off-peak
Route 71 Southbound	Weekdays: 6:53 a.m. to 6:45 p.m. Saturdays: 6:56 a.m. to 2:40 p.m. Sundays and holidays: 7:56 a.m. to 2:40 p.m.	30 minutes peak 60 minutes to four hours off-peak

Route 49 provides service between the southern Novato neighborhoods (Ignacio and Hamilton) and areas of Terra Linda (Kaiser Hospital and Northgate Mall) and the San Rafael Transit Center. Route 49 Southbound originates from Enfrente Road and Salvatore Drive in Ignacio and terminates at the San Rafael Transit Center. The Northbound Route 49 begins at the San Rafael Transit Center and terminates at the Ignacio Bus Pad.

Route 51 travels solely within Novato between San Marin in the northwest corner of Novato to Ignacio in the southern end of the city. Route 51 provides limited service on San Carlos Way as well as a midday trip between San Marin High School and Redwood Boulevard and Grant Avenue.

Route 51 Southbound originates in the San Marin neighborhood at San Marin Drive and San Andreas Drive and terminates at Enfrente Road and Salvatore Drive. Northbound Route 51 starts at the Ignacio Bus Pad and ends in San Marin at San Marin Drive and San Andreas Drive. Route 51 also serves the Vintage Oaks Shopping Center, Novato Community Hospital, and College of Marin’s Indian Valley Campus.

Route 52 links downtown Novato and the San Rafael Transit Center on weekdays, and between downtown Novato and Ignacio on weekends and holidays. Route 52 connects with Route 49 and provides service north of Ignacio in lieu of Route 51 on weekends and holidays.

Routes 49, 51, and 52 interline, which mean they share the same origin or terminus as well as share the same bus. On weekdays, Routes 49 and 51 interline to provide a one-seat ride (no transfer) between the San Rafael Transit Center and San Marin. On weekends and holidays, Routes 49 and Routes 52 interline to connect downtown Novato with the San Rafael Transit Center as well as the Vintage Oaks Shopping Center and Novato Community Hospital. No weekend service is provided currently to the San Marin neighborhood.

Route 71 offers limited-stop service between Novato, San Rafael Transit Center, and Marin City at Donahue Street and Terners Drive via Highway 101. At the Marin City Transit Center, Route 71 interlines with Route 10 to provide direct service to San Francisco.

Marin Transit Novato Dial-A-Ride

The Novato Dial-A-Ride program was introduced in August 2009. The service replaced the former EZ Rider service in Novato. The Novato Dial-A-Ride is intended to mobility gaps within Novato.

The Novato Dial-A-Ride provides curb-to-curb service within Novato. The service operates Monday through Friday from 7:30 a.m. to 11:00 a.m., and again, from 3:00 p.m. to 6:00 p.m. Reservations are required and can be made up to seven days in advance or on the same day, depending on seat availability. Weekend service operates 9:00 a.m. to 5:00 p.m. and requires same-day reservations.

Golden Gate Transit Fixed-Route Alignments

Routes 54, 56, and 58 operate as commuter bus routes linking Novato with downtown San Francisco. Exhibit B.2 presents a summary of these services.

Exhibit B.2 Golden Gate Transit Commuter Bus Service Summary

Route	Service Span	Frequency
Route 54 Southbound	Weekdays: 4:41 a.m. to 9:36 a.m.	10 to 20 minutes
Route 54 Northbound	Weekdays: 2:30 p.m. to 8:33 p.m.	10 to 30 minutes
Route 56 Southbound	Weekdays: 5:34 a.m. to 9:01 a.m.	30 minutes
Route 56 Northbound	Weekdays: 3:36 p.m. to 7:31 p.m.	30 minutes
Route 58 Southbound	Weekdays: 6:02 a.m. to 9:01 a.m.	30 minutes
Route 58 Northbound	Weekdays: 4:25 p.m. to 6:56 p.m.	30 minutes

Routes 70, 80, and 101 operate between San Francisco (Financial District), southern and central Marin County, Novato, and Sonoma County.

Exhibit B.3 Golden Gate Transit Fixed-Route Service Summary

Route	Service Span	Frequency
Route 70 Southbound	Weekdays: 5:26 a.m. to 9:11 p.m. and holidays: 5:30 a.m. to 10:05 p.m.	Weekends 30 minutes peak 60 minutes off-peak
Route 70 Northbound	Weekdays: 6:10 a.m. to 12:27 a.m. and holidays: 5:06 a.m. to 12:29 a.m.	Weekends 30 minutes peak 60 minutes off-peak
Route 80 Southbound	Weekdays: 4:01 a.m. to 12:41 a.m. and holidays: 3:42 a.m. to 12:37 a.m.	Weekends 60 minutes
Route 80 Northbound	Weekdays: 5:06 a.m. to 2:27 a.m. and holidays: 5:36 a.m. to 2:24 a.m.	Weekends 60 minutes
Route 101 Southbound	Weekdays: 4:46 a.m. to 7:18 p.m. 7:12 a.m. to 3:45 p.m.	Saturdays: 60 minutes
Route 101 Northbound	Weekdays: 6:03 a.m. to 10:43 p.m. 11:31 a.m. to 9:10 p.m.	Saturdays: 60 minutes

Combined Operations Performance Indicators

This section evaluates the performance of those Marin Transit and Golden Gate Transit routes serving Novato across a three-year period (FY 2007/08, FY 2008/09, and FY 2009/10). Exhibit B.4 presents a series of quantitative criteria to assess effectiveness and efficiency. Combined operations evaluations reflect performance of Marin Transit Routes 49, 51, 52, and 71; Golden Gate Transit Routes 54, 56, 58, 70, 80, 101 (the fixed-route service); and the Novato Dial-A-Ride program.

Exhibit B.4 Combined Operations Performance Indicators

Performance Measure	FY 2007/08	FY 2008/09	FY 2009/10
Operating Cost	\$24,488,220	\$24,042,466	\$23,830,424
<i>Percent Change</i>	0.0%	-1.8%	-0.9%
Fare Revenue	\$5,383,491	\$5,620,983	\$5,434,306
<i>Percent Change</i>	0.0%	4.4%	-3.3%
Vehicle Service Hours	137,683	139,184	131,572
<i>Percent Change</i>	0.0%	1.1%	-5.5%
Vehicle Service Miles	2,271,363	2,292,320	2,127,237
<i>Percent Change</i>	0.0%	0.9%	-7.2%
Passengers	2,618,246	2,558,301	2,330,179
<i>Percent Change</i>	0.0%	-2.3%	-8.9%
Performance Indicator			
Operating Cost/VSH	\$177.86	\$172.74	\$181.12
<i>Percent Change</i>	0.0%	-2.9%	4.9%
Operating Cost/VSM	\$10.78	\$10.49	\$11.20
<i>Percent Change</i>	0.0%	-2.7%	6.8%
Operating Cost/Passenger	\$9.35	\$9.40	\$10.23
<i>Percent Change</i>	0.0%	0.5%	8.8%
Passengers/VSH	19.02	18.38	17.71
<i>Percent Change</i>	0.0%	-3.3%	-3.6%
Passengers/VSM	1.15	1.12	1.10
<i>Percent Change</i>	0.0%	-3.2%	-1.8%
Farebox Recovery Ratio	22.0%	23.4%	22.8%
<i>Percent Change</i>	0.0%	6.3%	-2.5%
Fare/Passenger	\$2.06	\$2.20	\$2.33
<i>Percent Change</i>	0.0%	6.9%	6.1%

Combined Operations Total Unlinked Trips

Total unlinked trips on all services in Novato declined throughout the evaluation period by more than 288,000. Most of the ridership decline can be attributed to falling ridership on the non-commuter Golden Gate Transit routes (Routes 70 and 80) despite the addition of Route 101 service. The largest year-to-year ridership decline came between FY 2008/09 and FY 2009/10 which saw a near nine-percent decline in ridership, or approximately 228,000 fewer unlinked trips.

Undoubtedly the weak economy played a large role in the decline ridership. Since all of Golden Gate Transit's routes in Novato serve San Francisco and function as commuter services, it is not surprising to see a large decline in ridership given job losses throughout the region. Note, not all of the ridership declines occurred in Novato as the data quantifies the "end-to-end" count of each route.

Combined Operations Operating Cost/Vehicle Service Hour

Operating Cost/Vehicle Service Hour (VSH) illustrates the cost-effectiveness of a system or route reflective of the cost of providing a single hour of service.

Throughout the evaluation period, Operating Costs remained consistent despite a 5.5 percent reduction in service hours in FY 2009/10. As a result, the cost to provide a single hour of service in FY 2009/10 increased by five percent from the previous fiscal year. To stabilize Operating Costs, Marin Transit and Golden Gate implemented reductions in service hours. As service becomes increasingly more costly and fare revenues remain relatively constant, additional reductions may be necessary to allow sustainable operations.

Total ridership on all fixed route services fell over the evaluated period. Much of the decline came from Golden Gate Transit routes.

Combined Operations Operating Cost/Vehicle Service Mile

This metric measures cost-effectiveness of a transit service by evaluating total cost expended to operate a single mile of revenue service.

The Operating Cost/Vehicle Service Mile (VSM) metric closely mirrored the results of the Operating Cost /VSH metric above. Across the evaluation period, the metric declined slightly in FY 2008/09, followed by an increase of nearly seven percent in FY 2009/10. This again suggests it is becoming increasingly expensive to maintain the current service delivery plan.

Combined Operations Operating Cost/Passenger

Operating Cost/Passenger is another metric of cost-effectiveness. It indicates how much Marin Transit and Golden Gate Transit are spending to provide each unlinked trip.

Given the decline in ridership, it is not surprising to see this metric increase across the evaluation period. This means Marin Transit and Golden Gate Transit are spending more to transport fewer riders with each passing year. To reverse this trend, the operators will need to increase ridership and/or reduce Operating Costs.

Combined Operations Passengers/Vehicle Service Hour

Passengers/VSH is one of the more commonly-employed measures for assessing the productivity of a transit program. This metric quantifies the number of unlinked trips per single service hour.

In each subsequent fiscal year, the combined Marin Transit/Golden Gate Transit system transported fewer Passengers/VSH. Falling ridership led to the decline observed in this metric as it decreased by a greater percentage than the number of Vehicle Service

Hours. Since further reductions in VSH would prove unattractive to riders (i.e., less service and less convenience), the Marin Transit District and Golden Gate Transit should focus on stabilizing ridership as well as identifying ways to attract new customers (particularly among “choice” riders).

Combined Operations Passengers/Vehicle Service Mile

Passengers/VSM is another measurement for gauging transit performance and effectiveness. It calculates unlinked trips provided for each service mile.

The metric remained fairly stable across the evaluation period. The largest decrease came in FY 2008/09 when VSM increased slightly and ridership declined by just over two percent. This resulted in a three percent decline in the metric pointing to fewer riders per service mile. As with the other metrics, reversing ridership erosion should improve this metric.

Combined Operations Farebox Recovery Ratio

Farebox recovery ratio calculates the percentage of Operating Cost recovered through passenger fares. It is the most common measure of public subsidy of a transit service. The State of California requires Marin Transit and Golden Gate Transit have a farebox recovery ratio of not less than 20 percent in order to be eligible for TDA funding.

Across the evaluation period, the farebox recovery ratio was above the 20-percent threshold with the apex being FY 2008/09 at more than 23 percent. The 23-percent farebox recovery ratio was due to improved fare revenues accompanied by a decline in Operating Costs.

Combined Operations Fare/ Passenger

This metric illustrates the average fare paid for each per unlinked trip on Marin Transit and Golden Gate Transit.

Average fare per passenger across the evaluation period was \$2.20. Since fare revenue remained relatively flat despite the decline in ridership, this metric actually increased.

Note, since Golden Gate Transit uses a distance-based fare structure, the fare per passenger was greater than the full fare paid by Marin Transit patrons, which is a flat two dollars.

Exhibit B.5 Combined Operations Ridership

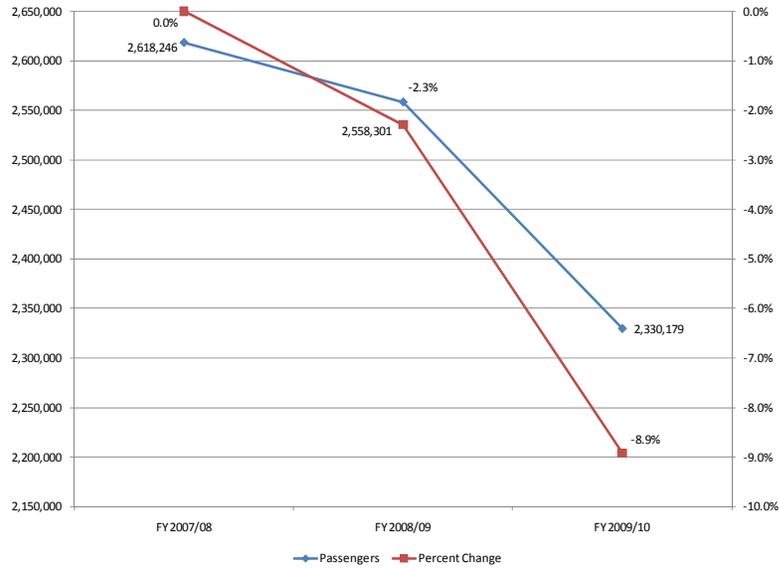


Exhibit B.6 Combined Operations Operating Cost/VSH

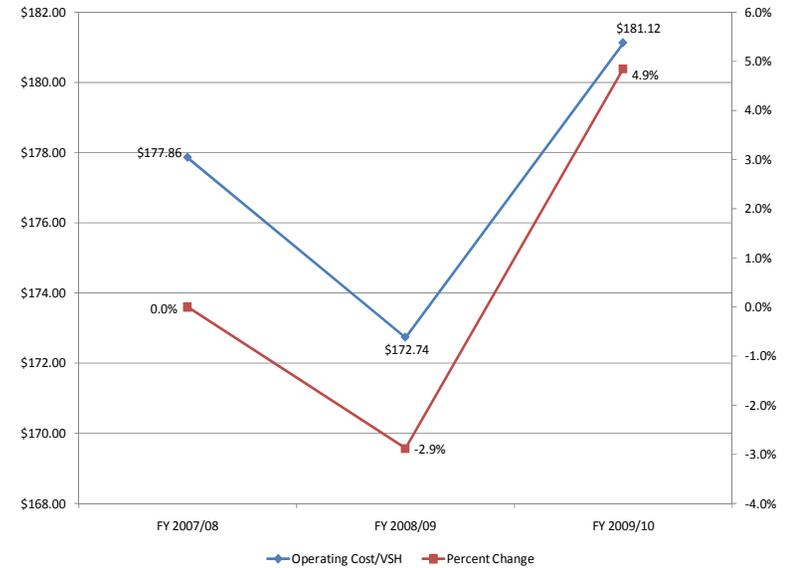


Exhibit B.7 Combined Operations Operating Cost/VSM

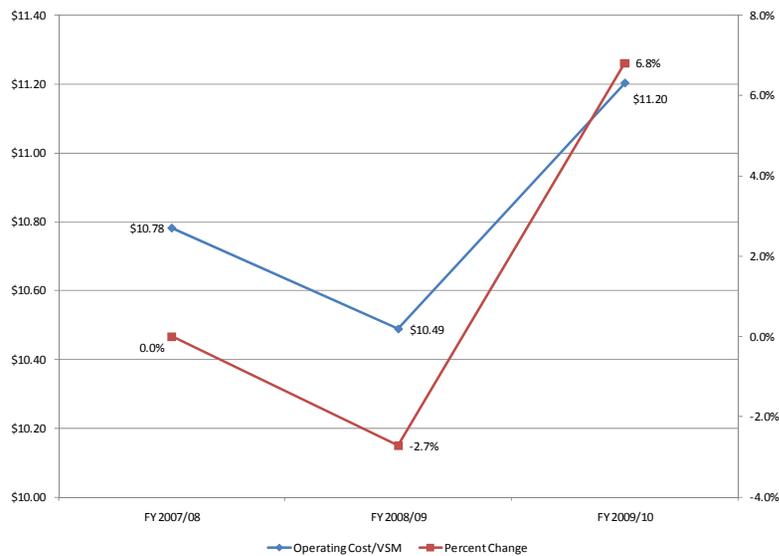


Exhibit B.8 Combined Operations Operating Cost/Passenger

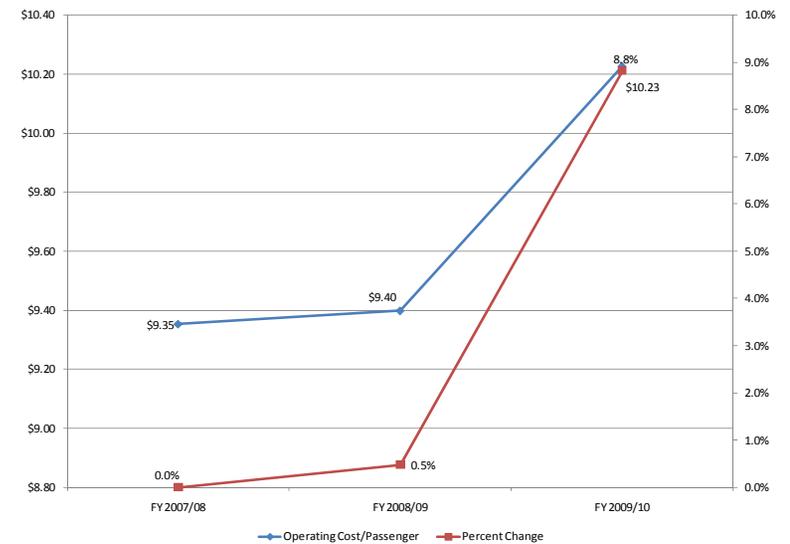


Exhibit B.9 Combined Operations Passengers/VSH

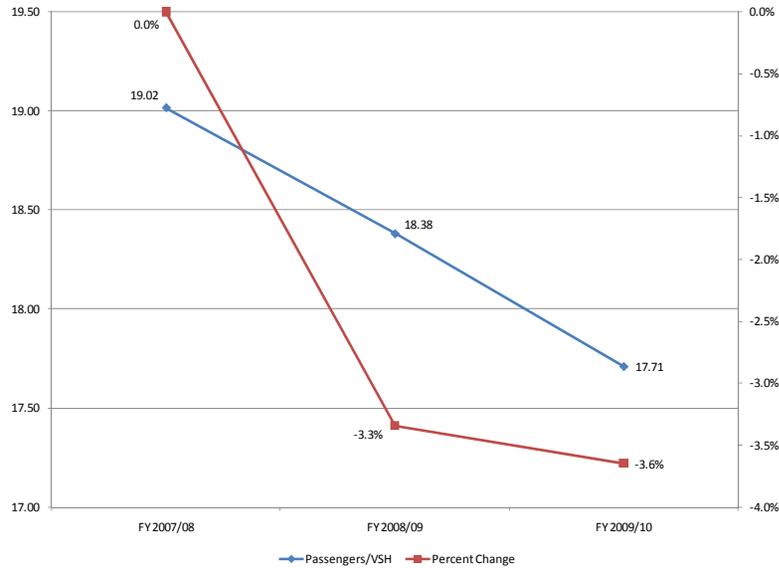


Exhibit B.10 Combined Operations Passengers/VSM

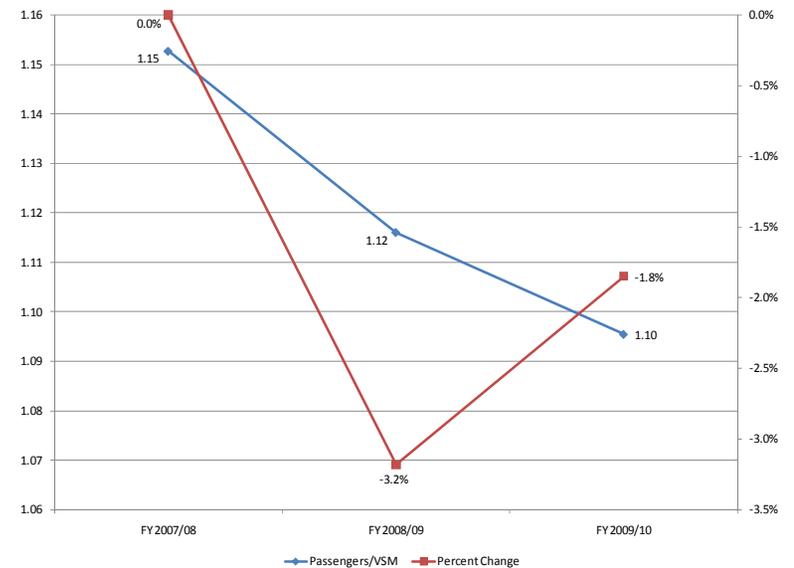


Exhibit B.11 Combined Operations Farebox Recovery Ratio

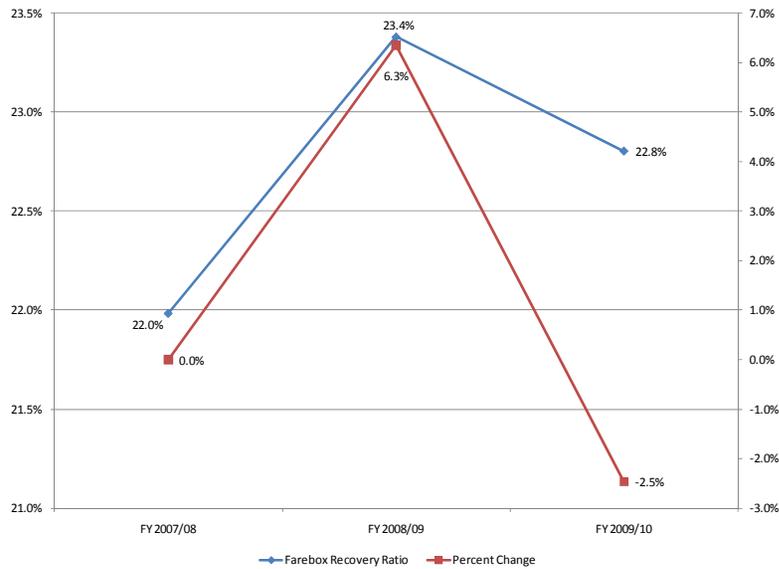
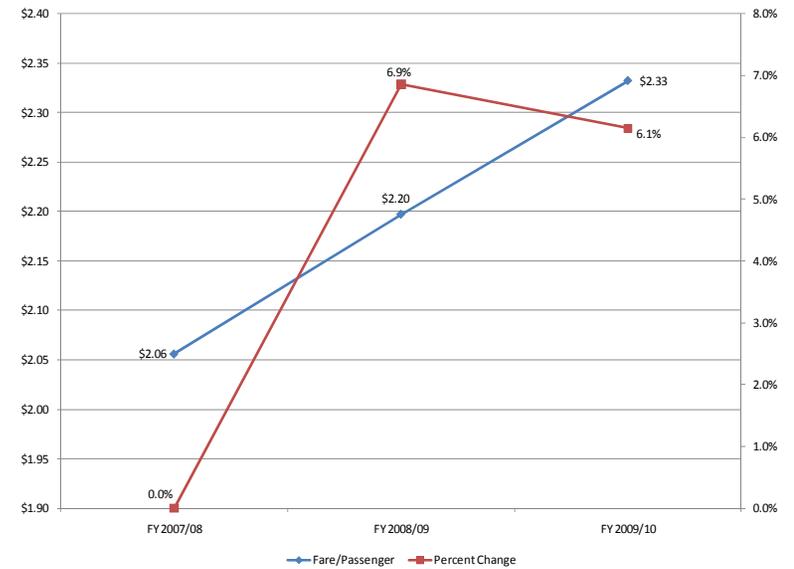


Exhibit B.12 Combined Operations Fare/Passenger



Marin Transit Fixed-Route Performance Indicators

This section evaluates Marin Transit’s fixed-route performance for routes serving Novato using a series of quantitative criteria to assess effectiveness and efficiency. The data cover the same fiscal years as the system analysis. This section examines only the four fixed routes and excludes the Novato Dial-A-Ride which will be addressed in the next section.

Exhibit B.13 Marin Transit Performance Indicators

Performance Measure	FY 2007/08	FY 2008/09	FY 2009/10
Operating Cost	\$3,759,109	\$4,053,764	\$4,365,384
<i>Percent Change</i>	0.0%	7.8%	7.7%
Fare Revenue	\$628,005	\$706,704	\$698,566
<i>Percent Change</i>	0.0%	12.5%	-1.2%
Vehicle Service Hours	32,603	35,031	35,159
<i>Percent Change</i>	0.0%	7.4%	0.4%
Vehicle Service Miles	469,230	512,877	476,802
<i>Percent Change</i>	0.0%	9.3%	-7.0%
Passengers	589,078	636,416	703,538
<i>Percent Change</i>	0.0%	8.0%	10.5%
Performance Indicator			
Operating Cost/VSH	\$115.30	\$115.72	\$124.16
<i>Percent Change</i>	0.0%	0.4%	7.3%
Operating Cost/VSM	\$8.01	\$7.90	\$9.16
<i>Percent Change</i>	0.0%	-1.3%	15.8%
Operating Cost/Passenger	\$6.38	\$6.37	\$6.20
<i>Percent Change</i>	0.0%	-0.2%	-2.6%
Passengers/VSH	18.07	18.17	20.01
<i>Percent Change</i>	0.0%	0.5%	10.1%
Passengers/VSM	1.26	1.24	1.48
<i>Percent Change</i>	0.0%	-1.2%	18.9%
Farebox Recovery Ratio	16.7%	17.4%	16.0%
<i>Percent Change</i>	0.0%	4.4%	-8.2%
Fare/Passenger	\$1.07	\$1.11	\$0.99
<i>Percent Change</i>	0.0%	4.2%	-10.6%

Marin Transit Ridership

Ridership on those Marin Transit fixed routes serving Novato increased throughout the evaluation period. The most recent fiscal year (FY 2009/10), saw a 10-percent increase in ridership which translated to nearly 70,000 additional annual boardings. This is promising given the overall fixed route system experienced ridership loss across the same period.

Marin Transit's ridership has increased over the past three fiscal years.

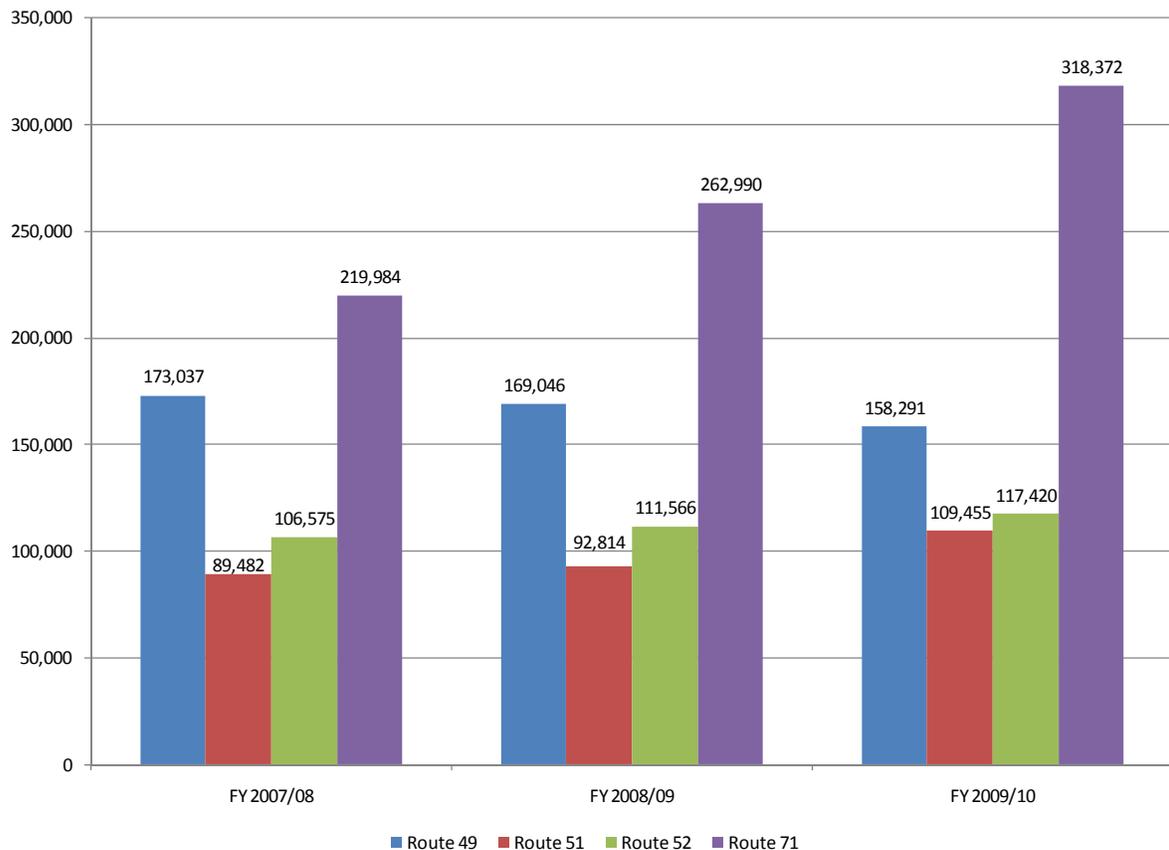
Marin Transit Ridership by Route

Three of the four Marin Transit Novato routes posted ridership increases across the evaluation period. By contrast, Route 49 lost riders over the evaluation period with the largest decline coming in FY 2009/10 (approximately six percent). Route 51 was especially successful, posting an 18-percent increase in FY 2009/10.

Of the four routes serving Novato, only portions of Routes 49 and 71 operate in Novato. Route 51 operates exclusively within Novato while Route 52 primarily serves Novato with limited-stop service to bus pads along Highway 101. To give a clearer picture of the actual number of unlinked trips in Novato, we estimated the number of unlinked trips by route based on share of passenger activity for stops in Novato versus system-wide.

Based on the Ride Check data, we estimate about 16.5 percent of unlinked trips for Route 49 occur in Novato which translates to 26,118 annual unlinked trips. For Route 52, about 78.5 percent of unlinked trips occur in Novato or 92,175 annual unlinked trips. In terms of Route 71, 32.5 percent of unlinked trips occur in Novato. This translates to 103,471 annual unlinked trips. The entirety of Route 51 operates within Novato and thus 100 percent of the unlinked trips occur within the city limits.

Exhibit B.14 Marin Transit Ridership by Route



Marin Transit Operating Cost/Vehicle Service Hour

Across the evaluation period, the cost to operate an hour of service increased. The largest increase at seven percent came in FY 2009/10. Increasing Operating Costs (e.g., fuel, insurance, labor, etc.) combined with little change to VSH resulted in increased cost. While steady increases in Operating Cost often be explained by inflation, cost control (especially in periods of ridership loss) is critical.

Marin Transit Operating Cost/Vehicle Service Mile

The cost to provide one mile of service increased significantly between FY 2008/09 and FY 2009/10. This was led primarily by a near eight-percent increase in Operating Costs and a seven-percent drop in VSM. This means the reduction in VSM did not translate to overall operational savings. As a result, it became much more costly to provide an equivalent level of service in FY 2009/10 than in previous fiscal years. This is likely due to the fact the Marin Transit District contracts with outside entities (in this case Golden Gate Transit) for the day-to-day

Marin Transit Operating Cost/Passenger

The Operating Cost/Passenger declined across the evaluation period due largely to ridership gains outpacing increases in Operating Costs. In FY 2009/10, Operating Cost/Passenger declined by 17 cents. Stabilizing Operating Costs should improve this metric especially if ridership on Marin Transit’s Novato fixed-route services continues to grow.

Subtracting the fare/passenger from the operating cost/passenger gives us the subsidy level/passenger. Riders on the fixed routes services collectively are subsidized approximately \$5.20 per trips (based on FY 09/10). This number exceeds the agency’s performance threshold of \$5.00 per trip.

Marin Transit Passengers/Vehicle Service Hour

Over the evaluation period, Marin Transit transported more Passengers for every Vehicle Service Hour provided. The increase in this metric over the evaluation period points to an overall increase in route productivity for the Marin Transit system in Novato. In 2009/10, the combined performance in this metric narrowing exceeded the agency’s performance threshold of 20 passengers/VSH.

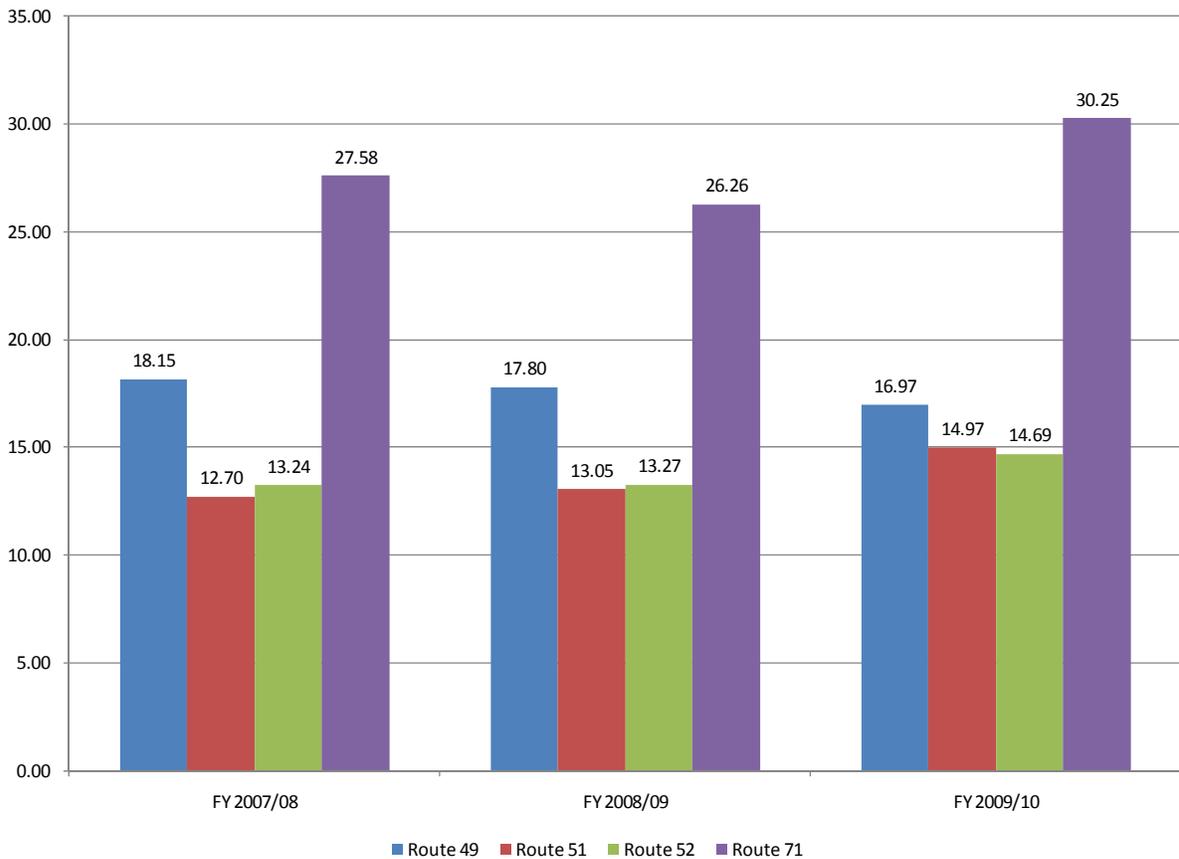
Marin Transit Passengers/ Vehicle Service Hour by Route

On a route-by-route basis, Route 71 had the highest productivity with Route 49 as the next most productive route based on this metric. Despite losing riders over the evaluation period, Route 49 still had the second highest ridership by route in Novato. Additionally, Route 71 saw a large increase in service hours during FY 2008/09 which translated into significant ridership gains.

It is important to note that all routes except Route 71 operate below the agency’s productivity goal of 20 passengers/VSH. System-wide, these routes are three of the four lowest performing routes under this metric. While these routes continue to show signs of improvement, their performance is still among the worst compared to other similar services in the county.

Three of the four lowest performing Marin Transit routes in terms of Passengers/VSM operate in Novato (Route 49, 51, 52).

Exhibit B.15 Marin Transit Passengers/Vehicle Service Hour by Route



Marin Transit Passenger/Vehicle Service Mile

The Passenger/VSM metric posted a slight decline in FY 2008/09 followed by an increase of almost 19 percent in FY 2009/10. The decline observed in FY 2008/09 is attributable to VSM growth slightly outpacing ridership growth. In other words, Marin Transit effectively allocated the supply of VSM to meet passenger demand.

In FY 2009/10, there was a 10-percent increase in ridership while VSM declined by seven percent. This translated to more Passengers per VSM and consequently boosted this metric.

Marin Transit Farebox Recovery Ratio

As previously noted, the Marin Transit District is required to achieve a farebox recovery ratio of not less than 20 percent in order to be eligible to receive State TDA funds. The farebox recovery ratio fluctuated throughout the evaluation period yet never reached the 20-percent threshold.

Marin Transit Fare/Passenger

The Fare/Passenger metric experienced a four-percent increase in FY 2008/09 followed by a near 11-percent decrease in FY 2009/10. Any increase in this metric suggests more patrons are paying the full fare which was likely the case in FY 2008/09. However, the Fare/Passenger in FY 2009/10 was ninety-nine cents and suggests with discounted or reduced fares were riding the four Novato lines. As a result, fare revenue declined during FY 2009/10 and consequently negatively impacted the farebox recovery ratio and the Fare/Passenger metric.

Exhibit B.16 Marin Transit Ridership

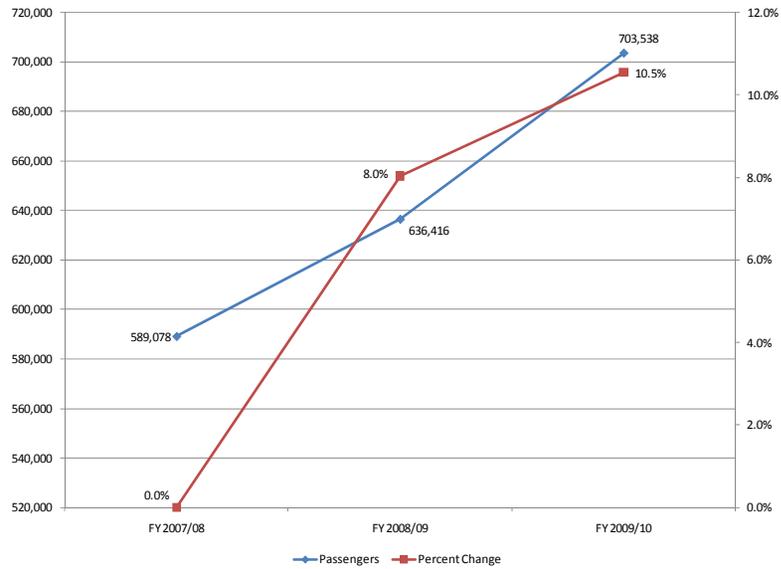


Exhibit B.17 Marin Transit Operating Cost/VSH

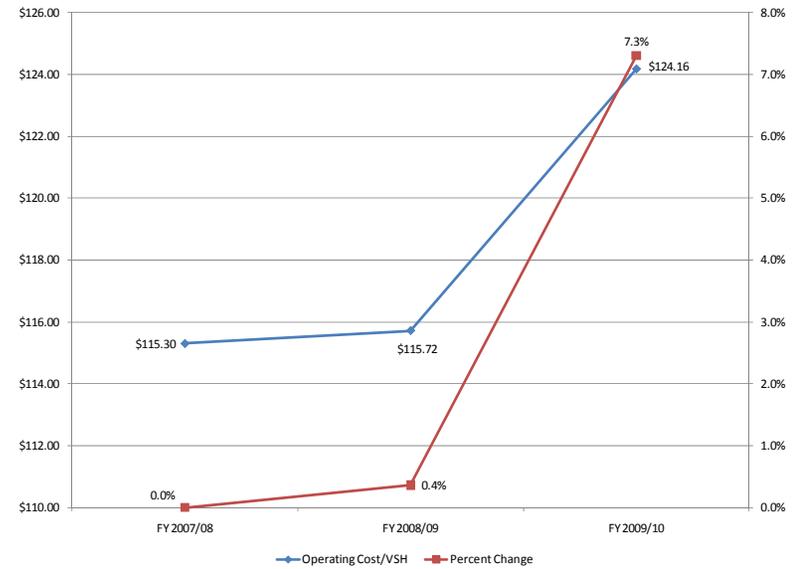


Exhibit B.18 Marin Transit Operating Cost/VSM

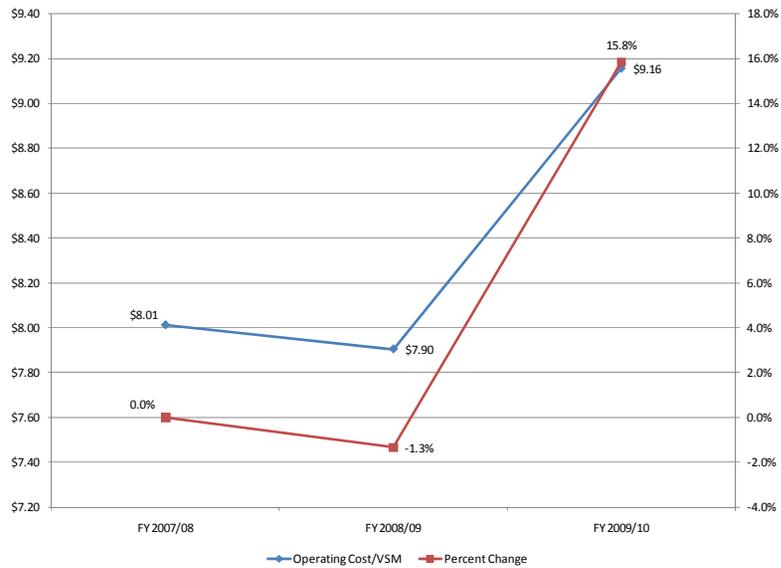


Exhibit B.19 Marin Transit Operating Cost/Passenger

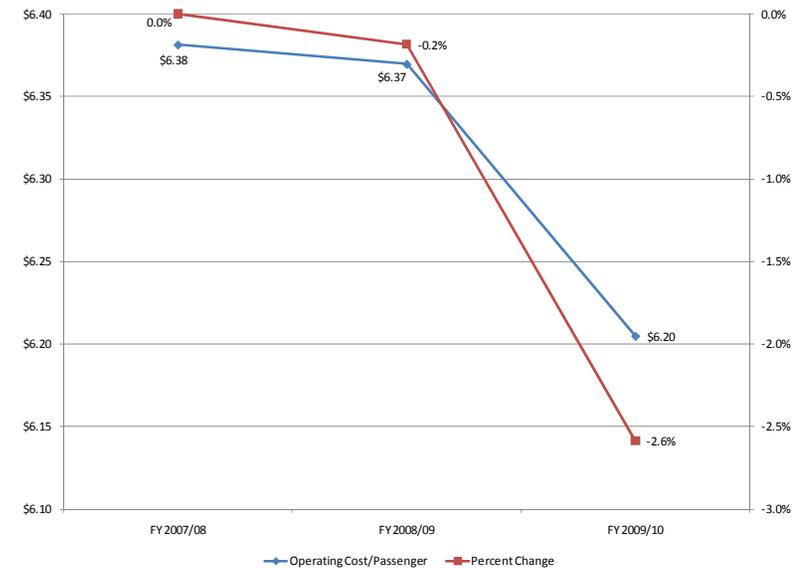


Exhibit B.20 Marin Transit Passengers/VSH

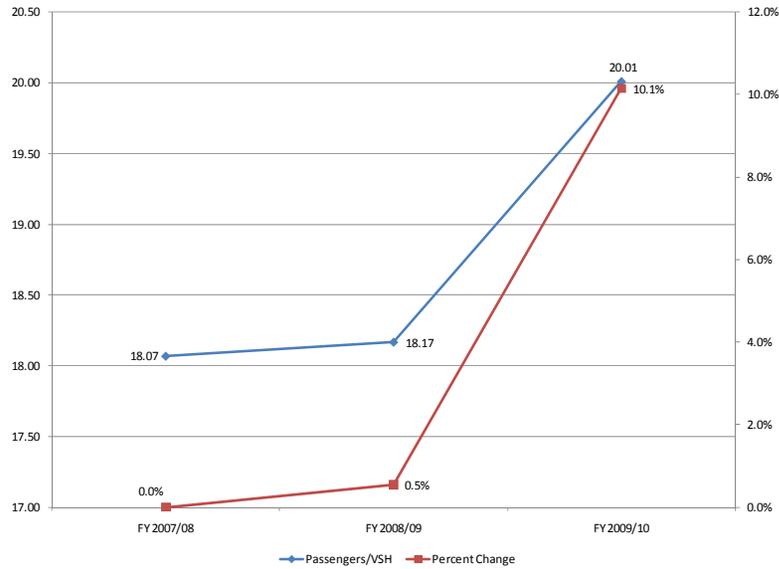


Exhibit B.21 Marin Transit Passengers/VSM

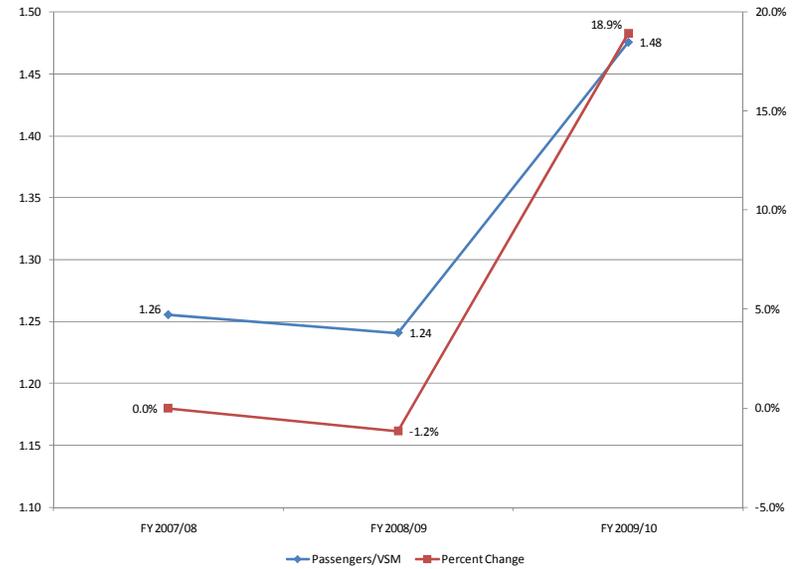


Exhibit B.22 Marin Transit Farebox Recovery Ratio

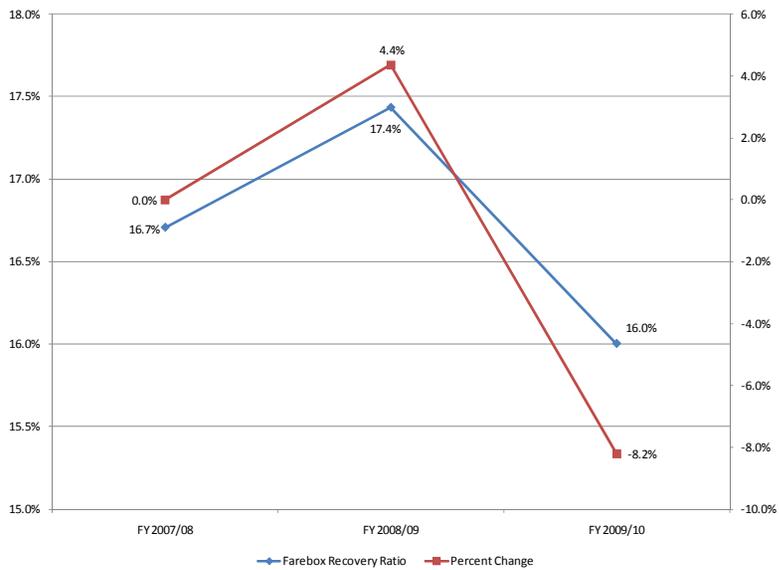
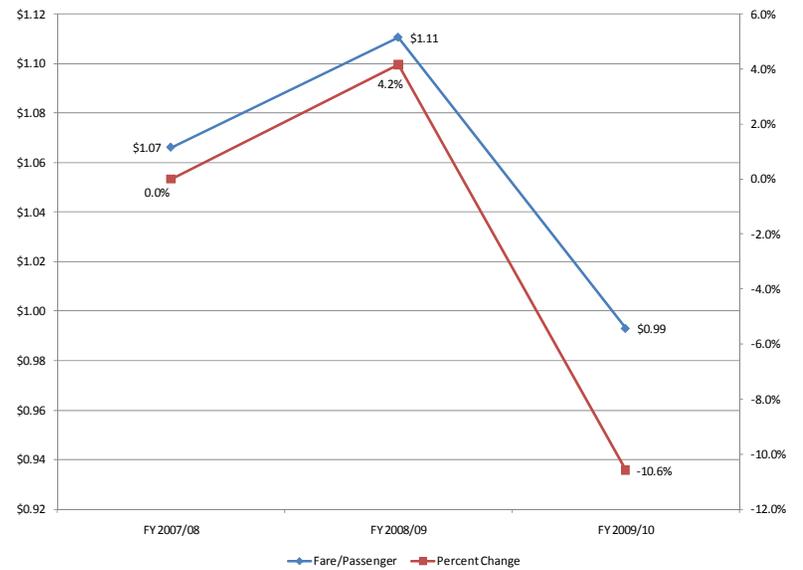


Exhibit B.23 Marin Transit Fare/Passenger



Marin Transit Novato Dial-A-Ride Performance Indicators

This section evaluates Marin Transit’s Novato Dial-A-Ride performance using a series of quantitative criteria to assess effectiveness and efficiency. The data cover the same fiscal years as the system analysis.

Exhibit B.24 Novato Dial-A-Ride Performance Indicators

Performance Measure	FY 2007/08	FY 2008/09	FY 2009/10
Operating Cost	\$120,893	\$115,764	\$124,267
<i>Percent Change</i>	0.0%	-4.2%	7.3%
Fare Revenue	\$6,306	\$5,491	\$6,806
<i>Percent Change</i>	0.0%	-12.9%	24.0%
Vehicle Revenue Hours	2,098	2,009	2,145
<i>Percent Change</i>	0.0%	-4.2%	6.8%
Vehicle Revenue Miles	25,810	22,943	28,144
<i>Percent Change</i>	0.0%	-11.1%	22.7%
Passengers	4,251	4,049	5,699
<i>Percent Change</i>	0.0%	-4.8%	40.8%
Performance Indicator			
Operating Cost/VSH	\$57.63	\$57.63	\$57.95
<i>Percent Change</i>	0.0%	0.0%	0.5%
Operating Cost/VSM	\$4.68	\$5.05	\$4.42
<i>Percent Change</i>	0.0%	7.7%	-12.5%
Operating Cost/Passenger	\$28.44	\$28.59	\$21.81
<i>Percent Change</i>	0.0%	0.5%	-23.7%
Passengers/VSH	2.03	2.02	2.66
<i>Percent Change</i>	0.0%	-0.5%	31.8%
Passengers/VSM	0.16	0.18	0.20
<i>Percent Change</i>	0.0%	7.2%	14.7%
Farebox Recovery Ratio	5.2%	4.7%	5.5%
<i>Percent Change</i>	0.0%	-9.1%	15.5%
Fare/Passenger	\$1.48	\$1.36	\$1.19
<i>Percent Change</i>	0.0%	-8.6%	-11.9%

Novato Dial-A-Ride Ridership

Despite ridership losses in earlier years, the Dial-A-Ride annual ridership increased 41 percent in FY 2009/2010. This significant increase in ridership can be attributed to Marin Transit replacing the EZ Rider service with the Novato Dial-A-Ride. By revising program parameters/policies that open the service to all residents and allows same-day trip scheduling, the Novato Dial-A-Ride is able to draw from a larger potential customer pool.

Novato Dial-A-Ride Operating Cost/Vehicle Service Hour

The Operating Cost/VSM stayed relatively flat across the evaluation period as Operating Costs and VSM changed at nearly the same rate. The metric points to the proper allocation of revenue hours vs. their costs by the District. Since many customers indicated a desire for additional Dial-A-Ride service, Marin Transit will have to work to stabilize or reduce Operating Costs while increasing service.

Novato Dial-A-Ride Operating Cost/Vehicle Service Mile

This metric fluctuated across the evaluation period with a near eight-percent increase in FY 2008/09 and a 12-percent decline in FY 2009/10. If the data for FY 2009/10 are an indication of future performance, this metric suggests Marin Transit is operating the Dial-A-Ride service in a more cost-effective manner when compared to the EZ Rider program. In FY 2009/10 revenue miles increased by approximately 23 percent while Operating Costs only increased by eight percent. In other words, Marin Transit was able to provide more revenue miles while not substantially increasing Operating Costs.

Novato Dial-A-Ride Operating Cost/Passenger

Overall this metric points to effective administration and operation of the Novato Dial-A-Ride service.

Despite a modest half-percent increase in FY 2008/09, the transition to the Novato Dial-A-Ride

service seems to have resulted to a substantial decrease in the cost of providing the service on a per-passenger basis. In FY 2009/10, the metric showed a near 24-percent decrease in Operating Cost/passenger. Should this trend continue, Marin Transit could expect to see improved farebox recovery for the service.

Since the transition from the EZ Rider program, the Novato Dial-A-Ride has become a more efficient operation.

Novato Dial-A-Ride Passengers/Vehicle Service Hour

The Dial-A-Ride service across the evaluation period averaged approximately 2.2 Passengers/VSH. FY 2009/10 had nearly three Passengers/VSM, suggesting the Dial-A-Ride service is seeing improved productivity.

Novato Dial-A-Ride Passengers/Vehicle Service Mile

Across the evaluation period, the Novato Dial-A-Ride saw an increase in the number of Passengers/VSM. Overall this means more Novato residents are using the service more and points to increased service productivity and the potential need to add additional service to meet the growing demand (i.e., fill-in midday service and expand the service day earlier in the morning and later in the evening).

Novato Dial-A-Ride Farebox Recovery Ratio

Dial-A-Ride services typically have lower farebox recovery ratios than fixed-route services because they utilize vehicles with lower capacity and cater to the needs of riders with specialized travel needs and reduced fares.

Across the evaluation period, the farebox recovery ratio dipped by more than nine percent in FY 2008/09 yet recovered in FY 2009/10 by 15 percent. The farebox recovery rate seems to be improving since Marin Transit changed the EZ Rider service to the Novato Dial-A-Ride.

Novato Dial-A-Ride Fare/ Passenger

Over the evaluation period the Fare/Passenger dropped from \$1.48 to \$1.19. The decline in Fare/Passenger, as well as increasing ridership, points to more patrons using reduced fares. This is consistent with the survey of Dial-A-Ride patrons which revealed the largest customer demographic is “seniors.”

Exhibit B.25 Novato Dial-A-Ride Ridership

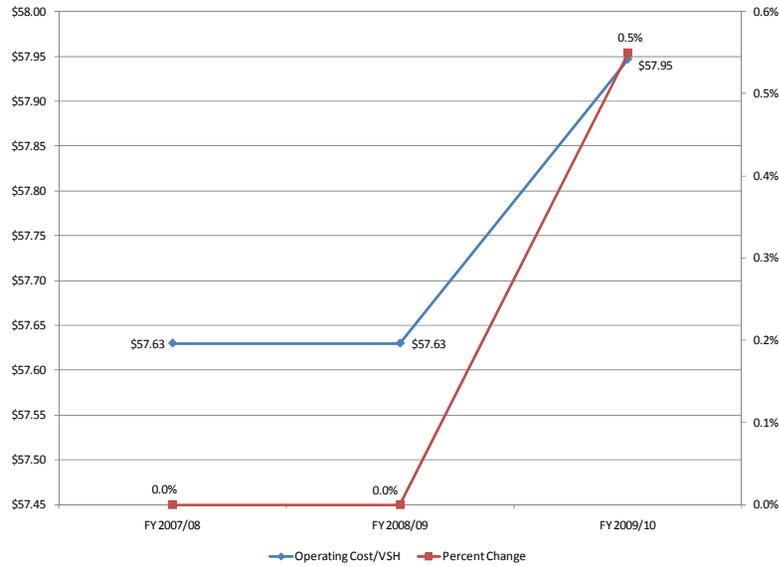


Exhibit B.26 Novato Dial-A-Ride Operating Cost/VSH

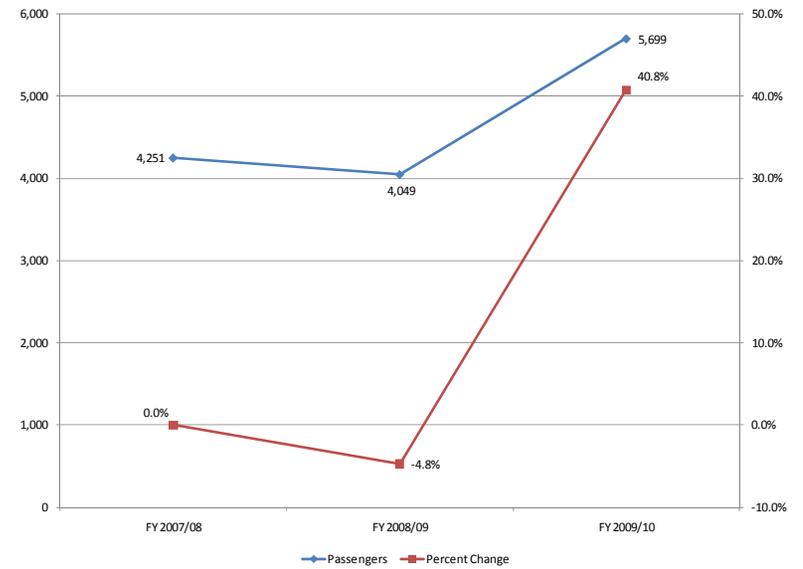


Exhibit B.27 Novato Dial-A-Ride Operating Cost/VSM

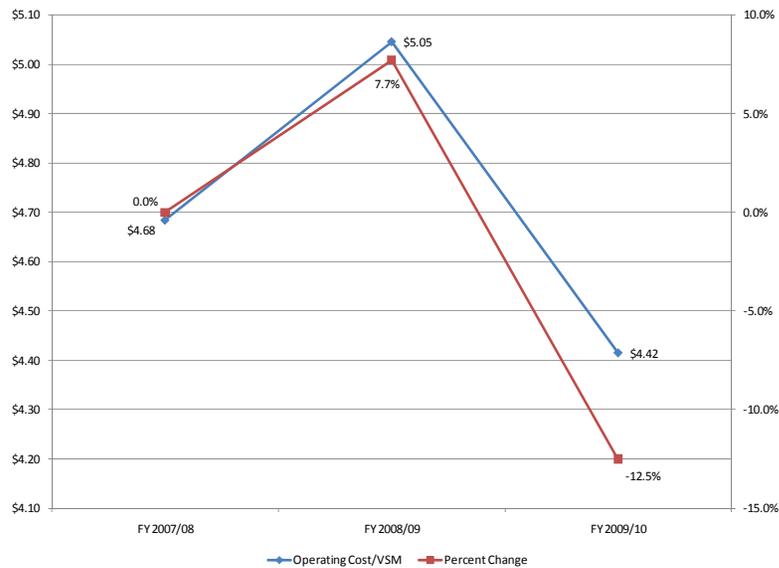


Exhibit B.28 Novato Dial-A-Ride Operating Cost/Passenger

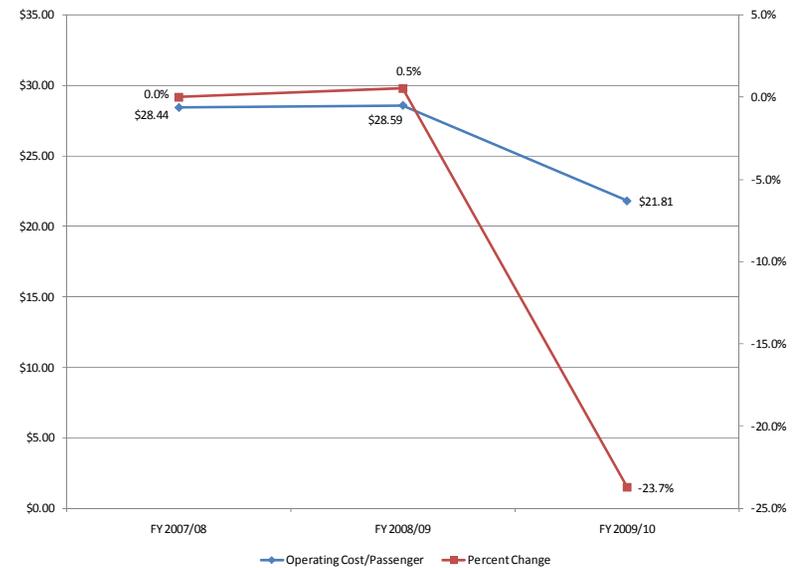


Exhibit B.29 Novato Dial-A-Ride Passengers/VSH

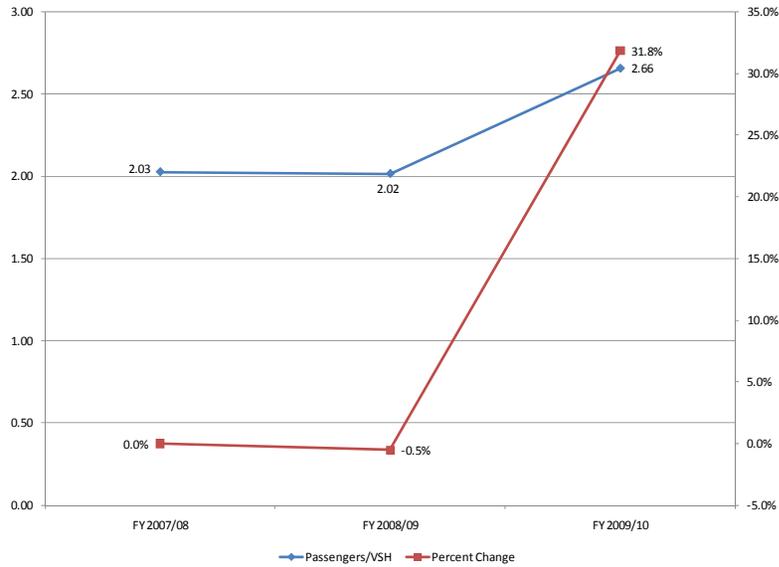


Exhibit B.30 Novato Dial-A-Ride Passengers/VSM

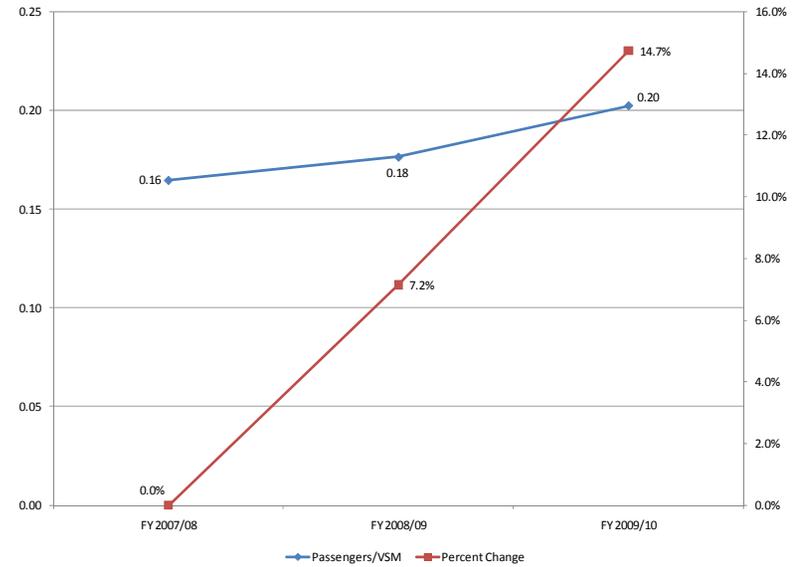


Exhibit B.31 Novato Dial-A-Ride Farebox Recovery Ratio

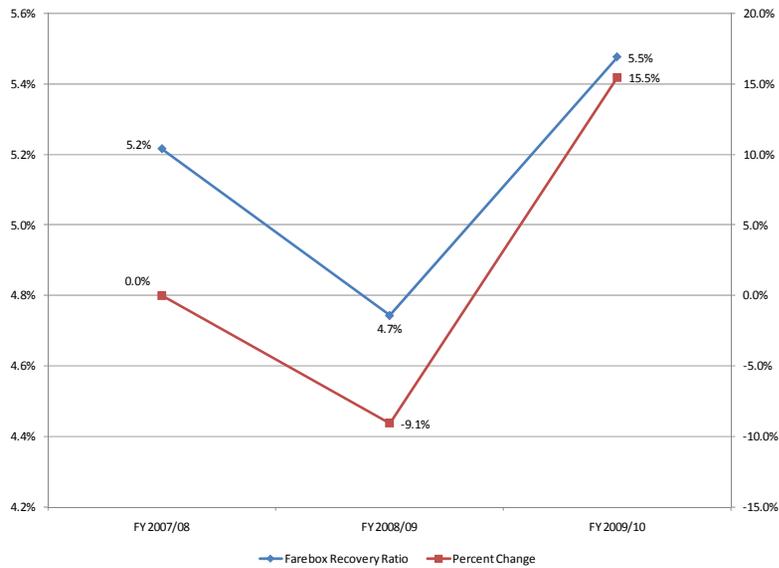
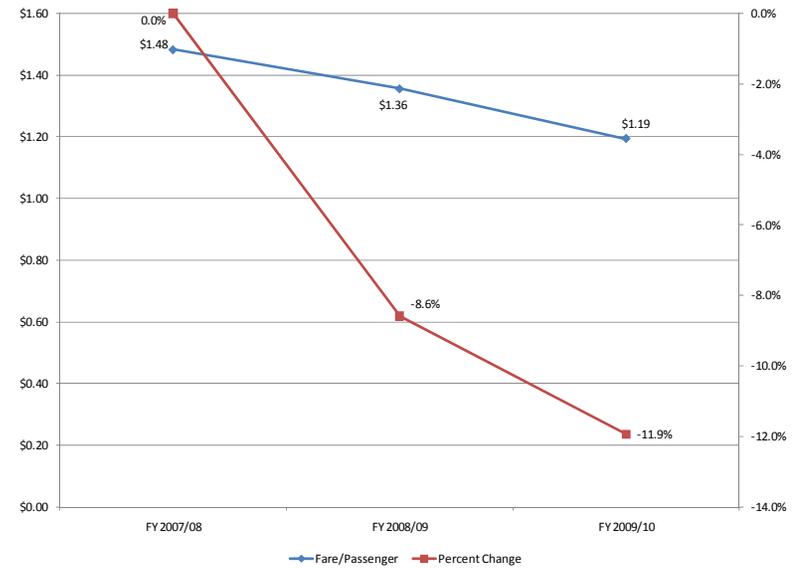


Exhibit B.32 Novato Dial-A-Ride Fare/Passenger



Golden Gate Transit Performance Indicators

This section evaluates Golden Gate Transit's performance for routes serving Novato using a series of quantitative criteria to assess effectiveness and efficiency. The data covers the same period as the system analysis.

Exhibit B.33 Golden Gate Transit Performance Indicators

Performance Measure	FY 2007/08	FY 2008/09	FY 2009/10
Operating Cost	\$20,608,217	\$19,872,938	\$19,340,773
Percent Change	0.0%	-3.6%	-2.7%
Fare Revenue	\$4,749,180	\$4,908,789	\$4,728,935
Percent Change	0.0%	3.4%	-3.7%
Vehicle Service Hours	105,080	104,153	96,413
Percent Change	0.0%	-0.9%	-7.4%
Vehicle Service Miles	1,802,133	1,779,443	1,650,435
Percent Change	0.0%	-1.3%	-7.2%
Passengers	2,024,917	1,917,836	1,620,942
Percent Change	0.0%	-5.3%	-15.5%
Performance Indicator			
Operating Cost/VSH	\$196.12	\$190.81	\$200.60
Percent Change	0.0%	-2.7%	5.1%
Operating Cost/VSM	\$11.44	\$11.17	\$11.72
Percent Change	0.0%	-2.3%	4.9%
Operating Cost/Passenger	\$10.18	\$10.36	\$11.93
Percent Change	0.0%	1.8%	15.1%
Passengers/VSH	19.27	18.41	16.81
Percent Change	0.0%	-4.4%	-8.7%
Passengers/VSM	1.12	1.08	0.98
Percent Change	0.0%	-4.1%	-8.9%
Farebox Recovery Ratio	23.0%	24.7%	24.5%
Percent Change	0.0%	7.2%	-1.0%
Fare/Passenger	\$2.35	\$2.56	\$2.92
Percent Change	0.0%	9.1%	14.0%

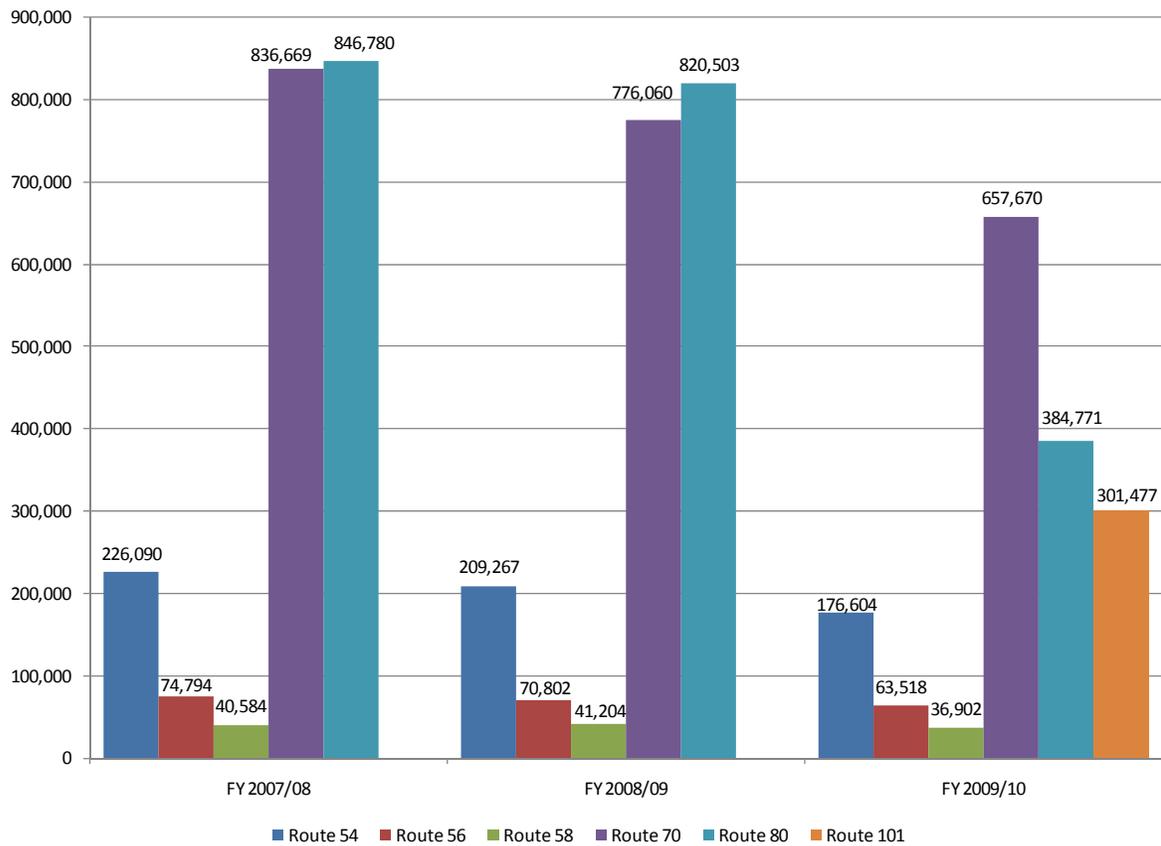
Golden Gate Transit Ridership

Across the evaluation period, Golden Gate Transit experienced declining ridership. FY 2009/10 was the worst year for the operator with ridership declining more than 15 percent. The decline is likely due to the weakening regional economy which reduced demand for home-to-work trips made via transit, especially to San Francisco which is the primary destination for southbound Golden Gate Transit routes (and the primary starting point of afternoon/evening northbound trips). Additionally, continued service reductions brought about by declining operating funds is believed to have negatively impacted ridership.

Golden Gate Transit Ridership by Route

On an individual route basis, Route 80 had the most riders until FY 2009/10 which saw the introduction of Route 101. Based on the data, it seems Route 101 split ridership between the three routes (70, 80 and 101) rather than improving overall ridership. All routes experienced declining ridership over the evaluation period.

Exhibit B.34 Golden Gate Transit Ridership



Golden Gate Transit Operating Cost/Vehicle Service Hours

This metric varied slightly across the evaluation period with a five-percent increase in FY 2009/10. This metric increased because Operating Costs did not decline at the same rate as the reduction in VSH. Overall this suggests Golden Gate Transit should seek to reduce other factors impacting Operating Costs as service reductions do not seem to have the desired effect.

Golden Gate Transit Operating Cost/Vehicle Service Miles

Operating Cost/VSM mirrored closely the results found in the Operating Cost/VSH metric. As with the finding above, the increase in this metric noted in FY 2009/10 was likely due to reductions in VSM not resulting in proportional reductions in Operating Costs.

Golden Gate Transit Operating Cost/Passenger

Operating Cost/Passenger increased throughout the evaluation period and especially so in FY 2009/10. This trend is due solely to the sharp declines in ridership while Operating Costs only fell by three percent. Overall this points to Golden Gate Transit having to spend more in Operating Costs to transport each passenger.

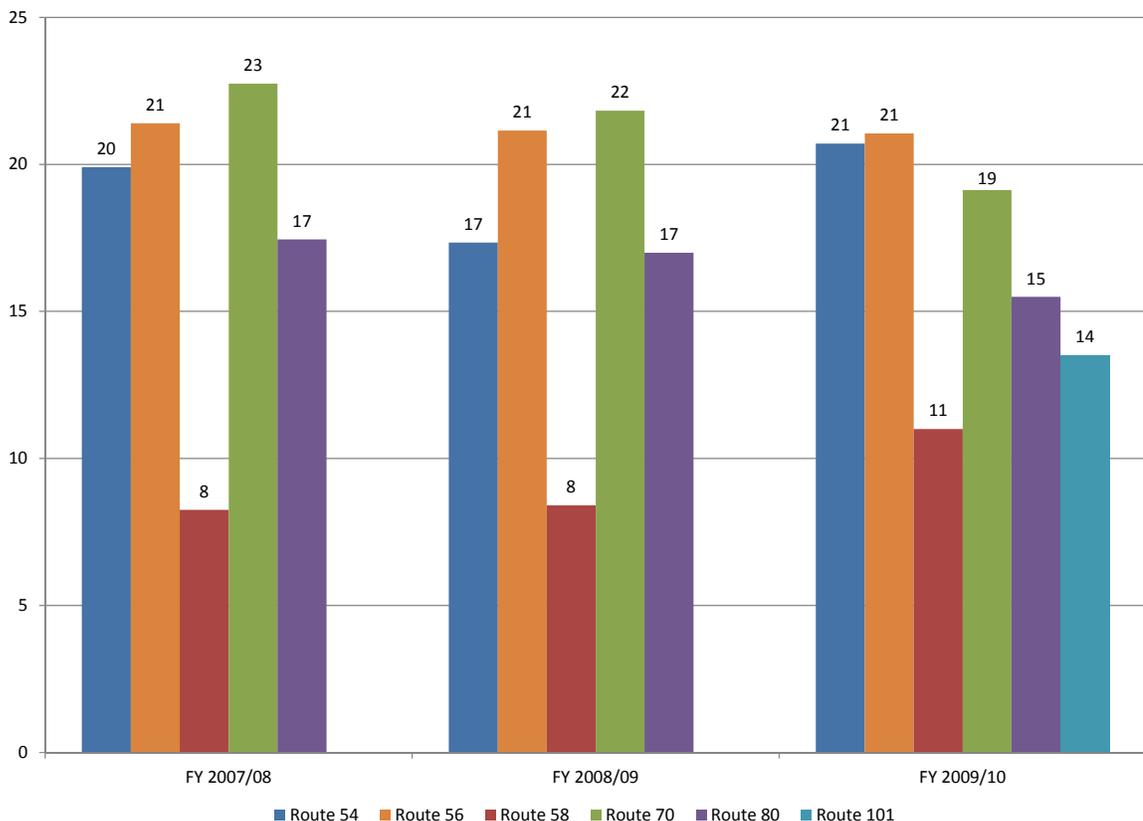
Golden Gate Transit Passengers/Vehicle Service Hours

The number of Passengers/VSH declined throughout the evaluation period. The observed decline in this metric was driven by sharply declining ridership rather than drastic reductions in service hours. As noted above, weakened demand for commuter bus service is likely the reason this metric declined throughout the evaluation period.

Golden Gate Transit Passengers/Vehicle Service Hours by Route

Across the evaluation period, Route 70 was the most productive based on this metric. Route 70 was closely followed by Route 56 which evolved into the most productive route in FY 2009/10. Here again, the addition of Route 101 appears to have negatively impacted productivity for those routes serving the Highway 101 corridor (Routes 70, 80, and 101).

Exhibit B.35 Golden Gate Transit Passengers/Vehicle Service Hours by Route



Golden Gate Transit Passengers/Vehicle Service Miles

This metric declined at an increasing rate over the evaluation period. The seven-percent reduction in VSM combined with a more than 15-percent decline in ridership led to a near nine-percent decrease in this metric. Overall, this metric points to Golden Gate Transit transporting fewer patrons per mile unless ridership recovers.

Golden Gate Transit Farebox Recovery Ratio

Despite declining ridership, fare revenue remained relatively stable. As a result, Golden Gate Transit was able to maintain a farebox recovery ratio above 20 percent over the evaluation period. FY 2008/09 was the best fiscal year for this metric as it rose to nearly 25 percent.

While operating above the 20 percent farebox recovery ratio standard, Golden Gate Transit has seen passenger declines likely due to the weak economy.

Golden Gate Transit Fare/ Passenger

Over the evaluation period the Fare/Passenger increased, especially in FY 2009/10. The increase in this metric suggests more patrons are paying the full fare and/or the number of transit riders qualifying for reduced fares are using the service less. Overall, the metric points to a higher farebox recovery rate as patrons continue to pay the full rather than the more subsidized reduced fares.

Exhibit B.36 Golden Gate Transit Ridership

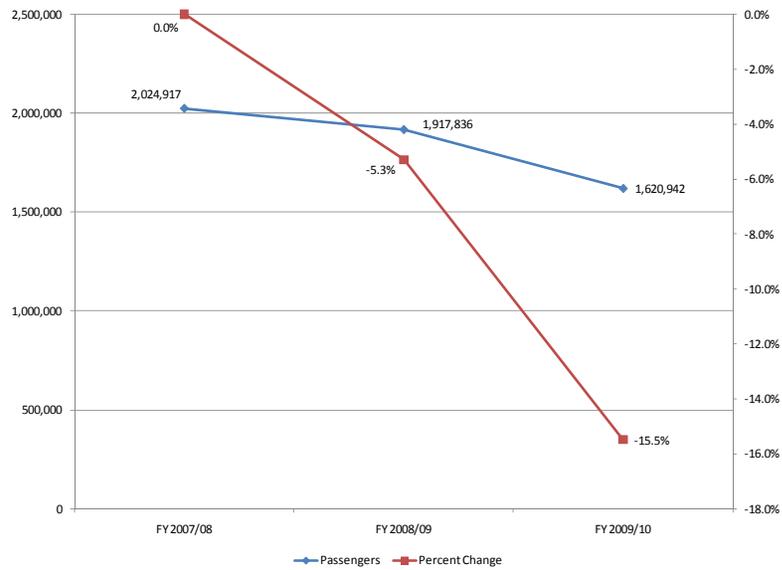


Exhibit B.37 Golden Gate Transit Operating Cost/VSH

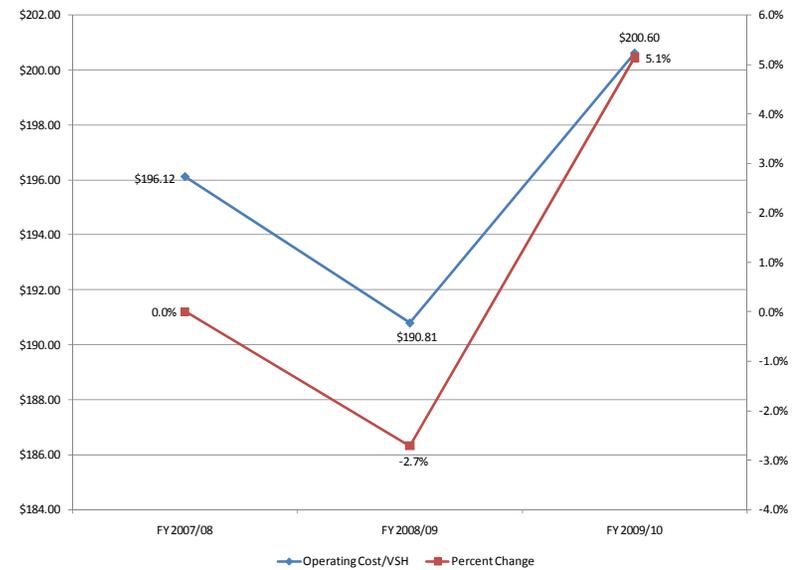


Exhibit B.38 Golden Gate Transit Operating Cost/VSM

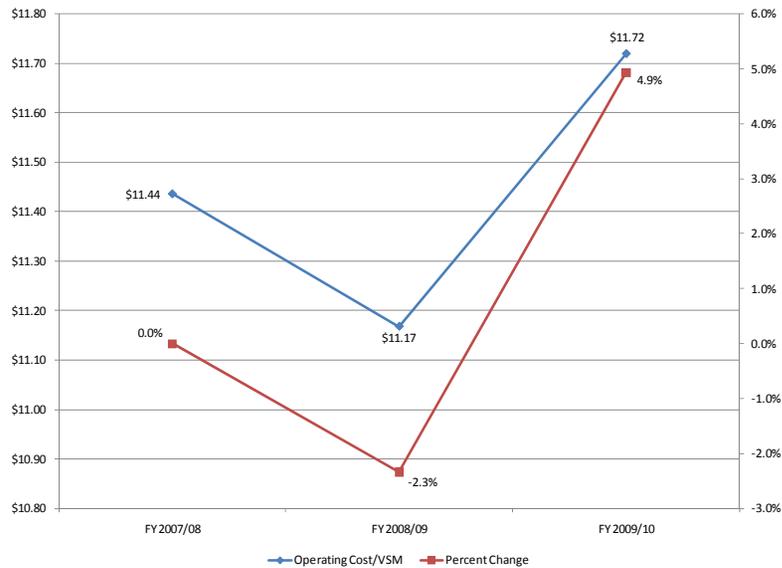


Exhibit B.39 Golden Gate Transit Operating Cost/Passenger

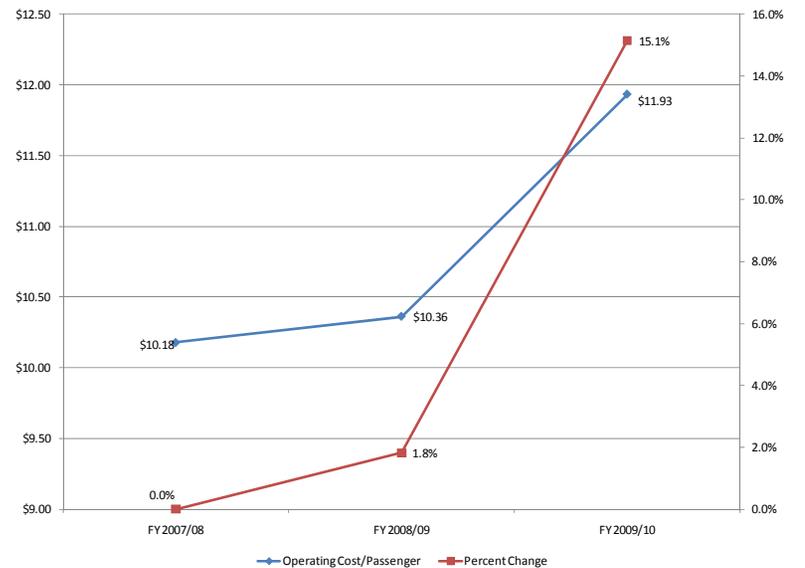


Exhibit B.40 Golden Gate Transit Passengers/VSH

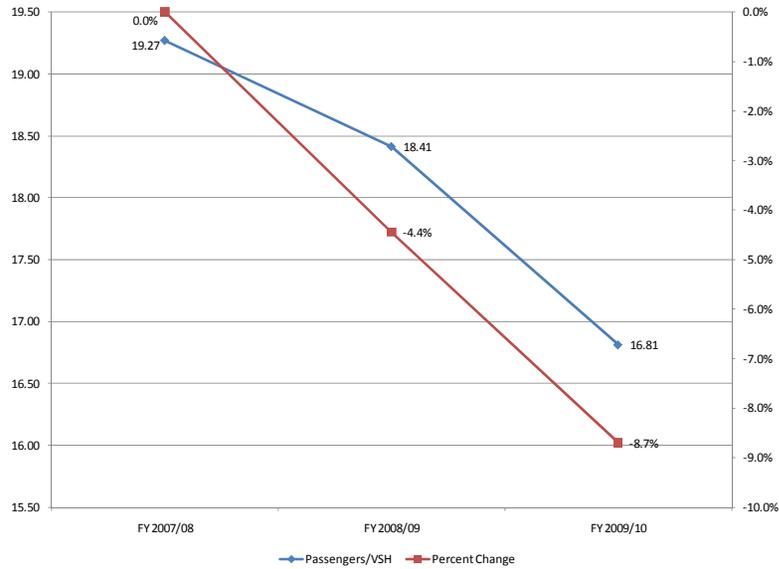


Exhibit B.41 Golden Gate Transit Passengers/VSM

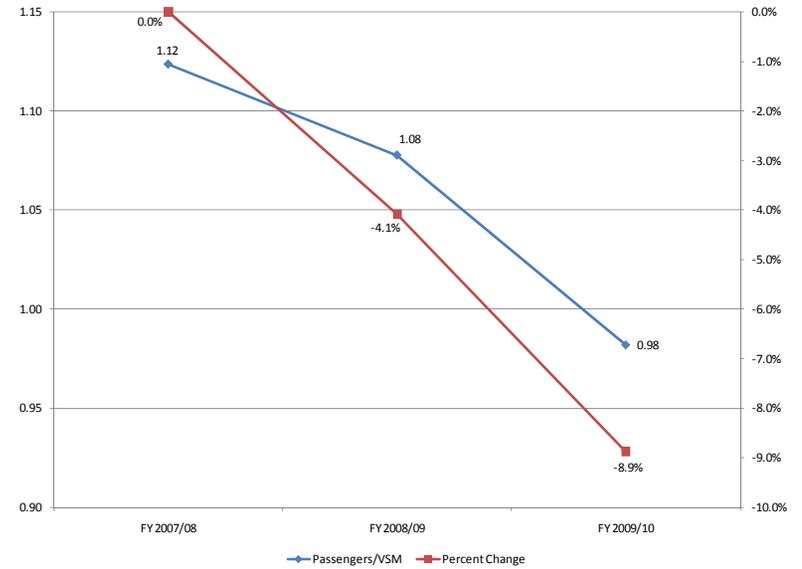


Exhibit B.42 Golden Gate Transit Farebox Recovery Ratio

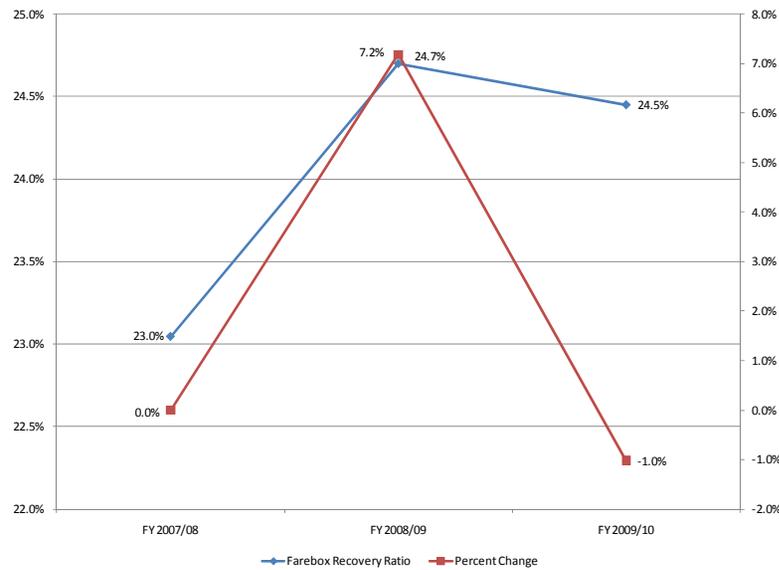
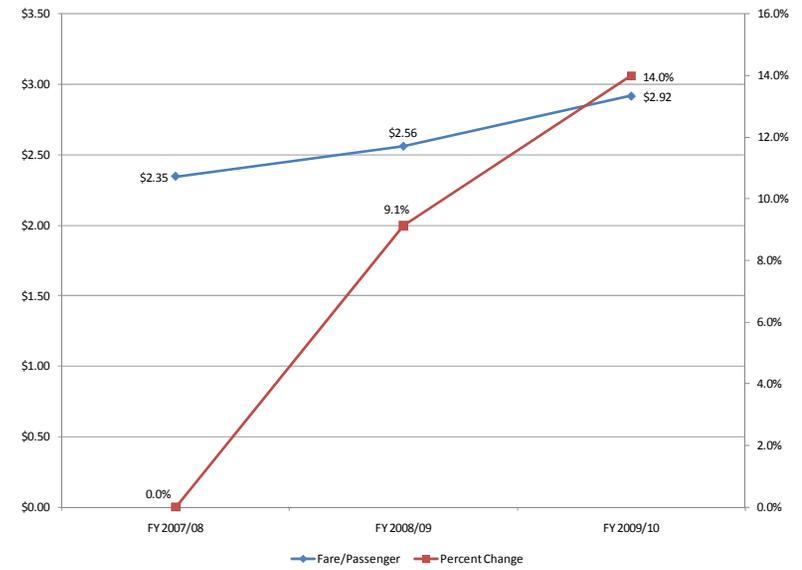


Exhibit B.43 Golden Gate Transit Fare/Passenger



Service Evaluation Summary

The evaluation of performance data revealed several key points.

- In contrast to Golden Gate Transit, Marin Transit’s fixed-route service experienced increasing ridership throughout the evaluation period.
- Three of the four lowest performing Marin Transit routes (in terms of passengers/VSH) serve Novato (Routes 49, 51 and 52). All three of these routes are significantly below the 20 passenger per hour goal.
- Despite the growth in riders, Marin Transit’s fixed-route service operated below the required 20-percent farebox recovery ratio under the Transit Development Act (TDA). Based on the data, we recommend Marin Transit focus on stabilizing Operating Costs.
- The Novato Dial-A-Ride appears to be functioning more efficiently and effectively since the transition from the EZ Rider service. Since the start of the Novato Dial-A-Ride program, ridership and farebox recovery have grown.
- Golden Gate Transit had a farebox recovery ratio well above the 20 percent required under the TDA. Unfortunately, a weak economy reduced demand for commuter trips and service cuts resulted in declining ridership throughout the evaluation period. Since many Fixed-Route Survey respondents indicated a desire for more commuter bus service, we believe demand will rebound for those Golden Gate Transit routes serving Novato.



C. PEER REVIEW

APPENDIX C – PEER REVIEW

In this section Marin Transit’s performance in Novato was compared with selected transit operators through a performance peer review. A peer review utilizes a quantitative methodology for assessing how efficiently and effectively a public transit service is in providing service in comparison with peer transit providers.

Effectiveness is defined as the extent by which a service is achieving its intended goals. By contrast, *efficiency* is the amount of resources required to achieve the reported outcome.

Our analysis examines the level of service each peer provides relative to the size of its service area and the number of persons residing therein. The peers include the Cities of Arcadia, Chula Vista, Petaluma, Roseville; and the Santa Cruz Metropolitan Transit District’s service within the city of Watsonville. All peer data reflect actual FY 2008/2009 performance.

Selected Peers

The table below presents the primary service characteristics of the selected peers. In addition to characteristics below, we chose peers based on transit services offered, service area (in square miles), and service area population.

Selected Peers

The table below presents the primary service characteristics of the selected peers. In addition to characteristics below, we chose peers based on transit services offered, service square miles, and service area population.

Exhibit C.1 Selected Peer Characteristics

	Arcadia Transit	Chula Vista Transit	Petaluma Transit	Roseville Transit	Santa Cruz Metro (Watsonville)	Marin Transit (Novato)	Average
Performance Measures							
Operating Cost	\$1,462,150	\$7,037,391	\$2,159,414	\$4,715,565	\$10,646,106	\$4,169,528	\$5,204,125
Fare Revenue	\$69,240	\$1,660,821	\$170,493	\$852,355	\$1,109,199	\$712,194	\$772,422
Annual Vehicle Service Miles	235,410	1,254,529	282,909	839,199	1,230,919	535,820	768,593
Annual Vehicle Service Hours	25,160	115,523	23,603	58,887	81,680	37,040	60,971
Annual Unlinked Trips	109,150	3,411,300	180,864	433,957	1,598,245	640,465	1,146,703

Marin Transit – Novato

Marin Transit funds and administers public transit service throughout Marin County. In Novato, Marin Transit contracts with the Golden Gate Transit District for the day-to-day operations of Routes 49, 51, 52, and 71. The District also contracts with the Marin Senior Coordinating Council, Inc. (also known as Whistlestop Wheels) to operate the Novato Dial-A-Ride service. The fixed-route operates from 6:00 a.m. to 7:00 p.m. on weekdays, and from 7:00 a.m. to 8:00 p.m.

on weekends. The Novato Dial-A-Ride operates from 7:30 a.m. to 6:00 p.m. with a four-hour midday service gap on weekdays. Weekend service is offered from 9:00 a.m. to 5:00 p.m.

Marin Transit fixed-route fares are two dollars for the general public and one dollar for seniors (defined as those 65 years or older), youth, and persons with disabilities. Use of the regional smart card (also known as Clipper) entitles an adult rider to a 20-cent discount on the base fare when using Clipper's stored-value option. Marin Transit also offers a day pass priced at \$5.00 for the general public and \$2.50 for seniors, youth, persons with disabilities; a seven-day pass which is \$20.00 for the general public and \$10.00 for seniors, youth, persons with disabilities; and a 31-day pass which is \$80.00 for the general public, \$40.00 for youth, and \$20.00 for seniors and persons with disabilities. The Novato Dial-A-Ride has an identical fare structure. Finally, all children under the age of six ride free on Marin Transit-funded services when accompanied by a fare-paying adult.

Arcadia Transit

Arcadia Transit is a general public dial-a-ride service operating chiefly within the city of Arcadia. The service has been operating for 25 years in a fairly suburban, yet compact area. Arcadia Transit serves chiefly school-aged youth and seniors while LA Metro offers fixed-route service through the city. The service operates Monday through Friday from 7:00 a.m. to 9:30 p.m. and on weekends from 7:00 a.m. to 7:00 p.m.

Customers can request travel on a same-day basis or up to seven days in advance. The City also honors standing reservations as long as the trip is for the same day, time, and location. Cancellations must be made at least one hour before the scheduled pick-up time. To discourage the incidence of patron "no shows," the City reserves the right to refuse service to patrons who repeatedly fail to cancel trips within the stipulated notification timeframe.

Arcadia Transit's base fare is one dollar for the general public and 25 cents for seniors (defined at 62 years or older) and persons with disabilities. The City also offers a ticket book for 20 trips priced at \$20.00. For seniors and persons with disabilities, the City offers a monthly passes priced at five dollars.

Chula Vista Transit

Chula Vista is a suburb of San Diego and has experienced relatively fast population growth over the past decade. The City of Chula Vista provides both fixed-route service as well as coordinating with MTS, the regional transit provider, to provide paratransit service within the city. Chula Vista Transit features 10 fixed-route alignments. The service operates Monday through Friday from 5:45 a.m. to 10:00 p.m., and on weekends from 7:30 a.m. to 8:00 p.m.

The adult (one-way) fixed-route fare is \$2.25 and \$1.10 for seniors (defined at 62 years or older) and persons with disabilities. Riders can also purchase day passes, premium day passes, and two-, three-, and four-day passes for \$5.00, \$11.00, \$9.00, \$12.00, and \$15.00 respectively.

Unlimited-ride monthly passes are also available at \$72.00 for the general public, \$36.00 for youth, and \$18.00 for seniors and persons with disabilities.

Petaluma Transit

Petaluma is largely a bedroom community similar to Novato. The City of Petaluma provides both fixed-route and paratransit service operating chiefly within city limits. The fixed-route service features six alignments with slight route variations based on time of day. The fixed-route service operates from 6:20 a.m. to 6:15 p.m. on weekdays, and Saturday from 7:20 a.m. to 5:45 p.m. The dial-a-ride service operates Monday through Friday from 6:20 a.m. to 6:15 p.m., and on Saturday, 7:20 a.m. to 5:45 p.m. The dial-a-ride service is limited to seniors aged 65 and older and persons with disabilities.

Petaluma Transit fixed-route fares are \$1.25 for the general public, one dollar for students, and 50 cents for seniors and persons with disabilities. The City also offers 10-ride passes for \$12.50 for the general public, \$10.00 for students, and \$5.00 for seniors and persons with disabilities. Patrons can also purchase 12-ride passes onboard the bus for \$27.00. This will be increased to \$30 effective July 1, 2011. Unlimited-ride monthly passes are also available. For the general public, the cost is \$30.00, \$20.00 for students, and \$15 for seniors and persons with disabilities. The fare for the dial-a-ride service is \$2.25 (increased to \$2.50 on July 1).

Roseville Transit

The city of Roseville is a relatively fast-growing suburb of Sacramento. The City of Roseville provides intra-city bus service, dial-a-ride service, and commuter service to Sacramento. Roseville Transit offers 10 fixed-route alignments which run weekdays from 6:00 a.m. to 6:30 p.m., and on Saturday from 8:00 a.m. to 5:00 p.m.

Roseville Transit fares are \$1.50 for the general public and 75 cents for seniors, youth and persons with disabilities. Roseville Transit offers a day pass priced at \$4.00 for the general public; and \$2.00 for seniors, youth and persons with disabilities. Patrons can also purchase a 20-ride ticket book for \$30.00 (\$15 for seniors, youth, and persons with disabilities) and a monthly pass for \$58.00 (\$29.00 for seniors, youth, and persons with disabilities). A reduced-fare summer youth pass is available from June through August.

Santa Cruz METRO – Watsonville

Watsonville is a small town near Santa Cruz which has a predominately agricultural-based economy with a high concentration of low-income, transportation-disadvantaged individuals. Santa Cruz METRO is responsible for providing public transit service throughout Santa Cruz County as well as inter-community service. In Watsonville, METRO offers nine fixed-route alignments as well as complimentary paratransit service. The fixed-route service operates from 5:40 a.m. to 9:00 p.m. on weekdays. One fixed-route operates from 6:00 a.m. to 8:00 p.m. on weekends. The paratransit service operates seven days a week from 6:00 a.m. to 10:30 p.m.

METRO fares are \$1.50 for the general public and youth and 75 cents for seniors and persons with disabilities. The unlimited-ride day pass is \$4.50 for the general public and \$2.25 for seniors and persons with disabilities. METRO also offers a monthly pass priced at \$50.00 for the general public, \$35.00 for youth, and \$25.00 for seniors and persons with disabilities.

Peer Review

The Peer Review compares Marin Transit’s key performance indicators for FY 2008/09 with the Cities of Arcadia, Chula Vista, Petaluma, Roseville; and the Santa Cruz Metropolitan Transit District’s service within the city of Watsonville.

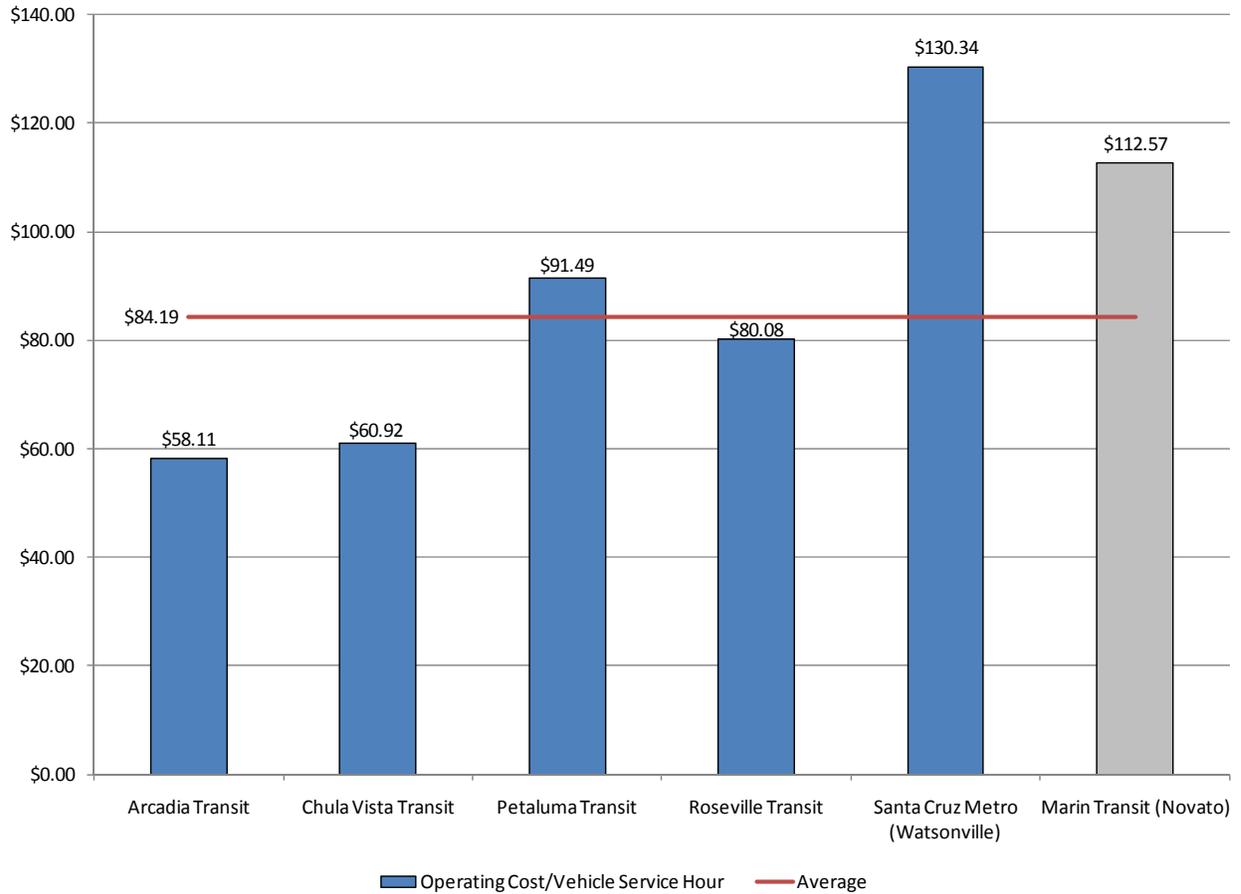
Exhibit C.2 Key Indicators

	Arcadia Transit	Chula Vista Transit	Petaluma Transit	Roseville Transit	Santa Cruz Metro (Watsonville)	Marin Transit (Novato)	Average
Performance Measures							
Operating Cost	\$1,462,150	\$7,037,391	\$2,159,414	\$4,715,565	\$10,646,106	\$4,169,528	\$5,204,125
Fare Revenue	\$69,240	\$1,660,821	\$170,493	\$852,355	\$1,109,199	\$712,194	\$772,422
Annual Vehicle Service Miles	235,410	1,254,529	282,909	839,199	1,230,919	535,820	768,593
Annual Vehicle Service Hours	25,160	115,523	23,603	58,887	81,680	37,040	60,971
Annual Unlinked Trips	109,150	3,411,300	180,864	433,957	1,598,245	640,465	1,146,703
Performance Indicators							
Operating Cost/Vehicle Service Hour	\$58.11	\$60.92	\$91.49	\$80.08	\$130.34	\$112.57	\$84.19
Operating Cost/Vehicle Service Mile	\$6.21	\$5.61	\$7.63	\$5.62	\$8.65	\$7.78	\$6.74
Operating Cost/Passenger	\$13.40	\$2.06	\$11.94	\$10.87	\$6.66	\$6.51	\$8.99
Passengers/Vehicle Service Hour	4.34	29.53	7.66	7.37	19.57	17.29	\$13.69
Passengers/Vehicle Service Mile	0.46	2.72	0.64	0.52	1.30	1.20	\$1.13
Farebox Recovery Ratio	4.7%	23.6%	7.9%	18.1%	10.4%	17.1%	\$0.13
Fare /Passenger	\$0.63	\$0.49	\$0.94	\$1.96	\$0.69	\$1.11	\$0.94

Operating Cost/Vehicle Service Hour

Marin Transit’s Operating Cost/VSH is \$112.57, higher than the peer average (\$84.19). By contrast, Roseville Transit is below the peer average despite having nearly identical Operating Cost. However, Marin Transit operates in a more cost-effective manner than Santa Cruz METRO by about \$18.00 per service mile which we believe may be attributable to the agency’s work rules.

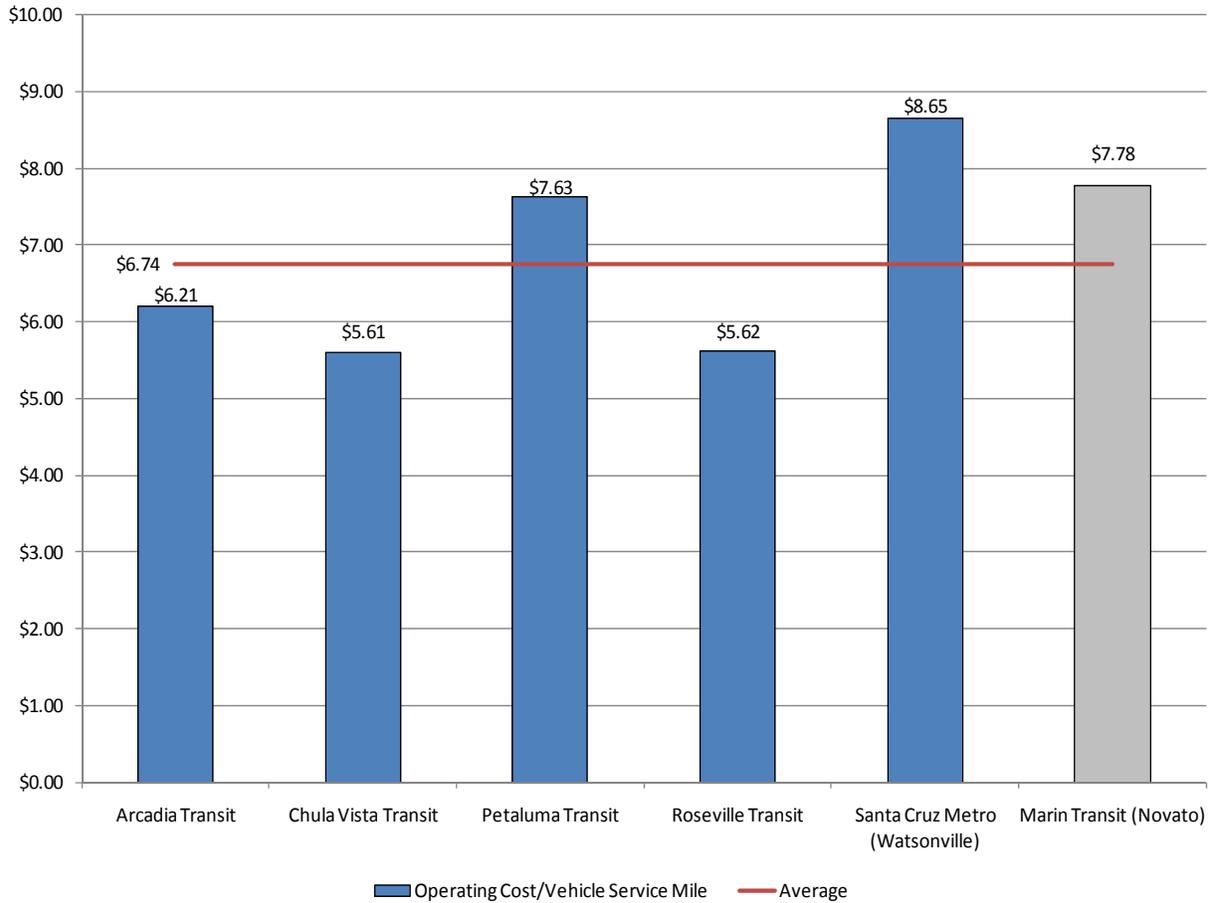
Exhibit C.3 Operating Cost/Vehicle Service Hour



Operating Cost/Vehicle Service Mile

Marin Transit’s Operating Cost/VSM is slightly higher than the peer average of \$6.74. Overall, Santa Cruz METRO posted the highest cost per mile at \$8.65 followed by Marin Transit at \$7.78, and Petaluma Transit. This suggests Marin Transit is not operating as cost-effectively as its peers, especially when compared to Chula Vista Transit and Roseville Transit.

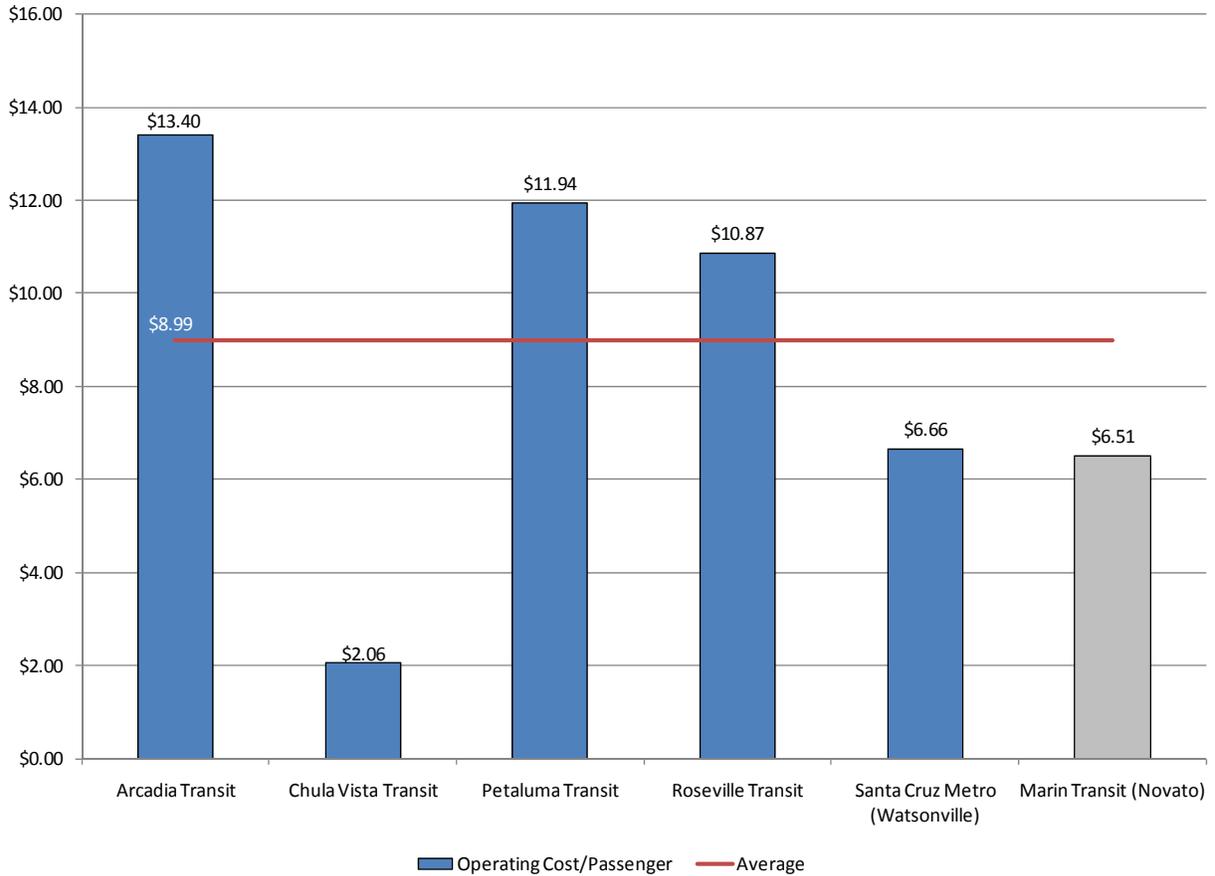
Exhibit C.4 Operating Cost/Vehicle Service Mile



Operating Cost/Passenger

As illustrated in the chart below, Marin Transit’s Operating Cost/Passenger was lower than the selected peers, indicating Marin Transit provided a greater number of annual unlinked trips relative to the Operating Cost. In other words, Marin Transit’s operation moves more passengers more cheaply than the selected peers.

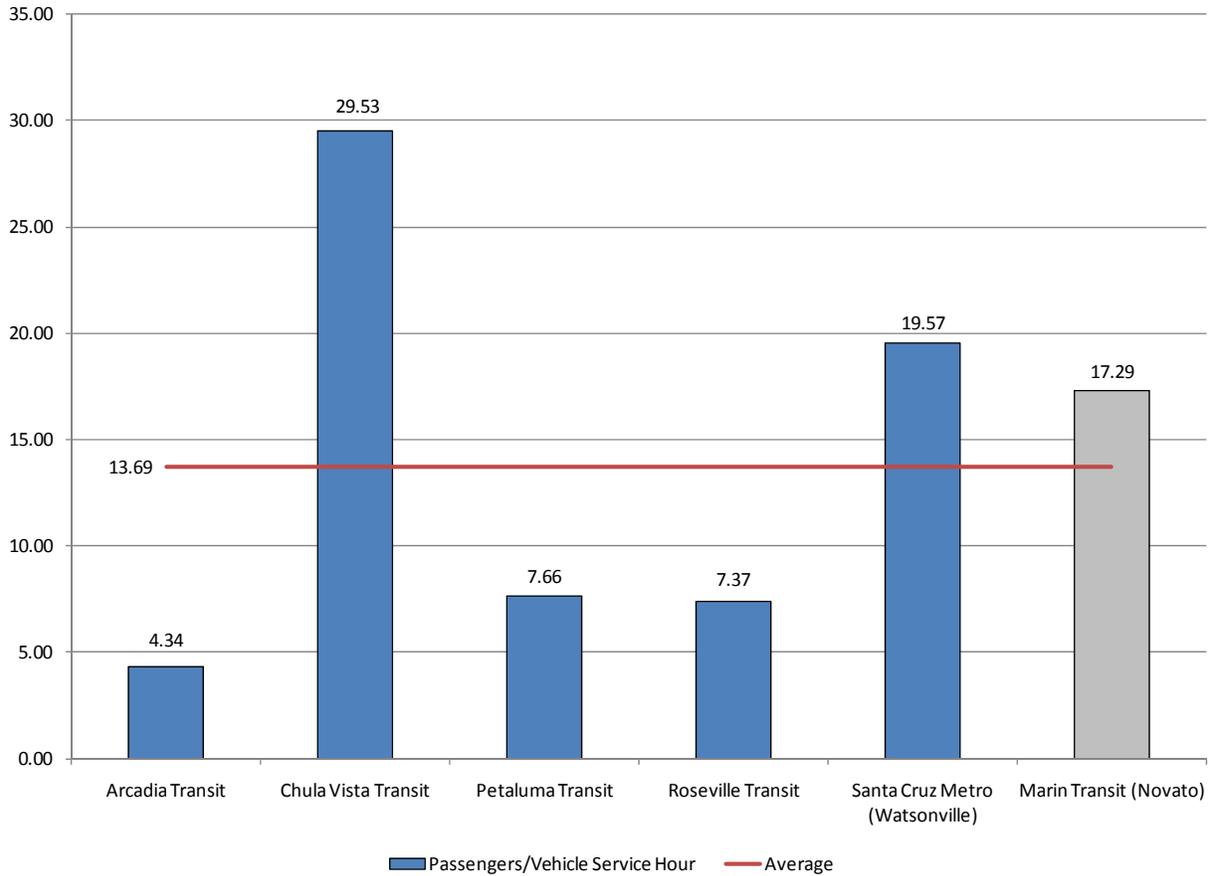
Exhibit C.5 Operating Cost/Passenger



Passengers/Vehicle Service Hour

Exhibit C.6 illustrates the number of persons transported for each vehicle service hour. Chula Vista Transit had the highest number of passengers/hour. At 17.29, Marin Transit was also above the peer average of 13.69, indicating Marin Transit moves more passengers per hour than comparable operations.

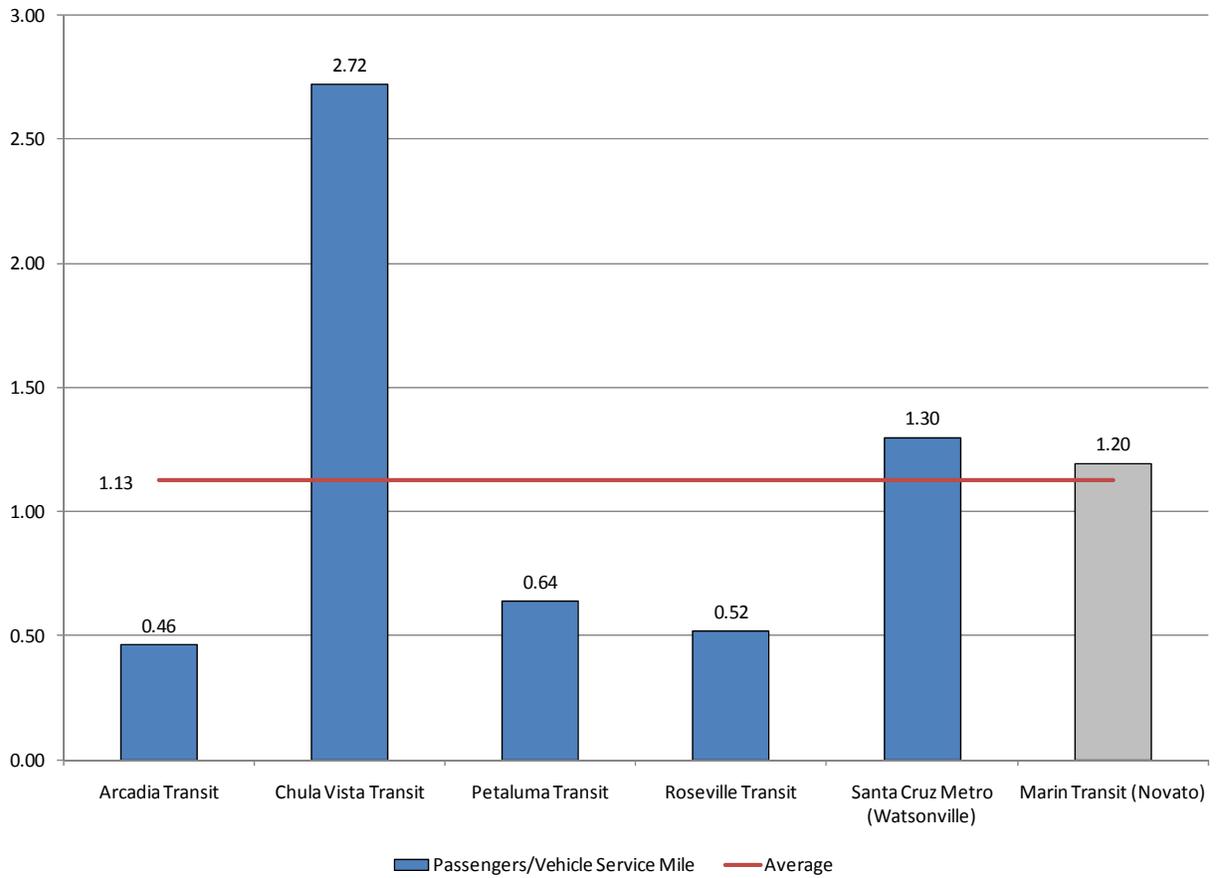
Exhibit C.6 Passengers/Vehicle Service Hour



Passengers/Vehicle Service Mile

Exhibit C.7 illustrates the number of passengers transported for every mile of service operated. Chula Vista had the highest number of passengers per vehicle service mile. Marin Transit was slightly above the peer average of 1.13 with 1.20. However, Marin Transit transported nearly twice as many passengers/mile as Petaluma Transit and Roseville Transit, which operate in areas with similar land use patterns.

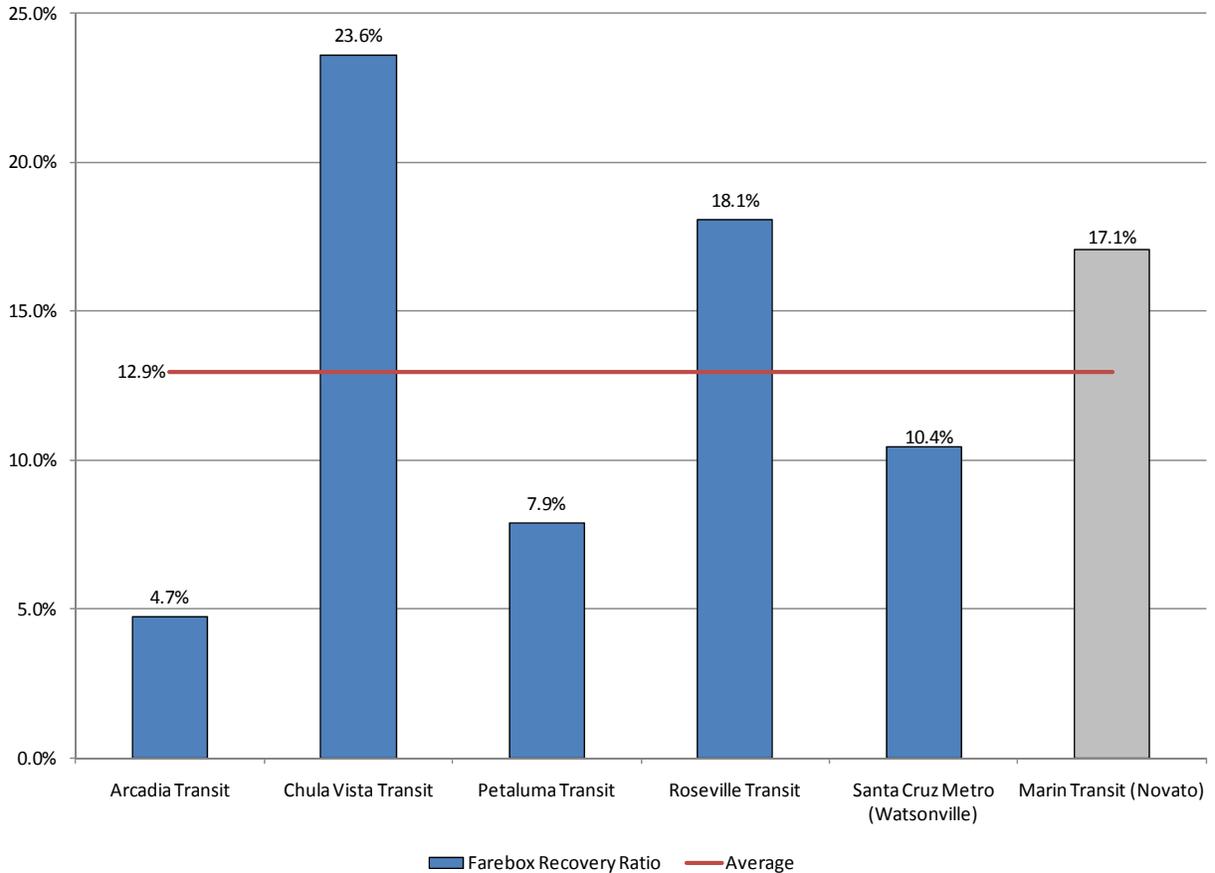
Exhibit C.7 Passengers/Vehicle Service Mile



Farebox Recovery Ratio

Exhibit C.8 illustrates the farebox recovery ratio for each peer. Marin Transit exceeded the peer average by more than four percentage points. Only Chula Vista Transit and Roseville Transit had higher farebox recovery ratios. This suggests Marin Transit’s fares cover more of its Operating Costs than the selected peers. This also means Marin Transit subsidizes the Novato operation to a lesser degree than the selected peers.

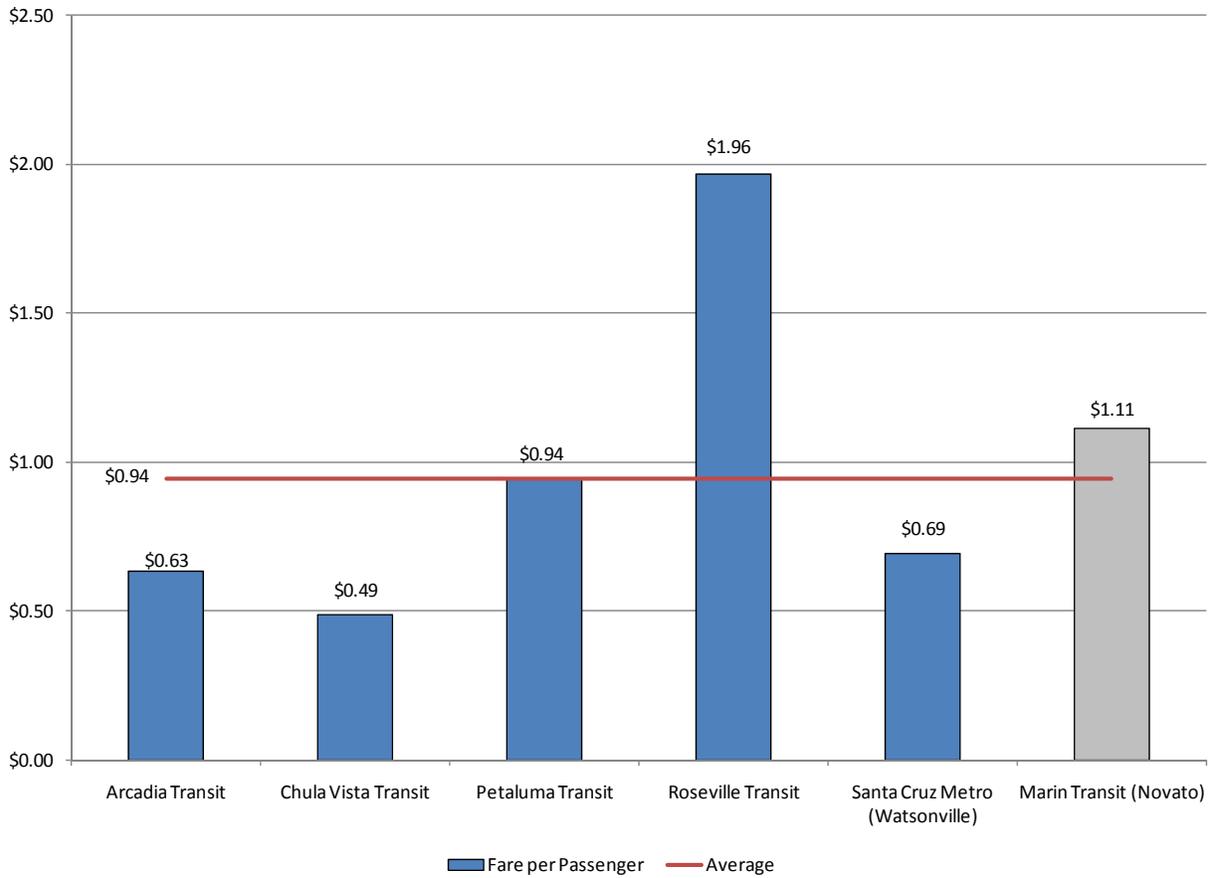
Exhibit C.8 Farebox Recovery Ratio



Fare/Passenger

Exhibit C.9 presents the Fare/Passenger for each peer. Marin Transit had the second-highest fare per passenger and was 18 percent above the peer average. This metric shows Marin Transit’s fares to be slightly higher than the selected peers. This also suggests more patrons of Marin Transit in Novato fall under the general fare category than is the case with the selected peers.

Exhibit C.9 System-wide Fare/ Passenger





D. RIDE CHECK
ANALYSIS

APPENDIX D – RIDE CHECK ANALYSIS

The purpose of the ride check analysis is to provide a comprehensive assessment of those Marin Transit routes (Routes 49, 51, 52, and 71) serving Novato under actual operating conditions. By analyzing ride check data, a snapshot is formed illustrating the current level of system activity and delivery performance. The ride check was conducted from September 20 through October 28, 2010 across all day-parts, resulting in a sample of 225 trips.

Methodology

The following criteria were used to evaluate on-time performance:

- **On-time**, defined as trip departure occurring up to five minutes after the published schedule time.
- **Early**, defined as any departure from an established time-point occurring in advance of the published schedule time.
- **Late**, defined as any departure from an established time-point occurring five or more minutes after the published schedule time.

Critical to the evaluation process is data segregation by day-part. In doing so, we identified four distinct time blocks:

- 6:01 a.m. to 9:00 a.m. (AM Peak),
- 9:01 a.m. to 3:30 p.m. (Midday),
- 3:31 p.m. to 7:00 p.m. (PM Peak), and
- 7:01 p.m. to 3:00 a.m. (PM other).

On-time performance was assessed at the beginning (departure), midpoint (departure), and end of each trip (arrival). A key aspect of our ride check was the objective evaluation of Marin Transit's on-time performance under actual field conditions. Methodology for determining the on-time performance of Marin Transit's system is the same employed by Moore & Associates for ride checks at each of our client properties. Our survey coordinators synchronized their time pieces with Verizon Communications' automated clock. The surveyors then rode Marin Transit's buses throughout Novato collecting data at each time point along a given route. The data collected by the surveyors were then entered into Microsoft Excel where the data were cleaned and analyzed.

Our discussion will first cover system on-time performance by trip segment and day-part and then detail on-time performance by route. We will then analyze boarding and alighting at stops only in Novato to determine travel patterns as well as identify major passenger activity centers.

Note, for interlined routes like Routes 49, 51, and 52, there was an opportunity for over counting passenger activity.

On-Time Performance Analysis

Reliability and productivity are two of the most important measures of a transit service's success. To measure reliability, transit operators often utilize on-time performance as a conventional metric in assessing schedule adherence. Productivity is typically measured through analysis of boarding and alighting activity at individual bus stops and route. By evaluating each service at the individual route level and day-part, we are able to identify problematic areas of service provision and performance warranting further review. Maintaining on-time performance standards is imperative, as it not only indicates efficient provision of transit service, but also benefits those who rely on transit services to meet their travel needs.

Overall on-time performance for Marin Transit routes serving Novato was below 70 percent.

Nearly 73 percent of trips operated on-time to the AM Peak and PM Other day-parts. The level of on-time performance dropped below 70 percent during the Midday and PM Peak hours which were the second- and third-most productive day-parts during the evaluation period. The most productive day-part (AM Peak) yielded the highest percent of on-time performance in spite of greater volumes of boarding and alighting activity experienced during the ride checks (see Boarding and Alighting section).

From a provision of service perspective, industry standards suggest the on-time performance be at least 90 percent with no *early* departures. As shown in Exhibit D.1, Marin Transit Routes 49, 51, 52, 71 collectively did not meet this standard during ride checks.

As illustrated in Exhibit D.1, Midday service experienced the greatest number of early departures with more than 13 percent of trips departing before the published time point. Early departures dropped to below eight percent during the “off-peak” hours. By eliminating *early* departures, Marin Transit gets substantially closer to the 90-percent standard in on-time performance.

Early departures (i.e., running “hot”) have a negative impact on the customer's perception of program reliability. They can cause the transit service to be perceived as unreliable for its inability to meet the published time. Patrons who arrive to a stop on-time are more likely to miss their bus if the driver leaves before the published schedule. To address this issue, Marin Transit should enforce a “no early departure” policy. This should ensure no bus leaves its time point ahead of schedule. The primary benefit of this policy is its small cost to implement and requires little if any service changes.

Although on-time performance increased by three percentage points during the PM Other day-part, late departures continued to increase as well, reaching 20 percent during the late evening trips. This is problematic given late departures are often viewed

by customers as an indication that the service is unreliable. Variations in travel time due to inconsistency of schedule adherence can impose and added schedule cost to passengers. This in turn may require the passenger to budget additional time in trip planning due to the uncertainty with trip departures and arrivals.

Exhibit D.1 Overall On-Time Performance by Day-Part

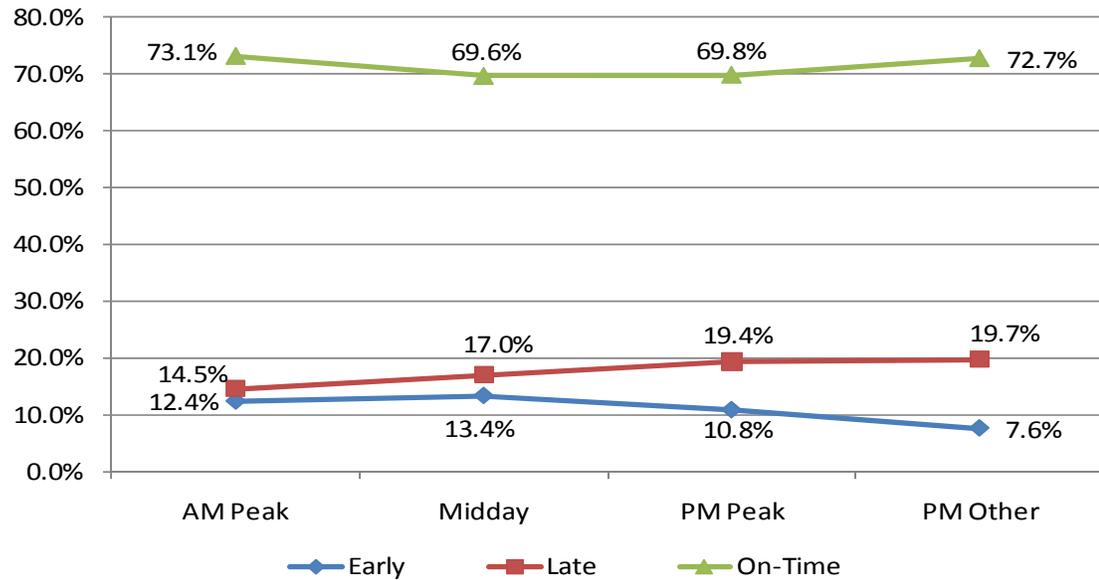
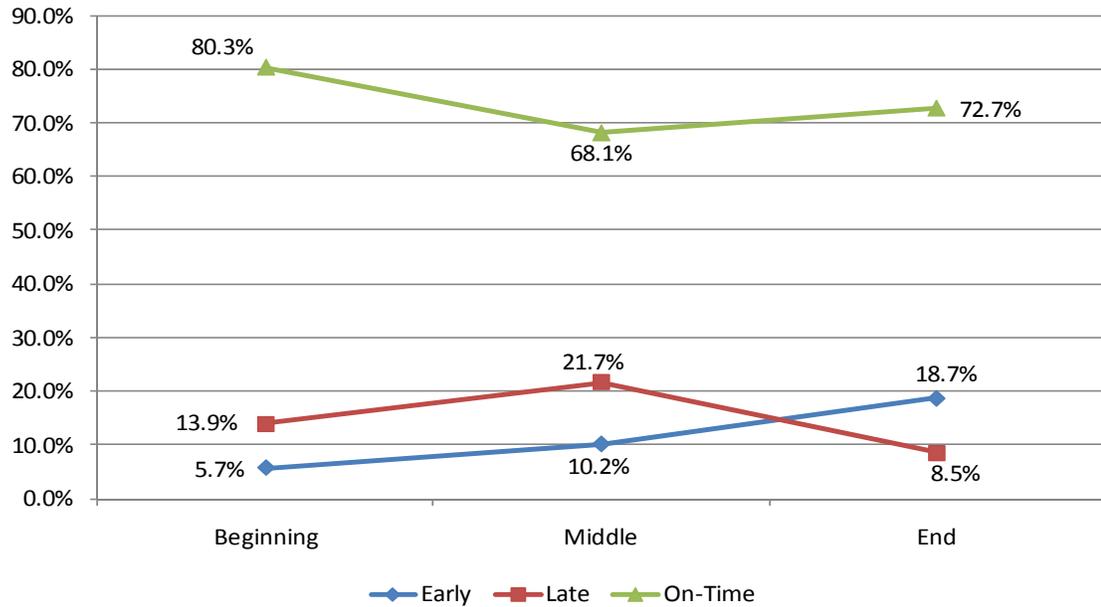


Exhibit D.2 illustrates system-wide on-time performance by trip segment. As with the previous exhibit, early departures continued to negatively impact on-time performance. Early departures reached double-digit figures in the middle and end-parts of the trips. During the evaluation period, there was a clear trend towards increasingly early departures. In all trip-segments the elimination of early departures would improve on-time performance to at least 75-percent standard overall.

Exhibit D.2 System On-Time Performance by Trip Segment



As illustrated in Exhibit D.3, only Route 51 had an on-time performance rating of above 75 percent. Particularly troubling is the incidence of early departures. At least ten percent of all departures for every route were early. Early departures are easily preventable and do not require significant schedule or operational changes.

Additionally, Routes 49 and 71 experienced a significant number of late departures. As noted above, Routes 49 and 71 serve major transit centers. Ensuring on-time performance for those routes serving transit links is especially critical given the potential impact on the overall system.

Exhibit D.3 Overall On-Time Performance by Route

Route	System Performance		
	Early	Late	On-Time
Route 49	9.9%	21.5%	68.3%
Route 51	13.5%	9.9%	76.3%
Route 52	15.5%	9.4%	71.7%
Route 71	12.6%	21.5%	59.1%
Average	12.9%	15.6%	68.8%

Exhibit D.4 illustrates on-time performance by route and by day-part. To identify successes and challenges of each route, cells were shaded green or red to highlight excellent or poor performance. Routes met or exceeded the 90-percent threshold are shaded green. Routes which had early departures of ten percent or more (or on-time performance below 75 percent), are shaded red.

Overall, each of the routes serving Novato had significant issues remaining on-time throughout the assessed trip. The most common issue is early departures. As noted above, early departures have a significant impact on operations as well as customer and community perception of public transit. Eliminating early departures is a driver training issue and would improve on-time performance for most routes by ten percentage points. We believe this improvement would translate directly to higher customer satisfaction.

When comparing individual routes, Route 51 had the best overall on-time performance and best on-time performance in terms of individual day-parts. Route 51 performed especially well in the northbound direction during the AM Peak day-part and southbound during the PM Peak day-part. Given the infrequent headways on Route 51, on-time performance for this route is particularly critical.

Late arrivals were the primary cause of poor on-time performance.

In contrast to Route 51, Route 71 had the poorest on-time performance of all Marin Transit routes serving Novato. During the AM Peak, for example, over one-third of all northbound trips were late, while over a quarter of the southbound trips during the same day-part were late. This trend continued across all day-parts for Route 71 with an overall average on-time performance of 59 percent. We believe this can be attributed in part to the fact Route 71 spans nearly the entire length of Marin County, and is therefore subject to a higher incidence of external factors like traffic.

Exhibit D.5 shows each route's on-time performance by trip segment. Both Route 51 and 52 had the best overall on-time performance rating (76 percent). By contrast, Route 49 had the lowest overall on-time performance at 68 percent. Since Route 49 provides connections via the San Rafael Transit Center, it is critical this route maintain on-time performance to allow inter- and intra-service transfers.

In both Exhibit D.3 and D.4, Route 71 had poor on-time performance. Since Route 71 functions as an express route to the San Rafael Transit Center and the Marin City Transit Center, on-time performance is critical to ensuring patrons make their transfers. Additionally, Route 71 is likely to attract "choice" riders given its limited-stop nature. Improving on-time performance for this route should yield improved customer perceptions of transit and potentially increased ridership.

Exhibit D.4 Overall On-Time Performance by Route and Day-Part

Route	Day-Part														
	AM Peak			Midday			PM Peak			PM Other			Total		
	Early	Late	On-Time	Early	Late	On-Time	Early	Late	On-Time	Early	Late	On-Time	Early	Late	On-Time
Route 49N	14.7%	9.5%	75.8%	6.9%	27.5%	64.0%	10.3%	16.2%	73.5%	0.0%	72.7%	27.3%	9.5%	21.4%	68.4%
Route 49S	11.4%	25.7%	62.9%	11.1%	20.7%	68.2%	11.1%	23.3%	65.6%	0.0%	13.3%	86.7%	10.3%	21.6%	68.1%
Route 49	13.3%	16.4%	70.3%	9.1%	23.9%	66.3%	10.6%	19.3%	70.0%	0.0%	29.3%	70.7%	9.9%	21.5%	68.3%
Route 51N	6.5%	0.0%	93.5%	19.2%	6.4%	74.4%	7.0%	37.2%	53.5%	23.1%	0.0%	76.9%	13.9%	12.7%	72.7%
Route 51S	24.0%	12.0%	64.0%	12.2%	5.6%	82.2%	6.3%	6.3%	87.5%	0.0%	0.0%	0.0%	12.9%	6.8%	80.3%
Route 51	14.3%	5.4%	80.4%	15.5%	6.0%	78.6%	6.7%	24.0%	68.0%	23.1%	0.0%	76.9%	13.5%	9.9%	76.3%
Route 52N	15.0%	10.0%	75.0%	26.7%	5.6%	66.7%	23.4%	17.0%	59.6%	0.0%	0.0%	0.0%	23.2%	9.6%	66.7%
Route 52S	14.3%	7.1%	71.4%	6.9%	11.5%	79.3%	8.1%	8.1%	74.2%	0.0%	0.0%	85.7%	8.2%	9.2%	76.6%
Route 52	14.7%	8.8%	73.5%	16.9%	8.5%	72.9%	14.7%	11.9%	67.9%	0.0%	0.0%	85.7%	15.5%	9.4%	71.7%
Route 71N	0.0%	33.3%	66.7%	32.1%	16.1%	46.4%	8.6%	31.4%	60.0%	33.3%	16.7%	50.0%	22.3%	22.3%	52.4%
Route 71S	2.5%	25.0%	67.5%	6.9%	20.7%	60.9%	5.9%	11.8%	70.6%	0.0%	0.0%	0.0%	5.6%	20.8%	63.9%
Route 71	2.2%	26.1%	67.4%	16.8%	18.9%	55.2%	7.7%	25.0%	63.5%	33.3%	16.7%	50.0%	12.6%	21.5%	59.1%
Average	11.1%	14.9%	72.4%	15.0%	14.3%	67.9%	10.0%	19.3%	67.8%	9.4%	12.4%	50.8%	13.1%	15.6%	68.7%
Total	12.4%	14.5%	73.1%	13.4%	17.0%	69.6%	10.8%	19.4%	69.8%	7.6%	19.7%	72.7%	12.3%	17.2%	70.5%

Exhibit D.5 Overall On-Time Performance by Route and Trip Segment

Route	Total Trip Segment											
	Beginning			Middle			End			Total		
	Early	Late	On-Time	Early	Late	On-Time	Early	Late	On-Time	Early	Late	On-Time
Route 49N	2.4%	9.5%	88.1%	1.8%	44.6%	53.6%	12.5%	17.9%	69.6%	5.8%	25.3%	68.8%
Route 49S	0.0%	26.7%	73.3%	7.5%	33.1%	59.4%	15.8%	3.3%	80.8%	7.8%	22.3%	70.0%
Route 49	0.6%	22.2%	77.2%	6.0%	36.1%	57.9%	14.8%	8.0%	77.3%	7.2%	23.1%	69.7%
Route 51N	8.9%	14.3%	76.8%	10.3%	10.3%	79.3%	24.5%	14.3%	61.2%	14.1%	12.9%	73.0%
Route 51S	10.5%	7.9%	81.6%	16.7%	5.6%	77.8%	7.7%	11.5%	80.8%	11.8%	8.3%	79.9%
Route 51	9.6%	11.7%	78.7%	13.4%	8.0%	78.6%	15.8%	12.9%	71.3%	13.0%	10.7%	76.2%
Route 52N	11.5%	6.6%	82.0%	25.0%	5.4%	69.6%	40.4%	5.1%	54.5%	27.8%	5.6%	66.7%
Route 52S	7.9%	2.2%	89.9%	5.6%	11.2%	83.2%	9.9%	8.6%	81.5%	7.6%	7.6%	84.8%
Route 52	9.3%	4.0%	86.7%	14.6%	8.5%	76.9%	26.7%	6.7%	66.7%	13.0%	10.7%	76.2%
Route 71N	6.7%	36.7%	56.7%	10.0%	10.0%	80.0%	33.3%	3.3%	63.3%	16.7%	16.7%	66.7%
Route 71S	3.8%	7.7%	88.5%	3.8%	48.1%	48.1%	1.9%	11.5%	86.5%	3.2%	22.4%	74.4%
Route 71	4.9%	18.3%	76.8%	6.1%	34.1%	59.8%	13.4%	8.5%	78.0%	8.1%	20.3%	71.5%
Total	5.7%	13.9%	80.3%	10.2%	21.7%	68.1%	18.7%	8.5%	72.7%	11.7%	15.0%	73.3%
Average	6.1%	14.1%	79.8%	10.0%	21.7%	68.3%	17.7%	9.0%	73.3%	10.4%	16.2%	73.4%

Boarding and Alighting Analysis

This section discusses overall fixed-route boarding and alighting trends on Marin Transit's four routes serving Novato (Routes 49, 51, 52, 71). Boarding and alighting data collected from the ride check were recorded on the same trip sheet as on-time performance data. Data were then imported into Microsoft Excel and segregated by route, stop, and day-part.

Boarding by Day-Part

Evaluating a system by day-part is critical to assessing existing ridership trends not readily apparent through use of traditional performance measures. This snapshot of productivity (i.e., boardings and alightings) provides valuable insight for potential service changes and recommendations (i.e., elimination of trip segments, addition of route segments, or stops).

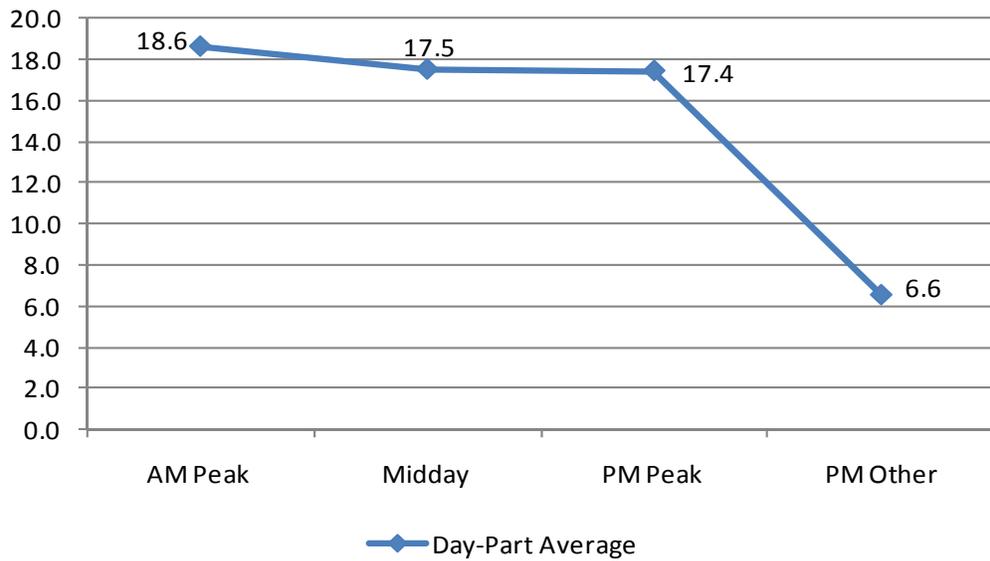
Boarding and alighting data were collected across a representative sample of weekday and Saturday service. Accuracy of data may be influenced by external factors (i.e., weather) occurring during the ride check; potentially impacting or skewing results and trends.

As defined in the previous section (On-time Performance), route analysis is divided into four separate day-parts (*AM Peak, Midday, PM Peak, and PM Other*). To accurately assess productivity by time of day, boarding averages were derived from total boardings and number of trips during the specified day-part. This approach shows the average boardings per trip per day-part, vs. total boardings which may be skewed by the modest number of trips operated.

The aggregate of boarding averages by day-part is visually represented in Exhibit D.6 below. The average number of boardings diminished slowly across the service day with AM Peak having nearly 19 average boardings per trip. The slow decline in boarding averages is likely caused by work and school schedules which dictate similar start times (i.e., 8:00 a.m. to 9:00 a.m.) where as PM Peak commute times are often more diverse as commuters and after-school program end at varying times.

Boarding averages dropped substantially during the PM Other day-part. This may be in large part due to fewer trips operating during the evening hours. Given Marin Transit Routes 51, 52, and southbound 71 operate no later than 7:00 p.m. on weekdays, a significant drop-off in associated boardings per trip is to be expected given lower levels of service.

Exhibit D.6 System Boarding Averages by Day-Part



Route 71 was the most productive route serving Novato, while Route 49 is the least productive.

Exhibit D.7 shows the average boardings by day-part and route. Route 71 had the highest average boardings with the southbound trips averaging nearly 40 passengers per day-part and the northbound trips at 33 passengers per day-part.

Exhibit D.7 Route Boarding Averages by Day-Part

Route	Boarding Averages by Day-Part				Route Average
	AM Peak	Midday	PM Peak	PM Other	
	6:01 a.m. to 9:00 a.m.	9:01 a.m. to 3:30 p.m.	3:31 p.m. to 7:00 p.m.	7:01 p.m. to 3:00 a.m.	
49 North	3.0	1.7	1.6	1.0	1.8
49 South	10.0	15.0	12.9	10.0	12.0
51 North	20.8	12.1	7.5	10.0	12.6
51 South	9.3	23.7	10.0	0.0	14.3
52 North	22.0	5.9	8.6	0.0	12.2
52 South	14.8	12.2	11.2	4.5	10.7
71 North	28.0	29.7	49.2	27.0	33.5
71 South	41.0	39.6	38.3	0.0	39.6
Day-Part Average	18.6	17.5	17.4	6.6	17.1

Alighting by Day-Part

Exhibit D.8 shows the system average alighting by day-part. In contrast with Exhibit D.7, average alightings varied more across the service day. This suggests a greater variety of commute patterns than other Novato routes.

Exhibit D.8 System Alighting Averages by Day-Part

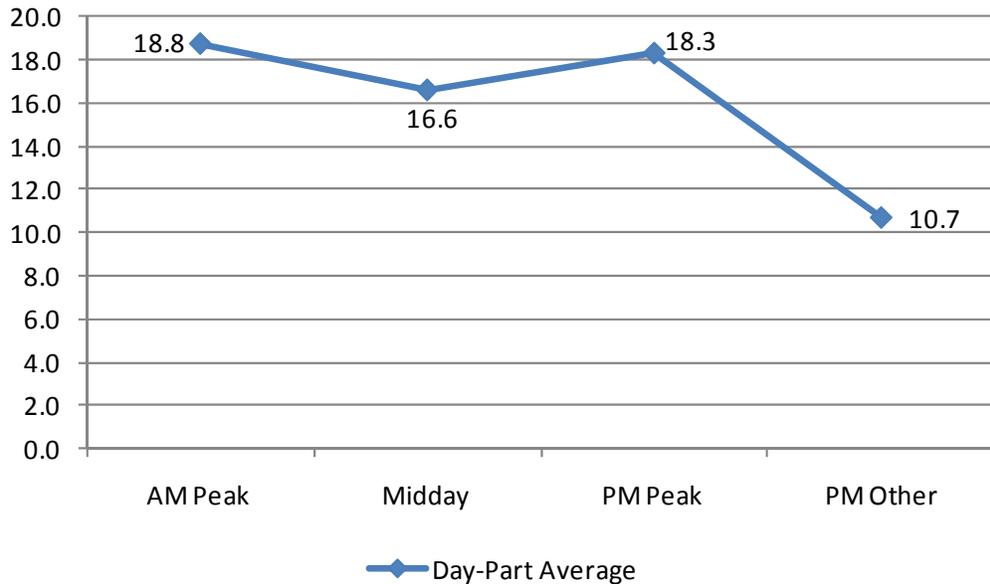


Exhibit D.9 presents the average alighting by day-part and route. As observed in Exhibit D.8, Route 71 had the highest average alightings by day-part. In addition, Route 71 experienced relatively high average alightings throughout the service day. This suggests Route 71 is the primary Marin Transit route persons residing or working in Novato use on a frequent basis.

Exhibit D.9 Route Alighting by Day-Part

Route	Alighting Averages by Day-Part				Route Average
	AM Peak	Midday	PM Peak	PM Other	
	6:01 a.m. to 9:00 a.m.	9:01 a.m. to 3:30 p.m.	3:31 p.m. to 7:00 p.m.	7:01 p.m. to 3:00 a.m.	
49 North	5.3	4.6	2.9	2.0	3.7
49 South	11.0	15.4	14.1	11.7	13.0
51 North	20.5	13.7	15.5	10.0	14.9
51 South	9.3	18.4	7.7	0.0	11.8
52 North	22.0	7.2	9.5	0.0	12.9
52 South	14.0	9.7	9.8	5.0	9.6
71 North	31.0	27.4	48.5	25.0	33.0
71 South	37.0	36.5	38.7	0.0	37.4
Day-Part Average	18.8	16.6	18.3	10.7	17.0

Route-Segment Analysis

The goal of the route-segment analysis is to identify key bus stops and points of significant activity. Boarding and alighting data collected at each published time-point were geocoded using ESRI ArcView Geographic Information System (GIS) software. From there, maps were generated to illustrate boarding and alighting densities. All exhibit data represent the combined total stop activity of weekday, Saturday, and Sunday data.

Route 49 Boarding and Alighting Counts

Route 49 provides northbound and southbound service between the Ignacio Bus Pad/Enfrente Road and the San Rafael Transit Center. Route 49 also interlines with Route 51 on weekdays (serving San Marin in northern Novato) and Route 52 on weekends (serving Redwood and Olive). The service operates Monday through Friday, 6:14 a.m. to 8:10 p.m.; Saturday, 6:15 a.m. to 8:07 p.m.; and Sunday, 7:04 a.m. to 7:55 p.m.

Southbound trips originate at Enfrente Road and terminate at the San Rafael Transit Center. Northbound trips start at the San Rafael Transit Center and end at the Ignacio Bus Pad. The service runs every hour for weekdays, Saturday, and Sunday. Route 49 connects with Routes 45 and 45K, as well as Routes 233 and 259 which are community shuttles at the Marin Civic Center. Route 49 connects with other Golden Gate Transit and Marin Transit routes at the San Rafael Transit Center, as well as the Marin Airporter, Greyhound, and Sonoma County Transit services. At the Ignacio transfer point (Ignacio Bus Pad/Enfrente Road), Route 49 connects with Marin Transit Routes 51, 52, and 71, and Golden Gate Transit Route 54, 58, 70, and 80.

Exhibits D.10 and D.11 present passenger activity for Route 49 in the northbound and southbound directions. In comparing the two route directions, Route 49 Southbound has substantially more boardings and alightings than Route 49 Northbound. This is likely due to Route 49 Southbound carrying passengers to Kaiser, Northgate Mall and the San Rafael Transit Center. The fact passenger activity peaks in the Midday day for both routes suggests Route 49 is frequently used for off-peak trips like shopping, social/civic activities, and/or doctor visits.

In comparison to the other routes serving Novato, Route 49 Northbound has much lower route productivity. Based on public input, more frequent and later service as well as more service coverage would likely boost ridership on this route given that it primarily serves the

Hamilton neighborhood which has a sizeable transit-dependent population. Additionally, many respondents indicated in the Onboard Survey (Appendix E) a desire for a longer service span and more frequent service.

Exhibit D.10 Route 49 Northbound Activity by Day-Part

	Boarding	Alighting	Avg Boarding	Avg Alighting	Trips
49 Northbound					
Am Other	0	0	0.0	0.0	0
AM Peak	24	42	3.0	5.3	8
Midday	33	88	1.7	4.6	19
PM Peak	18	32	1.6	2.9	11
PM Other	1	2	1.0	2.0	1
Total	76	164	-	-	39

Exhibit D.11 Route 49 Southbound Activity by Day-Part

	Boarding	Alighting	Avg Boarding	Avg Alighting	Trips
49 Southbound					
Am Other	0	0	0.0	0.0	0
AM Peak	60	66	10.0	11.0	6
Midday	316	323	15.0	15.4	21
PM Peak	116	127	12.9	14.1	9
PM Other	30	35	10.0	11.7	3
Total	522	551	-	-	39

Exhibits D.12 and D.13 present the top five stops in Novato in terms of boarding and alighting, respectively. The exhibits exclude those stops outside of Novato. All of the top five stops for Route 49 Northbound are located in the Hamilton community.

Productivity should improve with better access to the rest of Novato as well as the presence of several on-line or nearby trip generators such as the Hamilton Theater, several churches, employment centers, and the Hamilton Marketplace.

Exhibit D.12 Route 49 Northbound Top 5 Boarding Stops

Rank	Stop	Boardings
49 Northbound		
1	Nave Drive & Bolling Drive	31
2	Nave Drive & New Hamilton Road	11
3	Nave Drive & Roblar Drive	10
4	Nave Drive & Hamilton Main Gate	8
5	Hamilton Theater Parking Lot	7

Exhibit D.13 Route 49 Northbound Top 5 Alighting Stops

Rank	Stop	Alightings
49 Northbound		
1	Nave Drive & New Hamilton Road	31
2	Nave Drive & Bolling Drive	27
3	US Highway 101 & Bel Marin Keys Boulevard Bus Pad	27
4	Hamilton Theater Parking Lot	22
5	Nave Drive & Hamilton Main Gate	20

Exhibits D.14 and D.15 present the top five stops by boarding and alighting, respectively. Since Route 49 Southbound serves the San Rafael Transit Center, it is to be expected boardings would be substantially greater than alightings. Additionally, the top two stops for boardings are also the transfer points to other routes or services. The Marin Airporter stop is also the stop for the New Beginnings Center.

Exhibit D.14 Route 49 Southbound Top 5 Boarding Stops

Rank	Stop	Boardings
49 Southbound		
1	Hamilton Parkway & Marin Airporter	46
2	Enfrente Road & Salvatore Drive	41
3	Hamilton Theater Parking Lot	23
4	Nave Drive Overpass & Alameda Del Prado	15
5	Nave Drive & Roblar Drive	12

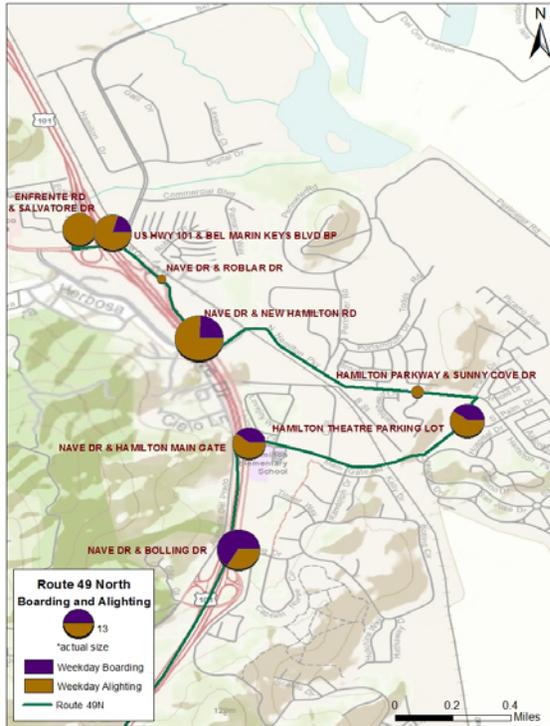
Exhibit D.15 Route 49 Southbound Top 5 Alighting Stops

Rank	Stop	Alightings
49 Southbound		
1	Nave Drive Overpass & Alameda del Prado	12
2	Hamilton Parkway & Marin Airporter	10
3	Main Gate Road & Martin Drive	10
4	Hamilton Theater Parking Lot	9
5	Hamilton Parkway & Chapel Hill Road	5

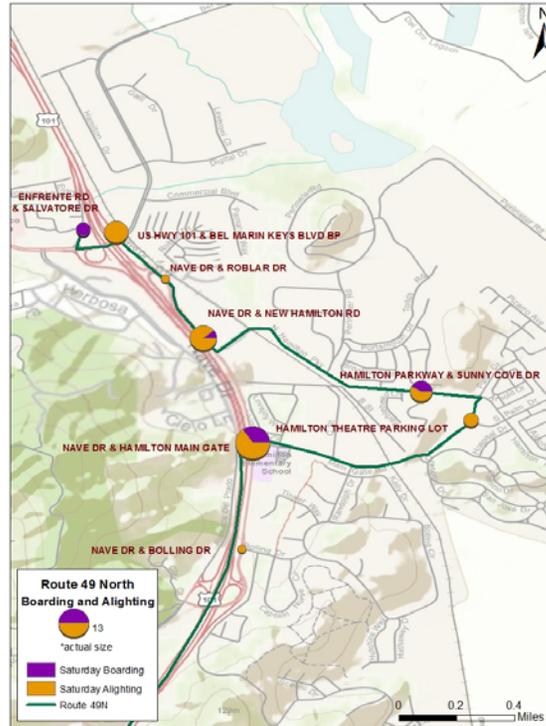
Exhibits D.16 and D.17 show overall activity at each bus stop in Novato for Route 49 Northbound and Southbound, respectively. The weekday activity indicates many riders board at Nave Drive/Bolling Drive while a significant number of passengers alight at Nave Drive/Hamilton Road. *Note, the ride check did not track origin and destination.*

Exhibit D.16 Route 49 Northbound Boardings and Alightings

Weekday



Saturday



Sunday

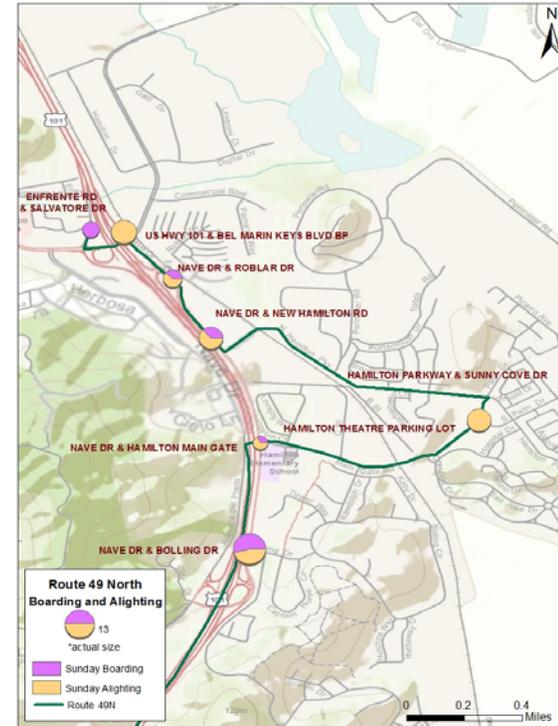
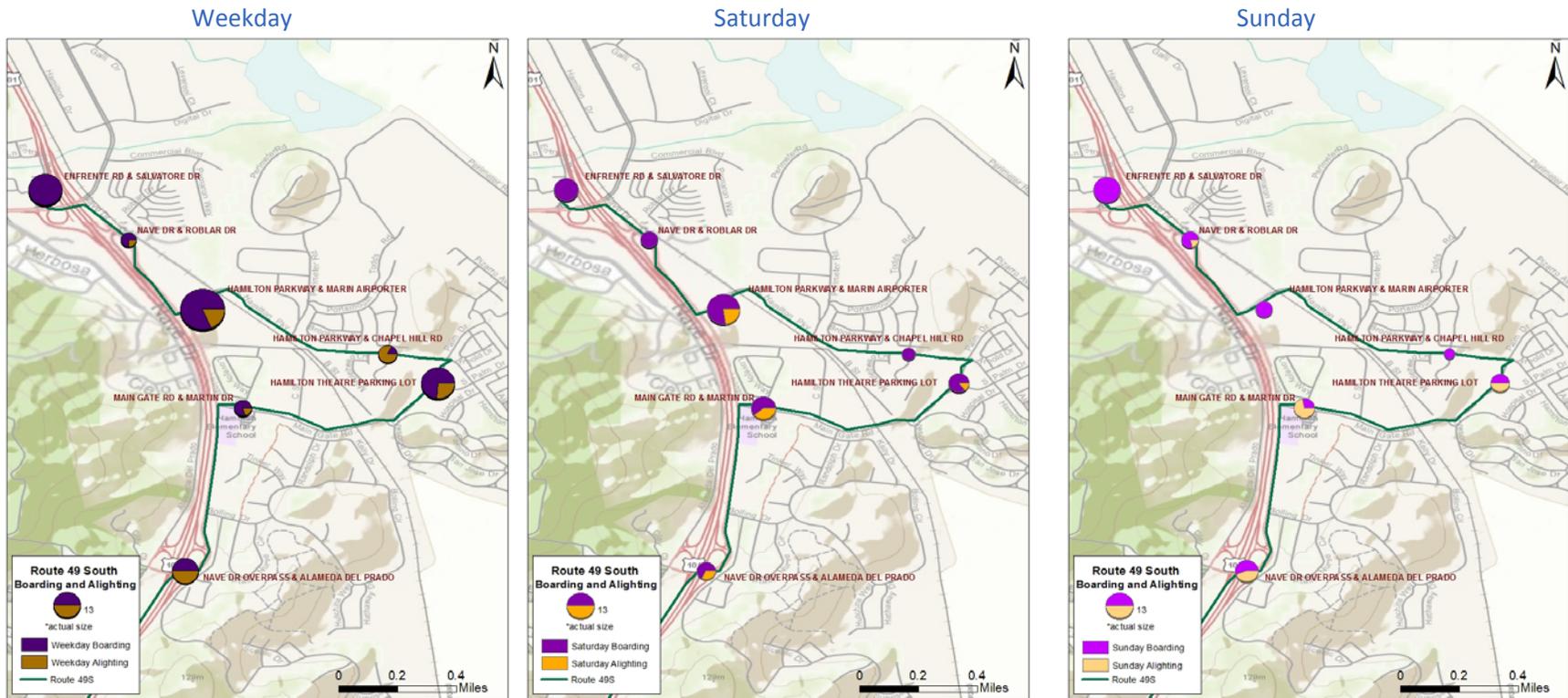


Exhibit D.17 Route 49 Southbound Boardings and Alightings



Route 51 Boarding and Alighting Counts

Route 51 provides much of the local service within Novato. Service operates Monday through Friday from 6:53 a.m. to 8:01 p.m. (with no weekend or holiday service).

Headways vary by trip, departing almost hourly with the exception of supplemental trippers. Route 51 continues to Hamilton and San Rafael as Route 49 excluding trippers. Trip durations and routing vary as well, with trip lengths running from anywhere between 10 minutes for trippers to 57 minutes for regular service.

Exhibits D.18 and D.19 show passenger activity for both Route 51 Northbound and Route 51 Southbound. The greatest boarding and alighting activity was noted during the AM Peak day-part for Route 51 Northbound while Route 51 Southbound had the highest activity during the Midday day-part.

In contrast to Route 49, Route 51 has much higher route productivity. This is likely to due to Route 51 serving many of the communities in Novato as well as linking together major trip generators.

Exhibit D.18 Route 51 Northbound Activity by Day-Part

	Boarding	Alighting	Avg Boarding	Avg Alighting	Trips
51 North					
Am Other	0	0	0.0	0.0	0
AM Peak	83	82	20.8	20.5	4
Midday	85	96	12.1	13.7	7
PM Peak	30	62	7.5	15.5	4
PM Other	10	10	10.0	10.0	1
Total	208	250	-	-	16

Exhibit D.19 Route 51 South Activity by Day-Part

	Boarding	Alighting	Avg Boarding	Avg Alighting	Trips
51 South					
Am Other	0	0	0.0	0.0	0
AM Peak	28	28	9.3	9.3	3
Midday	213	166	23.7	18.4	9
PM Peak	30	23	10.0	7.7	3
PM Other	0	0	0.0	0.0	0
Total	271	217	-	-	15

Exhibits D.20 and D.21 show the top five stops by boarding and alighting for Route 51 Northbound. Not surprisingly, the top two boarding locations are the two main transfer points in Novato. In terms of alightings, the top stops are South Novato Boulevard which features major retail centers as well as housing concentrations.

Exhibit D.20 Route 51 Northbound Top 5 Boarding Stops

Rank	Stop	Boardings
51 Northbound		
1	Enfrente Road & Salvatore Drive	44
2	Redwood Boulevard & Grant Avenue	39
3	Ignacio Boulevard & Alameda Del Prado	12
4	South Novato Boulevard & Rowland Boulevard	12
5	Sunset Parkway & Merrit Drive	11

Exhibit D.21 Route 51 Northbound Top 5 Alighting Stops

Rank	Stop	Alightings
51 Northbound		
1	South Novato Boulevard & Sunset Parkway	33
2	South Novato Boulevard & Diablo Avenue	29
3	Redwood Boulevard & Grant Avenue	25
4	San Marin Drive & San Carlos Way	19
5	Novato Boulevard and Wilson Court	17

Exhibits D.22 and D.23 present the top five stops by boarding and alighting activity for Route 51 Southbound. The top location for boardings is San Marin High School. Given the “activity clustering” shown in Exhibits D.19, it is likely the majority of these riders are students. In terms of alighting, the Redwood and Grant stop is the major transfer point in Novato.

Exhibit D.22 Route 51 Southbound Top 5 Boarding Stops

Rank	Stop	Boardings
51 Southbound		
1	San Marin Drive & San Carlos Way (SMHS)	68
2	Ignacio Boulevard and Turner Drive	26
3	San Marin Drive & San Andreas Drive	21
4	Ignacio Boulevard & Sunset Parkway	20
5	Redwood Boulevard & Grant Avenue	16

Exhibit D.23 Route 51 Southbound Top 5 Alighting Stops

Rank	Stop	Alightings
51 Southbound		
1	Redwood Boulevard & Grant Avenue	60
2	Ignacio Boulevard & Pacheco Plaza	29
3	Grant Avenue & Fifth Street	23
4	Ignacio Boulevard & Alameda del Prado	18
5	Rowland Boulevard & Vintage Oaks Entrance	12

Exhibits D.24 and D.25 present overall activity at each bus stop in Novato for Route 51 Northbound and Southbound, respectively. As noted above, the highest activity locations for the Route 51 Northbound are transfer points while the southbound Route 51 has a number of significant boarding points and a concentrated number of alighting points.

Exhibit D.24 Route 51 Northbound Weekday Boardings and Alightings

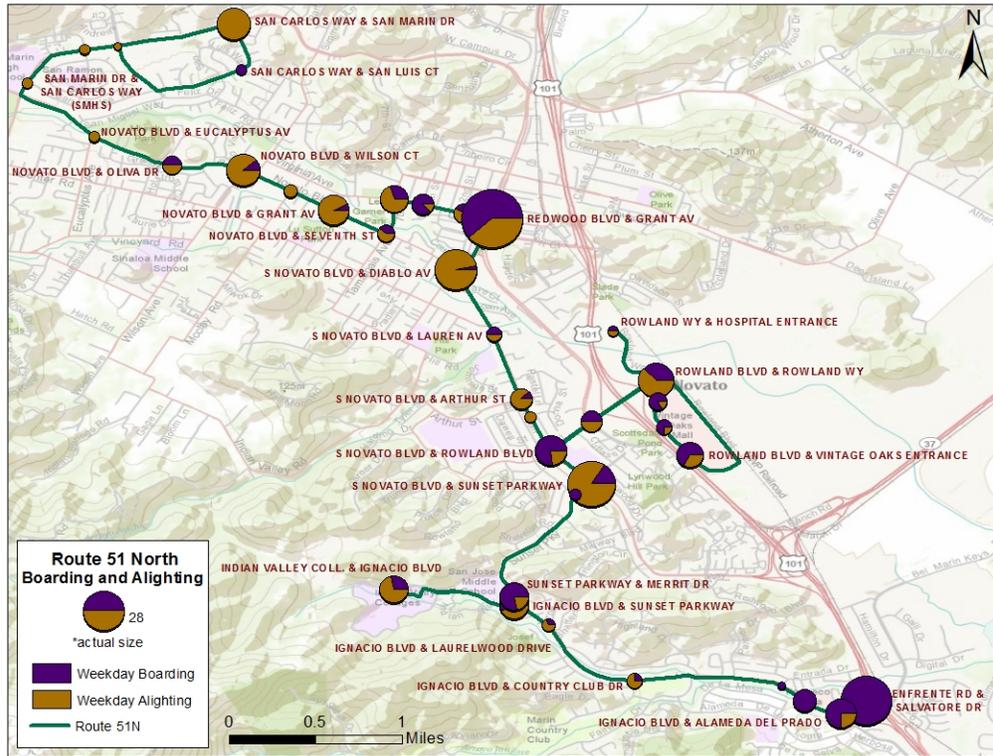
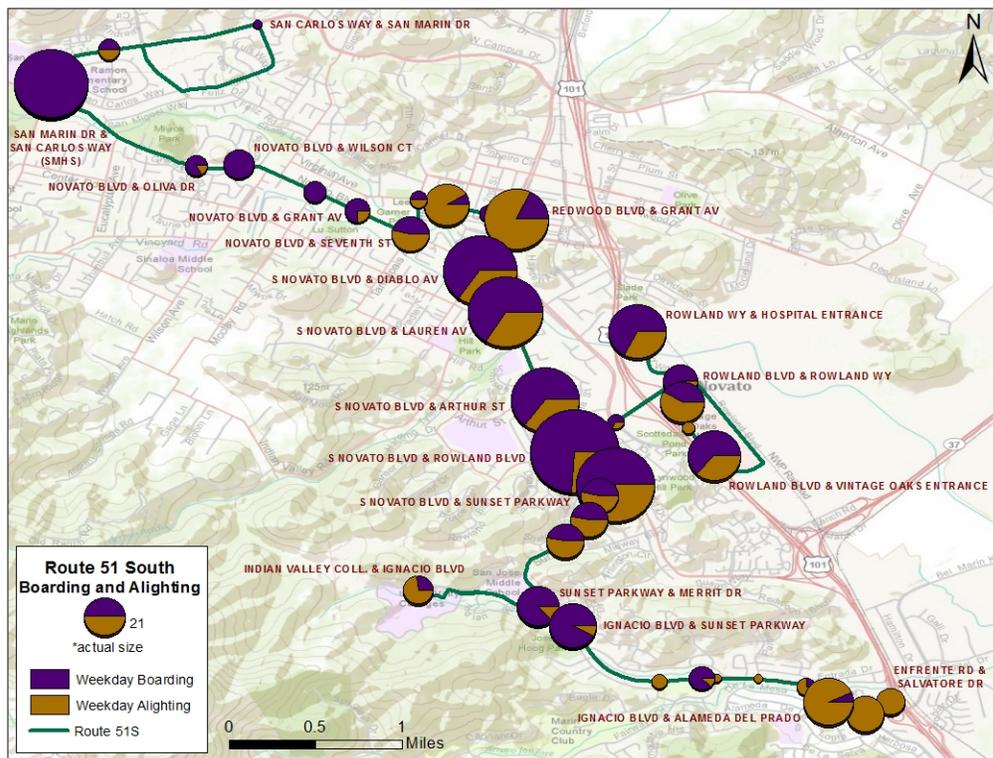


Exhibit D.25 Route 51 Southbound Weekday Boardings and Alightings



Route 52 Boarding and Alighting Counts

Route 52 travels on a bidirectional (northbound/southbound) loop between the cities of Novato and San Rafael. Most routes operate weekdays from 6:28 a.m. to 7:10 p.m. and weekends (Saturday and Sunday) from 8:36 a.m. to 8:02 p.m.

Northbound trips depart the San Rafael Transit Center at 15 minutes past the hour and terminate at the Redwood and Olive bus stop, with the exception of the first run which originates at the Alameda del Prado bus stop. Southbound trips originate in Novato at Redwood Boulevard and Olive Avenue and terminate at the San Rafael Transit Center. Most northbound trips have 36 minute runtimes on one-hour headways, with the exception of two school tripper runs with runtimes of 26- and 34-minutes. Weekend (Saturday and Sunday) trips provide limited service between Downtown Novato, Vintage Oaks and Ignacio and run hourly on 26-minute intervals.

Exhibits D.26 and D.27 present the stop activity by day-part for northbound and southbound Route 52. Based on ride check data, the most productive trips for Route 52 North occurred during the AM Peak day-part. This is consistent with our findings in the fixed-route survey which indicate a large proportion of riders use the service for commuting. We recommend the District consider adding more frequent service during the peak-hours.

Based on ride check data, the least productive day-part was Midday which averaged six boardings and seven alightings per trip for Route 52 Northbound and while Southbound Route 52 had the lowest productivity during the PM Other day part at four boardings and five alightings. The low levels of productivity suggest either an oversupply of service (Midday service for Route 52 Northbound) or low demand for travel (Southbound Route 52).

Similar to northbound ridership and stop activity trends, the most productive day-part was AM Peak with an average of 14.8 boardings and 14.0 alighting per trip. As illustrated in Exhibit D.27 below, passengers were more likely to board Route 52 during southbound trips, given southbound trips garnered 68 more boardings than alightings across all day-parts.

Exhibit D.26 Route 52 Northbound Activity by Day-Part

	Boarding	Alighting	Avg Boarding	Avg Alighting	Trips
52 North					
Am Other	0	0	0.0	0.0	0
AM Peak	110	110	22.0	22.0	5
Midday	113	136	5.9	7.2	19
PM Peak	95	104	8.6	9.5	11
PM Other	0	0	0.0	0.0	0
Total	318	350	-	-	35

Exhibit D.27 Route 52 Southbound Activity by Day-Part

	Boarding	Alighting	Avg Boarding	Avg Alighting	Trips
52 South					
Am Other	0	0	0.0	0.0	0
AM Peak	59	56	14.8	14.0	4
Midday	231	184	12.2	9.7	19
PM Peak	146	127	11.2	9.8	13
PM Other	9	10	4.5	5.0	2
Total	445	377	-	-	38

Exhibits D.28 and D.29 illustrate the top five stops by boarding and alighting for Route 52 Northbound. As presented in the tables below, the single greatest boarding point (40 boardings) was US Highway 101 and Bel Marin Keys Boulevard Bus Pad. Similarly, the second-highest boarding location (34 boardings) was also on US Highway 101, at the Alameda del Prado Bus Pad. Alightings were more likely to occur in Novato, primarily at the S. Novato Boulevard/ Arthur Street stop and Redwood Boulevard/Grant Avenue stop – the last stop for the northbound route (compared to activity within San Rafael).

Exhibit D.28 Route 52 Top 5 Boarding Stops

Rank	Stop	Boardings
52 Northbound		
1	US Highway 101 & Bel Marin Keys Boulevard Bus Pad	40
2	US Highway 101 & Alameda del Prado Bus Pad	34
3	South Novato Boulevard & Redwood Boulevard	21
4	Alameda del Prado & Alameda de La Loma	18
5	South Novato Boulevard & Sunset Parkway	11

Exhibit D.29 Route 52 Northbound Top 5 Alighting Stops

Rank	Stop	Alightings
52 Northbound		
1	South Novato Boulevard & Arthur Street	73
2	Redwood Boulevard & Grant Avenue	53
3	South Novato Boulevard & Redwood Boulevard	33
4	South Novato Boulevard & Lauren Avenue	23
5	Redwood Boulevard & Olive Avenue	20

Exhibits D.30 and D.31 present the top five stop by boarding and alighting for Route 52 Southbound. As illustrated below, the greatest number of boardings occurred at Redwood Boulevard and Grant Avenue. South Novato Boulevard and Arthur (Novato High School) was tied for second with South Novato Boulevard and Redwood Boulevard. Similarly, the two greatest boarding points on the southbound route were also the two greatest alighting points on the northbound route. The greatest number of alightings occurred at Enfrente Road and Salvatore Drive (76 alightings) with a substantial variance between the first- and second-ranked locations.

Exhibit D.30 Route 52 Southbound Top 5 Boarding Stops

Rank	Stop	Boardings
52 Southbound		
1	Redwood Boulevard & Grant Avenue	60
2	South Novato Boulevard & Arthur Street	54
3	South Novato Boulevard & Redwood Boulevard	54
4	South Novato Boulevard & Diablo Avenue	32
5	Enfrente Road & Salvatore Drive	27

Exhibit D.31 Route 52 Southbound Top 5 Alighting Stops

Rank	Stop	Alightings
52 Southbound		
1	Enfrente Road & Salvatore Drive	76
2	South Novato Boulevard & Redwood Boulevard	36
3	Rowland Boulevard & Vintage Oaks Entrance	20
4	Alameda del Prado & Posada del Sol	14
5	South Novato Boulevard & Sunset Parkway	13

Exhibits D.32 and D.33 illustrate weekday, Saturday, and Sunday boarding and alighting activity by service day. Ride check data indicate Route 52 Northbound passengers were more likely to board Marin Transit vehicles at the beginning of the run and alight as the run neared its terminus point (Redwood Boulevard and Grant Avenue). A greater number of alightings were noted than boardings on northbound trips

suggesting the majority of boardings occurred when the route was heading southbound towards the San Rafael Transit Center.

Exhibit D.32 Route 52 Northbound Boardings and Alightings

Weekday

Saturday

Sunday

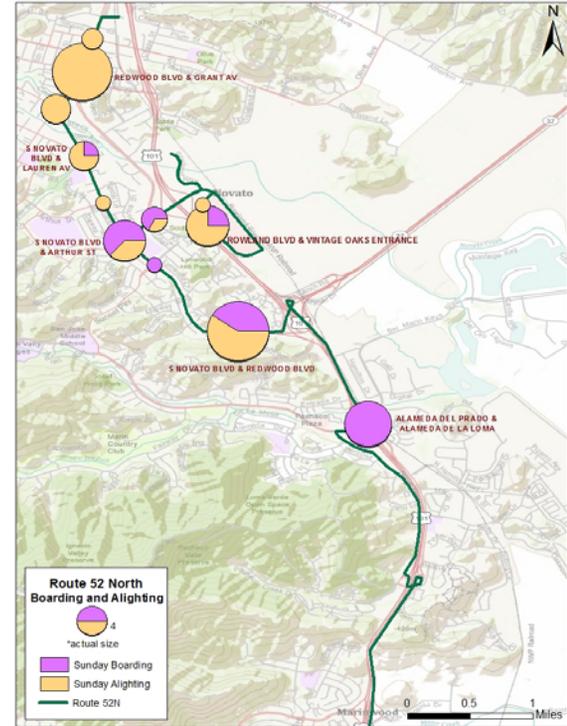
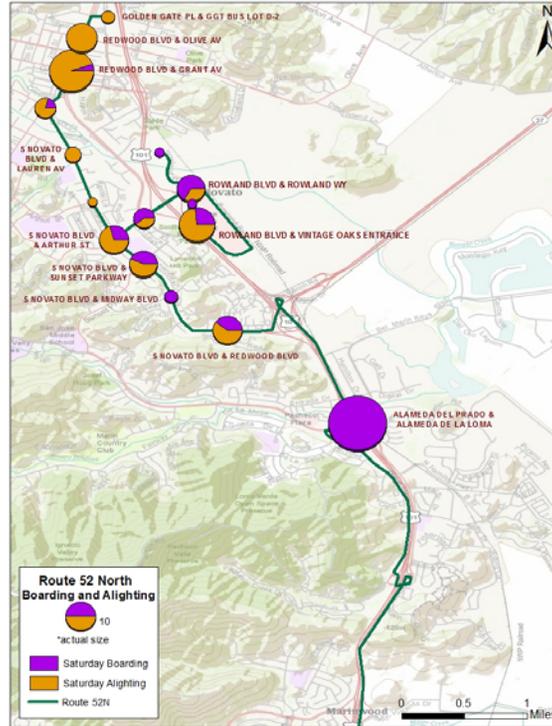
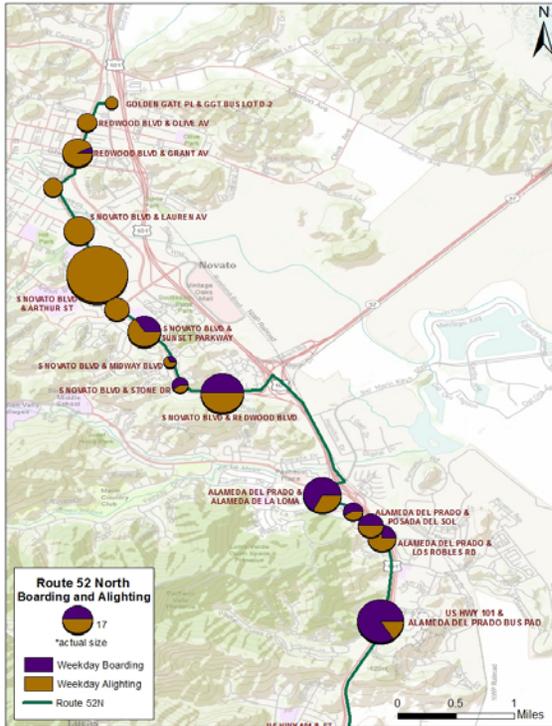
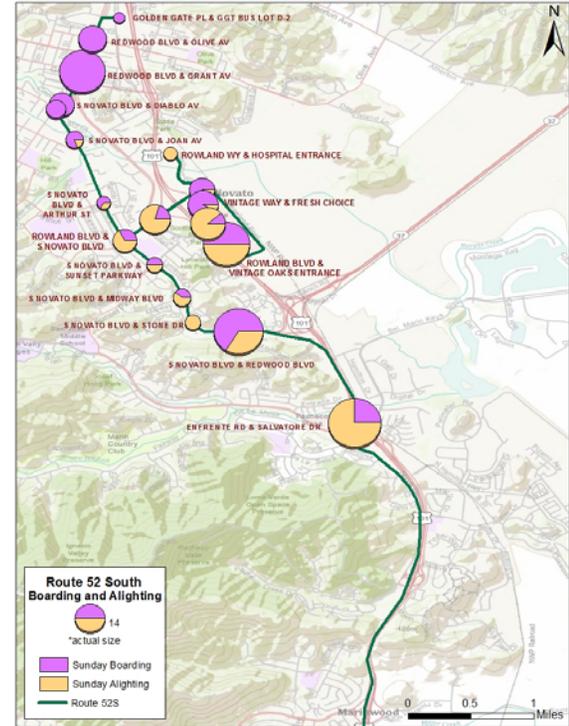
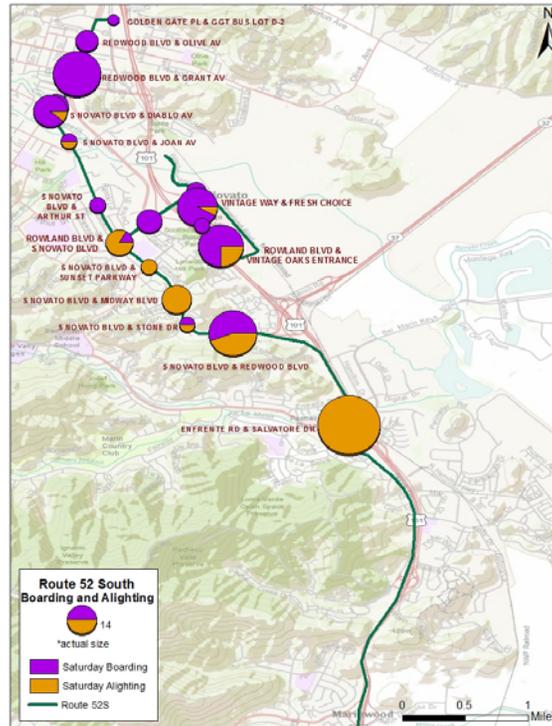
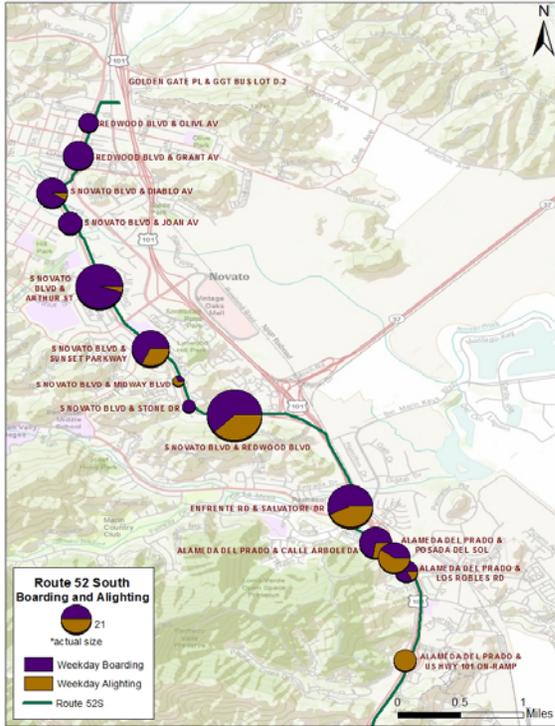


Exhibit D.33 Route 52 Southbound Boardings and Alightings

Weekday

Saturday

Sunday



Route 71 Boarding and Alighting Counts

Route 71 provides service along the Highway 101 corridor between Novato, San Rafael, and Marin City. It acts as an express route providing limited trips to the bus pads and major transit centers along Highway 101 and supplements portions of the regional routes 70, 80 and 101 within Marin County. The service operates Monday through Friday from 6:53 a.m. and 8:29 p.m., with limited service on weekends (Saturday and Sunday) from 6:53 a.m. to 5:23 p.m.

Southbound trips depart every 26 and 34 minutes from Redwood Boulevard and Olive Avenue in Novato with a terminus point at Terners (Donahue Street and Terners Drive) in Marin City. The northbound route runs on varying headways as well. Trips run between 52 and 55 minutes in length. Weekend service operates five southbound and three northbound trips. Trips vary in length and headway, with a gap in service between 8:40 a.m. and 11:33 a.m.

Route 71 serves as the primary link between Novato and points south in Marin County.

Exhibits D.34 and D.35 present passenger activity for Route 71 Northbound and Southbound. In contrast to Route 52, the most-productive day-part on Route 71 was PM Peak. Overall, Route 71 had the highest number of boardings and alightings when compared with other routes. This further supports the conclusion Route 71 is a primary travel option between Novato and Marin City.

The northbound route averaged nearly 50 boardings and alightings per trip, an aggregate of more than 290 boardings or alightings, respectively. In spite of the modest number of trips evaluated during the AM Peak and PM Other day-parts, both trips show a high frequency of riders (more than 25 boardings and alightings per trip) consistent with overall route trends. Higher boarding and alighting activity may be attributed to this being the only Marin Transit route to provide long-distance northbound/southbound service along Highway 101 from Novato. As an express-route, Route 71 offers an attractive alternative to "choice" riders.

Route 71 Southbound had nearly 2,000 boardings and alightings during the evaluation period. The greatest boarding average occurred during the AM Peak day-part at 41 passengers per trip. Alighting averages remained consistent across all day parts, with only slight differences between each day-part.

Ride check data reveal a higher propensity of passengers utilizing the service during AM Peak southbound trips and PM Peak northbound trips. High frequency of activity during peak hours may likely be the result of a large share of passengers utilizing the service for home-to-work travel, assuming such riders reflect traditional 8:00 a.m. to 5:00 p.m. work schedule. This corresponds with the Fixed-Route Customer Survey results which indicate more than 61 percent of riders are employed either full-time or part-time.

Exhibit D.34 Route 71 Northbound Activity by Day-Part

	Boarding	Alighting	Avg Boarding	Avg Alighting	Trips
71 Northbound					
Am Other	0	0	0.0	0.0	0
AM Peak	28	31	28.0	31.0	1
Midday	267	247	29.7	27.4	9
PM Peak	295	291	49.2	48.5	6
PM Other	27	25	27.0	25.0	1
Total	617	594	-	-	17

Exhibit D.35 Route 71 Southbound Activity by Day-Part

	Boarding	Alighting	Avg Boarding	Avg Alighting	Trips
71 Southbound					
Am Other	0	0	0.0	0.0	0
AM Peak	328	296	41.0	37.0	8
Midday	594	548	39.6	36.5	15
PM Peak	115	116	38.3	38.7	3
PM Other	0	0	0.0	0.0	0
Total	1037	960	-	-	26

Exhibits D.36 and D.37 present Route 71’s top-ranked stops for boarding and alighting activity. The most productive stops were located along US Highway 101, with the exception of Redwood Boulevard and Grant Avenue, which is a major transfer point, with more than 128 alightings across the evaluation period. These exhibits point to lower northbound travel demand within Novato.

Exhibit D.36 Route 71 Northbound Top 4 Boarding Stops

Rank	Stop	Boardings
71 Northbound		
1	US Highway 101 & Bel Marin Keys Boulevard Bus Pad	29
2	US Highway 101 & Alameda del Prado Bus Pad	17
3	US HWY 101 Northbound On-ramp & Rowland Boulevard	2
4	Redwood Boulevard & Grant Avenue	1

Exhibit D.37 Route 71 Northbound Top 5 Alighting Stops

Rank	Stop	Alightings
71 Northbound		
1	Redwood Boulevard & Grant Avenue	128
2	US Highway 101 & Bel Marin Keys Boulevard Bus Pad	69
3	US HWY 101 Northbound On-ramp & Rowland Boulevard	41
4	Redwood Boulevard & Olive Avenue	35
5	US Highway 101 & Alameda del Prado Bus Pad	32

Exhibits D.38 and D.39 illustrate the top-ranked stops for boarding and alighting on Route 71 Southbound. Ride check data reveal a substantial number of boardings occurred at the Redwood Boulevard and Grant Avenue stop. This corresponds with northbound trends which show high alighting activity at the same location. The second-most active stop is Enfrente Road and Salvatore Drive. As with other Marin Transit routes serving Enfrente Road and Salvatore Drive, this stop continued to be a major passenger activity center.

Exhibit D.38 Route 71 Southbound Top 5 Boarding Stops

Rank	Stop	Boardings
71 Southbound		
1	Redwood Boulevard & Grant Avenue	229
2	Enfrente Road & Salvatore Drive	134
3	US Highway 101 Southbound On-ramp & Rowland Boulevard	81
4	Redwood Boulevard & Olive Avenue	73
5	US Highway 101 & Alameda del Prado Bus Pad	71

Exhibit D.39 Route 71 Southbound Top 4 Alighting Stops

Rank	Stop	Alightings
71 Southbound		
1	Enfrente Road & Salvatore Drive	42
2	US Highway 101 & Alameda del Prado Bus Pad	18
3	US Highway 101 Southbound On-ramp & Rowland Boulevard	12
4	Delong Avenue & Reichert Avenue	1

Exhibits D.40 and D.41 illustrate weekday, Saturday, and Sunday boarding and alighting activity by service day. The weekday boarding and alightings were concentrated around the main transfer points in Novato which further points to the importance of Route 71 as a means of accessing destinations south of Novato. The same is true for both Saturday and Sunday.

Exhibit D.40 Route 71 Northbound Boardings and Alightings

Weekday

Saturday

Sunday

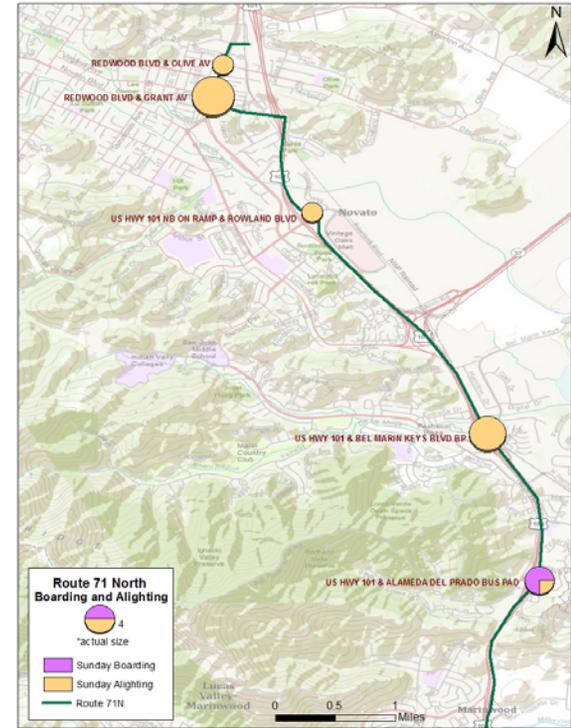
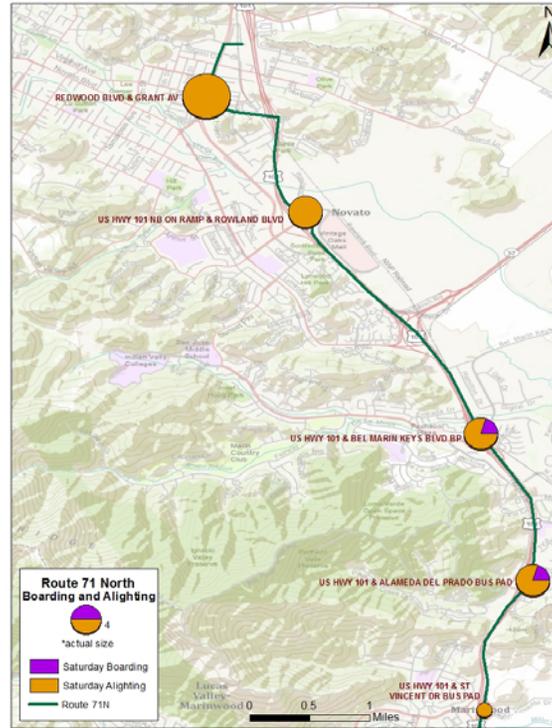
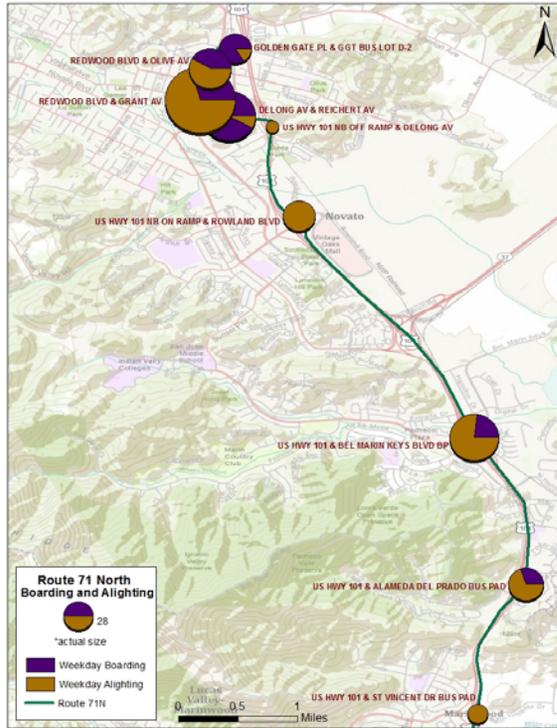
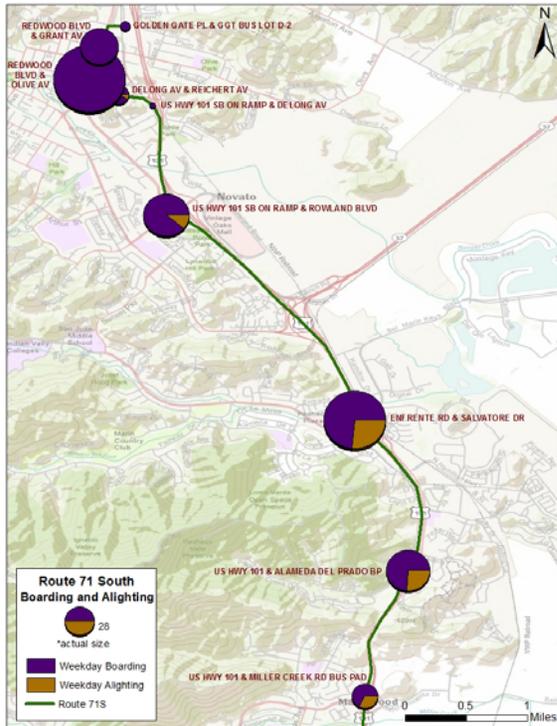
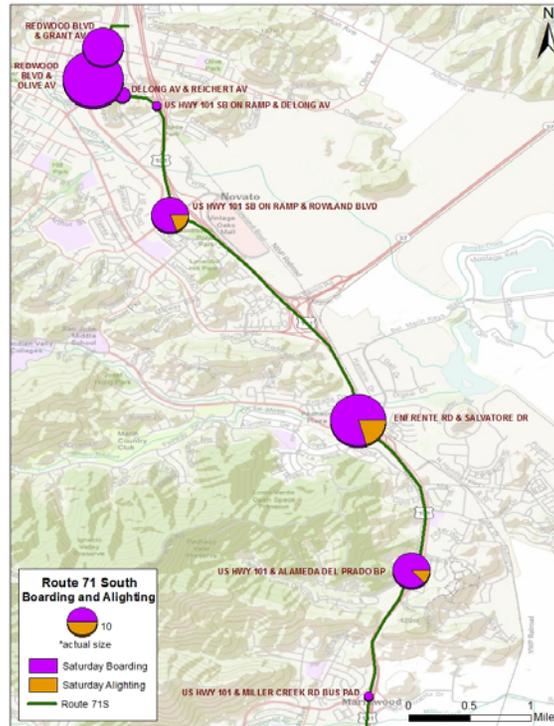


Exhibit D.41 Route 71 Southbound Boardings and Alightings

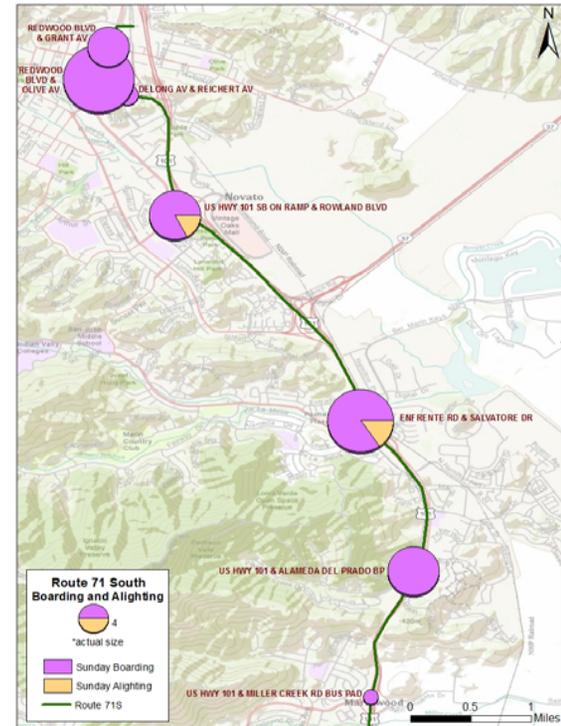
Weekday



Saturday



Sunday



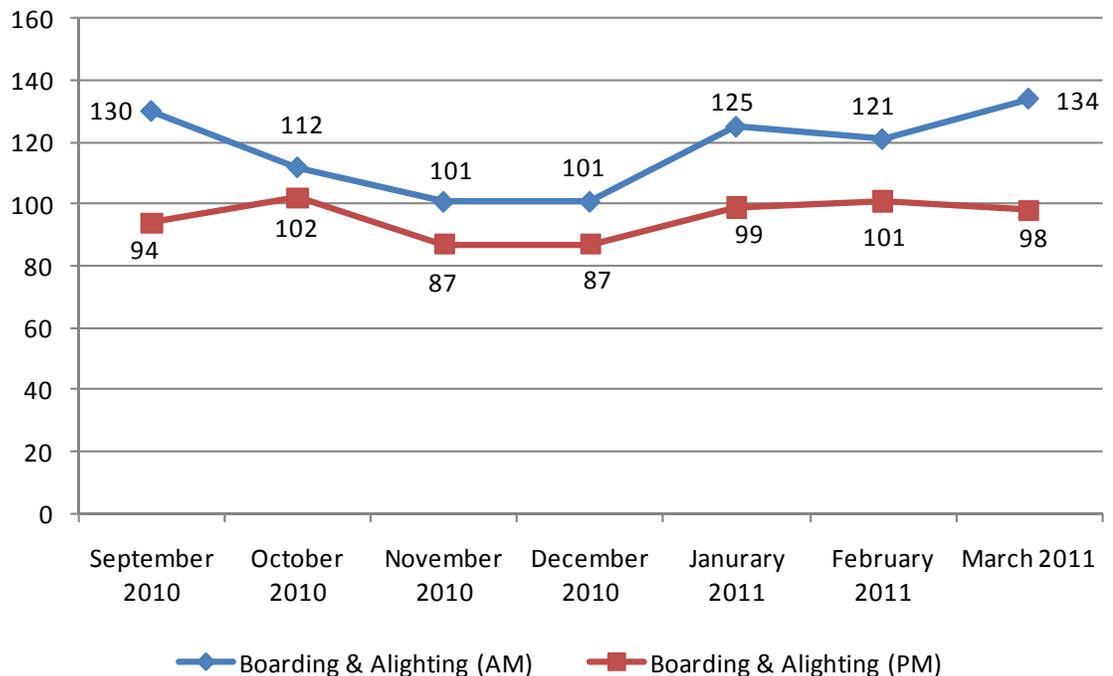
Novato Dial-A-Ride Boarding and Alighting

Exhibits D.42 and D.43 show the boarding and alighting counts for the Novato Dial-A-Ride, by day-part, between September 2010 and March 2011. During this timeframe, the Novato Dial-A-Ride had the highest activity during the AM day-part. We believe this is due to the large number of seniors and students.

Exhibit D.42 Boarding and Alighting for Novato Dial-A-Ride

Month	Boarding & Alighting (AM)	Boarding & Alighting (PM)	Boarding & Alighting Total
September 2010	130	94	224
October 2010	112	102	214
November 2010	101	87	188
December 2010	101	87	188
January 2011	125	99	224
February 2011	121	101	222
March 2011	134	98	232
Grand Total	824	668	1492

Exhibit D.43 Boarding and Alighting for Novato Dial-A-Ride by Day-Part



Exhibits D.44 and D.45 show the Top 10 boarding and alighting locations of the Novato Dial-A-Ride during the dates shown in Exhibits D.42 and D.43. Overall there was some overlap between the Top 10 boarding and alighting points suggesting fairly regular trips between the two points.

Exhibit D.44 Novato Dial-A-Ride Top 10 Origins

Origin	Count
Ignacio (private residence)	119
Sinaloa Middle School	89
Hamilton (private residence)	72
BioMarin Pharmaceuticals	60
Margaret Todd Senior Center	58
Downtown Novato (private residence)	56
Marin Village (private residence)	55
Bahia (private residence)	44
Marin Village (private residence)	41
Marin Village (private residence)	34

Exhibit D.45 Novato Dial-A-Ride Top 10 Destinations

Destination	Count
Hamilton (private residence)	89
Sinaloa Middle School	72
San Ramon Elementary School	69
Margaret Todd Senior Center	62
Nave Shopping Center	60
San Jose Middle School	58
Downtown Novato (private residence)	57
Marin Village (private residence)	54
Marin Village (private residence)	53
Lu Sutton Elementary School	46

Exhibits D.46 and D.47 show the origins and destinations of Novato Dial-A-Ride customers during September 2010 and March 2011. The top three origin and destination pairings were between private residences in Hamilton and the Sinaloa Middle School and private residences in Ignacio and the San Ramon Elementary School. While different from what would be expected given the top trip purpose cited in the Dial-A-Ride Customer Survey (Appendix 6), school trips were still the second-most popular trip purpose. However, the remaining pairings were largely between private residences and shopping destinations which do conform to the results in the Dial-A-Ride Customer Survey.

Exhibit D.46 Novato Dial-A-Ride Top 10 Origins and Destinations

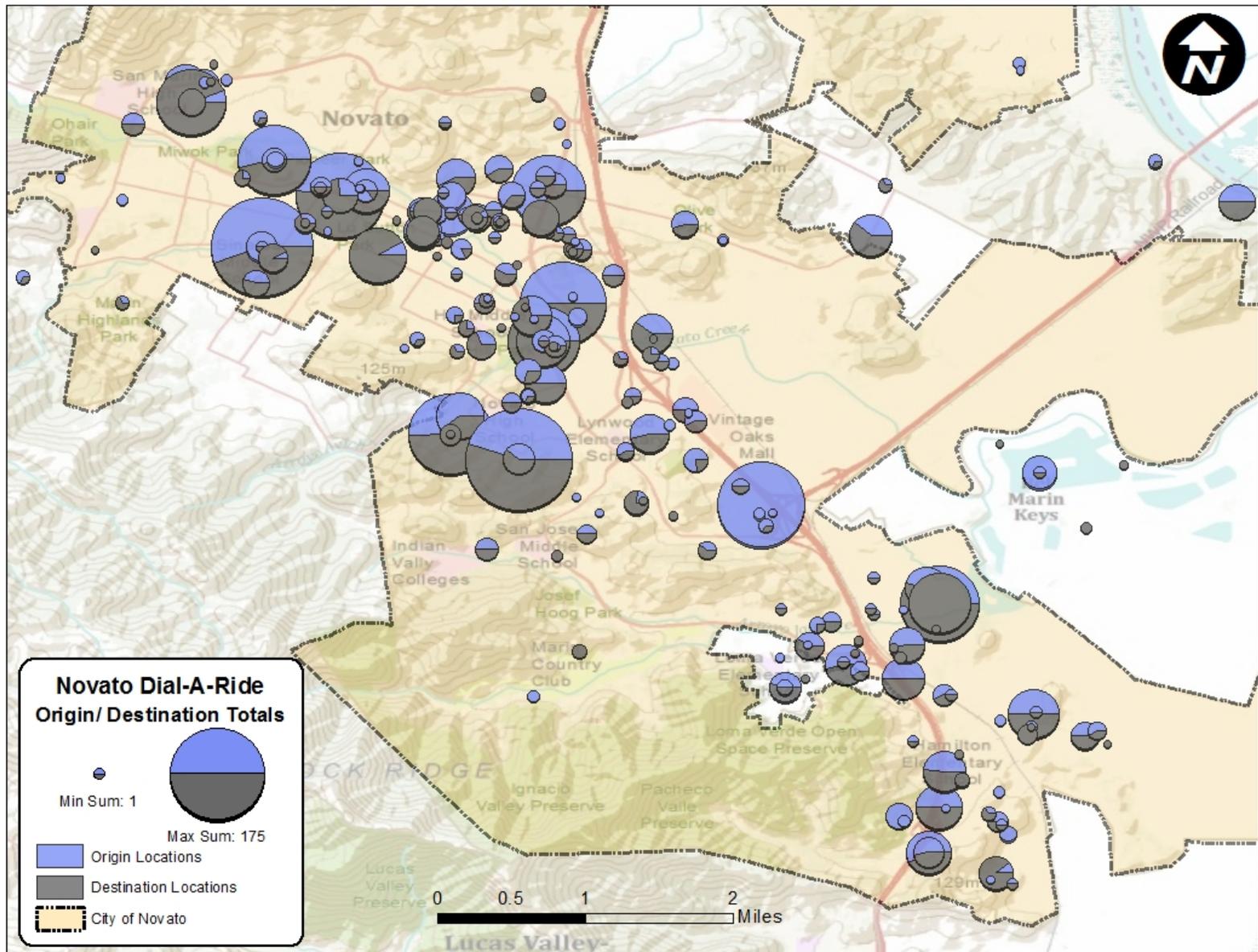
Location	Origin & Destination Count
Sinaloa Middle School & Hamilton (private residence)	89
Hamilton (private residence) & Sinaloa Middle School	72
Ignacio (private residence) & San Ramon Elementary School	65
BioMarin Pharmaceuticals & Marin Village (private residence)	60
Marin Village (private residence) & Downtown Novato (private residence)	55
Downtown Novato (private residence) & Marin Village (private residence)	54
Bel Marin Keys (private residence) & San Jose Middle School	32
Ignacio (private residence) & Lu Sutton Elementary School	31
Margaret Todd Senior Center & Marin Village (private residence)	20
Nave Shopping Center & BioMarin Pharmaceuticals	18

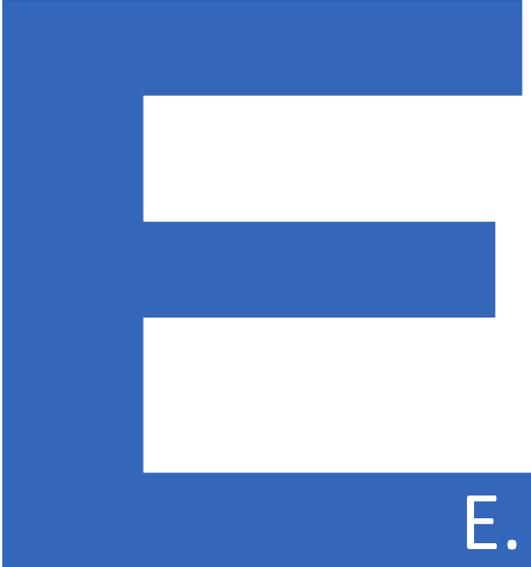
Appendix Summary

The ride check analysis revealed several key findings. First, on-time performance was an issue for each Marin Transit route serving Novato. In most cases, late departures caused the greatest decline in on-time performance yet early departures were also particularly prevalent. We recommend the Marin Transit District work with its contractors to enforce a “no early departure” policy.

In terms of boarding and alighting activity, Route 71 was the most productive of the Marin Transit routes. Given Route 71 connects to several major transit centers (San Rafael, Marin City, and Novato), it is not surprising the route has significantly higher passenger activity than other routes. Route 49, on the other hand, was less productive than the other routes.

Exhibit D.47 Novato Dial-A-Ride Origin and Destination





**E. FIXED-ROUTE
SURVEY ANALYSIS**

APPENDIX E – FIXED-ROUTE SURVEY ANALYSIS

Moore & Associates conducted fixed-route customer surveys onboard those transit services traveling through Novato as well as at the Redwood/Grant transfer point between October 26 and October 29, 2010. These include Marin Transit Routes 49, 51, 52, and 71 and Golden Gate Transit Routes 70, 80, and 101. The survey had several objectives:

- Develop a demographic profile of transit riders through the study area,
- Codify current rider travel patterns,
- Assess customer satisfaction,
- Identify and prioritize potential service enhancements, and
- Identify marketing and outreach preferences.

Methodology

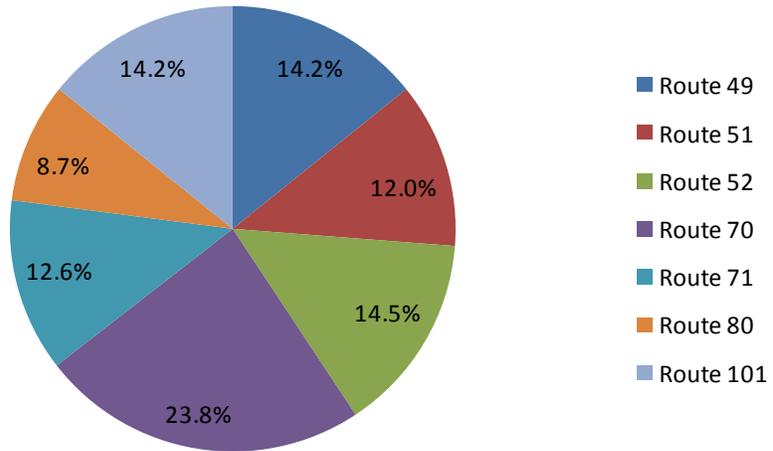
In conducting the survey, our project team utilized data collectors/surveyors from a local staffing firm. Prior to survey initiation, each surveyor attended a one-hour training session which included an overview of the project scope and the transit service providers (Marin Transit and Golden Gate Transit), survey expectations, review of survey instrument, individual route schedules, and proper surveying protocol. See Exhibit E.25 for a sample of the survey instrument

The survey was administered across representative service days (i.e., weekdays and Saturday) and across all day-parts (AM Other, AM Peak, Midday, PM Peak, PM Other). Surveyors positioned themselves near the front of the bus to collect boarding and alighting counts as well as facilitate survey distribution. Surveyors provided each boarding passenger with a copy of the bilingual survey, a clipboard, and a pen or pencil. Passengers also were offered a postage-paid envelope to return the survey at a later date, if they so choose.

Moore & Associates' staff provided on-site supervision during the survey efforts. A field supervisor validated all surveys once each surveyor completed his/her assigned shift. In total, 413 valid survey forms were collected, which represents a statistically-valid sample with a 95-percent confidence level and a +/- five-percent margin of error.

Our project team began analyzing the survey data by entering it into our Statistical Package for the Social Sciences (SPSS) software. After the data were cleaned, we identified and generated simple frequencies and conducted initial cross-tabulations. We then exported the processed data into Microsoft Excel to generate charts and graphs.

Exhibit E.1 Respondent Distribution by Route



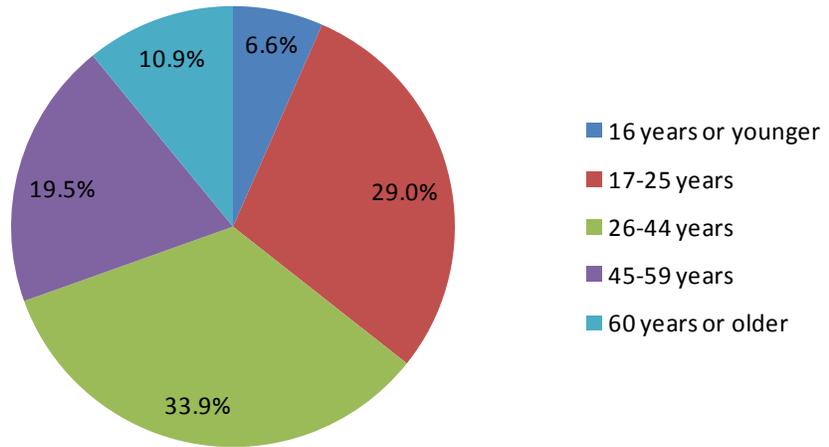
Demographic Information

To develop a demographic profile of current Marin Transit and Golden Gate Transit riders in Novato, Moore & Associates collected information regarding respondent age, employment status, and household income.

Respondent Age

Exhibit E.2 shows the age range of respondents. The largest age group was 26 to 44 years at nearly 34 percent, followed by the 17 to 25 years age group at 29 percent. When added with the 45 to 59 years age group, most transit riders in Novato are of working or college age. As shown in Exhibit E.5 below, many use Marin Transit and Golden Gate Transit to access employment centers.

Exhibit E.2 Respondent Age



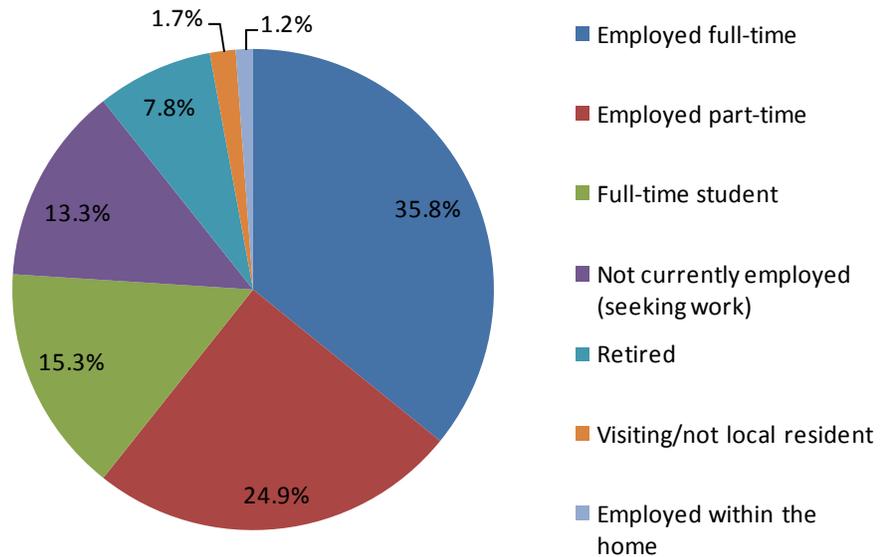
Employment Status

Exhibit E.3 shows the status of employment for survey respondents. Those employed full-time made up the largest group of respondents at nearly 36 percent followed by those who are employed part-time at almost 25 percent. Just over 15 percent of respondents are full-time students.

Only 36 percent of respondents were employed full-time.

Given nearly 61 percent of respondents cited being employed, it is likely Marin Transit and Golden Gate Transit are used more for commuting rather than meeting off-peak mobility needs like accessing healthcare, shopping, etc. Exhibit E.5 confirms this conclusion.

Exhibit E.3 Employment Status



Private Automobile Access

In the simplest terms, ride-dependency means the extent to which an individual relies on an alternative form of transportation because they have few or no personal mobility options. Survey respondents were asked two questions to gauge their level of ride-dependency.

Nearly 76 percent of respondents lack access to a personal vehicle.

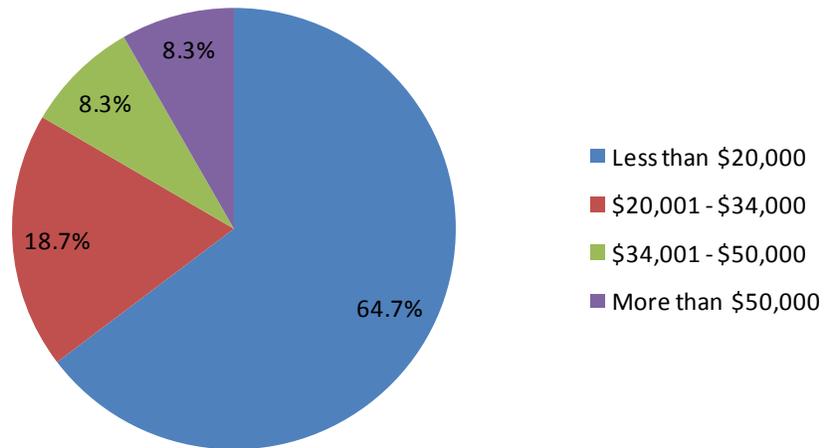
In the first question, respondents were asked if they have access to a private automobile. Nearly 76 percent of respondents indicated they do not have access. The second question queried respondents regarding whether they have a valid driver license. Nearly 66 percent did not have a valid driver license. These two questions suggest most patrons of Marin Transit and Golden Gate Transit in Novato are ride-dependent rather than being “choice riders.” This indicates there is opportunity for Marin Transit to expand its service offerings to attract more “choice riders” who are currently making trips via private automobile but may be attracted to utilizing transit if it suits their needs/schedule.

Household Income

Exhibit E.4 shows the household income for survey respondents. Approximately 65 percent of respondents are part of households earning less than \$20,000. This is well below the median household income of Novato at nearly \$81,000 and below Marin County at around \$88,000. This suggests the typical transit rider in Novato is low-

income and likely dependent upon public transit to meet his/her mobility needs. This also suggests any significant fare increases would impact those least able to afford it.

Exhibit E.4 Household Income



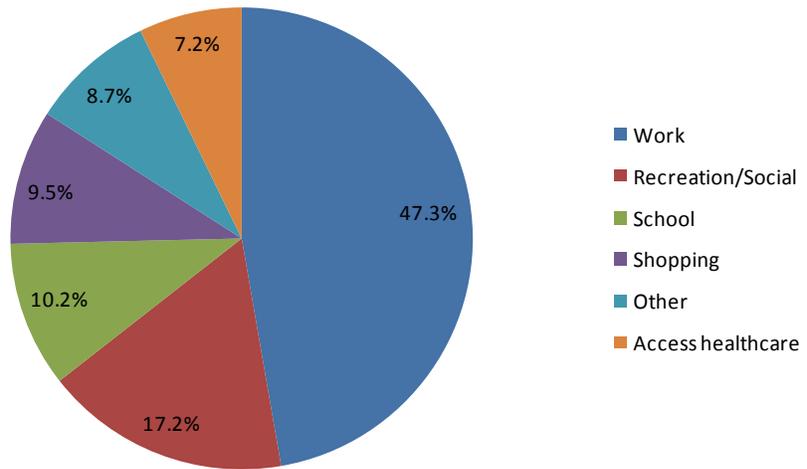
Trip Purpose

Exhibit E.5 shows the primary trip purpose of survey respondents for the surveyed trip. Work was the most frequently-cited trip purpose at just over 47 percent. This confirms the findings above in Exhibit E.2 which suggested many Novato transit riders use the service to access work.

We can conclude transit riders in Novato are likely frequent riders given more than 60 percent of survey respondents are employed at least part-time (Exhibit E.3). In addition, the high level of observed ride-dependency based on access to a personal vehicle and possession of driver license further suggests transit riders are mobility-disadvantaged.

Work was the most frequently cited trip purpose.

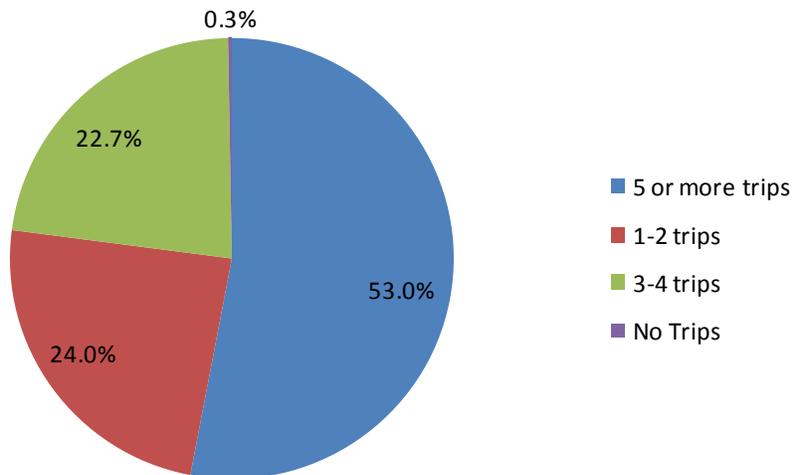
Exhibit E.5 Trip Purpose



Frequency of Transit Use

Those surveyed were asked how many one-way bus trips they make during a typical week. More than half of all respondents (53 percent) stated they used the bus five or more times per week.

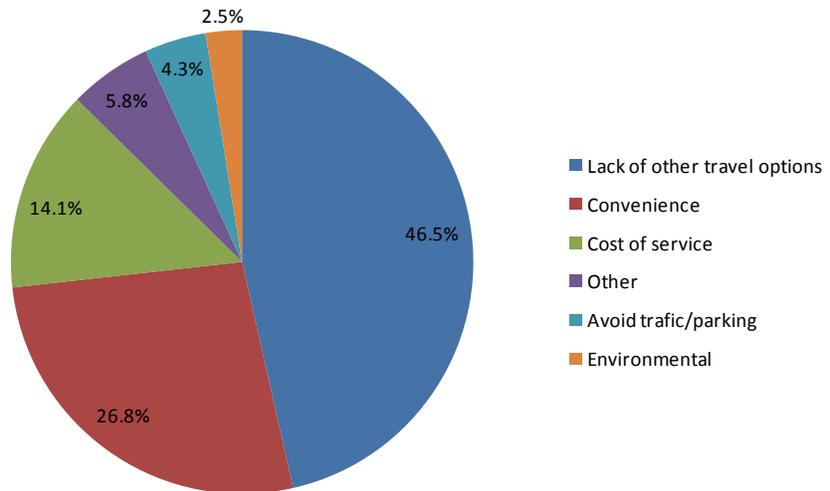
Exhibit E.6 Frequency of Transit Use



Transit Influences

Exhibit E.7 presents the primary motivation of respondents for taking public transit. More than 46 percent of respondents cited a lack of other travel options as their primary motivation for taking public transit. This was more than twice the number of respondents who used public transit because of convenience (nearly 27 percent). These results demonstrate the high level of dependency on the transit services by current users for their mobility needs.

Exhibit E.7 Transit Influences



Transit Accessibility

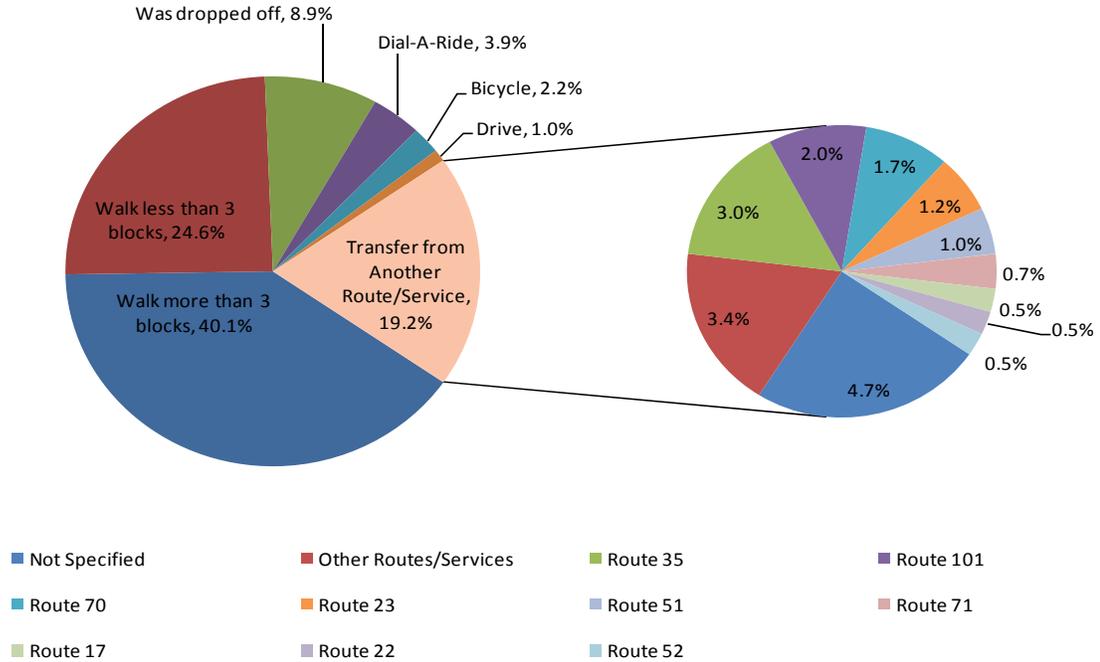
Exhibit E.8 shows how respondents accessed the bus stop for the surveyed trip. Nearly 65 percent of respondents walked to the bus stop, with about 40 percent indicating walking more than three blocks to access transit. The fact 40 percent of respondents walked more than three blocks and another nine percent were dropped off indicates there are significant populations not within close proximity to an existing bus stop (either Marin Transit or Golden Gate Transit). This can be attributed in part to resource constraints, but is also the result of the operational difficulties presented by the disjointed, curvilinear road network throughout much of the community. Given the large numbers of riders walking to bus stops, stops should be made easily accessible to pedestrians and should be well integrated into the built environment.

Nearly 65 percent of respondents walk to access public transit.

Survey respondents also had the opportunity to indicate which route or connecting transit service they used to access the bus stop. Of the 19 percent who transferred from another

route/service, the largest percentage transferred from Route 35 followed by Route 101 and Route 70².

Exhibit E.8 Transit Accessibility

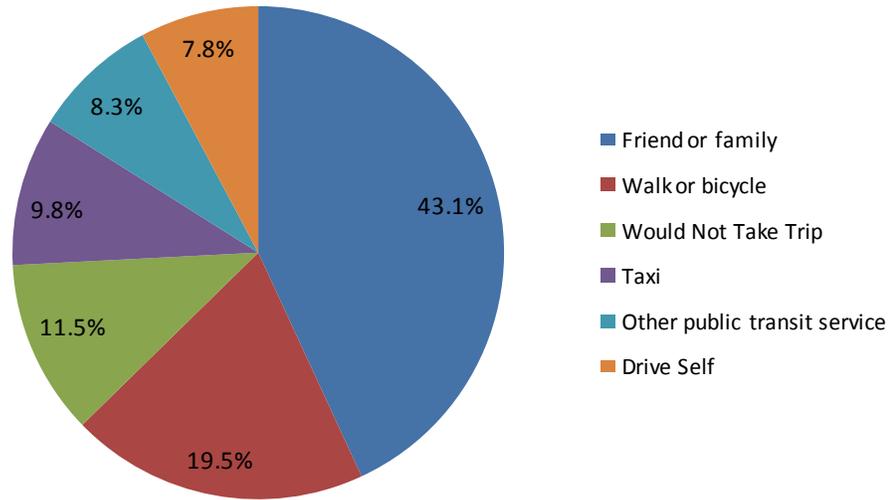


Mobility Alternatives

Exhibit E.9 illustrates how survey respondents might reach their destination if the bus service was not available to complete their trip. More than 43 percent of respondents cited relying on a friend or family member to complete their trip and more than 19 percent said they would walk or ride their bicycle to reach their destination. The dependency on modes other than the private automobile for mobility significantly outweighs with the eight percent who would drive themselves. In addition, 11.5 percent would simply not take the trip in question if transit was not available. Overall, the exhibit highlights a high level of ride-dependency among transit riders in Novato.

² It should be noted the “other routes/services” category includes about 14 individual responses ranging from other Marin Transit and Golden Gate Transit routes as well as other transit services such as AC Transit, SF Muni, and Sonoma County Transit

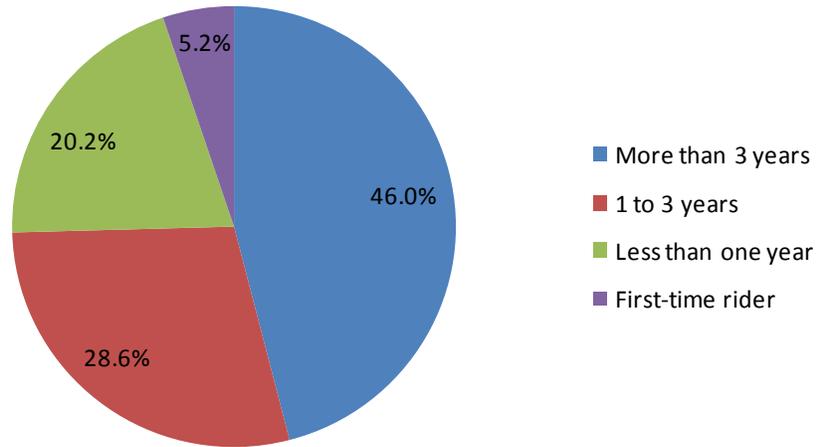
Exhibit E.9 Mobility Alternatives



Length of Patronage

Exhibit E.10 shows the length of patronage for survey respondents. Those who have patronized Marin Transit and Golden Gate Transit for more than three years were the largest group at 46 percent. First time riders and those riding less than one year accounted for nearly 26 percent of all survey respondents.

Exhibit E.10 Length of Patronage

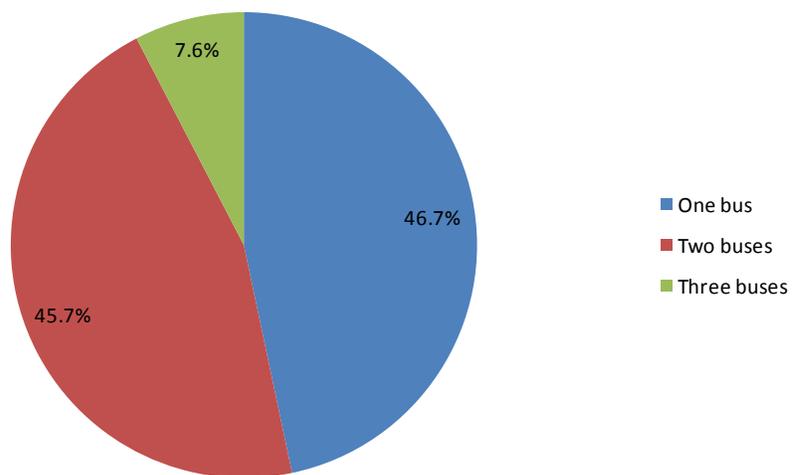


Number of Buses to Complete Trip

Exhibit E.11 indicates how many buses respondents used to complete their desired trip. Respondents were evenly split between one bus and two buses at 47 and 46 percent, respectively. Those needing three buses made up the balance at fewer than eight percent.

Given the suburban nature of Marin County and Novato, one would expect most riders would need two or three buses to complete their trip. However, San Rafael, San Francisco, and Novato were the most popular destinations and are relatively easily reached by Marin Transit or Golden Gate Transit. As a result, there is very little need to transfer more than once.

Exhibit E.11 Number of Buses to Complete Trip



The most successful public transit services are market-driven. As such, they address the mobility needs of the residents, workers, and visitors of the service area as effectively as possible. Further, we believe that in order to achieve sustainable ridership, a transit provider must expand its focus beyond the ride-dependent.

A series of data cross-tabulations were performed exploring possible relationships between how frequency of use and other survey responses. These cross-tabulations were aimed at identifying underlying relationships between various groups of riders.

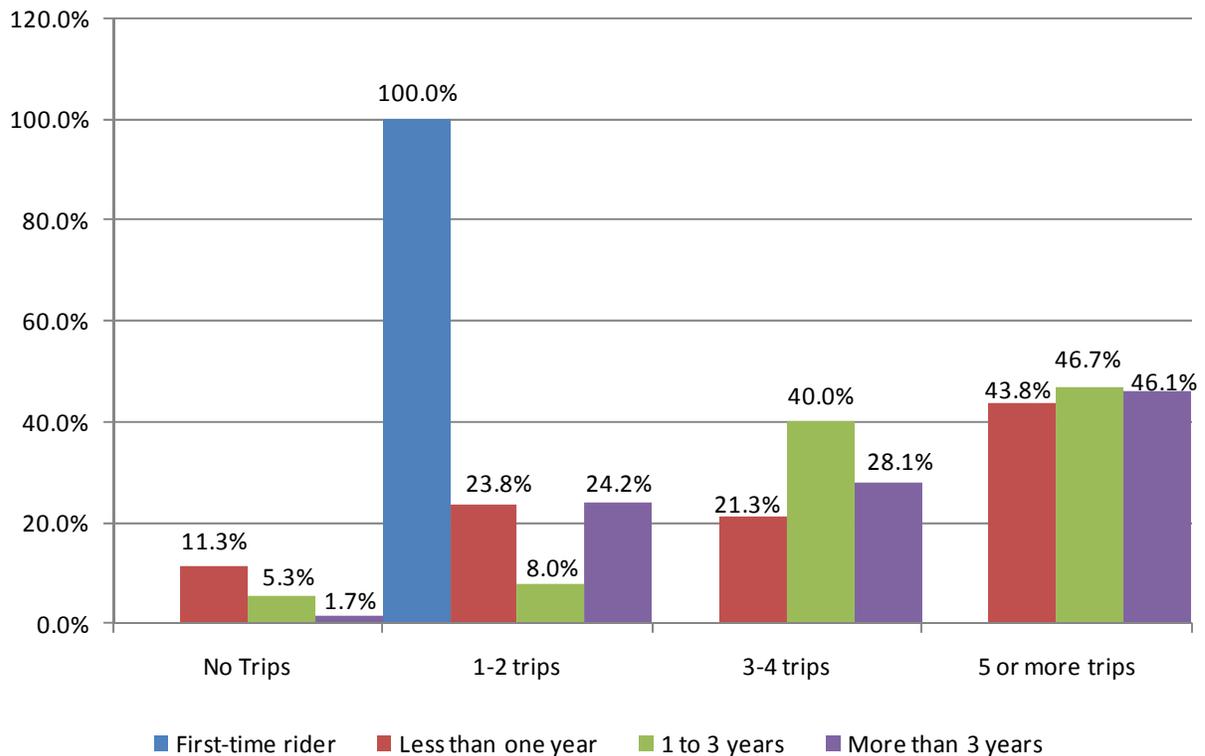
Long-time users of the system ride often, while first-time users ride much less often.

Frequency of Use vs. Length of Patronage

Exhibit E.12 explores the relationship between how frequently a patron uses the bus and how long the patron has been riding transit. The exhibit suggests a positive relationship between frequency of use and length of patronage. This indicates the more often a patron rides, he or she is more likely to be a long-term customer (i.e., more than one year of using Marin Transit and/or Golden Gate Transit).

The correlation between frequency of use and length of patronage is analogous with the findings in previous exhibits. We know from the survey responses the majority of respondents are likely ride-dependent and consequently rely heavily on Marin Transit and Golden Gate Transit for personal mobility.

Exhibit E.12 Frequency of Use vs. Length of Patronage

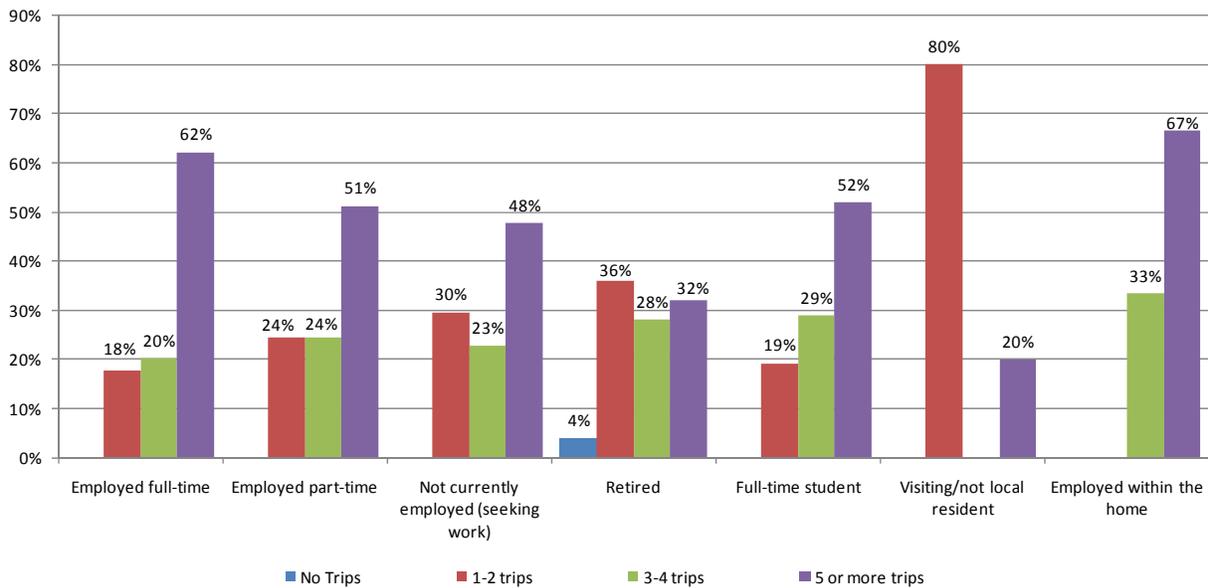


Frequency of Use vs. Employment Status

Exhibit E.13 shows the relationship between frequency of use and employment status. Of the respondents who are employed (full-time or part-time) or students, the majority use transit for five or more trips per week. Given most respondents are of working or college age (Exhibit E.2) and home-to-work travel requires multiple trips per week, it is not surprising the majority of respondents going to work or school.

Additionally, the ride-dependency of the average Marin Transit and Golden Gate Transit patron further suggests trip purposes requiring multiple trips per week (i.e., work and school) would result in patrons using the service frequently throughout the week.

Exhibit E.13 Frequency of Use vs. Employment Status

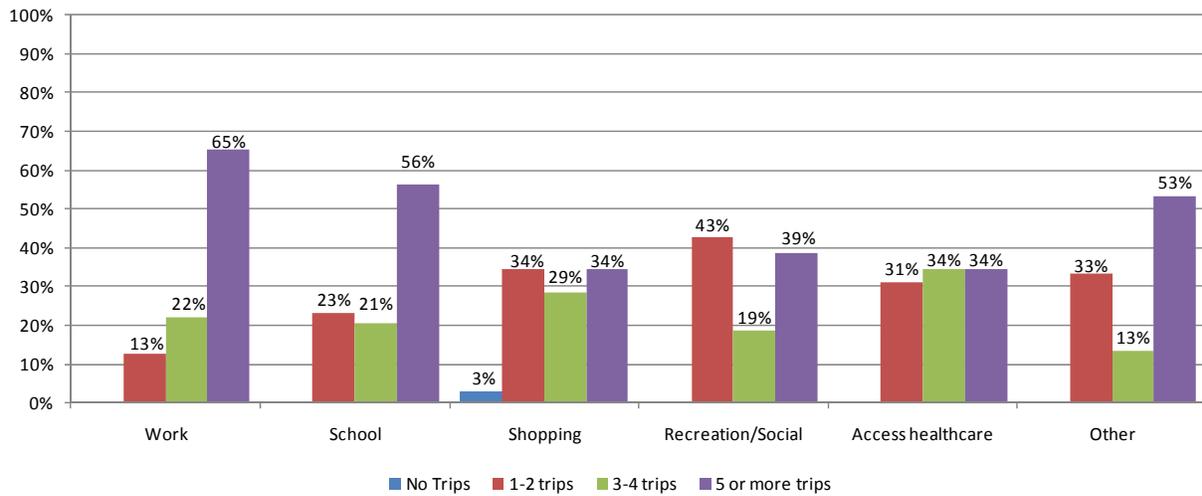


Frequency of Use vs. Trip Purpose

Exhibit E.14 illustrates the relationship between frequency of use and trip purpose. Consistent with other results of the survey, the most frequent riders traveled to work, school, and other destinations requiring frequent visits. The survey results in this exhibit point to a positive relationship between travel destinations, which require daily travel (i.e., work), and propensity to use the service frequently. Additionally the findings further confirm the importance of Marin Transit as a travel option for getting ride-dependent persons to work sites.

Those using the service for work and school-related trips use the service more often than those using it for other purposes.

Exhibit E.14 Frequency of Use vs. Trip Purpose

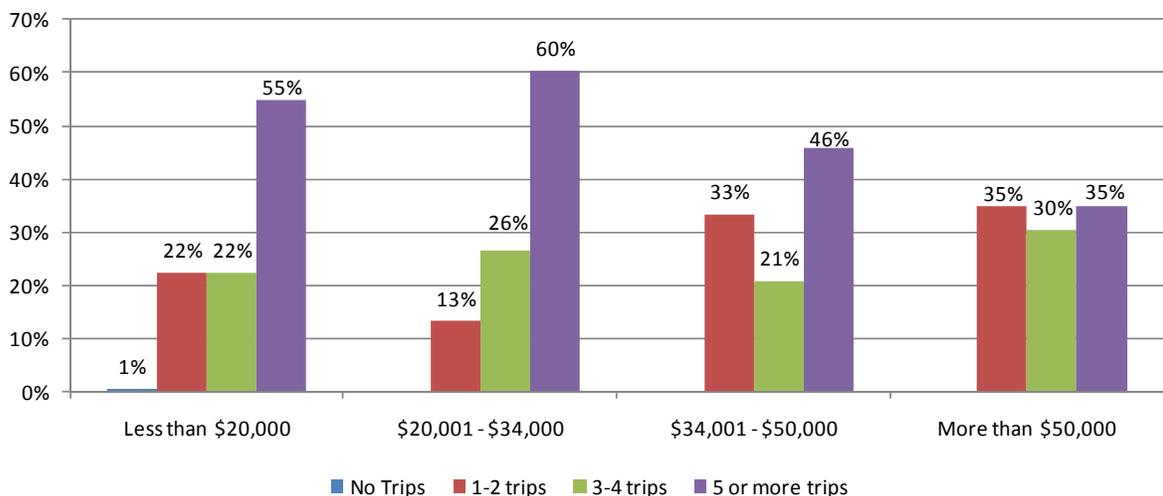


Frequency of Use vs. Household Income

Exhibit E.15 shows the relationship between frequency of use and household income. The exhibit shows a negative relationship between income and transit patronage. For example, those earning less than \$20,000 and between \$20,001 and \$34,000 are more likely to ride Marin Transit than those earning in excess of \$50,000. In other words, the more one earns, the less likely they are to ride transit.

The implication of this finding is Marin Transit can expect low numbers “choice riders” unless there are significant changes in travel demand from external factors like gas prices, parking policies and land use patterns or service changes are made to attract such riders. Another option would be targeted marketing to promote transit use as a more viable/cost effective/attractive option for “choice riders.”

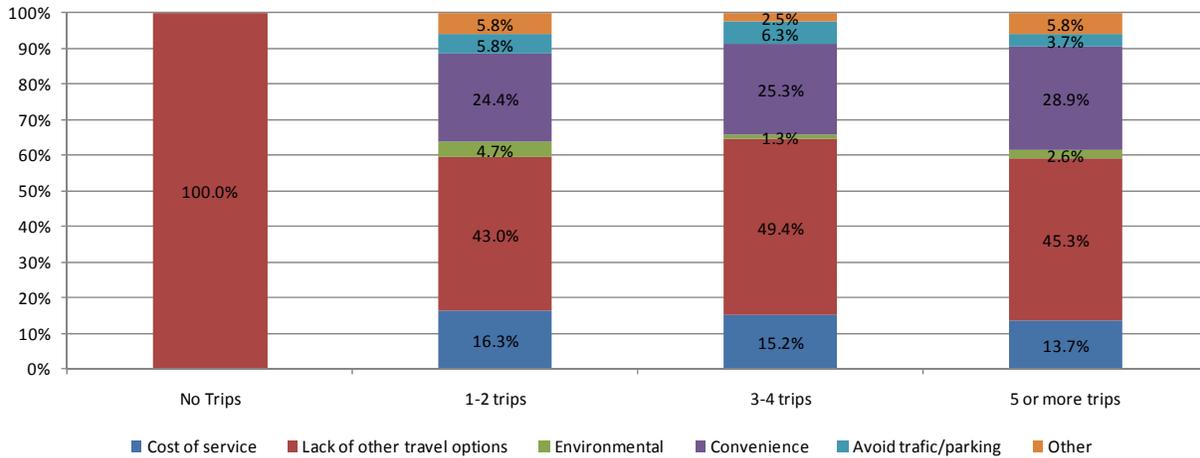
Exhibit E.15 Frequency of Use vs. Household Income



Frequency of Use vs. Transit Influences

Exhibit E.16 shows the relationship between frequency of use and transit influences. As would be expected given the level of ride-dependency observed in the survey, many respondents cited a lack of other travel options as their primary reason for using Marin Transit. This gives further credence to the conclusion that many of Marin Transit’s riders in Novato are dependent on public transit to meet their mobility needs.

Exhibit E.16 Frequency of Use vs. Transit Influences

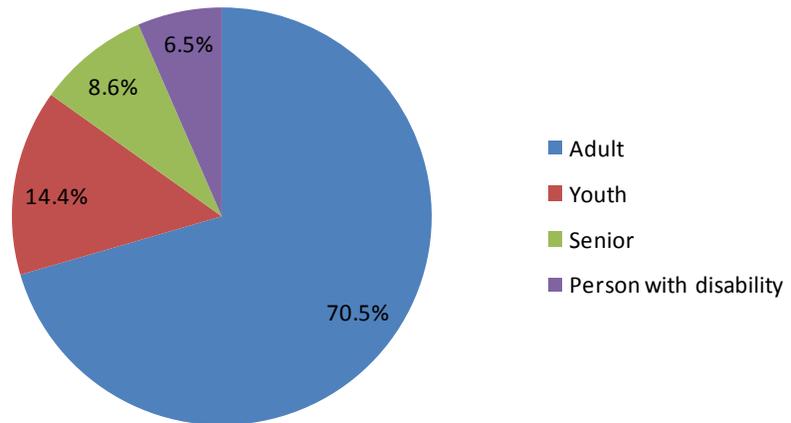


Fare Category

Exhibit E.17 shows the fare category for survey respondents. The adult cash fare is \$2.00 and \$1.80 when patrons use stored value cards like Translink/Clipper. The youth fare is one dollar and applies to riders between the ages of six and sixteen. Children under the age of six ride free. Reduce fare (for senior and persons with disability) is one dollar.

The vast majority of respondents fell under the adult fare category. This finding is not surprising given the age distribution observed in Exhibit E.2 above.

Exhibit E.17 Fare Category



Fare Type

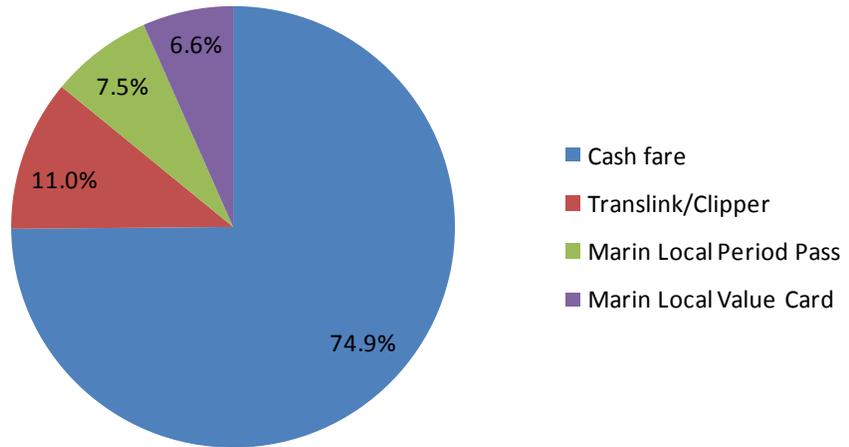
Exhibit E.18 illustrates how respondents paid for their bus trip. Nearly three-quarters of respondents used cash fare to pay for their trip. Given the high number of frequent riders, long-term riders, and level of ride-dependency, it is surprising so few of the riders surveyed use non-cash fare media.

The vast majority of riders use cash to pay their fare despite the savings associated with Clipper or non-cash media.

Providing non-cash based fare media has distinct advantages for both patrons and transit operators. From the patron's perspective, non-cash fare media eliminates the need to carry exact change and usually includes a monetary savings over paying for individual trips. The non-cash fare advantages to operators are reduced accounting cost, faster boarding times, and predictable income for the duration of the pass.

The high proportion of cash fare suggests Marin Transit and Golden Gate Transit may have an opportunity to improve awareness among patrons of available fare media such as Clipper, day passes, and monthly passes. Expanding the number of outlets where non-cash fare media may be purchased can significantly increase market penetration.

Exhibit E.18 Fare Type

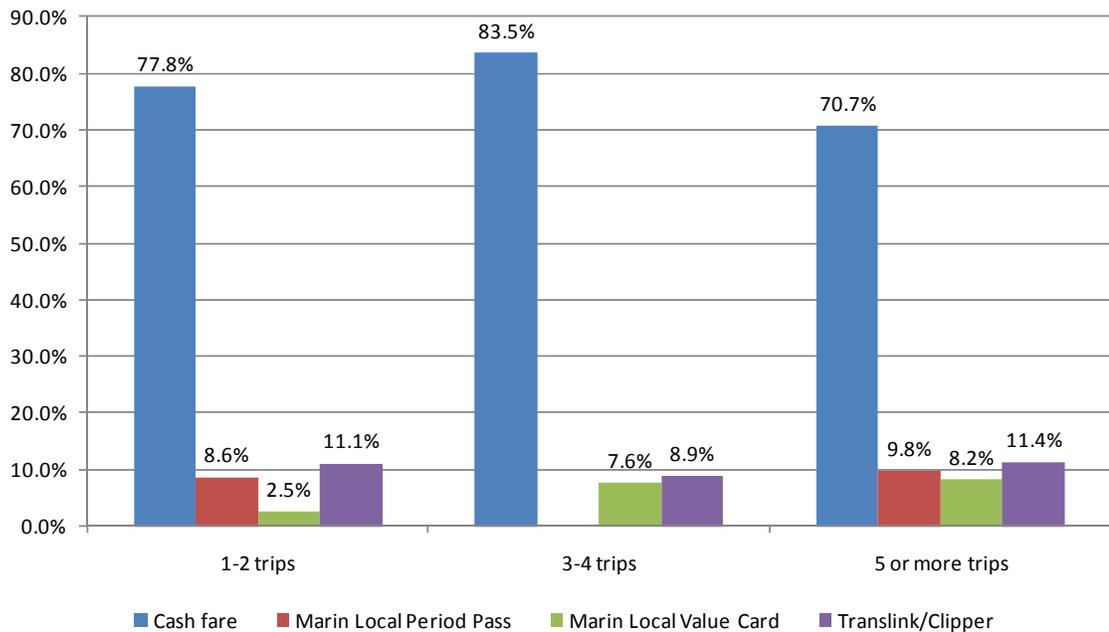


Frequency of Use vs. Fare Type

Exhibit E.19 shows the relationship between frequency of use and fare type. Across each trip grouping, cash fare is the most popular means of payment.

However, there is a slight positive relationship between frequency of use and the use of non-cash fare media. This suggests Marin Transit may have success in promoting the use of passes and smart card technology like Clipper. Encouraging persons who ride five or more times per week and still use cash fare to switch to passes like Clipper could improve the perception of Marin Transit by making the service easier to use (no need for exact change, faster boarding times, etc.) as well as helping patrons realize cost savings.

Exhibit E.19 Frequency of Use vs. Fare Type



Customer Satisfaction

Survey participants were asked to rank nine individual service attributes using a five-point numerical rating scale (1= very dissatisfied, 5= very satisfied). Exhibit E.20 illustrates the results.

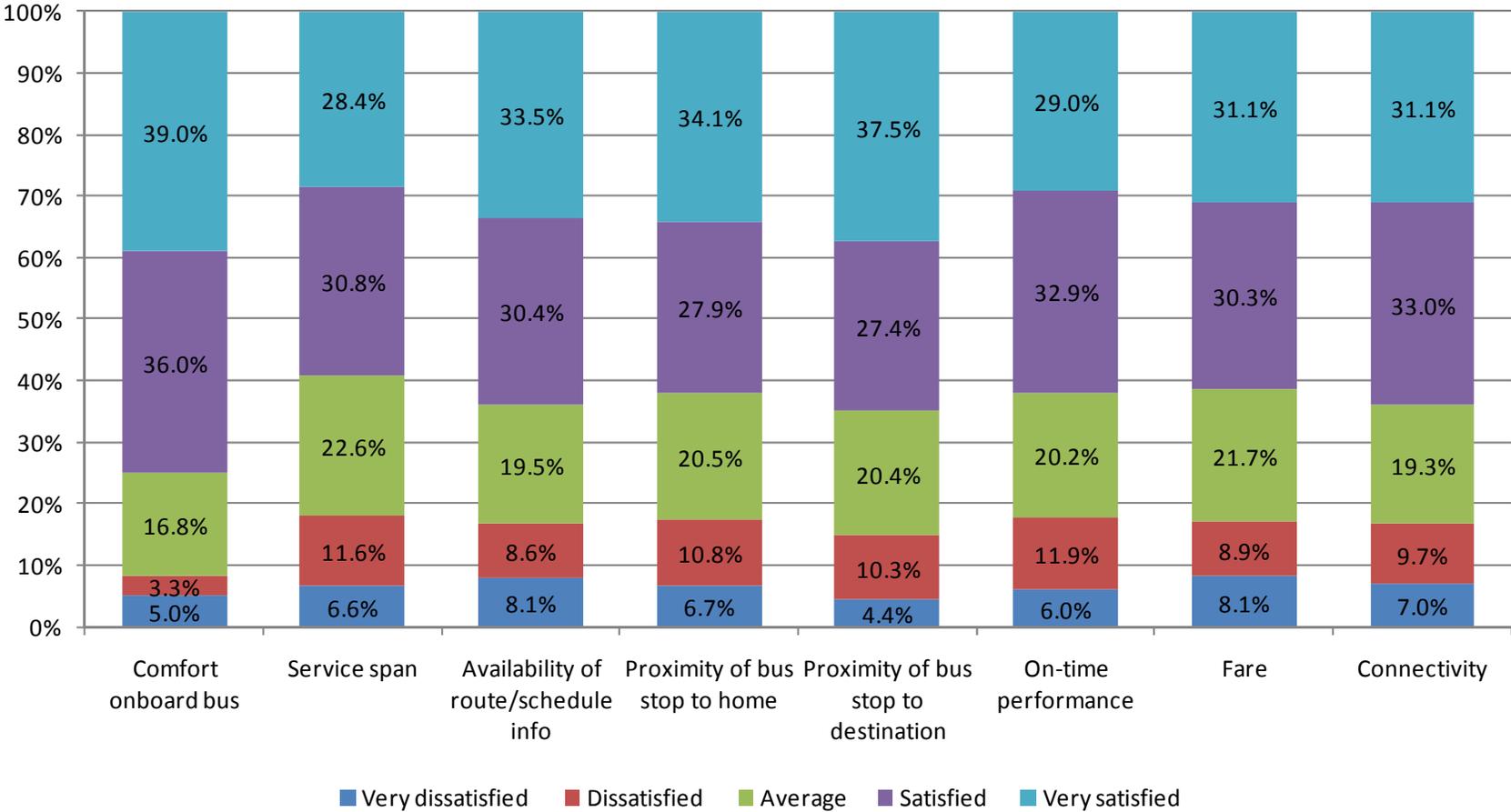
Among the survey attributes garnering a “very satisfied” rating, onboard comfort, stop proximity to home and destination, and availability of schedule/route information were the top three.

Service span and on-time performance had the highest levels of customer dissatisfaction.

Across all service attributes, more than half of all survey respondents stated they were at least satisfied (those who are satisfied and very satisfied) while three-quarters of respondents reported satisfaction with onboard comfort on the high-end and service span on the low-end (51 percent combined).

In terms of dissatisfaction, we combined “very dissatisfied” and “dissatisfied” responses to help focus on areas which need improvement. The survey revealed service span had the highest dissatisfaction rating (18 percent combined); followed by on-time performance (18 percent combined); and proximity of bus stop to home (17 percent combined).

Exhibit E.20 Customer Satisfaction



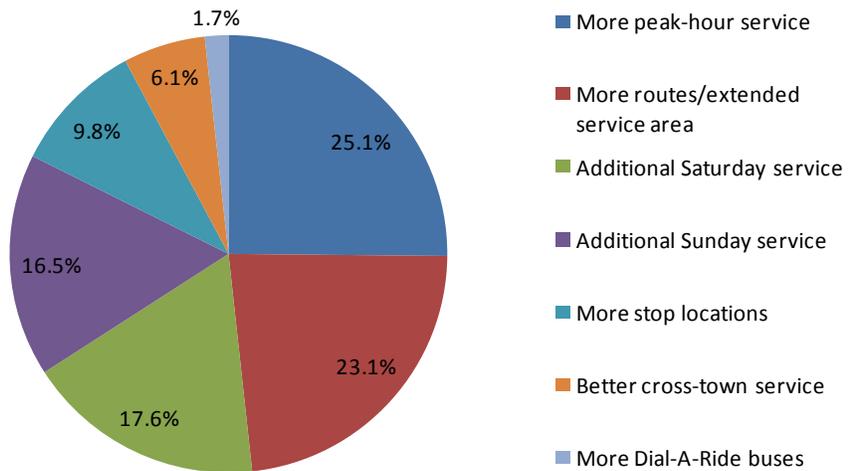
Preferred Service Enhancements

More peak-hour service was the most popular service enhancement.

Exhibit E.21 illustrates what service enhancements respondents would most like to see. A quarter of respondents wanted more peak-hour service while a similar amount wanted more routes/extended service area. More weekend service (Saturday and Sunday) combined for over 34 percent of respondents with each day splitting nearly evenly. Better cross-town service registered just over six percent. Better cross-town service registered just over six percent.

The large share of respondents who want more peak-hour service is consistent with our findings above which show Novato transit riders as using Marin Transit and Golden Gate Transit as their primary means of getting to work. Based on this finding, service enhancements should focus on peak-periods.

Exhibit E.21 Preferred Service Enhancements

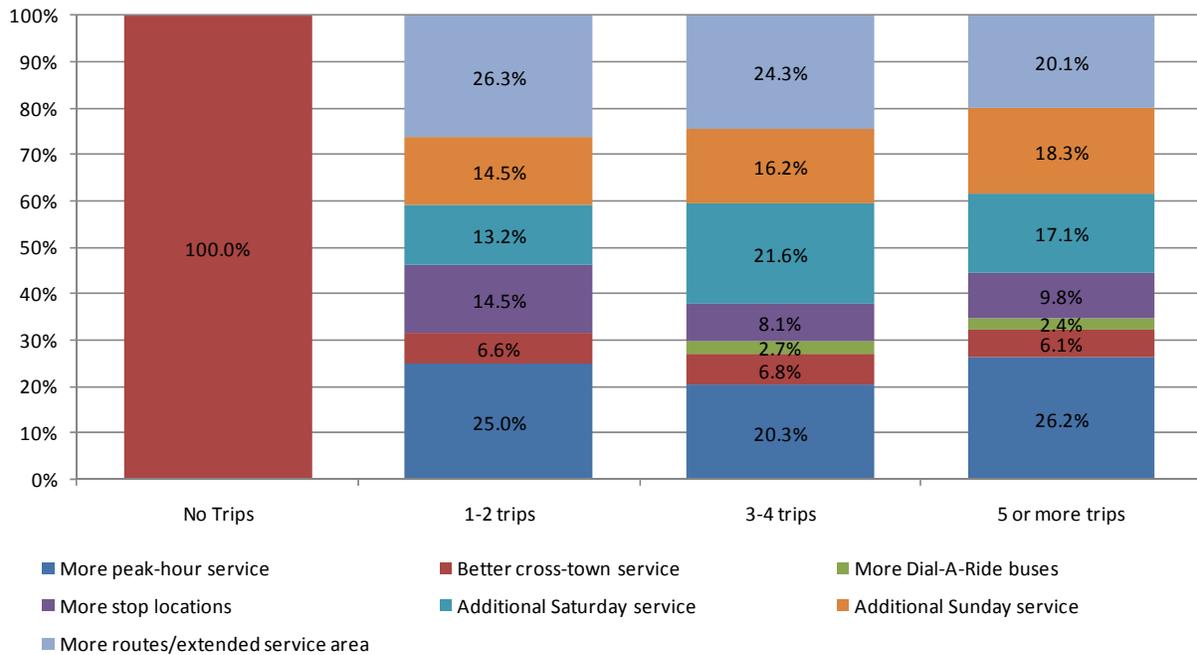


Frequency of Use vs. Preferred Service Enhancements

Exhibit E.22 illustrates the relationship between frequency of use and preferred service enhancements from the previous exhibit. More weekend service (more Saturday and Sunday service combined) was the most popular choice among all service enhancement options with the exception of those who did not use the service. Of the individual preferred service enhancements, more peak-hour service was the most popular among persons riding five more times per week.

Given the high number of commuters in the survey, we recommend Marin Transit expand peak-hour service to meet the forecast demand. We believe this service enhancement along with additional weekend service would result in increased ridership in and through Novato.

Exhibit E.22 Frequency of Use vs. Preferred Service Enhancements



Support for Fare Increase

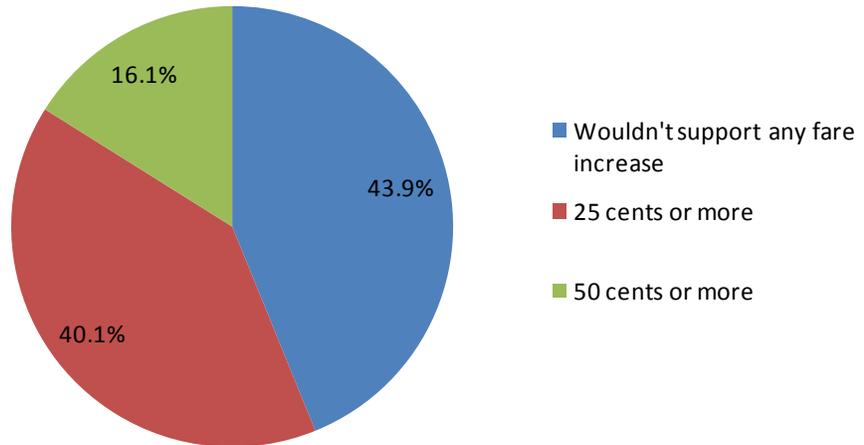
As a follow-up to the service improvements question, customers were asked how great of a fare increase they would support, if necessary, in order to realize the requested service improvement. Most respondents indicated a willingness to pay higher fares for the desired service improvement. Of those willing to pay a higher fare, just over 40 percent indicated a willingness to pay an additional twenty-five cents vs. about 16 percent who would pay fifty cents.

Respondents generally indicated a willingness to pay higher fares for their preferred service enhancement.

The Transit Cooperative Research Program³ estimates that the standard fare elasticity is for every one percent increase in fare cost, the District can expect to see a 0.4% drop in ridership. We estimate the twenty-five cent fare increase would result in a decrease of about 3,518 unlinked trips annually on the Marin Transit routes serving Novato, while the fifty cent fare increase would result in 7,035 fewer unlinked trips annually on the Marin Transit routes serving Novato.

³ Mccollom E., Brian. Transportation Research Board. TCRP Report 95, Chapter 12, Transit Pricing and Fares, Traveler Response to Transportation Changes. (Washington D.C., 2004).

Exhibit E.23 Support for Fare Increase

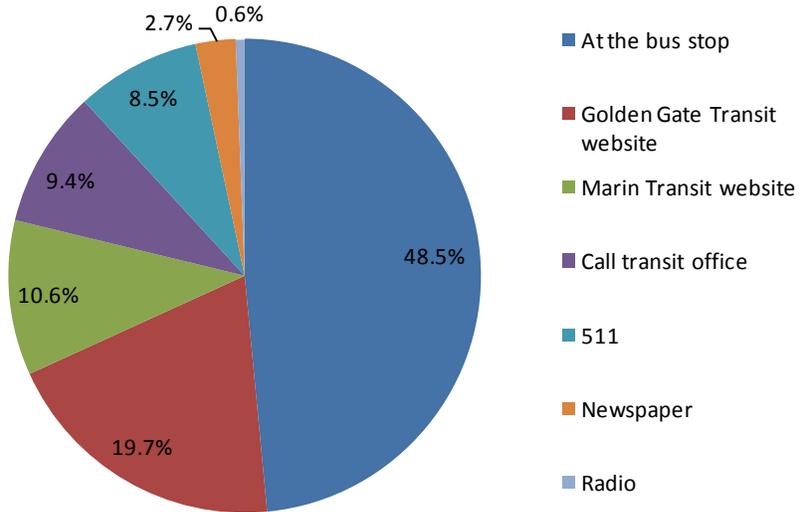


Information Channels

To help guide and focus future Marin Transit and Golden Gate Transit marketing activities, survey participants were asked how they typically obtain information about transit services. Nearly 49 percent obtained transit information from the bus stop while Golden Gate Transit's (about 20 percent) and Marin Transit's (about 11 percent) websites provided information for about 31 percent.

Given nearly 80 percent of respondents cited obtaining information from bus stops and websites, Marin Transit and Golden Gate Transit should focus marketing efforts at these sources. This should include info posts and system maps inside bus shelters at high-activity locations.

Exhibit E.24 Information Channels



Appendix Summary

Based on the customer survey, we understand the majority of fixed-route customers use the service to access employment opportunities rather than other trip purposes. This suggests the Marin Transit District may wish to increase service on Route 71 which is also the most productive route in Novato. Also, a significant proportion of survey respondents walk to their bus stop more than three blocks which presents an opportunity for the City of Novato and Marin Transit to expand bicycle infrastructure in Novato to make accessing transit easier. Lastly, while most respondents would support a fare increase to improve service, a significant proportion would not. Given customers were fairly split over the preferred service enhancement, more outreach and research will need to be done in order to identify practical and sustainable service enhancements.

Exhibit E.25 Survey Instrument

Marin Transit - Novato Transit Rider Survey					
<p>Dear Rider : Marin Transit and the City of Novato request your assistance in evaluating public transit services being offered in the community. Your participation may identify opportunities for future service development. Please return the completed form</p>					
Route:		Date:		Time:	
<p>1) Where did you board the bus for this trip? (Specify cross-streets and/or local landmark)</p> <p>Cross-streets: _____ and _____ or</p> <p>Landmark: _____</p>			<p>2) Where did you exit the bus for this trip? (Specify cross-streets and/or local landmark)</p> <p>Cross-streets: _____ and _____ or</p> <p>Landmark: _____</p>		
<p>3) How did you travel to the bus stop today? (choose one)</p> <p><input type="checkbox"/> Transfer from another bus (Specify route: _____)</p> <p><input type="checkbox"/> Walk more than 3 blocks <input type="checkbox"/> Drive</p> <p><input type="checkbox"/> Walk less than 3 blocks <input type="checkbox"/> Bicycle</p> <p><input type="checkbox"/> Was dropped off <input type="checkbox"/> Dial-A-Ride</p> <p><input type="checkbox"/> Other (Specify) _____</p>			<p>4) What is primary purpose of your trip today? (choose one)</p> <p><input type="checkbox"/> Work <input type="checkbox"/> Recreation/Social</p> <p><input type="checkbox"/> School <input type="checkbox"/> Access healthcare</p> <p><input type="checkbox"/> Shopping <input type="checkbox"/> Other (Specify) _____</p>		
<p>5) How many buses will it take to complete your one-way trip today? (choose one)</p> <p><input type="checkbox"/> One bus <input type="checkbox"/> 2 buses</p> <p><input type="checkbox"/> 3 buses</p>			<p>6) How will you get to your final destination once you leave this bus? (choose one)</p> <p><input type="checkbox"/> Walk or bicycle <input type="checkbox"/> Taxi</p> <p><input type="checkbox"/> Friend or family <input type="checkbox"/> Transfer to another Marin Transit route (specify) _____</p> <p><input type="checkbox"/> Drive self</p> <p><input type="checkbox"/> Transfer to another service (specify) _____</p>		
<p>7) How would you make this trip if the bus had not been available?</p> <p><input type="checkbox"/> Drive Self <input type="checkbox"/> Walk or bicycle</p> <p><input type="checkbox"/> Friend or family <input type="checkbox"/> Taxi</p> <p><input type="checkbox"/> Other public transit service (Specify) _____</p>			<p>8) Why did you choose the bus for this trip? (choose one)</p> <p><input type="checkbox"/> Cost of service <input type="checkbox"/> Convenience</p> <p><input type="checkbox"/> Lack of other travel options <input type="checkbox"/> Avoid traffic/parking</p> <p><input type="checkbox"/> Environmental <input type="checkbox"/> Other (specify) _____</p>		
<p>9) On a scale of 1 to 5 (1=Very dissatisfied, 5= Very satisfied) please indicate your satisfaction with the following service attributes.</p>			<p>10) In the event you encountered a problem with Golden Gate Transit within the past 60 days, were you satisfied with the manner in which it was resolved?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>		
			Very dissatisfied → Very satisfied		
<p>a) Comfort onboard bus</p>					
<p>b) Service span</p>					
<p>c) Availability of route/schedule info</p>					
<p>d) Proximity of bus stop to home (starting point)</p>					
<p>e) Proximity of bus stop to destination (ending point)</p>					
<p>f) On-time performance</p>					
<p>g) Fare</p>					
<p>h) Connectivity</p>					
<p>11) What service improvement would you most like to see made regarding transit service in Novato? (Choose only one)</p> <p><input type="checkbox"/> More peak-hour service <input type="checkbox"/> Additional Saturday service</p> <p><input type="checkbox"/> Better cross-town service <input type="checkbox"/> Additional Sunday service</p> <p><input type="checkbox"/> More Dial-A-Ride buses <input type="checkbox"/> More routes/extended service area</p> <p><input type="checkbox"/> More stop locations</p>			<p>12) If it became necessary to increase the bus fare in order to introduce the change you identified in Question 11, would you be willing to pay:</p> <p><input type="checkbox"/> 25 cents more? <input type="checkbox"/> 50 cents more?</p> <p><input type="checkbox"/> Wouldn't support any fare increase.</p>		
<p>13) What fare category applies to you?</p> <p><input type="checkbox"/> Adult <input type="checkbox"/> Youth</p> <p><input type="checkbox"/> Senior <input type="checkbox"/> Person with disability</p>			<p>14) How did you pay for this trip?</p> <p><input type="checkbox"/> Cash fare <input type="checkbox"/> Marin Local Value Card</p> <p><input type="checkbox"/> Marin Local Period Pass <input type="checkbox"/> Translink/Clipper</p>		
<p>15) How many one-way trips do you make via bus in a typical week?</p> <p><input type="checkbox"/> 1-2 trips <input type="checkbox"/> 3-4 trips</p> <p><input type="checkbox"/> 5 or more trips</p>			<p>16) How long have you been riding the bus in Novato?</p> <p><input type="checkbox"/> First-time rider <input type="checkbox"/> 1 to 3 years</p> <p><input type="checkbox"/> Less than one year <input type="checkbox"/> More than 3 years</p>		
<p>17) How do you typically obtain information about transit services in Novato?</p> <p><input type="checkbox"/> Call Transit office <input type="checkbox"/> Marin Transit website</p> <p><input type="checkbox"/> Newspaper <input type="checkbox"/> Golden Gate Transit website</p> <p><input type="checkbox"/> 511 <input type="checkbox"/> At the bus stop</p> <p><input type="checkbox"/> Radio</p>			<p>18) Which of the following best describes you?</p> <p><input type="checkbox"/> Employed full-time <input type="checkbox"/> Full-time student</p> <p><input type="checkbox"/> Employed part-time <input type="checkbox"/> Visiting/not local resident</p> <p><input type="checkbox"/> Not currently employed (seeking work) <input type="checkbox"/> Employed within the home</p> <p><input type="checkbox"/> Retired</p>		
<p>19) What is the zip code of your residence?</p> <p>_____</p>			<p>20) What is your annual household income?</p> <p><input type="checkbox"/> Less than \$20,000 <input type="checkbox"/> \$34,001 - \$50,000</p> <p><input type="checkbox"/> \$20,001 - \$34,000 <input type="checkbox"/> More than \$50,000</p>		
<p>21) How many people reside in your household including yourself?</p> <p><input type="checkbox"/> One <input type="checkbox"/> 2-3 <input type="checkbox"/> 4-5 <input type="checkbox"/> Other (Specify) _____</p>			<p>23) Do you have a valid driver license?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>		
<p>22) Do you have ready access to a vehicle for personal use?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>			<p>25) What is your age?</p> <p><input type="checkbox"/> 16 years or younger <input type="checkbox"/> 45-59 years</p> <p><input type="checkbox"/> 17-25 years <input type="checkbox"/> 60 years or older</p> <p><input type="checkbox"/> 26-44 years</p>		
<p>24) How many registered vehicles do you have in your household?</p> <p><input type="checkbox"/> One <input type="checkbox"/> 2-3 <input type="checkbox"/> 4-5 <input type="checkbox"/> Other (Specify) _____</p>					

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F. DIAL-A-RIDE
SURVEY ANALYSIS

APPENDIX F – DIAL-A-RIDE SURVEY ANALYSIS

This appendix presents the findings from the Dial-A-Ride Customer Survey conducted between November 1 and November 15, 2010. The survey had several objectives:

- Develop a demographic profile of Novato Dial-A-Ride customers,
- Codify current rider travel patterns,
- Assess customer satisfaction,
- Identify and prioritize potential service enhancements, and
- Identify marketing/public communications preferences.

Program Background and Appendix Summary

On August 1, 2009, Marin Transit replaced the former EZ Rider service with the Novato Dial-A-Ride. The Dial-A-Ride service is intended to supplement the local bus service by linking neighborhoods not served by fixed-route services due to physical or geographic barriers. The Novato Dial-A-Ride provides customers with curb-to-curb service within Novato city limits. Fares for the Dial-A-Ride service are the same as Marin Transit and patrons have free transfers

Despite being open to the general public, seniors make up the largest share of the customer base.

between the Dial-A-Ride service and Marin Transit and Golden Gate Transit routes. Customers are able to schedule weekday trips up to seven days in advance and may place same-day trip requests if space is available. As of Fiscal Year 2009/10, the Novato Dial-A-Ride provides approximately 500 unlinked trips per month.

This appendix presents several key findings intended to improve Dial-A-Ride service in Novato.

Methodology

Moore & Associates utilized the Novato Dial-A-Ride customer database provided by Whistlestop Wheels to create the survey pool. Our project team then mailed survey forms to each person on the list for a total of 213 potential respondents. We received 61 valid responses which translated to a 30-percent response rate. This response rate is significant enough to draw conclusions about the average Dial-A-Ride customer.

Our project team began analyzing the survey data by entering it into our Statistical Package for the Social Sciences (SPSS) software. After the data were cleaned, we generated simple frequencies and initial cross-tabulations. We then exported the processed data into Microsoft Excel to generate charts and graphs.

See Exhibit F.24 for sample survey instrument.

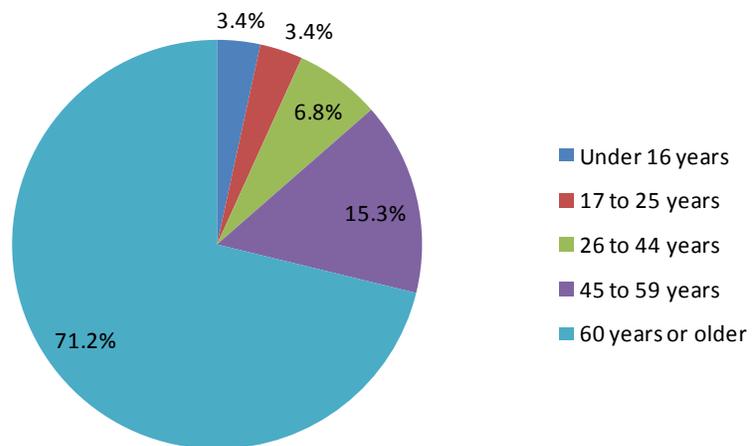
Demographic Information

To develop a demographic profile of current Novato Dial-A-Ride customers, the survey collected information regarding respondent age, employment status, and household income.

Respondent Age

Exhibit F.1 shows the age range of respondents. The vast majority of respondents are 60 years or older despite the service being open to the general public. This finding suggests a greater propensity to use the service as one ages. Additionally, the large proportion of seniors in the sample may be attributable to the relatively limited service level (i.e., service span and vehicle capacity).

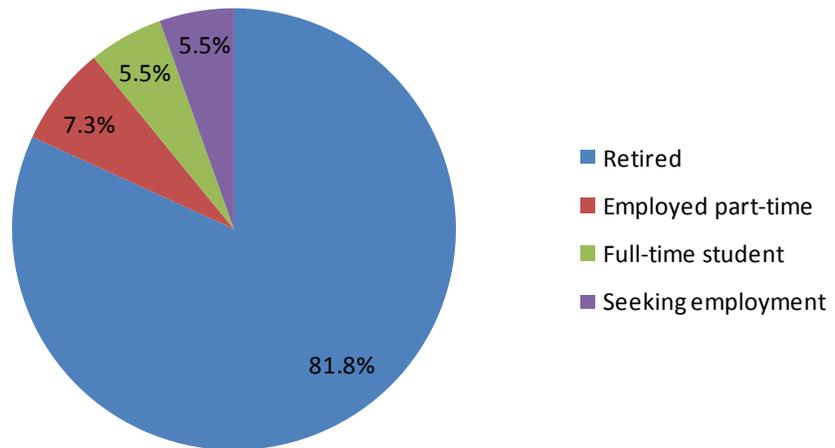
Exhibit F.1 Respondent Age



Employment Status

Exhibit F.2 shows the employment status for survey respondents. Given the age distribution observed in the sample, it is not surprising the vast majority of respondents are retired. The implication of this finding is the relative low demand for commuter service observed amongst Dial-A-Ride customers and consequently the lack of transfers between the Dial-A-Ride service and more traditional fixed-route service like Marin Transit and Golden Gate Transit.

Exhibit F.2 Employment Status



Private Automobile Access

In simplest terms, ride-dependency indicates the extent to which an individual relies on an alternative form of transportation because they have few or no mobility options. Survey respondents were asked two questions to gauge their degree of ride-dependency.

First, respondents were asked if they have access to a private automobile. Nearly 83 percent indicated they do not have access to a private automobile. The second question asked whether they have a valid driver license. Only 30 percent responded positively.

The vast majority of respondents do not have access to a personal vehicle and are low-income.

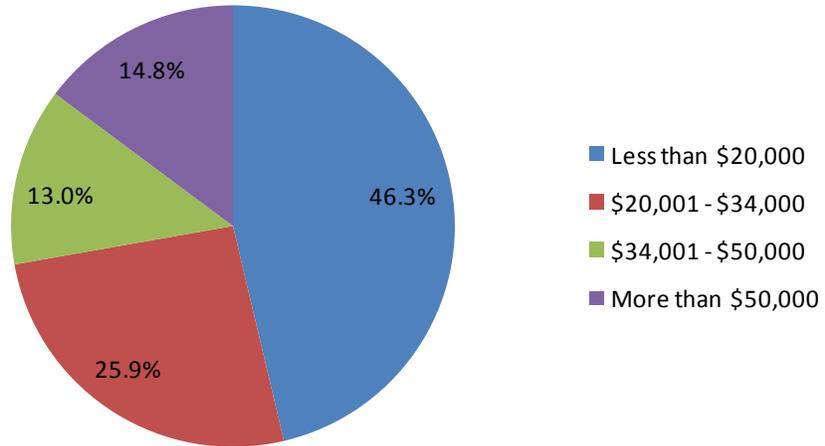
These two questions suggest most patrons of the Dial-A-Ride service are ride-dependent rather than being “choice” riders. Given the nature of the service as well as a low level of awareness among the general public regarding the service, it is unlikely the Novato Dial-A-Ride will attract “choice” riders. Many seniors in the Community Survey who do not currently use the service indicated they would only be willing to use the service if they were unable to drive.

Household Income

Exhibit F.3 shows the annual household income for survey respondents. Approximately 46 percent of respondents are part of a household earning less than \$20,000. When combined with those earning between \$20,001 and \$34,000, the percentage increase to just over 72 percent of respondents. This is well below the Novato median household income of \$81,000 and below Marin County median of approximately \$88,000 (2009

American Community Survey). This suggests the typical Dial-A-Ride patron in Novato is low-income and likely dependent upon public transit to meet his/her mobility needs.

Exhibit F.3 Household Income



Trip Purpose

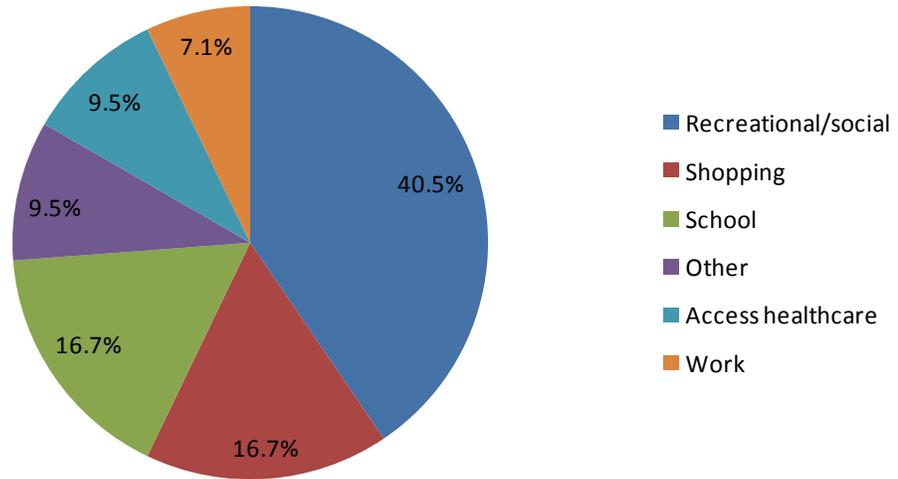
Exhibit F.4 shows the primary purpose for which survey respondents use Novato Dial-A-Ride. Recreation/social was the most frequently-cited trip purpose at just over 40 percent. Given the age distribution as well as employment status observed above (Exhibits F.1 and F.2), it is not surprising work ranks as the lowest trip purpose. The variety of trip purposes suggests the Dial-A-Ride service is used primarily for off-peak travel.

The majority of respondents do not use the Dial-A-Ride to get to work.

The surprising finding here is the lack of respondents who use the Dial-A-Ride to access healthcare. We believe this can be attributed to the fact other alternatives exist (i.e., the Whistlestop/Novato Health Express service). We believe the District has an opportunity to better position the Dial-A-Ride service as a convenient travel option to access healthcare and social services. For example, the senior focus group requested a scheduled trip between the Redwood/Grant transfer point and the Margaret Todd Senior Center for the Brown Bag Food Program⁴.

⁴ The Brown Bag Food Program- Bags of groceries are distributed at the Center to low-income seniors on the 1st and 3rd Thursday of each month.

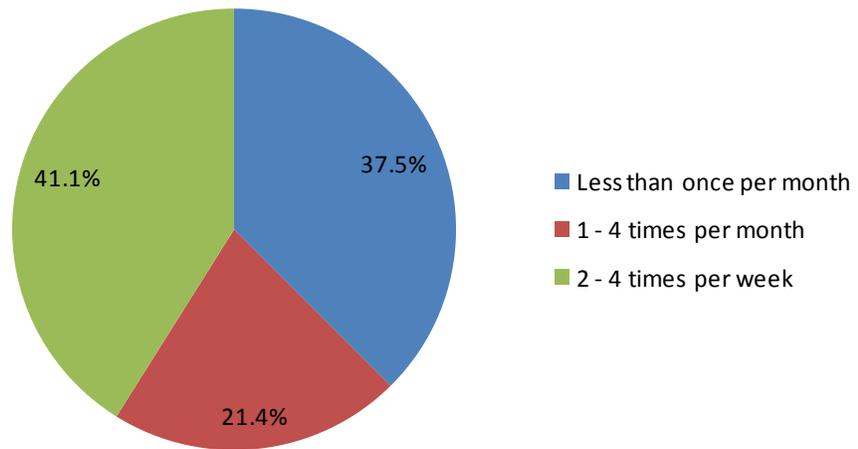
Exhibit F.4 Trip Purpose



Frequency of Transit Use

Those surveyed were asked about the number of Dial-A-Ride trips made in a typical week. Exhibit F.5 reveals respondents were nearly evenly split between those riding less than once per month (37 percent) and those who use the service between two to four times per week (41 percent).

Exhibit F.5 Frequency of Transit Use



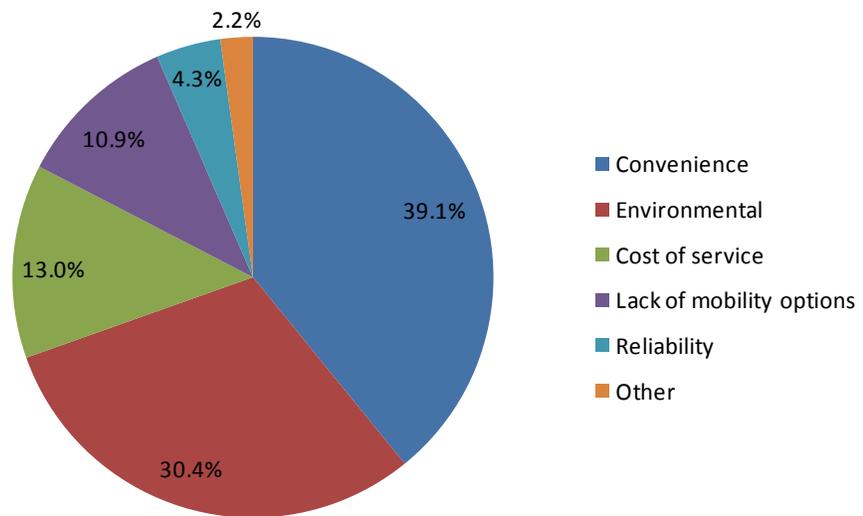
Transit Influences

Exhibit F.6 presents the primary motivation of respondents for using the Dial-A-Ride service. The Dial-A-Ride survey revealed a number of motivating factors for respondents to use the Dial-A-Ride. The convenience of the service had the most responses at just over 39 percent followed

by environmental considerations. The remaining 30 percent of respondents were split between four categories with cost of service predominating. The lack of other mobility option appeared to not be a primary reason respondents use the Dial-A-Ride service.

These results are surprising given the high proportion of low-income riders as well as those unable to operate a personal vehicle. We believe that while most Dial-A-Ride customers are ride-dependent, many customers might not feel their lack of mobility options is a substantial mobility barrier because of the Dial-A-Ride service. In other words, the Dial-A-Ride service meets or exceeds the expectations of the customer. This is supported by the high level of satisfaction observed in Exhibit F.19.

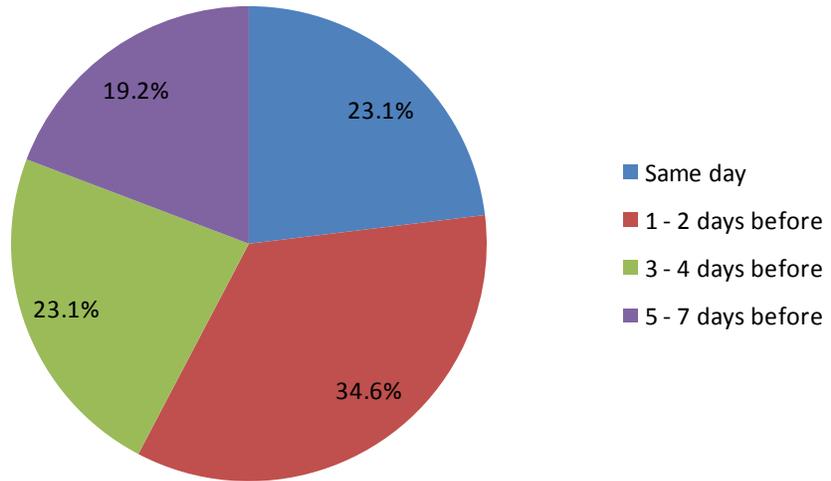
Exhibit F.6 Transit Influences



Trip Reservations

Exhibit F.7 illustrates how far in advance respondents typically make their ride reservations. The responses were nearly evenly split. Nearly 35 percent schedule their trip one to two days in advance. Interestingly, nearly a quarter of respondents attempt to schedule their trip for the same day. While somewhat operationally challenging, this trip planning option offers unparalleled convenience for customers and likely helps explain the perceived convenience of the service.

Exhibit F.7 Trip Reservations

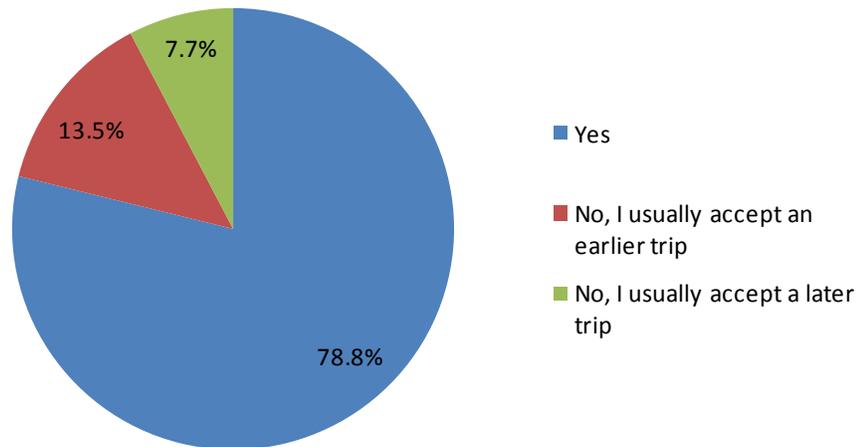


Ability to Schedule Trips

Exhibit F.8 indicates if respondents were able to schedule their trip at the desired time. Nearly 80 percent indicated being able to schedule their desired trip for the time initially requested. This suggests the Novato Dial-A-Ride’s scheduling/dispatch system is effective or that the number of requests falls well below available capacity. Continuing to allow patrons to schedule the trip at their desired time helps improve the perception of the service as convenient and responsive.

Nearly 80 percent of respondents were able to schedule their trip on the desired day while 20% could not.

Exhibit F.8 Ability to Schedule Trips



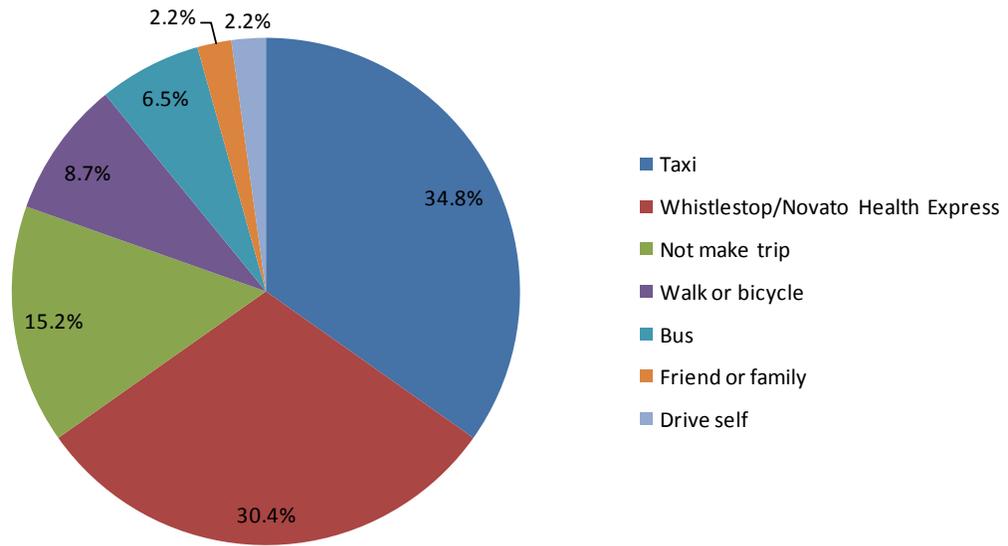
Mobility Alternatives

Exhibit F.9 illustrates how respondents would access their destinations if the Novato Dial-A-Ride was not available. Nearly 35 percent stated they would use a taxi, while 30 percent stated they would use the Whistlestop/Novato Health Express service.

Since a significant portion of respondents stated they would use a taxi, this suggests their trip purpose is extremely important and justifies the high cost of using a taxi. This also means patrons are realizing an excellent value for mobility from the Dial-A-Ride service given the cost of the service vs. a taxi cab fare.

In addition to the taxi option, a similar number of respondents stated they would use the Whistlestop or Novato Health Express service to access their destination. Given the variety of paratransit services available in Novato, the Marin Transit District should work to coordinate with Whistlestop and Novato Health Express to avoid maximize the number of vehicles available for service without increasing vehicle service hours or miles. This can be accomplished by sharing trip scheduling information through an online database.

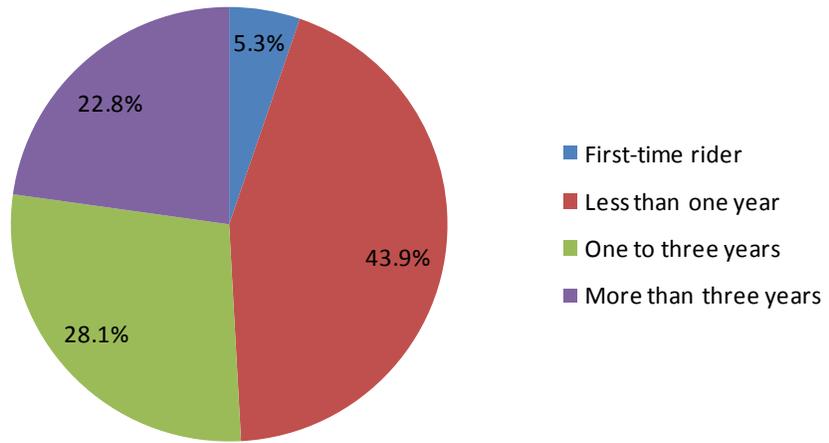
Exhibit F.9 Mobility Alternatives



Length of Patronage

Exhibit F.10 illustrates the length of patronage for survey respondents. Individuals who have patronized Novato Dial-A-Ride or the EZ Rider for less than one year were the largest group at 44 percent. Persons riding for at least a year accounted for nearly 51 percent while those riding for more than three years accounted for 23 percent of all respondents. The prominence of relatively new riders can be attributed to the increased ridership observed in FY 2009/10 (see Appendix 2 – Service Evaluation) brought on by an aging population.

Exhibit F.10 Length of Patronage

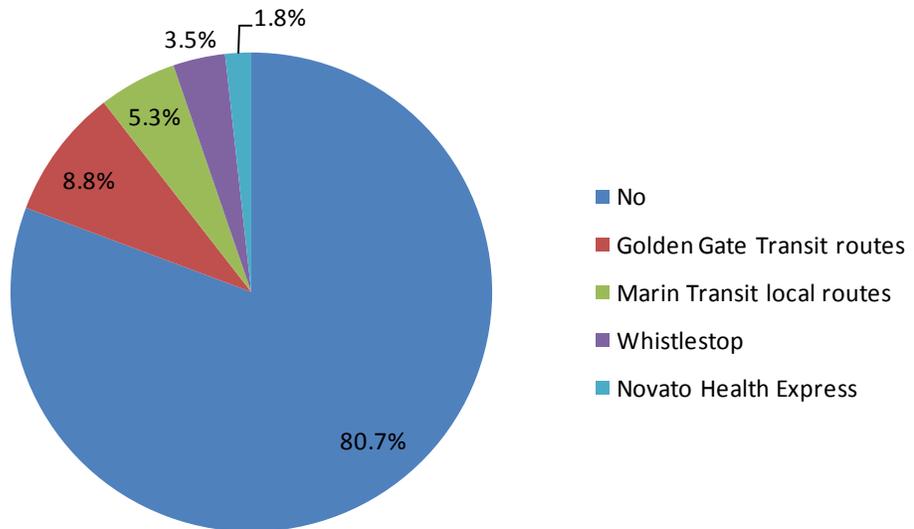


Transferring to Other Services

Exhibit F.11 illustrates whether or not respondents transferred to/from another transit service operating in Novato and/or Marin County. The vast majority (81 percent) did not transfer. This means the typical Dial-A-Ride user does not use the service to access other transit services and instead uses it as the primary means of reaching his or her destination.

Nearly 81 percent of respondents did not use the Dial-A-Ride as a means to transfer to another service.

Exhibit F.11 Transferring to Other Services



The most successful public transit services are market-driven. In doing so, they address the mobility needs of residents, workers, and visitors within a service area as cost-effectively as possible. We believe that in order to realize sustainable ridership and fare revenue, a transit provider must expand its rider base beyond the ride-dependent.

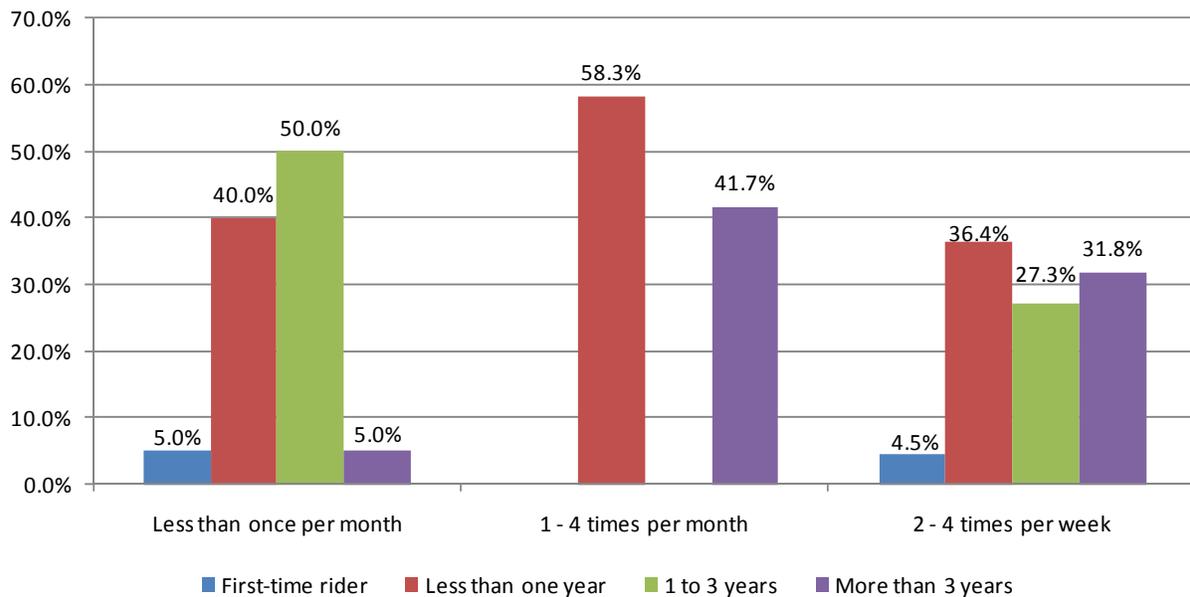
A series of data cross-tabulations were performed exploring possible relationships between frequency of use and other behavioral factors. These cross-tabulations were aimed at identifying underlying relationships.

Frequency of Use vs. Length of Patronage

Exhibit F.12 explores the relationship between how frequently a patron uses the bus and how long the patron has been using the service. The data suggests a slightly inverse relationship between frequency of use and length of patronage. This is atypical for a public transit service which usually has its longest-term customers as its most frequent riders.

With respect to the Novato Dial-A-Ride, there are two factors driving this relationship. First is the rapid increase in ridership during the previous fiscal year which accounts for the large proportions of those riding for less than one year. Additionally, as shown in Exhibit F.4 most Dial-A-Ride users use the service for activities other than work or school suggesting the Dial-A-Ride customers have an infrequent demand for travel when compared to the fixed-route patrons in Novato.

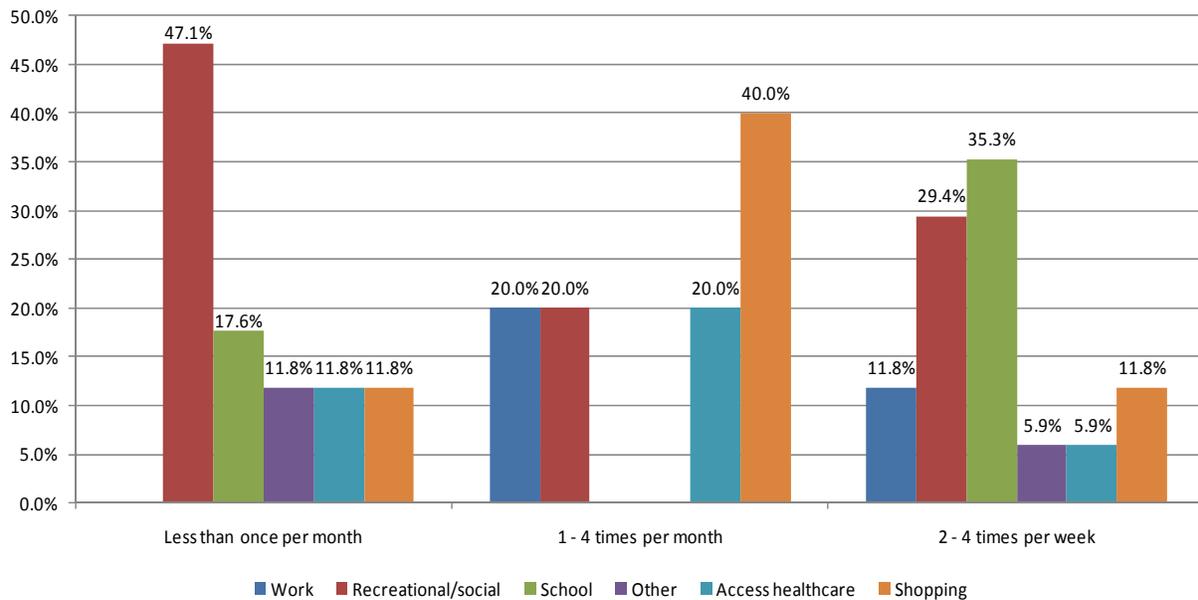
Exhibit F.12 Frequency of Use vs. Length of Patronage



Frequency of Use vs. Trip Purpose

Exhibit F.14 explores the relationship between frequency of use and trip purpose. The most frequent users of the Dial-A-Ride use the service to access school, recreational/social activities, and shopping. In contrast, the most infrequent riders (less than once per month), predominately use the service for recreational/social activities. From this we can conclude the Dial-A-Ride is able to meet some peak-hour travel demand like school but is inconvenient for regular use for shopping, accessing healthcare, and other activities. We believe this is largely due to the midday service gap during the week which limits the ability of patrons to schedule doctor’s visits or shopping trips.

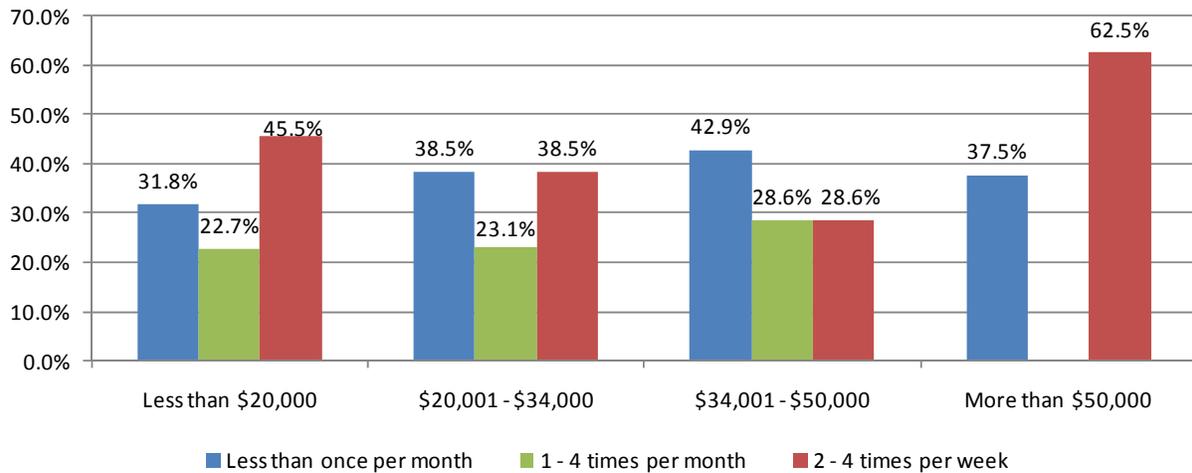
Exhibit F.14 Frequency of Use vs. Trip Purpose



Frequency of Use vs. Household Income

Exhibit F.15 shows the relationship between frequency of use and household income. As would be expected, patrons in low-income households use the service more frequently than higher income groups with the exception of those living in households earning more than \$50,000. While income may be a factor (i.e., senior have limited fixed-incomes), the more likely motivation for using the service is the inability or lack of comfort with operating a personal vehicle.

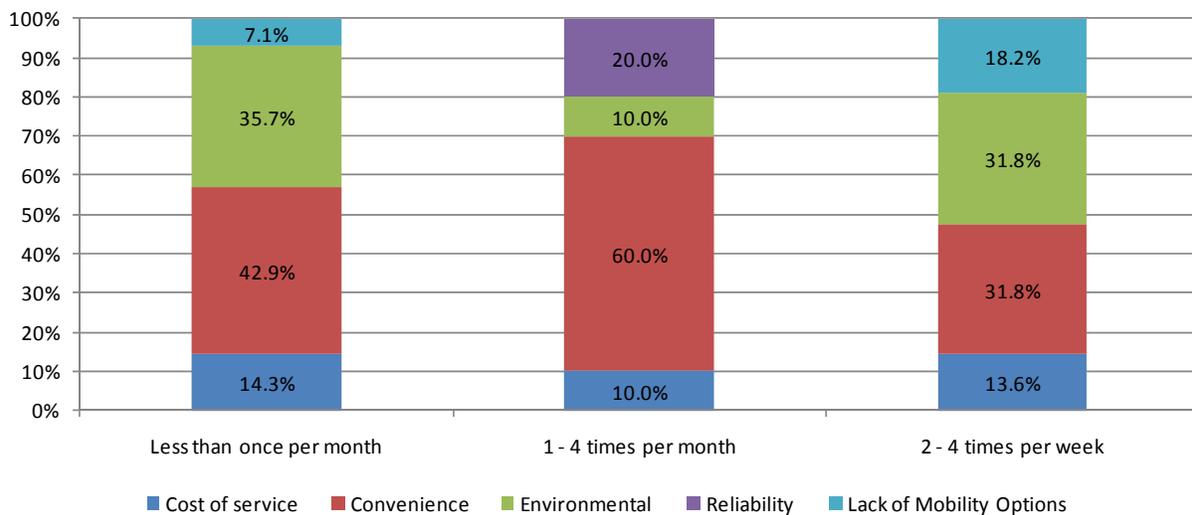
Exhibit F.15 Frequency of Use vs. Household Income



Frequency of Use vs. Transit Influences

Exhibit F.16 shows the relationship between the frequency of use and transit influences. There was a positive relationship between frequency of use and lack of mobility options. This suggests the most frequent riders are dependent on the Dial-A-Ride to meet their mobility needs. The prevalence of convenience as the primary motivation for using the system can be attributed to the fact many Dial-A-Ride customers think the service is convenient and meets their mobility needs. In other words, despite being actually ride-dependent, the customers do not *feel* ride dependent since the service meets their needs.

Exhibit F.16 Frequency of Use vs. Transit Influences



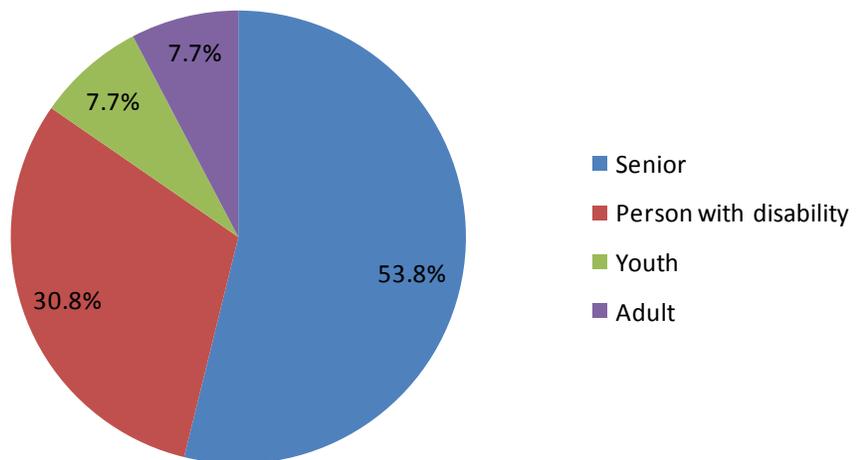
Fare Category

Exhibit F.17 summarizes the fare category for survey respondents. The adult cash fare is two dollars. The youth fare is one dollar and applies to persons between the ages of six and 16. Children under the age of six ride free. Both senior and persons with disabilities are eligible for a reduce fare of one dollar.

About 92 percent of Dial-A-Ride respondents qualified for a reduce fare.

As Exhibit F.17 shows, the largest fare category is those who qualify for the senior fare category. Given the high proportion of seniors in survey, this is to be expected. Moreover, this further reinforces the conclusion seniors have recognized the benefits of the Dial-A-Ride service and make up the core of its current riders.

Exhibit F.17 Fare Category



Fare Type

Exhibit F.18 provides insight into fare payment methods for the Novato Dial-A-Ride service. The Novato Dial-A-Ride customers can either use cash to pay their fare or use passes good for one day, seven days, or 30 days.

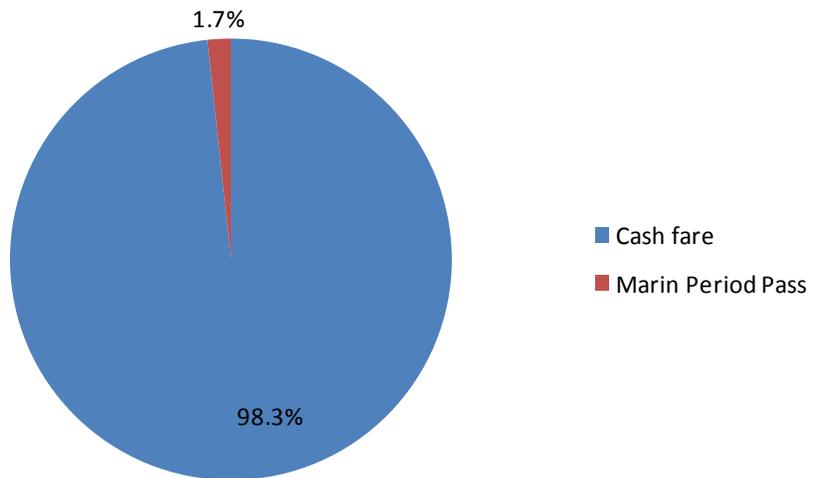
Nearly all respondents cited using cash to pay for their trip. Given the infrequent use by most Dial-A-Ride customers, cash is likely the easiest form of payment as passes are pegged to the calendar rather than the number of trips. However there are significant benefits to encouraging patrons to use passes or other fare media.

Providing non-cash based fare media has noticeable advantages for patrons and transit operators. From the patron’s perspective, non-cash fare media eliminates the need to carry exact change and usually includes a monetary savings over paying for individual trips. The non-cash fare advantages to operators is reduced accounting cost, faster boarding times, and guaranteed income for the duration of the pass.

The high proportion of cash fare suggests Marin Transit may have room to improve awareness among patrons of available fare media such as day passes and monthly passes. Expanding the number of outlets where non-cash fare media may be purchased can ease the end-user’s experience with using them and help increase market penetration for the passes.

In addition, Marin Transit should allow patrons to use the Clipper card. This would make transferring between services easier as well as potentially encourage more people to use the Dial-A-Ride service who previously have not yet have a Clipper card.

Exhibit F.18 Fare Type



Customer Satisfaction

Survey participants were asked to rank nine individual service attributes using a five-point numerical rating scale (1= very dissatisfied, 5= very satisfied). Exhibit F.19 shows the relative ranking of each service attribute.

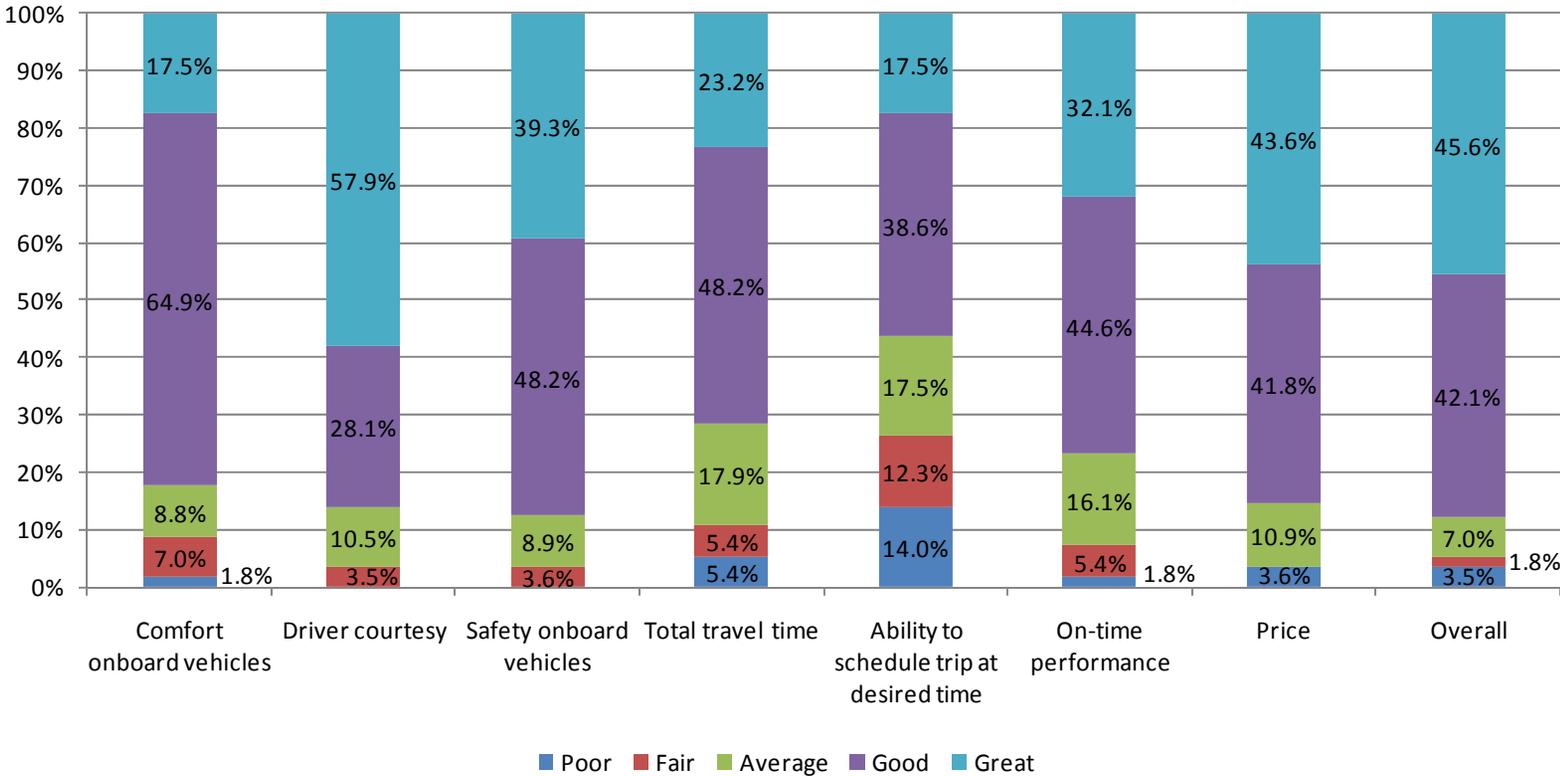
Among those survey attributes receiving a “very satisfied” rating, driver courtesy, fare, and safety onboard vehicles were the top three.

Across all service attributes, more than half of all survey respondents stated they were at least satisfied (those respondents who are satisfied and very satisfied) with more than 85 percent of respondents reporting satisfaction with the fare on the high-end and ability to schedule trip at desired time on the low-end (56 percent combined).

With respect to customer dissatisfaction, ability to schedule trip at the desired time had the highest rating (14 percent dissatisfied) and total travel time (five percent dissatisfied). The

relatively low marks for this service is surprising given the number of respondents who reported being able to schedule their trip at the time of their choosing (Exhibit F.8).

Exhibit F.19 Customer Satisfaction

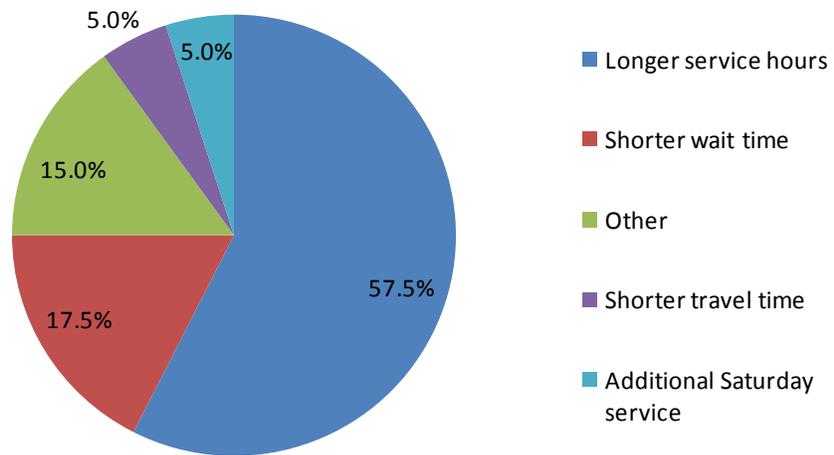


Preferred Service Enhancements

Exhibit F.20 identifies what service enhancements respondents would most like to see. The majority of respondents are seeking longer service hours. The current weekday service span is from 7:00 a.m. to 6:00 p.m. with a four hour gap from 11:00 a.m. to 3:00 p.m. As shown above, most respondents trip purposes do not necessarily take place during the peak-periods. The Marin Transit District should consider adding service during the 11:00 a.m. to 3:00 a.m. gap and potentially service after 6:00 p.m. to reflect actual demand for the service.

Nearly 58 percent of respondents wanted longer service hours.

Exhibit F.20 Preferred Service Enhancements

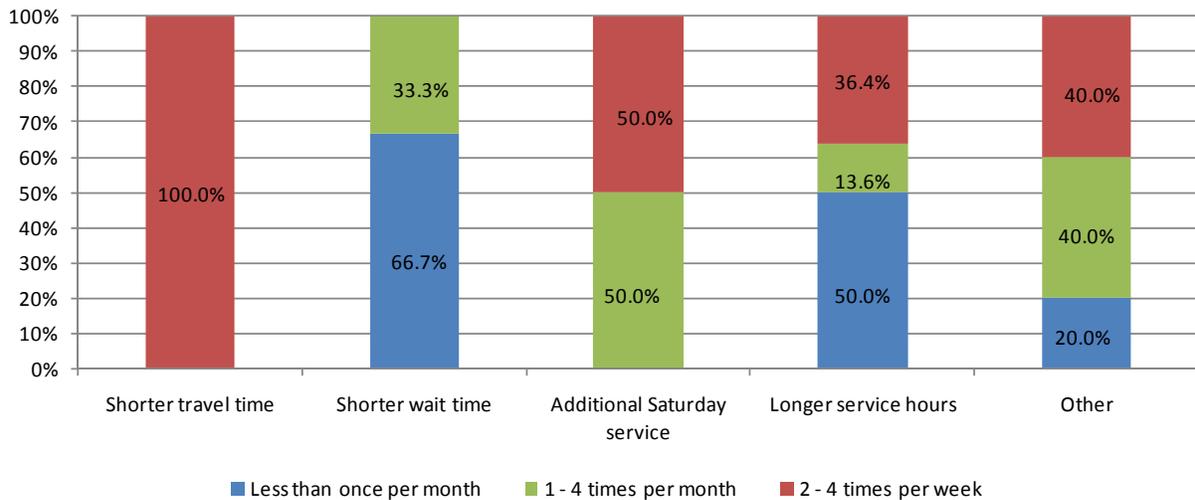


Frequency of Use vs. Preferred Service Enhancements

Exhibit F.21 explores the possible relationship between frequency of use and preferred service enhancements.⁵ As shown above, longer service hours was the most requested service enhancement. Across the different “frequency of use” groups, having longer service hours was the most popular choice. This suggests this single service enhancement would likely result in increased ridership and fare revenue.

⁵ Note, shorter travel time only had two responses and consequently it appears as 100 percent. When compared with longer service hours, there were four times as many riders within the same “frequency of use” category who wanted longer service hours compared with shorter travel time which is inherently difficult given the “shared-ride” nature of the service

Exhibit F.21 Frequency of Use vs. Preferred Service Enhancements



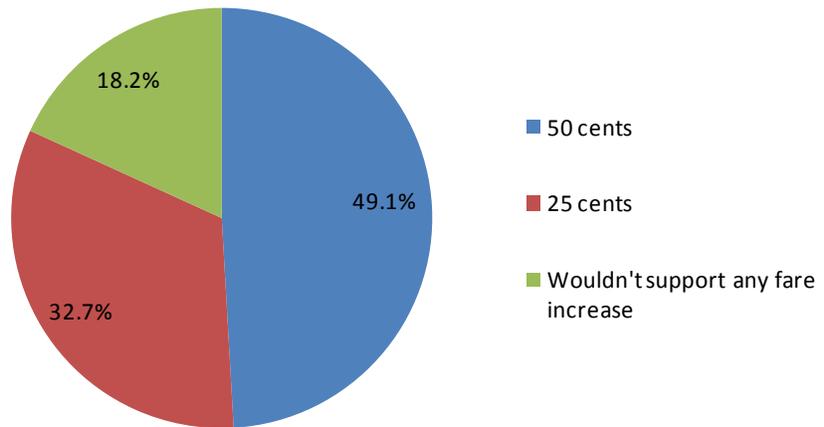
Support for Fare Increase

As a follow-up to the service enhancements question, respondents were asked how great of a fare increase they would support, if necessary, in order to realize the requested service improvement. Most respondents indicated a willingness to pay a higher fare in order to realize the preferred service improvement. Of those, nearly 50 percent indicated a willingness to pay an additional fifty cents while 33 percent would pay an additional twenty-five cents.

Nearly 82 percent of respondents indicated a willingness to pay higher fares for their preferred service enhancement.

The relatively high linkage between increased fare and desired service improvement should encourage the District to consider a fare increase with the attendant service improvement. Based on the findings in Exhibit F.20, the District could increase fares by fifty cents and implement later service hours and not expect to see a significant decreased in ridership.

Exhibit F.22 Support for Fare Increase

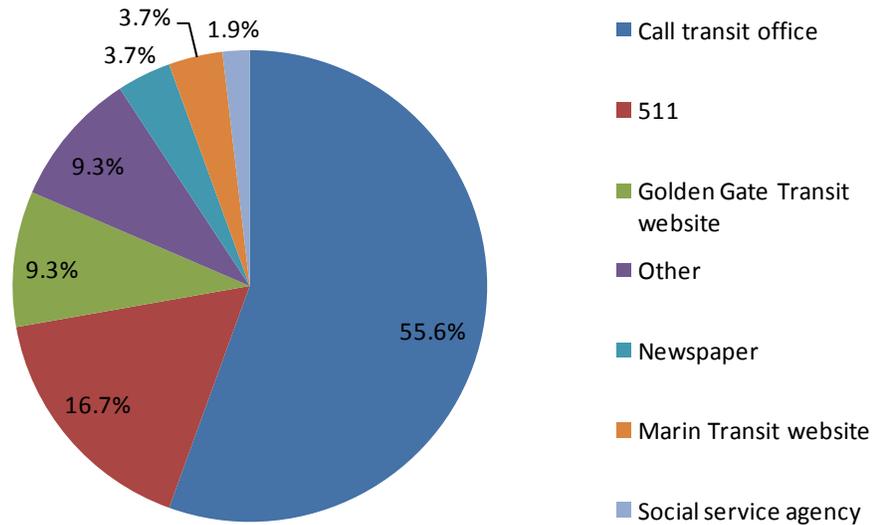


Information Channels

To help guide future Marin Transit marketing activities, survey participants were asked how they typically obtain information about the Dial-A-Ride service. The majority (56 percent) indicated getting their information by calling the transit office. This makes sense given any customer of the Dial-A-Ride service has to call and make a reservation. Based on the survey, the best way to contact existing riders is through the trip reservation/customer service representative function.

Based on the Community Survey, there is a general lack of awareness regarding the Dial-A-Ride service. The Marin Transit District should consider a marketing campaign with the goal to increase awareness regarding the Novato Dial-A-Ride. Marketing efforts can boost awareness of a program like the Novato Dial-A-Ride which in turn should translate to increased ridership and fare revenue.

Exhibit F.23 Information Channels



Appendix Summary

Seniors and retired individuals make up the vast majority of the customer base despite the service is open to the general public. This suggests Marin Transit may want to further target this demographic as they are most likely to use the service. Second, the vast majority of respondents do not use the service to access Marin Transit or Golden Gate Transit routes because they are retired. Based on this, it might be desirable to reorient the service around curb-to-curb service rather than as a supplement to fixed-route service. Lastly, patrons indicated a strong desire for more service during the middle of the day along with a willingness to pay a higher fare to see this service enhancement implemented.

Exhibit F.24 Sample Survey Instrument

Novato Dial-A-Ride Customer Survey

Marin Transit and the City of Novato are working together to evaluate the Novato Dial-A-Ride as well as identify possible opportunities for additional mobility services in the region. As a Novato Dial-A-Ride patron, your opinion is important. Please complete this short survey and return it in the post-paid envelope we have provided. Please complete only one survey. Thank you for participating.

1. What is your residential zip code?

2. For what purpose do you typically travel?
 (choose one)
 Work Access healthcare
 Recreational/social Shopping
 School
 Other: (specify) _____

3. When do you normally reserve your trip?
 Same day 1 to 2 days before
 3 to 4 days before 5 to 7 days before

4. Are you typically able to schedule your trips at the time you initially requested? (choose one)
 Yes No, I usually accept an earlier trip
 No, I usually accept a later trip

5. Why do you choose Novato Dial-A-Ride for your trips? (check one)
 Cost of service Lack of travel options
 Convenience Avoid traffic/parking
 Environmental Other: (specify) _____

6. How would you make trips if Novato Dial-A-Ride was NOT available?
 Walk or bicycle Drive self
 Friend or family Not made trip
 Taxi
 Other public transit service (specify) _____

7. Do you typically connect with any other transit services to complete trips? (choose one)
 No
 Golden Gate Transit Route: (circle one)
 56, 56, 58, 70, 75, 80, 101
 Marin transit Local route: (circle one)
 49, 51, 52, 71
 Other service (specify) _____

8. What service improvement would you most like to see made regarding transit service in Novato?
 (choose only one)
 Shorter travel time
 Shorter wait time
 Additional Saturday service
 Additional Sunday service
 Longer service hours
 Better cross-town service
 Other: (specify) _____

9. If additional fare was required to make the change you identified in Question 8, would you be willing to pay:
 25 cents more? 50 cents more?
 Wouldn't support any fare increase

10. What fare category applies to you?
 Adult Youth
 Senior Person with disability

How do you pay for trips?
 Cash fare Marin Period Pass

11. Please indicate your satisfaction with the following attributes:

	Rating				
	Poor	Fair	Avg.	Good	Great
<u>Comfort onboard vehicles</u>					
<u>Driver courtesy</u>					
<u>Safety onboard vehicles</u>					
<u>Total travel time</u>					
<u>Ability to schedule trip at desired time</u>					
<u>On-time performance</u>					
<u>Fare</u>					
<u>Overall satisfaction</u>					

12. How often do you ride Novato Dial-A-Ride?
 < once per month 1-4 times per month
 2-4 times per week 5 or more times per week

13. Do you have access to a personal vehicle?
 Yes No

14. Do you have a valid driver license?
 Yes No

15. How would you have made this trip if Novato Dial-A-Ride was NOT available?
 Walk or bicycle Drive self
 Relative/friend Not make trip
 Bicycle/scooter

16. How often do you ride Novato Dial-A-Ride? (check one)
 < once per week 1 to 2 times per week
 3 to 4 times per week 5 or more times per week

17. How long have you been riding Novato Dial-A-Ride or the EZ Rider?
 First time rider 1 to 3 years
 Less than one year More than 3 years

18. How do you typically obtain information about transit?
 Call transit office Marin Transit website
 Newspaper 511
 Social Service Agency
 Golden Gate Transit website
 Other: (specify) _____

19. Which of the following best describes you?
 Employed full-time Full time student
 Employed part-time Visiting/not local
 Seeking employment Employed within home
 Retired

20. What is your age?
 Under 16 years 17 to 25 years
 26 to 44 years 45 to 59 years
 60 years or older

21. What is your annual household income?
 Less than \$20,000 \$34,001 - \$50,000
 \$20,001 - \$34,000 More than \$50,000

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G. COMMUNITY
SURVEY ANALYSIS

APPENDIX G – COMMUNITY SURVEY ANALYSIS

The community survey was fielded across a five-week period from February 17 through March 24, 2011. The survey had these core objectives:

- Assess overall community mobility preferences,
- Identify gaps in service and barriers to use, and
- Identify and prioritize potential transit service enhancements

Methodology

The Community Survey contained four sections:

- General Mobility Assessment,
- Marin Transit/Golden Gate Transit Assessment,
- Novato Dial-A-Ride Assessment, and
- Overall Transportation Assessment.

In order to keep the survey focused Novato-centric, only Novato residents were allowed to take the survey. The survey was conducted utilizing three separate methodologies. The first was an intercept survey in which Moore & Associates' staff went to several locations throughout Novato between February 17 and February 20, 2011 to collect surveys in-person. Locations included the Novato branch of the Marin County Library, the Novato Post Office, College of Marin (Kentfield and Indian Valley campuses), and several of Novato's larger shopping centers. In total our surveyors collected 209 survey responses via the intercept methodology.

The second methodology was an online version of the intercept survey. A random-sampling methodology was utilized to generate a database of 2,000 residential addresses throughout Novato where bilingual postcards were mailed promoting the online survey. The online survey instrument was designed using Survey Monkey; an online survey tool which Moore & Associates has used to organize survey responses and produce summary tables and graphs. Across the five-week period, 239 residents took the survey which translates to a 12-percent response rate.

The third methodology was collecting surveys from attendees at the focus groups and public workshops. The focus groups and public workshops took place during the weeks of February 28 and March 14, 2011. Moore & Associates' staff collected 20 surveys via participants at these events.

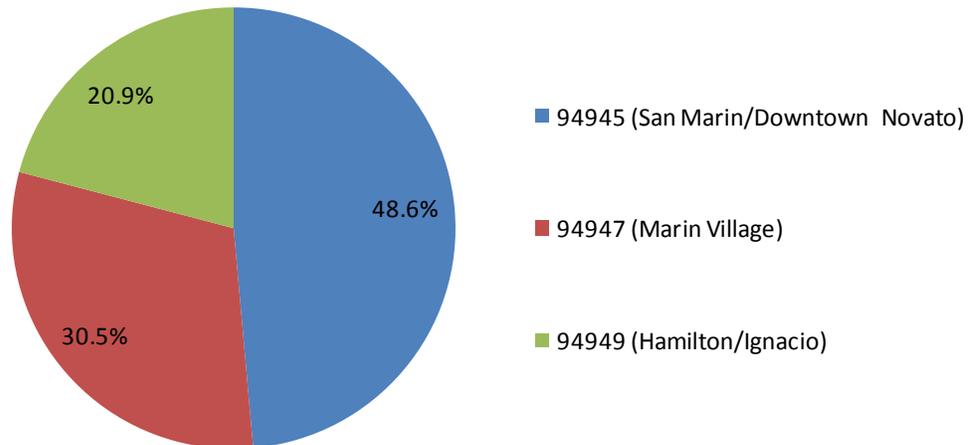
On an aggregate basis, the outreach resulted in 468 valid responses. This sample size is well above the 381 valid responses needed to be statistically-valid. In other words, the information gleaned from this survey can be considered reflective of the Novato population at-large.

See Exhibit G.20 for sample survey instrument.

To analyze the survey responses, we entered the data into our firm’s Statistical Package for the Social Sciences (SPSS) platform. Next, simple frequencies and cross-tabulations (relationships) were generated. The data were then exported into Microsoft Excel to create charts and graphs.

Exhibit G.1 shows the geographic distribution of survey respondents by ZIP code. Approximately 49 percent of respondents live in the 94947 ZIP code which contains the western portions of Novato (southwest side of Novato and South Novato Boulevard). The 94945 ZIP code, which accounted for over 30 percent of respondents, includes the northern sections of the city and the San Marin and Bahia neighborhoods. The 94949 ZIP code contains the southern Novato neighborhoods of Hamilton and Ignacio. The distribution of survey respondents closely matches the distribution of households by ZIP code.

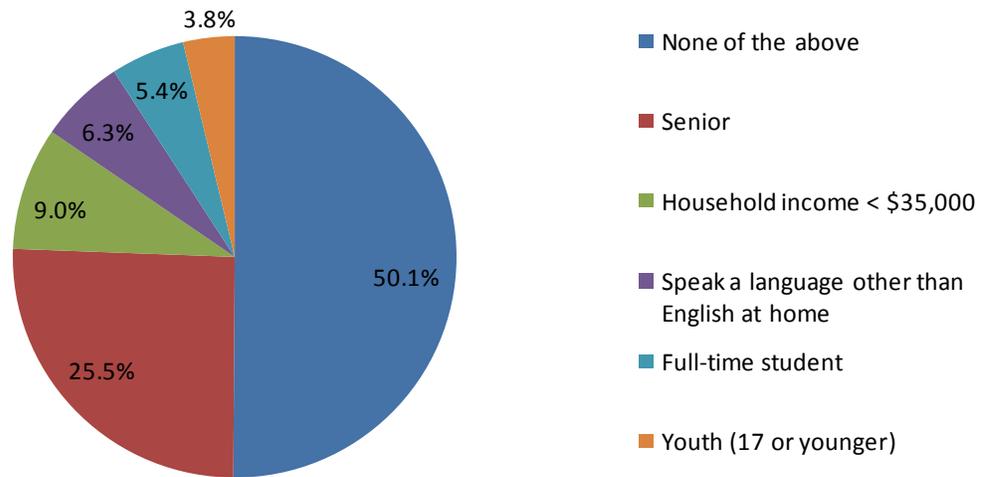
Exhibit G.1 Survey Response by Zip Code



Community Profile

Respondents were asked a series of questions to create a demographic profile. All survey respondents were residents of Novato and have resided on average just over 16 years in Novato. Most respondents indicated they do not belong to traditional ride-dependent population groups (i.e., low-income, senior, youth, etc). However seniors did comprise nearly 25 percent of the respondent population.

Exhibit G.2 Community Profile



Overall Mobility Assessment

Respondents were asked about their travel habits including work location, access to personal vehicles, use of alternative transportation options, and ease of accessing various destinations.

In terms of employment, about 58 percent of respondents are employed and of those 58 percent, approximately 43 percent work *in* Novato. Given the majority of Novato residents depart the city for employment, Marin Transit’s bus service during peak periods should function as a feeder service while off-peak service focuses on meeting demand for intra-community trips like accessing healthcare, shopping, and school sites.

Less than half of all respondents who are employed work in Novato and nearly all respondents had access to a personal vehicle.

Nearly 82 percent of respondents indicated they had access to a personal vehicle. While this does not imply *ease* of using the personal vehicle, the moderate incidence of low-income residents observed in this survey suggest operating a personal vehicle is not a financial burden for most Novato residents. However, ongoing volatility of gasoline prices points to increasing numbers of families who can no longer afford to operate their personal vehicle.

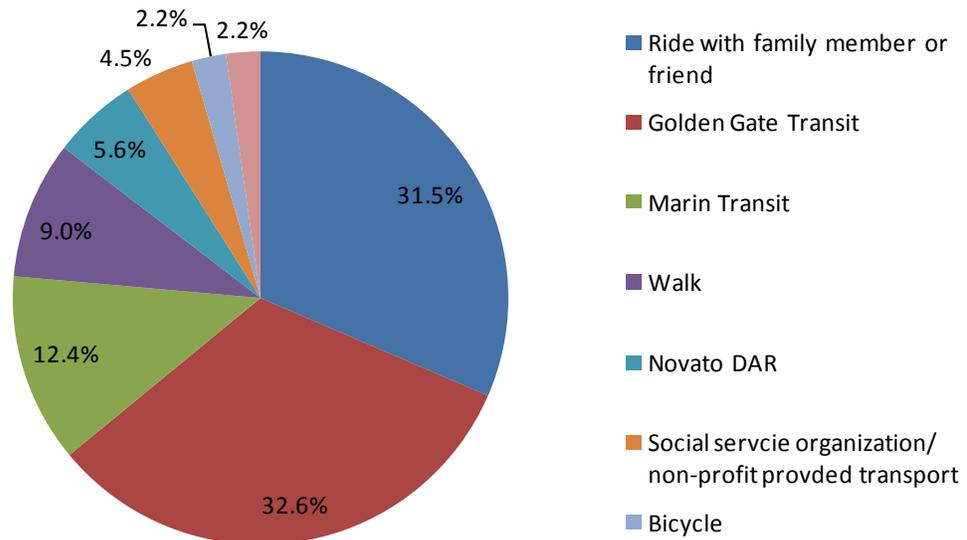
Primary Means of Transportation for Ride-Dependent Population

Of the 18 percent of respondents which indicated no access to a person vehicle, the majority rely on friends or family (31 percent) or Golden Gate Transit (33 percent) for their trip making. There was a significant drop-off to the next transit option which was Marin Transit with approximately 12 percent of respondents using this option. Exhibit G.3 shows the breakdown of these respondents.

Based upon our face-to-face contact with Novato residents, as well as findings observed in the Customer Survey, it is not surprising to see a large share of respondents who primarily rely on Golden Gate Transit. Many residents we spoke with use transit in Novato for commuting rather than for shopping or other discretionary travel.

Several respondents were not always aware of the difference between Golden Gate Transit and Marin Transit. As a result, it is likely the use of Marin Transit services is understated in this survey. This suggests many residents view the Golden Gate Transit/Marin Transit services as a single entity. However, there is room to “grow the brand” for Marin Transit which should promote its ability to link residents with Golden Gate Transit routes as well as ease of accessing other Novato neighborhoods.

Exhibit G.3 Primary Means of Transportation for Ride-Dependent Population



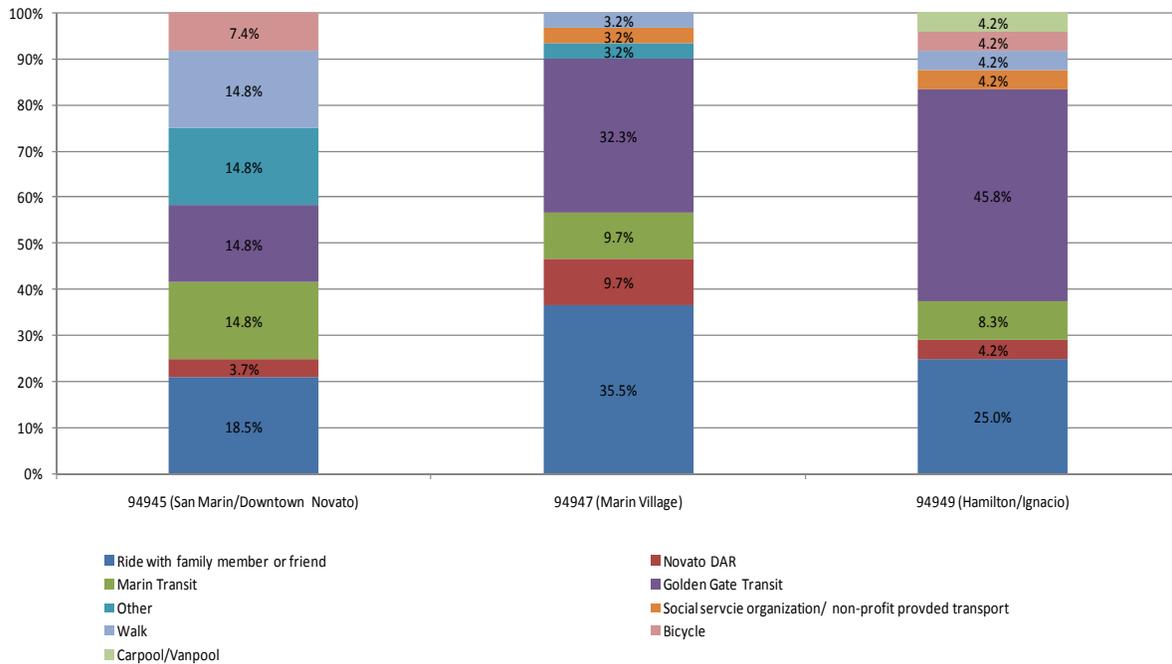
Primary Means of Transportation for Ride-Dependent Population by Zip Code

Exhibit G.4 shows the primary means of transportation for the ride-dependent population by ZIP code. The 94947 and 94949 ZIP codes reported higher use of Golden Gate Transit than the general survey population. In other words, the central and southern sections of Novato use Golden Gate Transit more than the San Marin neighborhood to the north. This suggests Marin Transit should consider enhancing service within the Hamilton and Ignacio neighborhoods (94949) and central Novato (94947).

The 94947 and 94949 ZIP codes reported higher use of Golden Gate Transit than the general survey population.

In the San Marin neighborhood (94945), there is higher use of Marin Transit routes than in the central and southern portions. This can be attributed in large part to the high number of students riding buses in that area. There may be demand for additional Marin Transit services to these areas, especially on weekends, a need identified in the public workshops and focus groups as a mobility deficiency.

Exhibit G.4 Primary Means of Transportation for Ride-Dependent Population by Zip Code



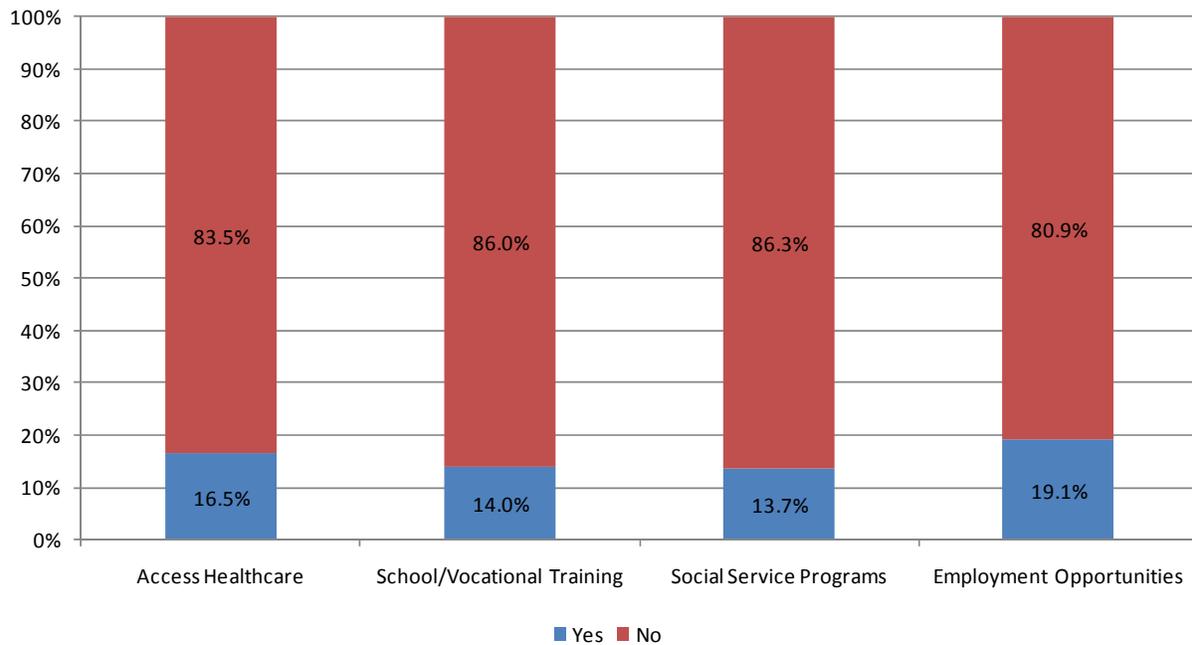
Ease of Accessing Destinations

Respondents were asked if the lack of affordable and reliable transportation has negatively impacted their ability to access healthcare, school or vocational training, social service programs, and work or employment opportunities. As shown in Exhibit G.5, the vast majority of respondents did not have any issues accessing any of the cited trip locations.

About 19 percent of respondents indicated difficulty in accessing work or employment opportunities, 30 percent of whom are already customers.

However, about 19 percent of respondents indicated difficulty in accessing work or employment opportunities. This suggests a potential for Marin Transit to provide feeder service to Golden Gate Transit routes which connect Novato with major employment centers. However, about 30 percent of those who cited trouble accessing work or employment sites also identified themselves as current transit riders. Based on this finding, Marin Transit should seek service enhancements during the peak periods which make getting to and returning from work easier to capture the remaining 70 percent with mobility issues who are not currently transit customers.

Exhibit G.5 Ease of Accessing Destinations



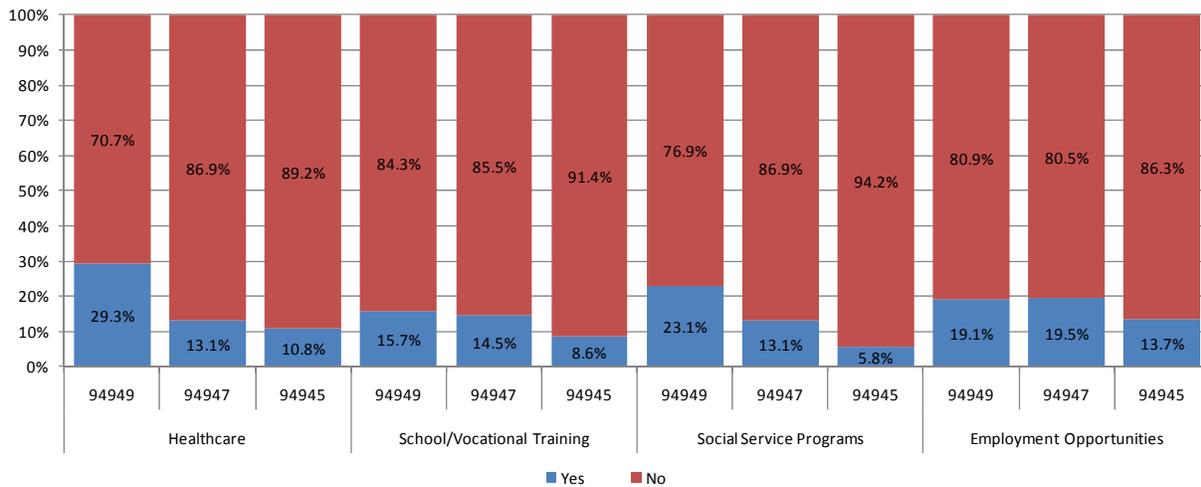
Ease of Accessing Destinations by Zip Code

Exhibit G.6 illustrates the ease of accessing destinations by ZIP code. ZIP codes 94949 (Hamilton/Ignacio) and 94947 (Marin Village) had proportionally higher incidences of difficulty accessing destinations. For the 94949 ZIP code, accessing healthcare and employment opportunities were the biggest challenges. ZIP code 94947 had the greatest difficulty accessing employment opportunities, school and vocational training, and social service programs.

Based on the findings from Exhibit G.6, we recommend promoting the Dial-A-Ride service in the 94949 as a way to improve access to healthcare. Additionally, Marin Transit should consider improving the frequency of bus service as well as coverage in this areas to improve access to work and employment opportunities.

For ZIP codes 94947 and 94945 (San Marin/Downtown Novato), Marin Transit should coordinate schedules with Golden Gate Transit as well as increase frequency during peak periods. This not only would benefit workers but also address the scheduling issues identified during the youth focus group.

Exhibit G.6 Ease of Accessing Destinations by Zip Code



Marin Transit/Golden Gate Transit Assessment

After assessing mobility preferences and needs, respondents were asked about their use of public transit in Novato, barriers to use, and preferred service enhancements.

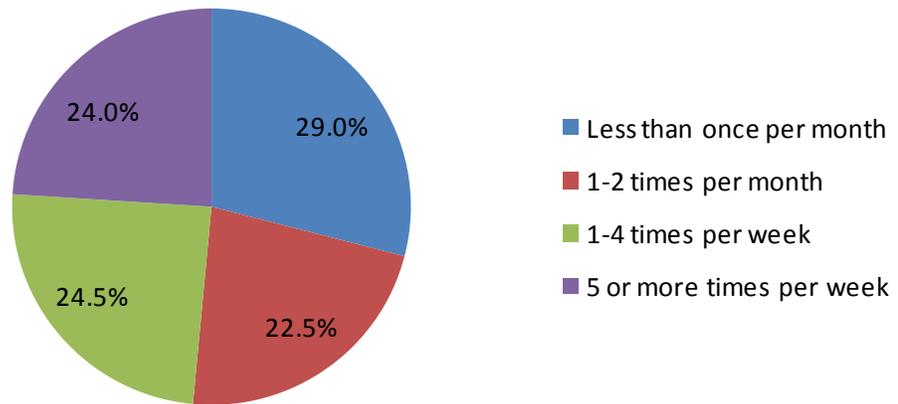
About 58 percent of Novato residents had not used public transit within 90 days prior to survey contact. Exhibit G.7 shows the frequency of transit use by the 42 percent of Novato residents who have used public transit 90 days prior to the survey.

About 58 percent of Novato residents had not used public transit within 90 days prior to taking the survey.

Frequency of Use

As illustrated in Exhibit G.7, most transit customers use the service less than two times per month. This is in sharp contrast to the findings in the Fixed-Route Survey Appendix which indicated more frequent use of the transit service. This suggests most residents rarely use the service. When combined with the findings in the Customer Survey, this exhibit reveals Marin Transit likely has a core constituency (those heavily ride-dependent) rather than broad appeal throughout the Novato community.

Exhibit G.7 Frequency of Use



Transit Service

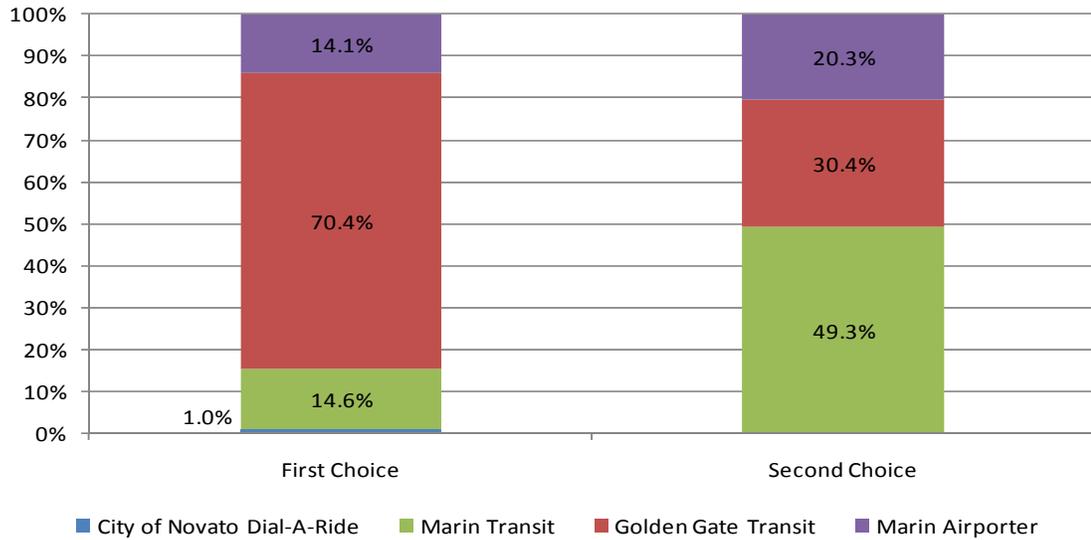
Exhibit G.8 shows the transit services Novato residents rode most frequently. The vast majority of respondents primarily use Golden Gate Transit (70 percent) followed by Marin Transit (15 percent). Of the respondents who chose two transit services, Marin Transit and Golden Gate Transit were the most common pairing.

Exhibit G.8 further reinforces the need to ensure seamless transfers between Marin Transit and Golden Gate Transit routes. Improving access to the Clipper Card should be a priority at the regional level and enhancing connections between the two services would also make using transit easier for both “choice” riders and the ride-dependent.

The vast majority of those who use transit primarily use Golden Gate Transit followed by Marin Transit.

Additionally, many participants during the community involvement activities indicated the desire for real-time bus arrival information. Having up-to-date information further improves customer satisfaction as well as providing reliable information for trip planning.

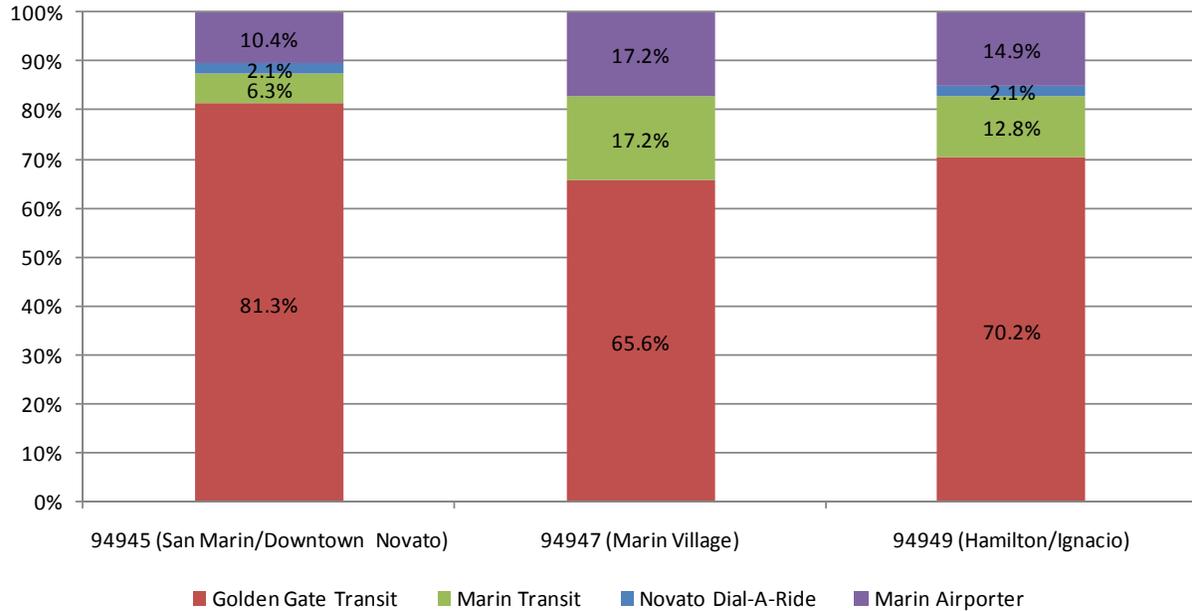
Exhibit G.8 Transit Service



Transit Service by Zip Code

Exhibit G.9 shows the most commonly used service by ZIP code. Across all ZIP codes, Golden Gate Transit had the largest share of customers. However, Marin Transit accounted for less than 20 percent of the service distribution in each ZIP code. This suggests many who cannot access Golden Gate Transit stops by foot use Marin Transit to access Golden Gate Transit routes.

Exhibit G.9 Transit Service by Zip Code



Customer Satisfaction

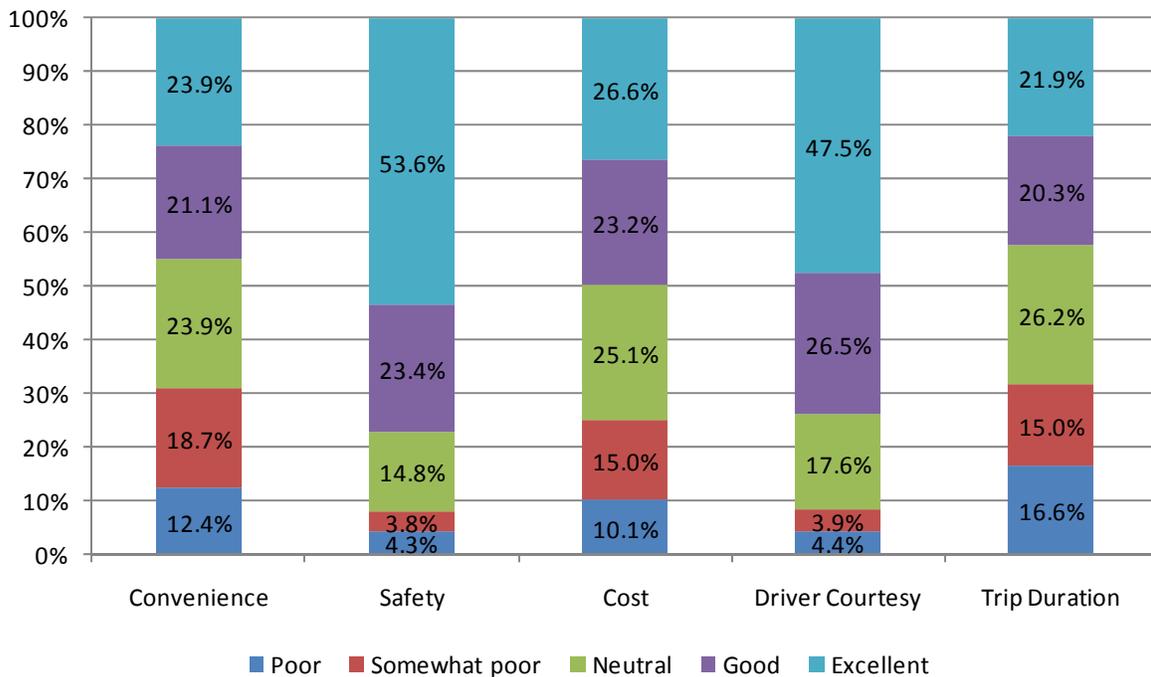
Respondents who used public transit in the 90 days prior to the survey were asked to rate five service attributes using a five-point numerical rating scale (1= poor, 5= excellent). Exhibit G.10 shows how each service attribute was ranked by percent.

Customers were fairly satisfied with safety onboard the bus, driver courtesy, and the cost of the service. Creating a friendly and safe environment is critical to encouraging choice riders to use the service as well as ensures quality service to those who are ride-dependent.

A significant number of customers were dissatisfied with the convenience of the service as well as the trip duration.

However, a significant number of customers were dissatisfied with the convenience of the service as well as the trip duration. These are clear barriers to use and must be addressed to attract “choice” riders. Since trip duration impacts the perceived convenience of the service, Marin Transit may want to consider either implementing limited-stop service during peak hours or trimming unproductive route segments to speed travel times.

Exhibit G.10 Customer Satisfaction

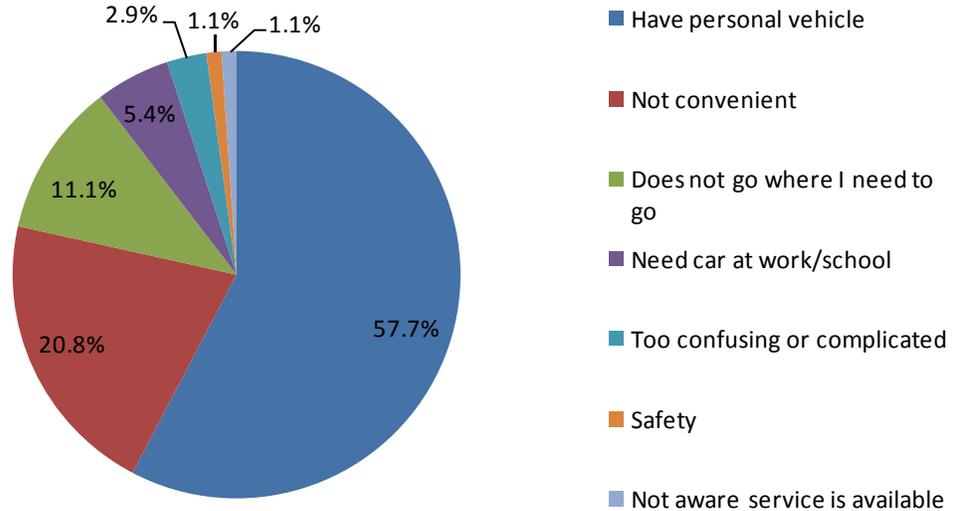


Barriers to Transit Use

Exhibit G.11 illustrates the barriers to transit use identified by choice riders. Approximately 58 percent of respondents indicated they do not use transit because they

have access to a personal vehicle. This is compounded when those not viewing the service as convenient are added. Overall, this suggests many residents do not view public transit as a viable substitute for their personal vehicle.

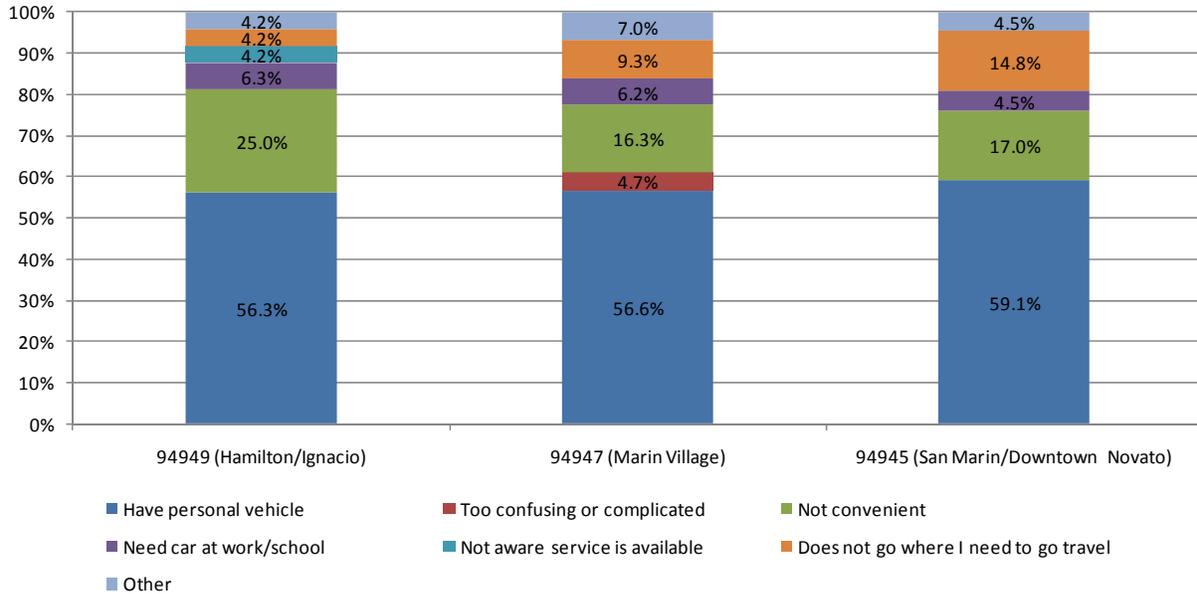
Exhibit G.11 Barriers to Transit Use



Barriers to Transit Use by Zip Code

The barriers to transit use identified in the overall survey population closely mirrors the findings in each ZIP code. Having their own car was the most frequently-cited reason followed by respondents’ perception the service is not convenient.

Exhibit G.12 Barriers to Transit Use by Zip Code



Preferred Service Enhancements

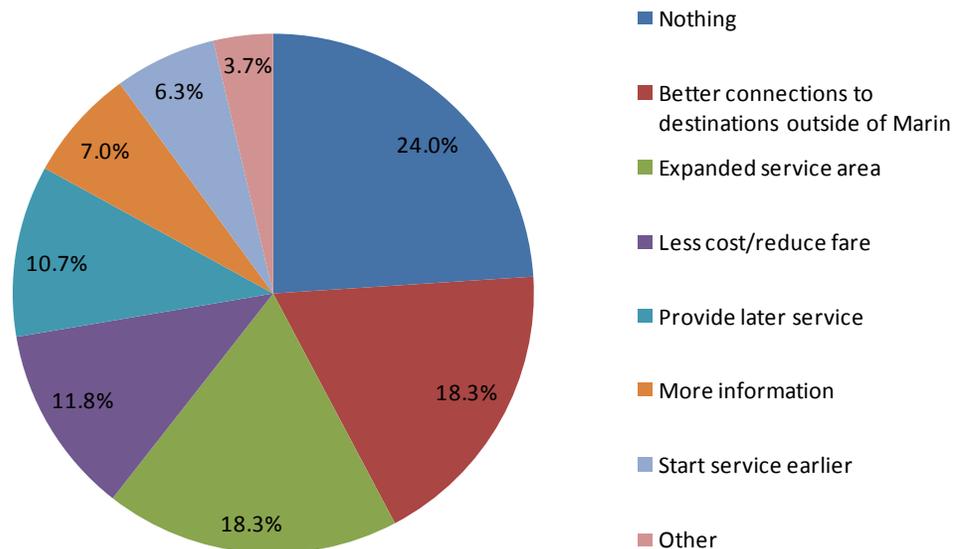
Both riders and non-riders were asked which service enhancements would encourage them to either start using the service or use the service more frequently. In stark contrast with research conducted in other communities, nearly one-quarter of respondents stated nothing would encourage them to start using transit or to use it more. This figure is typically 33-percent or higher and provides significant hope the community has a significant number of potential “choice” riders who would be willing to use transit if certain enhancements were made.

Providing better connections to destinations outside of Marin (i.e., improve commuter services) was the most popular service enhancement.

Consistent with the Customer Survey, providing better connections to destinations outside of Marin (i.e., improve commuter services) was the most popular service enhancement followed closely by expanded service area. Taken together this suggests a relatively strong demand for improving service to areas *outside* of Novato rather than within the city.

In terms of preferred service enhancements by ZIP code, each ZIP code had generally the same distribution in preference. In other words, the preferred service enhancements identified in the general survey population reflect the preferred service enhancement of each ZIP code.

Exhibit G.13 Preferred Service Enhancements



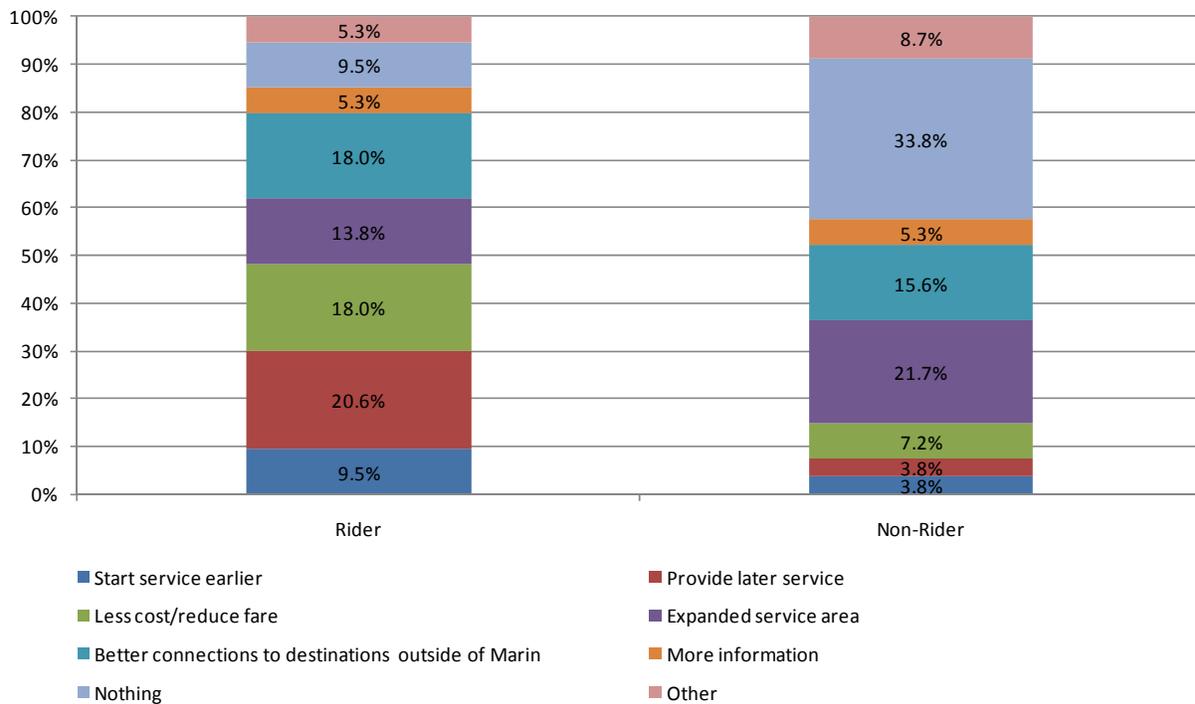
Rider vs. Non-Rider Preferred Service Enhancements

Exhibit G.14 shows the preferred service enhancements for riders and non-riders. As the exhibit illustrates, there are substantial differences between riders and non-riders. For example, 34 percent of non-riders would not use the service regardless of potential enhancements.

In terms of preferred service enhancements, riders identified later service, better connections to destinations outside of Marin, and reduced fares. Non-riders, on the other hand, cited expanded service area and better connections to destinations outside of Marin. In the aggregate this suggests Marin Transit may want to expand peak-hour service to feed the Golden Gate Transit routes which provide regional service.

A number of riders and non-riders indicated *other* for their preferred service alternative. The most popular responses included more frequent service, better information (i.e., real-time bus information), and the need for more rapid transit options.

Exhibit G.14 Rider vs. Non-Rider Preferred Service Enhancements



Novato Dial-A-Ride Assessment

In this section of the survey, respondents were asked about their familiarity with the Novato Dial-A-Ride service, barriers to use, and preferred service enhancements.

When asked if they were aware of the Novato Dial-A-Ride, 53 percent of residents indicated they were not aware of the Dial-A-Ride service. All demographic groups identified in the survey,

with the exception of seniors, had a majority of respondents who were unaware of the Dial-A-Ride service.

Consequently, about 97 percent of survey respondents have not used the Dial-A-Ride service in the 90 days prior to the survey. As shown below, awareness was a major barrier to use. Marin Transit may want to consider a comprehensive marketing campaign with the aim of making more Novato residents aware of the service.

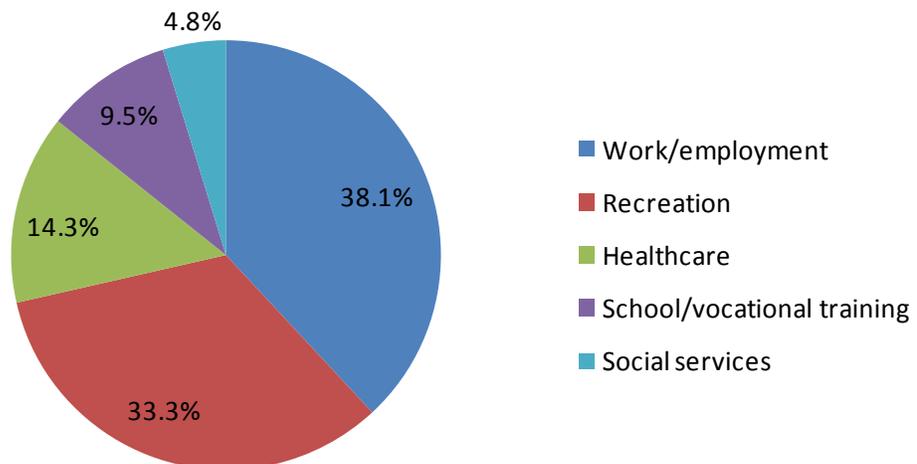
Given the modest number of Dial-A-Ride patrons in the survey, any conclusions about customer preferences and habits should be drawn from the Dial-A-Ride Customer Survey.

Novato Dial-A-Ride Trip Purpose

Exhibit G.15 shows the typical trip purpose for the Dial-A-Ride customers in the survey. Work/employment and recreation were the most popular choices. When compared the Dial-A-Ride Customer Survey, work/employment plays a more prominent role in this survey. However, recreation was a most popular choice in both surveys.

In both surveys, accessing healthcare was not among the top trip purposes. While we feel this is likely due to the availability of other paratransit options, Marin Transit has an opportunity to market the Dial-A-Ride service as an affordable means of accessing local healthcare services.

Exhibit G.15 Novato Dial-A-Ride Trip Purpose



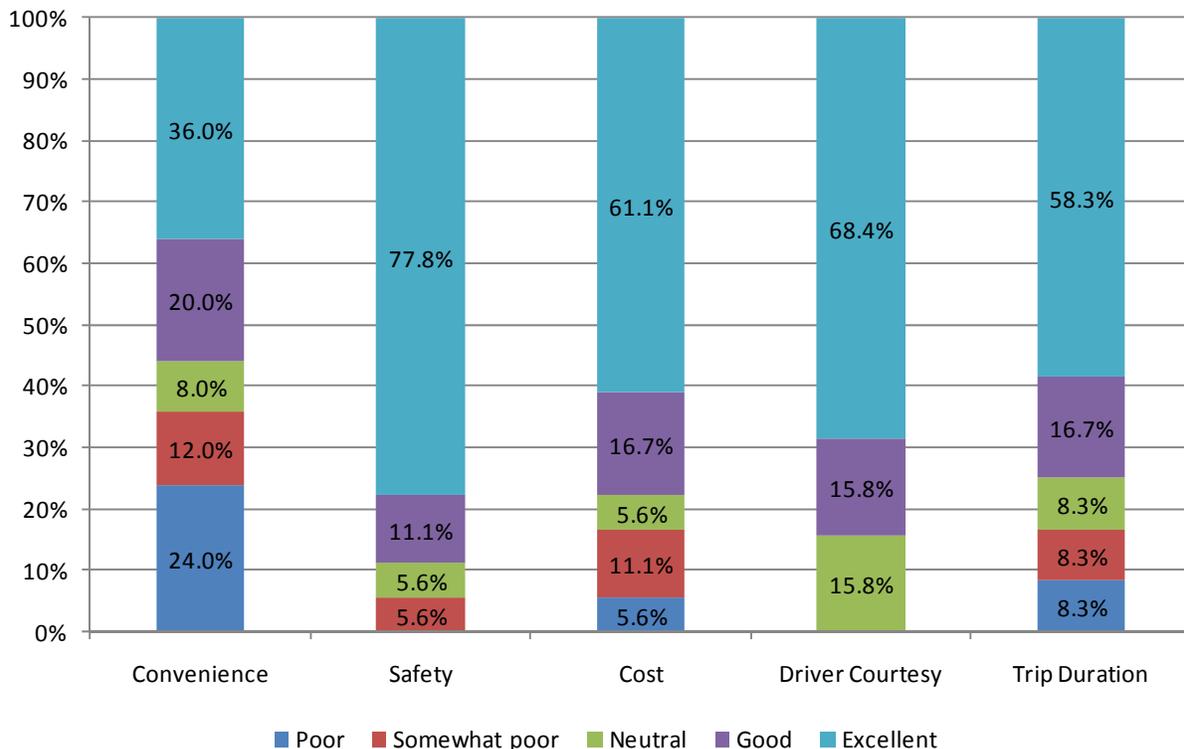
Novato Dial-A-Ride Customer Satisfaction

Respondents who have used the Dial-A-Ride in the 90 days prior to survey contact were asked to rate five service attributes using a five-point numerical rating scale (1= poor, 5= excellent).

When compared to the Dial-A-Ride Customer Survey, the Community Survey respondents who use the Dial-A-Ride service have a generally better opinion of the service. For example, 78 percent of respondents felt onboard safety was excellent versus 39 percent in Dial-A-Ride Customer Survey.

The divergence in customer satisfaction could be due to the difference in frequency of use. Community Survey respondents use the service less than the respondents in the Fixed-Route Survey Appendix. In other words, less frequent use translates to a perception of fewer service issues.

Exhibit G.16 Novato Dial-A-Ride Customer Satisfaction

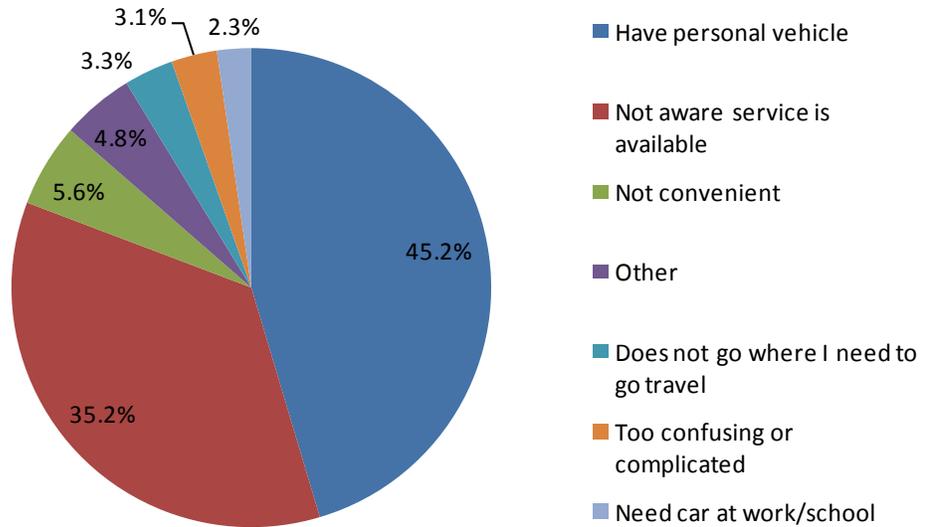


Novato Dial-A-Ride Barriers to Use

Exhibit G.17 indicates the barriers to using the Novato Dial-A-Ride. Approximately 45 percent said they have not used the Dial-A-Ride service because they have access to a personal vehicle. Just over 35 percent said they have not used the service because they were unaware it was available.

To address this, we recommend Marin Transit initiate a marketing campaign in Novato to familiarize residents with the service and promoting it is a viable option to make in-town trips.

Exhibit G.17 Novato Dial-A-Ride Barriers to Use



Novato Dial-A-Ride Preferred Service Enhancements

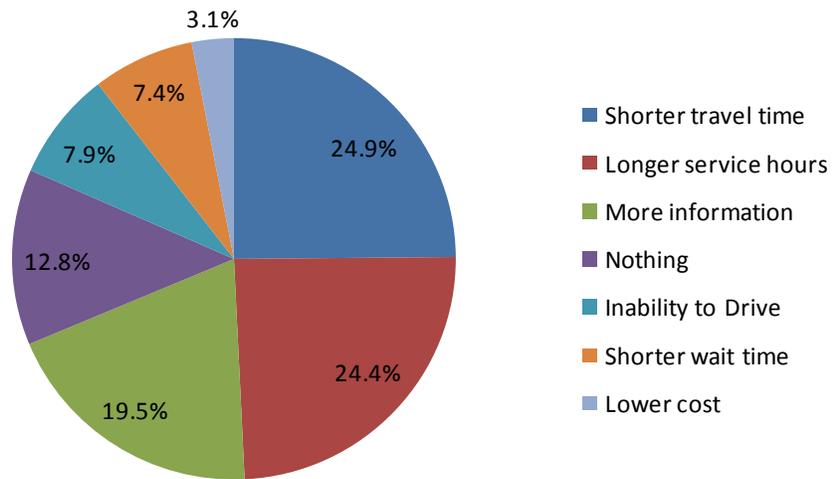
Exhibit G.18 shows the preferred service enhancements that would encourage non-riders to use the service and riders to use the service more frequently. Nearly 25 percent of respondents wanted shorter travel times, 24 percent wanted longer service hours, and more than 19 percent wanted more information.

Reducing travel time for a demand-response service is unlikely given there is no fixed-route to change. However, having more vehicles during peak times could reduce wait times and reduce the need to pick-up multiple passengers. This improvement would substantially increase operating costs.

However, operating a longer service day is a frequently-mentioned preferred service enhancement. About 57 percent of respondents in the Dial-A-Ride Customer Survey as well as a number of participants in the public outreach activities selected this option. Longer service hours would mean closing the midday service gap (highly desirable based on community feedback) and providing later evening service.

Lastly, providing more information is a relatively cost-effective way to reduce barriers to use and encourage more patrons to use the service more frequently. Since the Dial-A-Ride service is open to all Novato residents, Marin Transit should consider undertaking a targeted marketing campaign to promote the benefits of the Dial-A-Ride service.

Exhibit G.18 Novato Dial-A-Ride Preferred Service Enhancements

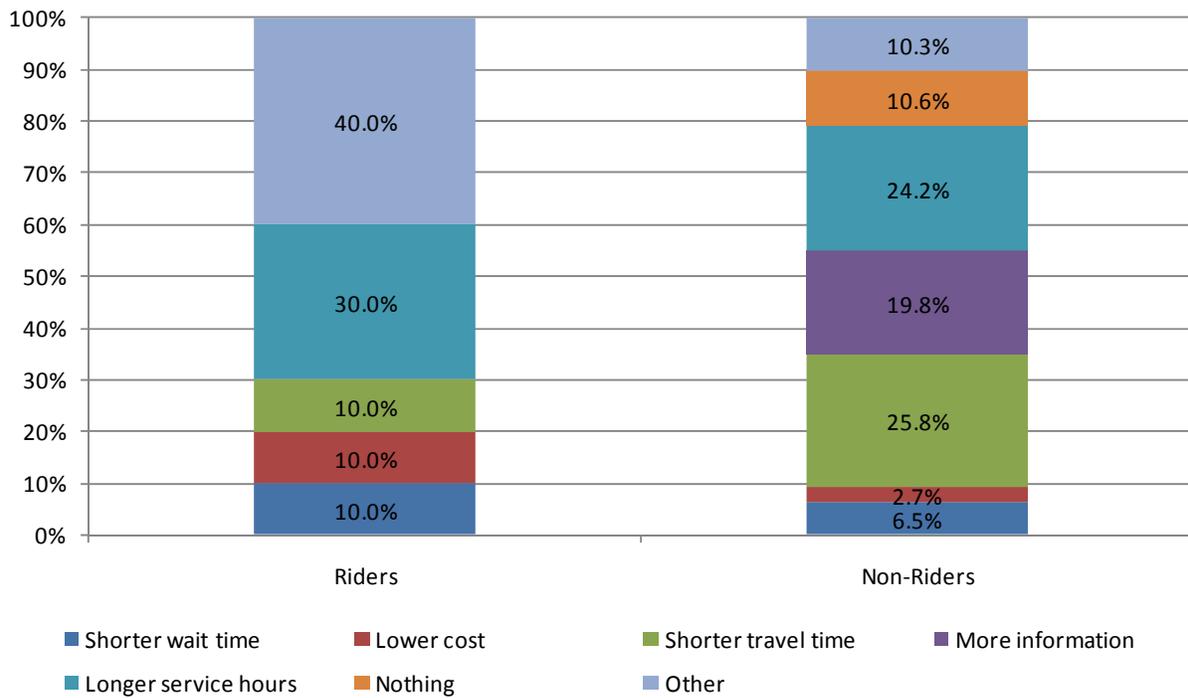


Novato Dial-A-Ride Rider vs. Non-Rider Preferred Service Enhancements

Exhibit G.19 illustrates the preferred service enhancements for riders and non-riders. Both riders and non-riders identified longer service hours as a preferred alternative. Based on findings in the Dial-A-Ride Customer Survey as well as from public involvement activities, we recommend Marin Transit expand the service day of the Dial-A-Ride service.

Non-riders also wanted shorter travel time. Since this group does not use the service, this is more an issue of perception than reality. The lack of familiarity with the service likely makes non-riders assume the service has long travel times.

Exhibit G.19 Novato Dial-A-Ride Rider vs. Non-Rider Preferred Service Enhancements



Overall Transportation Assessment

Novato residents were asked the final section to identify the biggest transportation challenge facing the community. The most pressing issue identified was traffic on the US Highway 101 corridor. Many respondents indicated the need for expanded and more frequent commuter service as well as the implementation of rapid transit options in the corridor.

Several residents also wanted to see better access to alternative transportation options to the automobile. Many residents stated the need for expanded bicycle infrastructure, more frequent and accessible service, later bus service, and more readily accessible information regarding bus arrivals.

Exhibit G.20 Community Mobility Survey Instrument

**City of Novato
Transit Needs Assessment
Community Mobility Survey**

Marin Transit and the City of Novato are working together to evaluate public transit service in the City of Novato. As a member of the Novato community, your opinion is important to help shape transit improvements in the city. Thank you for time.

Section A. General Mobility

1. Are you a resident of Novato? YES NO
 - a. If YES, please indicate the number of years: _____
 - b. What is the zip code of your residence: _____
2. Please indicate if any of the following apply to you (Select all that apply):
 - Senior (65+)
 - Youth (17 or younger)
 - Household income < \$33,000
 - Full-time student
 - Speak a language other than English at home
 - None of the above
3. Are you currently employed? YES NO
 - a. If YES, is your primary work site located in Novato? YES NO
4. Do you have access to a personal vehicle? YES NO
5. If you answered NO to Question 4, what is your primary means of transportation? (Select only one):
 - Ride with family member or friend
 - Public transit/ bus (choose one): Novato DAR
 - Marin Transit Golden Gate Transit Other
 - Social service organization/ non-profit provided transport
 - Taxi/ privately-run service Walk
 - Bicycle Carpool/Vanpool
 - Other (please specify) _____
6. Has the absence of affordable and reliable transportation (i.e., public transit, private auto, ridesharing, etc.) impacted your ability to...

Access healthcare?	YES	NO
Access school or vocational training?	YES	NO
Access social service programs?	YES	NO
Access work or employment opportunities?	YES	NO

Section B. Marin Transit/GGT Assessment

1. Have you ridden public transit in the past 90 days? *if no, skip to question 5* YES NO
2. If YES, how often do you ride public transit?
 - 3 or more times per week
 - 1-2 times per month
 - 1-4 times per week
 - Less than once per month
3. Which public transit/bus services do you ride most often? (Indicate top two)
 - City of Novato Dial-A-Ride
 - Golden Gate Transit (Route 71, 80, 101, 54, 56, 58, 75)
 - Marin Transit (Route 48, 51, 52, 71)
 - Marin Airporter
4. On a scale of 1 to 3 (where 1= poor and 3= excellent), how would you rate the following service aspects?

Convenience	___	Safety	___
Cost	___	Driver courtesy	___

 Time required to complete the trip _____
5. If you have not used any public transportation in the past 90 days, please indicate the primary reason (mark one only):
 - Have own car
 - Too confusing or complicated
 - Not convenient
 - Need car at work/school
 - Not aware service is available
 - Does not go where I need to go travel
 - Too expensive
 - Other (please indicate) _____

6. What, if anything, would encourage you to use public transit to complete your trip, or use public transit more?
 - Start service earlier
 - Provide later service
 - Less cost/reduce fare
 - Expanded service area
 - Better connections to destinations outside of Marin County
 - More information
 - Nothing
 - Other _____

Section C. Novato Dial-A-Ride Assessment

1. Are you aware Marin Transit provides a Dial-A-Ride service in Novato? YES NO
2. Have you ridden the Novato Dial-A-Ride in the past 90 days? *if no, skip to Question 6* YES NO
3. If YES, what was your primary trip purpose? (Select one only)
 - Work/employment
 - School/vocational training
 - Healthcare
 - Social services
 - Recreation
 - Other please indicate _____
4. If YES, how often do you ride the Novato Dial-A-Ride?
 - 3 or more times per week
 - 1-2 times per month
 - 1-4 times per week
 - Less than once per month
5. On a scale of 1 to 3 (where 1= poor and 3= excellent), how would you rate the following service aspects of the Novato Dial-A-Ride service:

Convenience	___	Safety	___
Cost	___	Driver courtesy	___

 Time required to complete trip _____

6. If you have not used the Novato Dial-A-Ride service within the past 90 days, please indicate the primary reason (Select one only):
 - Have own car
 - Too confusing or complicated
 - Not convenient
 - Need car at work/school
 - Not aware service is available
 - Does not go where I need to go travel
 - Too expensive
 - Other (please indicate) _____
7. What, if anything, would encourage you to use Novato Dial-A-Ride, or use the Dial-A-Ride more?
 - Shorter wait time
 - Lower cost
 - Shorter travel time
 - More information
 - Longer service hours
 - Nothing
 - Other _____

Section D. Your Thoughts

1. In your opinion, what is the biggest transportation challenge facing the community?

2. Would you be interested in participating in a public workshop with the goal of improving public transit in Novato?

YES NO

If YES, please provide your contact information below (Phone and/or email):

Thank you for your time! We will contact you regarding the upcoming Community Workshops.



H. PUBLIC OUTREACH SUMMARY

APPENDIX H – PUBLIC OUTREACH SUMMARY

In addition to the quantitative analysis of transit services currently operating in a through Novato, Moore & Associates undertook broad-ranging public outreach to assess community awareness and perception of Marin Transit, quantify unmet needs and demand, and prioritize transit service enhancements. This appendix presents the summary of those outreach activities associated with this project. The goal of the public outreach component was to actively engage the Novato community in the transit planning process and, in doing so, identifying sustainable, market-driven recommendations which translate to improved transit service performance.

Outreach Methodology

To gather public input, our project team facilitated five focus groups, two community workshops, participated in the *Let's Move Novato!* event, and conducted an online community survey regarding preferred service enhancements. The focus groups were held during the weeks of February 28 and March 14. The workshops were held during the week of March 14 and the *Let's Move Novato!* event was on Saturday, May 14, 2011.

The focus groups targeted seniors, low-income residents, residents with limited-English proficiency, youth, and residents of the Hamilton neighborhood. The focus groups addressed each attendee's perspective on public transit in Novato. These meetings yielded important feedback regarding service issues and potential enhancements to address these shortcomings.

Our project team also reached out to various stakeholder groups representing specific interests within the community. Meetings and discussions were held with the City of Novato's Bicycle and Pedestrian Advisory Committee, Novato Unified School District, the College of Marin Indian Valley Campus, the Blue Ribbon Coalition for Youth, the Hamilton Homeowners Association and Marin Grassroots. Input on transit issues specific to these organization and their interests were collected and included in the needs assessment task.

To promote the focus groups, the project team contacted each group through various organizations including the Margaret Todd Senior Center (seniors), Novato Human Needs Center (low-income/limited English proficiency), Novato Unified School District (youth), and the New Beginning Center as well as affordable housing property managers (Hamilton neighborhood). The project team worked with each organization to identify participants as well as to use their respective facilities for the meeting.

Our project team also gave a presentation at the New Beginning Center in the Hamilton neighborhood. The presentation included a project background, information about upcoming project milestones, and ways to stay involved with the planning process. Collectively, we distributed 45 surveys to the participants (one per attendee). Attendees were also provided with PowerPoint materials from the subsequent community workshops.

The first series of community workshops was held at the historic Novato City Hall in downtown Novato during the week of March 14. Marin Transit staff and our project team introduced the community to the project as well as provided a forum for comments and concerns regarding public transit service operating in and through Novato. In lieu of holding a second series of public workshops, we worked with the City of Novato to arrange for a booth at the *Let's Move Novato!* event on May 14. For the event, we developed a series display boards illustrating project findings, existing services, and the three phases of proposed recommendations. We had bilingual staff on-site and invited event participants to use a series of colored dots to identify those recommendations they most desired. In total, 36 people elected to put colored dots on their preferred enhancements.

In a follow-up to the *Let's Move Novato!* event, we developed a web-based survey asking participants to rank their top three preferred service enhancements. The survey was promoted via the Marin Transit website and an email blast to project stakeholders and the Marin Transit mailing list. The survey went live on May 16 and ran until May 31, 2011. In total, 39 Novato residents completed the survey.

Promotion of the community workshops was far-reaching. When the project team conducted the community survey, the surveyors collected email addresses and telephone numbers from interested residents wishing to be contacted regarding the community workshops. The project team then created a contact list and emailed or called each resident to inform them of the meeting. This was done one week prior to the workshop dates.

Local newspaper advertising of the workshops was the second step taken to solicit public input. Marin Transit, City of Novato, and Moore & Associates identified three media outlets through which the meetings were promoted. The project team placed advertisements in two publications; the *Novato Advance* and the *Novato Patch* (website). Additionally, we placed notices on the City's public access television channel and sent out a series of email blasts via Marin Transit's various stakeholder database.

The third step was a direct mail campaign which was undertaken two weeks before the meetings. Approximately 1,000 Novato households were sent a postcard with the time, date, and location of the community workshops.

Focus Groups

The senior and first low-income/limited English proficiency focus groups took place on March 1 and March 3, 2011, respectively. The youth, Hamilton, and second low-income/limited English proficiency focus groups occurred on March 15 and March 16, 2011. Each meeting consisted of a background regarding the project, general discussion about mobility preferences and barriers, attitudes towards transit, and any preferred service improvements. Below is a summary of each focus group.

Seniors Focus Group

The senior focus group was held at the Margaret Todd Senior Center on March 1, 2011 from 10:30 a.m. to noon. This focus group resulted in the following comments:

- The Novato Dial-A-Ride is practical and quick.
- Need better access to information.
 - Create one-stop source for information.
- Provide direct service to medical facilities in San Francisco.
- Coordinate Novato Dial-A-Ride service with “Brown Bag” events at the Margaret Todd Senior Center.

First Low-Income/Limited English Proficiency Focus Group

The first low-income/limited English proficiency group was conducted at the Novato Human Needs Center on March 3, 2011 from 3:00 p.m. to 4:30 p.m. This focus group identified the following barriers and potential solutions:

- Bus stops need to be improved for safety (i.e., better lighting and security).
- Additional information at individual stops (i.e., route maps, schedules, contact information, etc.) would help people better understand how to use the services.
- Spanish-language information at the individual stop level would also help improve service.
- Stricter adherence to published schedules, stating buses occasionally arrive five minutes early or five minutes late.

Youth Focus Group

The youth focus group took place at San Marin High School on March 15, 2011 from 9:30 a.m. to 11:00 a.m. This focus group identified the following barriers and potential solutions:

- Classes begin at 7:20 a.m. and currently Route 51 gets students to school around 7:40 a.m.
- San Marin High releases students at 12:30 p.m. every Wednesday and Thursday, yet the closest bus departs the school at 12:27 p.m., forcing students to leave school early to catch the bus.
- There is currently no weekend bus service to the San Marin area; attendees would like to see some weekend service.

Hamilton Neighborhood Focus Group

The Hamilton neighborhood focus group was held at the Hamilton Community Center on March 16, 2011 from 11:00 a.m. to noon. This focus group identified the following barriers and potential solutions:

- Install shelters at bus stops.
- Provide next-bus information via GPS on phone or computer.
- Add more stops within Hamilton and improve frequency for Route 49.

- Lack of sidewalks makes accessing public transit difficult.
- Identified need to reach out to bicycling community for involvement in the planning process.

Second Low-Income/Limited English Proficiency Focus Group

The second low-income/limited English proficiency focus group was conducted at the Novato Human Needs Center on March 16, 2011 from 3:00 p.m. to 4:30 p.m. This focus group identified the following barriers and potential solutions:

- Need earlier service on Route 51.
- Owning car is too expensive and therefore heavy reliance on transit.
- Transfer time wait is too long between buses.
- Need to promote the use/benefits of passes more.

Community Workshops

The first round of community workshops were held at the historic Novato City Hall on March 15 and March 16, 2011 from 7:00 p.m. to 8:30 p.m. The goals of the workshops were to not only to introduce the project to Novato residents, assess community awareness and perception of Marin Transit, quantify unmet needs and demand, and prioritize transit service enhancements.

The participants identified the following barriers and potential solutions:

- Improve visibility of bus stops as well as stop amenities.
- Clarify/consolidate ride guides.
- Increase frequency on Route 51.
- Expand service span on Route 51 (morning and evening).
- Expand Novato DAR service to include midday hours.
- Expand Novato DAR service hours in the morning and evening.
- Establish express/limited-stop bus service between Novato/San Rafael and the East Bay (specifically BART and UC Berkeley).
- Need real-time stop information at bus stops and online for Marin Transit and Golden Gate Transit buses.
- Expanded weekday service hours overall.
- Distinguish between Marin Transit services and GGT services.
- Implement three “lobes” concept, or community loop shuttles with timed transfers.

Let’s Move Novato!

To ensure the planning process included input from a wide spectrum of Novato residents, we participated in the *Let’s Move Novato!* event at the Novato Gymnastics and Teen Center at 950 Seventh Street. The event ran from 10:00 a.m. to 2:00 p.m. and our project team had several tables set up with information about existing services and project findings to date. Foam-core display boards, each with a different phase of proposed project recommendations (one to two years, three to five years, and five to ten years) were presented to allow interactive input from the public. Each recommendation had a space below it where participants could place a series

of colored dots to illustrate their preference. A total of 108 dots were placed on the boards. The recommendations received the following number of dots:

Phase One:

- Single set of eligibility requirements for reduced fare and Dial-A-Ride services (1).
- Create a single ride guide specific to Novato transit services (9).
- Improve bus stops (7).
- Increase marketing of current services (4).
- Create mobile device-compatible website for MarinTransit.org (3).
- Fill-in the midday service gap with Novato Dial-A-Ride (3).
- Enhance bicycle and pedestrian facilities (18).
- Improve reliability of current service (3).

Phase Two:

- Extend Route 49 to Redwood and Grant (2).
- Introduce weekend service and earlier weekday service for Route 51 (11).
- Expand morning and evening service hours for Dial-A-Ride (1).
- Improve bus shelters (13).
- Provide direct service on Route 51 to San Rafael (4).
- Increase frequency on Route 51 during peak hours (3).

Phase Three:

- Circulator Concept (14).
- Fixed-Route with Transfers Concept (6).
- Fixed-Route without Transfers Concept (6).

[Recommendations Survey](#)

Between May 16 and May 31, 2011 Novato residents had an opportunity to take a brief survey online to indicate which service enhancement they most desired. Respondents were asked to rank their top three preferences within each phase. In total, 46 residents completed the survey. The table below summarizes the results of the survey.

Exhibits H.1 Recommendations Survey Results

Phase	Recommendation	First Choice	Second Choice	Third Choice
Phase 1	Improve reliability of current service	13 (65%)	5 (25%)	2 (10%)
	Enhance bicycle and pedestrian facilities	8 (42%)	6 (32%)	5 (26%)
	Fill-in midday service gap for Novato Dial-A-Ride	6 (33%)	9 (50%)	3 (17%)
	Create a single ride guide specific to Novato transit services	2 (13%)	7 (47%)	6 (40%)
	Increase marketing of current services	1 (11%)	3 (33%)	5 (56%)
	Create mobile device-compatible website for MarinTransit.org	1 (17%)	5 (83%)	0 (0%)
	Single set of eligibility requirements for reduced fare and Dial-A-Ride services	0 (0%)	2 (25%)	6 (75%)
Phase 2	Provide direct service on Route 51 to San Rafael	8 (40%)	6 (30%)	6 (30%)
	Introduce weekend service and earlier weekday service for Route 51	7 (44%)	6 (37.5%)	3 (19%)
	Increase frequency on Route 51 during peak hours	6 (35%)	7 (41%)	4 (23%)
	Improve bus shelters	6 (40%)	5 (33%)	4 (27%)
	Extend Route 49 to Redwood and Grant	6 (50%)	2 (17%)	4 (33%)
	Expand morning and evening service hours for Dial-A-Ride	5 (26%)	10 (53%)	4 (21%)
Phase 3	Community Circulator Concept	21 (62%)	10 (29%)	3 (8.8%)
	Fixed-Route with Transfers Concept	13 (38%)	20 (59%)	1 (3%)
	Fixed-Route without Transfers Concept	4 (11%)	4 (11%)	27 (77%)

Appendix Summary

Based on analysis of public outreach efforts, we have identified several barriers to transit use as well as a variety of service and capital improvements to improve overall mobility and access to transit in Novato.

In terms of capital improvements, many Novato residents indicated a desire for bus stop enhancements including shelters, better route information, safety upgrades, and improved visibility. Some participants also noted Novato’s lack of sidewalks created barriers to accessing public transit.

Participants shared a general consensus in terms of service enhancements. In each meeting, participants expressed a desire for Route 51 to operate more frequently, as well as earlier, which would allow students to make their bell times at San Marin High School. In terms of the Dial-A-Ride service, participants felt that closing the midday service gap as well as expanding service hours should enhance their mobility.

Lastly, several marketing issues and recommendations were discussed during the meeting. Many respondents were not aware Marin Transit and Golden Gate Transit are separate operating entities. Additionally, participants expressed the desire for clearer information as well as a one-stop center for transit information.