



# Marin County Transit District Board of Directors

**Monday, January 13, 2025, 9:30 a.m.**

**Marin County Civic Center**  
Board of Supervisors' Chambers  
3501 Civic Center Drive, Room 330  
San Rafael, CA 94903

**Join via Zoom or Teleconference:**  
<https://www.zoom.us/j/87972683373>  
+1 669 900 6833  
Webinar ID / Access Code: 879 7268 3373

## Providing Public Comment

- To provide written public comment prior to the meeting, email [info@marintransit.org](mailto:info@marintransit.org) or use the comment form at [www.marintransit.org/meetings](http://www.marintransit.org/meetings). Submit your comments no later than **5:00 P.M. Sunday, January 12, 2025** to facilitate timely distribution to the Board of Directors. Include the agenda item number you are addressing, your name, and address. Your comments will be forwarded to the Board of Directors and will be included in the written public record.
- Public comment is limited to two minutes per speaker unless a different time limit is announced. The Board President may limit the length of comments during public meetings due to the number of persons wishing to speak or if comments become repetitious.
- Participating on Zoom or teleconference: Ensure that you are in a quiet environment with no background noise. To raise your hand on Zoom press **\*9** and wait to be called upon by the President or the Clerk to speak. You will be notified that your device has been unmuted when it is your turn to speak. You will be warned prior to your allotted time being over. Your comments will be included in the public record.

## General Meeting Information

- Late agenda material can be inspected at the office of Marin Transit, between the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday.
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- Nếu bạn cần thông dịch hoặc các hỗ trợ khác, hãy gọi (415) 226-0855 hoặc 711. Để truy cập các hướng dẫn này bằng tiếng Việt, [hãy nhấp vào đây](#).

**9:30 a.m. Convene as the Marin County Transit District Board of Directors****1. Consider approval of Directors request to participate remotely and utilize Just Cause or Emergency Circumstance per AB 2449****2. Organization of Transit District**

- (1) Election of President
- (2) Election of Vice President
- (3) Election of Second Vice President

**3. Open Time for Public Expression**

(Limited to two minutes per speaker on items not on the District's agenda)

**4. Board of Directors' Matters****5. General Manager's Report**

- a. General Manager's Oral Report
- b. [Monthly Monitoring Report: October 2024](#)

**6. Consent Calendar**

- a. [Minutes for December 2, 2024 Board Meeting](#)
- b. [Federal Legislative Report](#)
- c. [Update on Fiscal Year 2024/25 Contracting Opportunities and Awards](#)
- d. [Marin Transit 2024 Accomplishments and 2025 Look Ahead](#)

**Recommended Action:** Approve.

**7. [Contract with Coastside Concrete and Construction, Inc. for the Construction of Marin County Transit District Bus Stop Improvements](#)**

**Recommended Action:** Authorize General Manager to execute a contract with Coastside Concrete and Construction, Inc. for an amount not to exceed \$1,333,130 and approve Budget Amendment 2025-05.

**8. [Contract with Equans-Ineo Systrans USA for a Computer-Aided Dispatch and Automatic Vehicle Location \(CAD/AVL\) System](#)**

**Recommended Action:** Authorize General Manager to sign and award a contract with Equans-Ineo Systrans USA for a CAD/AVL system for an initial five-year support and

maintenance term beginning on July 1, 2025, with a total contract value not to exceed to \$1,344,898.

9. **Approve Update to Public Hearing Policy**

***Recommended Action:*** Adopt an updated Public Hearing Policy.

## **Adjourn**



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San Rafael, CA 94901  
ph: 415.226.0855  
[marintransit.org](https://marintransit.org)

### Board of Directors

#### **Brian Colbert**

President  
Town of San Anselmo

#### **Eric Lucan**

Vice President  
Supervisor District 5

#### **Mary Sackett**

Second Vice President  
Supervisor District 1

#### **Katie Rice**

Director  
Supervisor District 2

#### **Stephanie**

#### **Moulton-Peters**

Director  
Supervisor District 3

#### **Dennis Rodoni**

Director  
Supervisor District 4

#### **Maribeth Bushey**

Director  
City of San Rafael

#### **Fred Casissa**

Alternate  
Town of Corte Madera

January 13, 2025

Honorable Board of Directors  
Marin County Transit District  
3501 Civic Center Drive  
San Rafael, CA 94903

**Subject: General Manager Report – Monthly Report: October 2024**

Dear Board Members:

### **Recommendation**

This is a recurring information item.

### **Summary**

The attached monthly report provides an overview of Marin Transit operations for the monthly period ending October 31, 2024. The monthly reports summarize statistics on the performance of Marin Transit services and customer comments.

Overall, Marin Transit experienced strong systemwide ridership in October 2024. Total ridership was 12% higher than the previous year (October 2023) and 4% higher than pre-COVID (October 2019).

Fixed route ridership continued to be strong this month, with ridership being 12% higher than the previous year (October 2023) and 9% higher than pre-COVID (October 2019).

Marin Access ridership had plateaued at just below half of pre-pandemic ridership starting in September 2022. January 2024 was the first month since then where Marin Access ridership exceeded the prior year. This month, October 2024, continued that trend, with Marin Access ridership increasing by 30% relative to the prior year (October 2023). Staff believe that this trend of increasing ridership is due to the Marin Access service changes implemented last year, in July 2023, and are optimistic it will continue to have a positive effect on ridership going forward.

Additional detailed analyses of system performance and trends are provided in separate quarterly and annual reports, including route-level statistics and financials. These reports are available on the District's website at <https://marintransit.org/service-performance-and-reports>.

### **Fiscal/Staffing Impact**

None.





Respectfully Submitted,

*Nancy E. Whelan*

Nancy Whelan  
General Manager

**Attachment A:** Monthly Ridership Report and Customer Comments



Month: October 2024		Program							Total
Category	Fixed-Route Local	Fixed-Route Shuttle	Stagecoach & Muir Woods	Supplemental & Yellow Bus	Demand Response	Mobility Management	Systemwide		
<b>Commendation</b>	1	0	0	0	6	0	3	10	
<b>Service Delivery Complaint</b>	44	9	6	1	2	1	0	63	
Accessibility	2	0	0	0	1	0	0	3	
Driver Conduct Complaint	10	0	2	1	1	0	0	14	
Driving Complaint	10	3	0	0	0	0	0	13	
Early Trip	3	1	0	0	0	0	0	4	
Equipment Issue	1	0	0	0	0	0	0	1	
Farebox	0	0	0	0	0	0	0	0	
Late Trip	5	1	1	0	0	0	0	7	
Missed Connection	2	0	0	0	0	0	0	2	
Missed Trip	0	1	0	0	0	1	0	2	
No-Show	2	0	0	0	0	0	0	2	
Off-Route	0	0	0	0	0	0	0	0	
Pass-Up Complaint	9	3	3	0	0	0	0	15	
<b>Service Structure Complaint</b>	8	0	0	0	2	1	0	11	
Bus Stop Improvement Request	0	0	0	0	0	0	0	0	
Fares	0	0	0	0	0	0	0	0	
Other Complaint	1	0	0	0	0	0	0	1	
Scheduling Complaint	0	0	0	0	2	1	0	3	
Service Improvement Suggestion	7	0	0	0	0	0	0	7	
<b>Safety Complaint</b>	0	0	0	0	0	0	0	0	
<b>Total Service Hours</b>	10,545	3,564	1,361	275	2,530	0	18,276	18,276	
Commendations per 1,000 Hours	0.1	0.0	0.0	0.0	2.4	-	0.2	0.5	
Complaints per 1,000 Hours	4.9	2.5	4.4	3.6	1.6	-	0.0	4.0	
<b>Total Passengers</b>	230,627	41,344	10,607	6,426	4,798	2,707	312,926	312,926	
Commendations per 1,000 Passenger	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	
Complaints per 1,000 Passengers	0.2	0.2	0.6	0.2	0.8	0.7	0.0	0.2	

# Attachment A

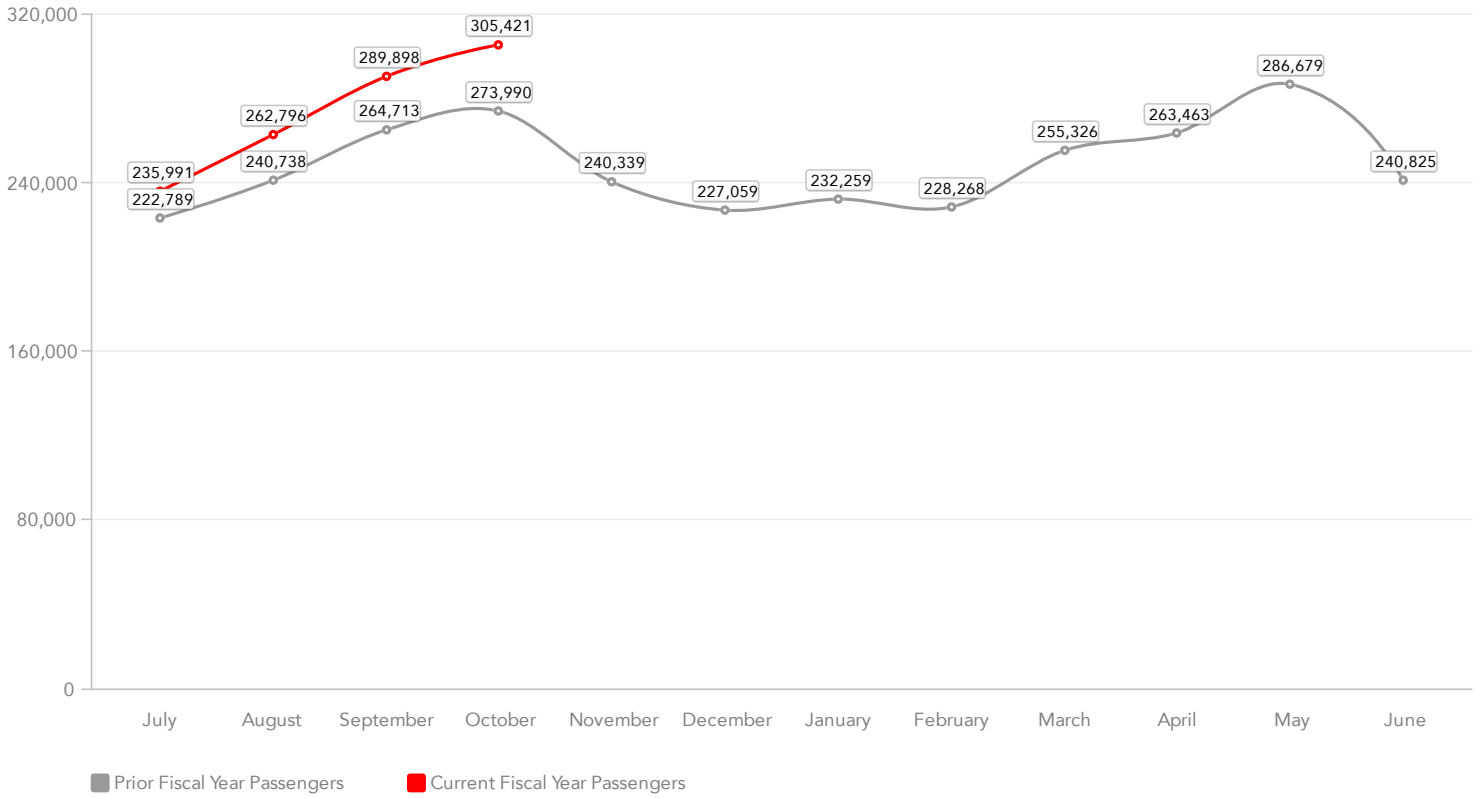
## Monthly Monitoring Report

12/18/2024

FISCAL YEAR: 2025  
 MONTH: All

### Year-to-Date Ridership Trends

Fixed-Route Passengers (incl. Yellow Bus & MWS) by Month



Demand Response Passengers by Month

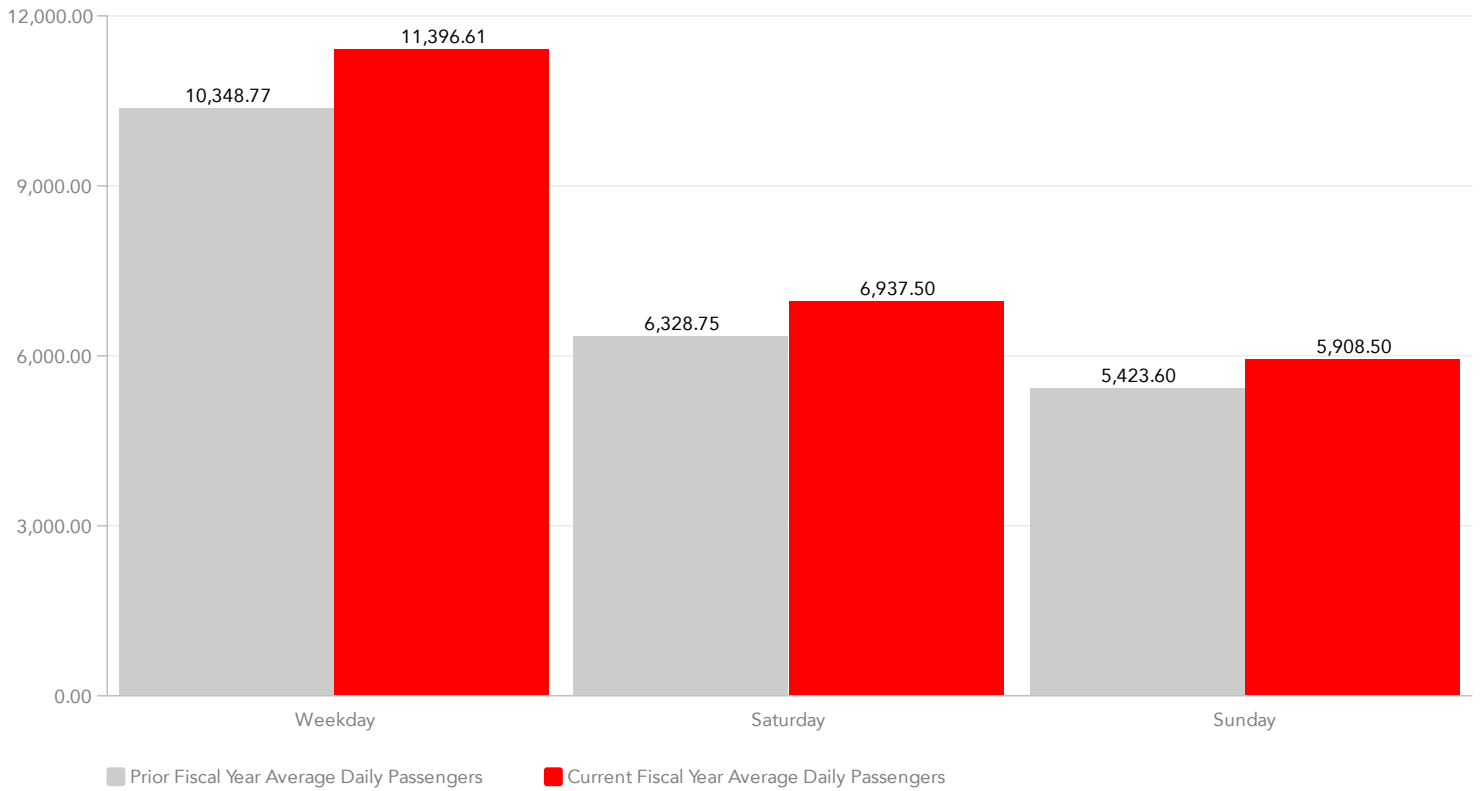


## Monthly Comparison

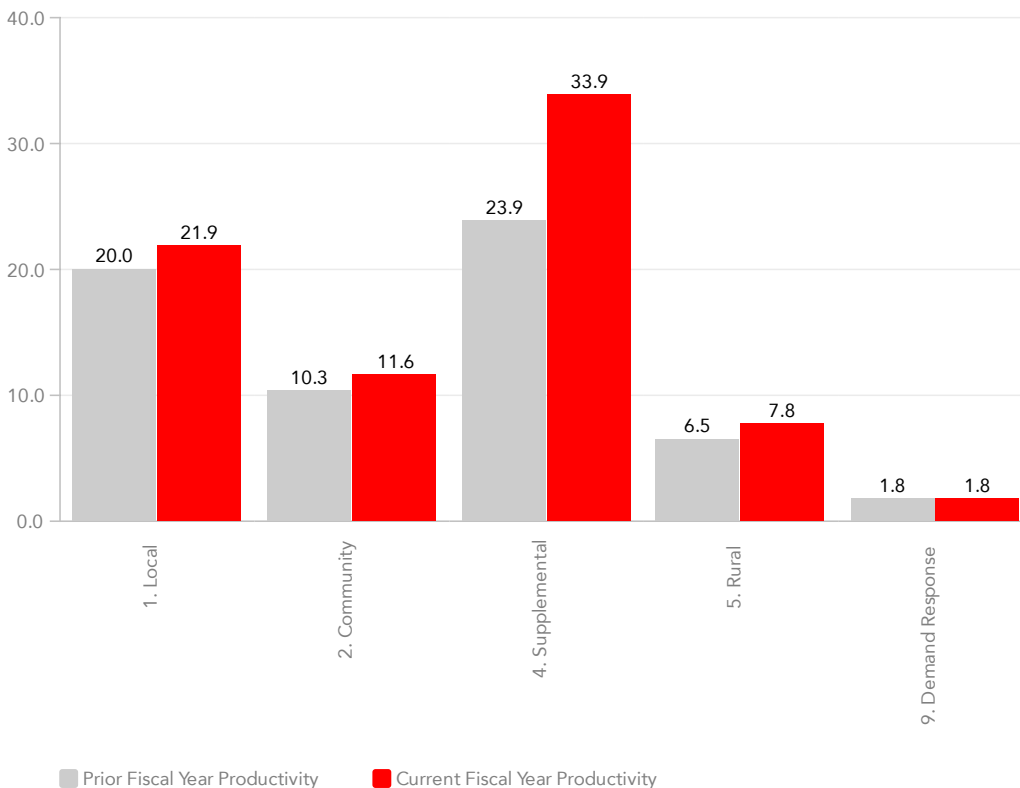
MONTH

Oct

Average Systemwide Daily Passengers



Productivity (pax/hr) by Typology



### Route Typologies

- 1. Local:  
Routes 17, 22, 23, 35, 36, 49, 71
- 2. Community:  
Routes 219, 228, 29, 233, 245, 57
- 4. Supplemental  
Routes 613, 619, 625, 654
- 5. Rural:  
Routes 61, 68
- 9. Demand Response:  
Local Paratransit, Marin Access Shuttles

## **REGULAR MEETING OF THE MARIN COUNTY TRANSIT DISTRICT BOARD OF DIRECTORS**

**Held Monday, December 2, 2024 at 9:30 A.M.**

### **Roll Call**

**Present: President Colbert, Vice President Lucan, Second Vice President Sackett, Director Rice, Director Moulton-Peters, Director Rodoni, Director Casissa**

**Absent: Director Bushey**

**Director Casissa was in attendance as a voting member.**

**Board President Colbert opened the meeting at 9:31 A.M.**

1. [Consider approval of Directors request to participate remotely and utilize Just Cause or Emergency Circumstance per AB 2449](#)

There were no requests for remote participation by any Directors.

2. [Open Time for Public Expression](#)

President Colbert asked if any member of the public wished to speak. Seeing none, he called for Board of Director's Matters.

3. [Board of Directors' Matters](#)

President Colbert recited a resolution staff had prepared to honor Director Rice's last Board meeting.

General Manager Nancy Whelan commended Director Rice for her service on the Board.

Director Rice expressed appreciation for the Board and staff.

4. [General Manager's Report](#)
  - a. [General Manager's Oral Report](#)
  - b. [Monthly Monitoring Report: September 2024](#)
    - i. [Item 4b – Staff Report](#)

General Manager Nancy Whelan introduced Facility Development Project Manager Paul Haifley. Ms. Whelan summarized staff's efforts related to the celebration of the District's 60<sup>th</sup> anniversary. Ms. Whelan reported on fixed route and demand response ridership from September 2024.

5. [Consent Calendar](#)
  - a. [Minutes for November 12, 2024 Board Meeting](#)
  - b. [Minutes for October 24, 2024 Special Board Meeting](#)
  - c. [Marin County Transit District First Quarter FY 2024/25 Financial Report](#)
  - d. [Marin Transit Quarterly Performance Report for the First Quarter of FY 2024/25](#)
  - e. [Consideration of Compensation Increase for General Manager](#)
  - f. [Annual School Transportation Services Report](#)

Director Rice commended agenda item 5f.

**Recommended Action: Approve.**

M/s: Director Rice – Director Moulton-Peters

Ayes: President Colbert, Vice President Lucan, Second Vice President Sackett, Director Rice, Director Moulton-Peters, Director Rodoni, Director Casissa

Noes: None

Absent: Director Bushey

Abstain: None

6. [Marin Transit Annual Comprehensive Financial Report for Fiscal Year 2023/24](#)

[Staff Report](#)

Accounting Manager Karina Sawin thanked staff for their work on the audit. Ms. Sawin noted the report included a Federal single audit, and she explained the goal of the audit. Ms. Sawin reported that Maze & Associates Accounting Corporation conducted the audit and presented a clean or unmodified opinion, meaning they found no material weaknesses or deficiencies. Ms. Sawin listed key takeaways from the audit.

Vice President Lucan reported that he served on the Audit Ad Hoc Committee, and commended staff for their work on the audit.

Director Moulton-Peters expressed appreciation for the report.

President Colbert thanked staff for their work on the audit.

**Recommended Action: Accept report.**

M/s: Director Moulton-Peters – Vice President Lucan

Ayes: President Colbert, Vice President Lucan, Second Vice President Sackett, Director Rice, Director Moulton-Peters, Director Rodoni, Director Casissa

Noes: None

Absent: Director Bushey

Abstain: None

7. [Contract with Ghilotti Bros., Inc. for the Construction of Bus Parking Lot and Solar Canopy at 3010/3020 Kerner Blvd](#)

[Staff Report](#)

Capital Projects Manager Anna Penoyar reported on the history of the District's property development at 3000 Kerner Boulevard, 3010 Kerner Boulevard, and 3020 Kerner Boulevard. Ms. Penoyar explained the purpose and provided an overview of the bus parking lot and solar canopy projects at 3010 Kerner Boulevard and 3020 Kerner Boulevard. Ms. Penoyar identified the challenges staff have faced so far. She summarized the contractor procurement process. She reported that three bids were received, and one unsealed bid was received. The unsealed bid was determined to be unresponsive, and staff received a bid protest from the submitter. After staff investigated and upheld their decision, the submitter submitted an appeal to the Federal Transit Administration (FTA). Ms. Penoyar reviewed the bid that staff chose to move forward with, which was submitted by Ghilotti Bros., Inc. Ms. Penoyar explained the fiscal impact and timeline of the project.

Vice President Lucan asked what the FTA's appeal process would entail.

General Manager Nancy Whelan outlined what staff expected from the appeal process.

Vice President Lucan asked if there was a set timeframe for the appeal process.

Ms. Whelan responded that while there was no set timeframe, the FTA has historically been responsive, and staff will follow up with the FTA to check on the status.

Vice President Lucan expressed support for the agenda item's recommended action.

**Recommended Action: Authorize General Manager to execute a contract with Ghilotti Bros., Inc. for an amount not to exceed \$3,674,402 and approve Budget Amendment 2025-03, pending the Federal Transit Administration (FTA) response to a bid protest appeal filed by Bauman Landscape & Construction.**

M/s: Director Rice – Second Vice President Sackett

Ayes: President Colbert, Vice President Lucan, Second Vice President Sackett, Director Rice, Director Moulton-Peters, Director Rodoni, Director Casissa

Noes: None

Absent: Director Bushey

Abstain: None

**Adjourn** President Colbert adjourned the meeting at 10:02 A.M.

SINE DIE

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PRESIDENT

ATTEST:

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CLERK





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**Board of Directors**

**Brian Colbert**

President  
Town of San Anselmo

**Eric Lucan**

Vice President  
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Town of Corte Madera

January 13, 2024

Honorable Board of Directors  
Marin County Transit District  
3501 Civic Center Drive  
San Rafael, CA 94903

**Subject: Federal Legislative Report**

Dear Board Members:

Marin Transit contracts for federal advocacy services with Carpi & Clay. Carpi & Clay provide a monthly Federal Update and an annual report as a part of their services. The attached monthly report for December 2024 provides an overview of federal transportation activity including the passage of another short term continuing resolution, the committee leaders for the 119<sup>th</sup> Congress, federal grant opportunities, and regulatory announcements.

The 2024 Federal Transportation Infrastructure Review (attached) re-caps the major federal transportation infrastructure activities for the year, with a focus on Notices of Funding Opportunities (NOFOs) resulting from the 2021 passage of the Infrastructure Investment and Jobs Act (IIJA) and 2022 passage of the Inflation Reduction Act (IRA).

Respectfully Submitted,

Nancy Whelan  
General Manager

**Attachment A:** Federal Update December 2024

**Attachment B:** 2024 Federal Transportation Infrastructure Review

## Congress Passes Another Short-Term Continuing Resolution

On December 20<sup>th</sup>, Congress passed another short-term [Continuing Resolution](#) (CR) that will allow the federal government to remain open and funded until March 14, 2025. The House passed the bill by a vote of 366-34, and the Senate passed the bill by a vote of 85-11. In addition to extending government funding, the CR also included the following provisions:

- \$100 billion in disaster supplemental funding, including:
  - \$31 billion in funding for economic assistance to agriculture producers
  - \$29 billion to replenish the Federal Emergency Management’s Disaster Relief Fund and support response, recovery, and mitigation programs
  - \$12 billion for the Community Development Block Grant Disaster Recovery program administered by the Department of Housing and Urban Development (HUD)
  - \$8.1 billion for the Federal Highway Administration (FHWA) Emergency Relief Program
- \$10 billion for economic aid to farmers
- Extends the 2018 Farm Bill through September 30, 2025
- Extends both the Temporary Assistance for Needy Families program and the National Flood Insurance Program through March 14
- Extends flexibilities to allow for telehealth for Medicare through March 31
- \$1.1 billion for the Community Health Center Fund
- Extends increased Medicare payments to low-volume hospitals until March 31
- Extends the Medicare-dependent hospital program until March 31

## EDA Reauthorized by Congress

WRDA 2024 [included](#) the Economic Development Reauthorization Act of 2024 as one of its titles, reauthorizing the Economic Development Administration (EDA) for the first time since 2004. The agency is under the Department of Commerce and provides grants and technical assistance for economic development and workforce training programs in economically disadvantaged communities. Among other provisions, the legislation designates recreation as a priority for EDA funding to improve access to public lands, develop recreation infrastructure, and assist communities depending on the outdoor recreation economy.

## Congressional Leaders Set 2025 Schedule

House Majority Leader Steve Scalise (R-LA) and incoming Senate Majority Leader John Thune (R-WY) announced the schedule of in-session days in 2025 for their respective chambers. A combined version of the calendar is available [HERE](#).

## 119<sup>th</sup> Congress House Committee Leaders

House Republicans and Democrats announced leaders for committees in the 119<sup>th</sup> Congress. The chart below lists the Chair and Ranking Member for each committee in the House, with italics indicating a new chair or ranking member. The Speaker of the House appoints leaders and members of the Ethics, House Administration, and Rules Committees following their election in the House on January 3<sup>rd</sup>.

House Committee	119 <sup>th</sup> Congress Chair	119 <sup>th</sup> Congress Ranking Member
Agriculture	Glenn Thompson (R-PA)	Angie Craig (D-MN)
Appropriations	Tom Cole (R-OK)	Rosa DeLauro (D-CT)
Armed Services	Mike Rogers (R-AL)	Adam Smith (D-WA)
Budget	Jodey Arrington (R-TX)	Brendan Boyle (D-PA)
Education & the Workforce	Tim Walberg (R-MI)	Bobby Scott (D-VA)
Ethics	TBD	TBD
Energy & Commerce	Brett Guthrie (R-KY)	Frank Pallone (D-NJ)
Financial Services	French Hill (R-AR)	Maxine Waters (D-CA)
Foreign Affairs	Brian Mast (R-FL)	Gregory Meeks (D-NY)
Homeland Security	Mark Green (R-TN)	Bennie Thompson (D-MS)
House Administration	TBD	TBD
Judiciary	Jim Jordan (R-OH)	Jamie Raskin (D-MD)
Natural Resources	Bruce Westerman (R-AR)	Jared Huffman (D-CA)
Oversight and Accountability	James Comer (R-KY)	Gerry Connolly (D-VA)
Permanent Select Intelligence	Mike Turner (R-OH)	Jim Himes (D-CT)
Rules	TBD	TBD
Science, Space, & Technology	Brian Babin (R-TX)	Zoe Lofgren (D-CA)
Small Business	Roger Williams (R-TX)	Nydia Velazquez (D-NY)
Transportation & Infrastructure	Sam Graves (R-MO)	Rick Larsen (D-WA)
Veterans' Affairs	Mike Bost (R-IL)	Mark Takano (D-CA)
Ways & Means	Jason Smith (R-MO)	Richard Neal (D-MA)

## 119<sup>th</sup> Congress Senate Committee Leaders

Incoming Senate Majority Leader John Thune (R-SD) announced committee leaders in the 119<sup>th</sup> Congress. The chart below lists the chair for each committee in the Senate. Democrats have not yet announced Ranking Members for committees.

Senate Committee	119 <sup>th</sup> Congress Chair
Aging	Rick Scott (R-FL)

Agriculture	John Boozman (R-AR)
Appropriations	Susan Collins (R-MN)
Armed Services	Roger Wicker (R-MS)
Banking	Tim Scott (R-SC)
Budget	Lindsey Graham (R-SC)
Commerce, Science, and Transportation	Ted Cruz (R-TX)
Energy and Natural Resources	Mike Lee (R-UT)
Environment and Public Works	Shelley Moore Capito (R-WV)
Ethics	James Lankford (R-KY)
Finance	Mike Crapo (R-ID)
Foreign Relations	Jim Risch (ID)
Health, Education, Labor, and Pensions	Bill Cassidy (R-LA)
Homeland Security and Governmental Affairs	Rand Paul (R-KY)
Judiciary	Chuck Grassley (R-IA)
Indian Affairs	Lisa Murkowski (R-AK)
Intelligence	Tom Cotton (R-AR)
Rules	Mitch McConnell (R-KY)
Small Business	Joni Ernst (R-IA)
Veterans Affairs	Jerry Moran (R-KS)

## President Biden Signs Grant Transparency Act into Law

On December 11<sup>th</sup>, President Biden signed the Grant Transparency Act of 2021 (P.L. 118-140) into law. The bipartisan legislation stipulates that each notice of funding opportunity (NOFO) include a description of any rating system, evaluation, and selection criteria used by a federal agency to assess grant applications, a statement regarding the use of any weighted scoring methods, and information on any other qualitative or quantitative method an agency uses to evaluate grant applications.

## CONGRESSIONAL ACTIVITY

Rep. Huffman Releases Offshore Wind Revenue Sharing Discussion Draft. Representative Jared Huffman (D-CA), released a [discussion draft](#) of a bill titled the Resilience, Equity, and Sustainability Through Offshore Renewable Energy (RESTORE) Act. The Treasury currently collects all revenue from offshore wind activity. The bill would allow Treasury to collect half of the revenue generated by offshore wind production but require the remaining 50% to be distributed for coastal restoration and climate resilience. Of the 50% collected, the discussion draft would require 25% of funding to be administered through the National Oceanic and Atmospheric Administration's (NOAA) National Ocean and Coastal Security Fund, 15% of the funding would be directed toward Native American communities, 5% for the Land and Water Conservation Fund, and 5% for research on the sustainability of offshore wind. The legislation would also create a "Coastal Conservation and Community Resilience Fund" administered by NOAA. The discussion draft

contains provisions similar to an already-introduced Senate measure titled the Reinvesting In Shoreline Economies and Ecosystems (RISEE) Act. ([S. 373](#)).

## FEDERAL FUNDING OPPORTUNITIES

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Build America Bureau Releases \$27 Million Rural and Tribal Assistance NOFO. DOT's Build America Bureau released a \$27 million [NOFO](#) through the Rural and Tribal Assistance Pilot Program. The grant will support technical assistance for rural and tribal communities in planning and designing transportation projects. There is no matching requirement for applicants to participate. DOT is hosting a webinar on the grant on January 14<sup>th</sup> at 3:00 pm EST with [registration required](#) to attend.

FTA Publishes T2 Program NOFO. The Federal Transit Agency (FTA) published a [NOFO](#) for the availability of \$5 million through the Technology Transfer (T2) program. The program will help to fund a cooperative agreement to promote the deployment of successful transit innovation research findings. The overarching goal of this program is to highlight promising innovation research projects that will improve public transportation and enable transit agencies to implement these results in their operations. The NOFO will also help commercialize innovations in public transportation. Applications are due by February 11<sup>th</sup>.

NOAA Releases \$100 Million Habitat Restoration and Coastal Resilience NOFO. NOAA released a \$100 million [NOFO](#) through the Transformational Habitat Restoration and Coastal Resilience Grants program. Funding will support projects that restore marine, estuarine, coastal, and Great Lakes ecosystems through activities like enhancing coastal wetlands and rebuilding coral reefs. Applications are due by April 16<sup>th</sup>.

## GRANT AWARD ANNOUNCEMENTS

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DOL Announces \$99.3 Million for YouthBuild Program. The Department of Labor (DOL) [announced](#) \$99.3 million in grants to 71 organizations in 31 states through the YouthBuild Program. Funding will support pre-apprenticeships for individuals aged 16-24 who are neither enrolled in school nor in the labor market for construction jobs and other high-demand industries. Projects selected will also provide education and training for rehabilitating affordable housing in underserved communities.

EPA Awards \$1.275 Billion through Community Change Grants Program. The Environmental Protection Agency (EPA) [announced](#) \$1.275 billion in grants for 84 projects through the Community Change Grants Program. The funding will support disadvantaged community efforts to reduce and prevent air, water, and soil pollution, build resilient infrastructure, and provide workforce development opportunities.

EPA Announces Clean Heavy-Duty Vehicle Grant Program Tentative Selections. EPA [announced](#) over \$735 million to 70 applications through its first-ever Clean Heavy-Duty Vehicles



Grant program. Proposed replacement vehicles include battery-electric box trucks, cargo trucks, emergency vehicles, refuse/recycling haulers, school buses, shuttle buses, step vans, transit buses, utility vehicles, other vocational vehicles, and several hydrogen fuel cell transit buses.

EPA Announces \$7.7 Million through Brownfields Job Training Program. EPA [announced](#) \$7.7 million in grants for 16 organizations through the Brownfields Job Training Program. The funding will support recruitment, training, and job placement for community revitalization and cleanup at brownfield sites. Programs funded in this round include certifications in lead and asbestos abatement, mold remediation, environmental sampling and analysis, and environmental health and safety training.

FHWA Announces Wildlife Crossings Pilot Program Grant Awards. FHWA [announced](#) \$125 million to 16 wildlife crossings projects in 16 states and one Native Tribe. The grants will help fund projects that improve safety for motorists and wildlife by reducing vehicle collisions with wildlife while also improving habitat connectivity and supporting the survival of threatened or endangered species. The funding also supports studies and projects that construct wildlife crossings over and below busy roads, add fencing to direct animals to the crossings, and monitor performance of crossing systems.

FHWA Announces Highway Construction Training Program Grant Awards. FHWA [announced](#) \$4.2 million to 16 programs to recruit, train, and place highway construction jobs. The new programs will include training for heavy-duty equipment operators, scholarships for pre-apprenticeship and apprenticeship programs, and programs to obtain a commercial driver's license.

## FEDERAL AGENCY REGULATORY ACTIONS

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DOT Publishes Public Interest Waiver of the Application of Certain Domestic Preference Requirements and Policies for Transit-Oriented Development Housing Projects. DOT is [proposing](#) a waiver of the domestic preference requirements to transit-oriented development (TOD) projects that receive credit assistance through BAB under the Transportation Infrastructure Finance and Innovation Act (TIFIA) and the Railroad Rehabilitation and Improvement Financing (RRIF) credit programs.

DOT Publishes Interim Guidelines on Federal Flood Risk Management Standard. DOT published [interim guidelines](#) on the Federal Flood Risk Management Standard (FFRMS) which aims to enhance the resilience of communities and Federal assets against flooding caused by extreme events and climate change. To support this effort, DOT has created the FFRMS Interim Guidelines. These guidelines clarify the specific actions DOT is taking to integrate the FFRMS into its policies, programs, and operations, ensuring consistent implementation across the Department. Comments are due by February 18<sup>th</sup>.

FHWA, FTA, and FRA Publishes Efficient Environmental Reviews for Project Decision-making and One Federal Decision Interim Guidance. FHWA, FTA, and the Federal Railroad Administration (FRA) published [interim final guidance](#) that explains the environmental review process and best management practices for the surface transportation projects to which the Section 139 environmental review process applies. This Interim Final Guidance supersedes and replaces the SAFETEA-LU Environmental Review Process Final Guidance, jointly issued by FHWA and FTA in 2006. This Interim Final Guidance reflects statutory amendments to the Section 139 environmental review process and includes information on the FRA and railroad projects. The interim final guidance is effective on December 17<sup>th</sup>. Comments are due by February 18<sup>th</sup>.

FTA Publishes Buy America Waiver for Battery Electric Minibuses. FTA is proposing a [general non-availability waiver](#) of limited duration for vehicles in this class that meet certain criteria. FTA seeks public and industry comment on whether FTA should grant the waiver or a modified version of the waiver. Comments are due by January 6<sup>th</sup>.

## FEDERAL AGENCY ANNOUNCEMENTS AND PERSONNEL CHANGES

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Argonne National Laboratory Publishes Facts About EVs. The Argonne National Laboratory published a [Facts About Electric Vehicles webpage](#) where individuals can learn more about EV owner satisfaction, fuel savings, grid benefits, and additional topics.

DOE Announces Transportation Modal Action Plans. The Department of Energy (DOE), in collaboration with federal agencies and industry stakeholders, published transportation modal action plans that outline strategies to enhance the freight and transportation sectors and present opportunities to reduce emissions.

- [An Action Plan for Rail Energy and Emissions Innovation](#)
- [Convenient Transportation: An Action Plan for Energy and Emissions Innovation](#)
- [Efficient Transportation: An Action Plan for Energy and Emissions Innovation](#)
- [United States Aviation Climate Action Plan](#)

DOT Publishes Transportation Community Explorer Tool and Index Methodology RFI. DOT published an [RFI](#) soliciting feedback on DOT's updated Transportation Community Explorer (TC Explorer) Tool and Index methodology developed to assist communities in their project selection process and grant development. Comments are due by December 16<sup>th</sup>.

DOT Publishes Learning Agenda FY 2024 – 2026. DOT published the [Learning Agenda: FY 2024 – 2026](#) which identifies priority evidence-building needs relevant to DOT programs, policies, and regulations and creates an action plan to address them. The updated document adds 17 new topic areas, each with a collection of priority questions that identify some of the Department's most important emerging evidence-building needs in alignment with five of the previous DOT strategic plan's strategic goals. The new topic areas include distracted driving, railroad grade

crossing safety, aviation surface safety, supply chain disruption, transportation cost burden, safe disposal and transportation of batteries, and EV adoption.

DOT Publishes National Blueprint for Transportation Decarbonization. DOT published the [USDOT Climate Strategies that Work Playbook](#), which is a resource to help guide cities, regions, industry leaders, philanthropic strategists, and transportation professionals in implementing effective strategies for reducing transportation sector greenhouse gas (GHG) emissions.

DOT Publishes Report Detailing Progress in Rebuilding Bridges. DOT [published](#) a report detailing the reconstruction of 18 of America's most economically significant bridges, surpassing the initial goal of repairing ten major bridges under the Bipartisan Infrastructure Law. These projects, each receiving grants of \$100 million or more, aim to enhance safety, reduce congestion, and strengthen supply chains, collectively impacting over 1.2 million vehicles daily and supporting the nation's economic competitiveness.

DOT IG Publishes Report on DOT's Need to Increase Adherence to Cybersecurity Policies to Protect FHWA's IT Infrastructure. DOT IG has published a report titled [FHWA: DOT Needs to Increase Adherence to Cybersecurity Policies to Protect FHWA's IT Infrastructure From the Risk of Further Compromise](#). The report highlights significant weaknesses in FHWA's management of its IT infrastructure. It reveals that FHWA did not implement sufficient controls to secure its IT systems and ensure their compliance with federal requirements. Specifically, FHWA lacked proper oversight of contractor-operated systems, leading to insufficient risk assessments and inadequate system security monitoring. Additionally, FHWA's processes for identifying and responding to potential security incidents were deficient, leaving its IT infrastructure vulnerable to cyber threats. These shortcomings increase the risk of unauthorized access and data breaches within FHWA's systems. The report makes eight recommendations to help improve FHWA's IT infrastructure.

FHWA Publishes NEVI Build Out Certification Guidance. FHWA [published a memorandum](#) on Build-Out Certification outlines the criteria and procedures for states to certify the completion of electric vehicle charging infrastructure along designated Alternative Fuel Corridors, a prerequisite for utilizing National Electric Vehicle Infrastructure (NEVI) Formula Program funds beyond these corridors. The document details the certification process, including necessary documentation and evaluation metrics, to ensure a comprehensive and reliable EV charging network nationwide.

FHWA Publishes NEVI Formula Program Q&A. FHWA published an [updated questions & answers](#) (Q&A) clarifying that the existing NEVI guidance has always allowed for flexibility in charging standards—including use of other connectors, such as J3400—so long as there is a Combined Charging System (CCS) connector. The updates do not represent a change to existing NEVI minimum standards.

GAO Publishes Report on the Bridge Investment Program. The Government Accountability Office (GAO) has released a report titled [Bridge Investment Program: DOT Should Refine Processes to Improve Consistency](#) that evaluates the Bridge Investment Program, a grant



program aimed at addressing the nation's aging bridge infrastructure. The report highlights the program's progress in supporting the repair and replacement of structurally deficient and economically significant bridges, while also identifying areas for improvement in funding allocation, project selection, and performance metrics. Recommendations include enhancing transparency in project prioritization and developing more robust data collection methods to ensure accountability and maximize program impact. The report provides valuable insights for policymakers and stakeholders working to improve the safety and resilience of U.S. bridges.

## ## ##



## 2024 FEDERAL TRANSPORTATION INFRASTRUCTURE REVIEW

This report, prepared for Marin County Transit District, provides an overview of the major federal transportation infrastructure activities from January 1, 2024 to December 31, 2024.

As it did in 2023, the U.S. Department of Transportation (DOT) continued to place a heavy emphasis on implementing new policy programs and issuing numerous Notices of Funding Opportunities (NOFOs) resulting from the 2021 passage of the Infrastructure Investment and Jobs Act (IIJA) and 2022 passage of the Inflation Reduction Act (IRA). To mark the third anniversary of the IIJA being signed into law in November, the White House released a [fact sheet](#) touting the \$568 billion dollars in grants that have been awarded to 66,000 projects in all 50 states.

### January

- DOT released the [NOFO Timetable for 2024](#) that outlined the timeframes when key NOFOs were made available for application.
- DOT released a 2021-2023 Progress Report updating the public on the Biden Administration's efforts to improve the nation's transportation infrastructure including implementation of the BIL. The report is [HERE](#).
- DOT and the Department of Energy jointly announced the award of 47 EV charging and alternative-fueling infrastructure projects in 22 states. The awards are from the Charging and Fueling Infrastructure Grant program and can be found [HERE](#).
- DOT updated its Rural Grant Applicant Toolkit for Competitive Federal Transportation Funding. The updated Toolkit is [HERE](#).
- The House Transportation & Infrastructure Committee held a hearing on '*The State of Transportation*'. The hearing can be viewed [HERE](#).
- The House Railroads, Pipelines, and Hazardous Waste Subcommittee held a hearing on '*Oversight and Examination of Railroad Crossing Elimination and Safety*'. The hearing can be viewed [HERE](#).
- FHWA announced \$729.4 million in [Emergency Relief Program funding](#) due to major disaster declarations.
- DOT announced the approval of \$2.5 billion in private activity bonds authority for the [Brightline West High-Speed Intercity Passenger Rail](#) project connecting Southern California with Las Vegas. This \$2.5 billion is in addition to the \$1 billion in private

activity bond authority it granted to the project in 2020 and the \$3 billion grant in 2022 from the Federal-State Partnership for Intercity Passenger Rail grant program.

- DOT announced the award of more than \$4.9 billion to 37 projects through the INFRA and Mega grant programs. The Mega awarded projects are [HERE](#) and the INFRA awarded projects are [HERE](#).
- DOT published a [Project Readiness Checklist](#) for DOT discretionary grant applications. The list was created to help project sponsors and grant applicants develop projects that are well positioned to receive federal funding.
- The Joint Office of Energy and Transportation announced \$46.5 million in Ride and Drive Electric [grant awards](#) to 30 projects in 16 states to help fund projects that assist with building a convenient and efficient EV infrastructure for drivers; accelerate resilient national EV charging network, among other purposes.
- The Federal Aviation Administration announced the award of \$250 million in IJJA funding to modernize airports in 37 states. Full list of grantees is [HERE](#).

## February

- FTA issued a [Dear Colleague letter](#) that consolidates FTA's existing guidance and highlights tools available to transit agencies to address trends and challenges in federally funded bus procurements, including information about managing component prices, modifying contracts, lowering vehicle contract and production costs, and reducing unnecessary customization.
- FTA published the [NOFO](#) for the Low or No Emission grant program and the Bus and Bus Facilities grant program. The NOFO makes available \$1.1 billion available under the Low or No program and \$390M for the Bus/Bus Facilities program. Applications were due April 25.
- The Senate Commerce Committee approved its FAA reauthorization bill (S.1939). A summary of the bill provided by the Committee is [HERE](#).
- FTA Administrator Nuria Fernandez announced her retirement effective February 24. Deputy Administrator Victoria Vanterpool is serving as Acting Administrator.
- The White House hosted a [roundtable](#) on Clean Bus Manufacturing with FTA and the American Public Transportation Association industry representatives participated in the discussion to address manufacturing capacity for clean transit buses.
- DOT published the 2023 update of the DOT [Equity Action Plan](#) that is part of the Department's implementation of [Executive Order 14091](#) – "Further Advancing Racial Equity and Support for Underserved Communities Through the Federal Government".
- FAA announced the award of \$970 million from the Airport Terminal Program. More information about the awards and the Airport Terminal Program is [HERE](#).
- FTA announced it awarded \$631 million to three projects in three states to replace aging passenger rail cars. The funding came from the [Rail Vehicle Replacement Program](#) created to improve safety, service and customer experience on subways, commuter rail and light rail systems.
- DOT published the FY24 [NOFO](#) for the Safe Streets and Roads for All grant program making \$1,256,687,000 available. Of this funding, up to \$580 million is available to

implement projects and strategies and the remainder (\$656,687,000) will be awarded for developing Action Plans; conducting supplemental planning to update existing Action Plans; or carrying out demonstration activities to inform the development of, or updates to, Action Plans. Depending on the grant type there were different application deadlines: for Planning and Demonstration Grants, the deadlines were April 4, May 16, and August 29. For Implementation grants, the deadline was May 16.

- The FHWA published a [NOFO](#) for its [Congestion Relief Program](#) that will result in the distribution of up to \$150 million in funds to advance innovative, integrated, and multimodal solutions to congestion relief in metropolitan areas with a population of greater than one million. Applications were due April 22.
- FHWA published a [NOFO](#) for the availability of \$10 million through its [Prioritization Process Pilot Program](#) for MPOs with a population over 200,000 and states to help fund data-driven approaches to planning that, upon completion, can be evaluated for public benefit. Applications were due by May 1.

### March

- USDOT published a \$57 million [NOFO](#) for its Innovative Finance and Asset Concession Grant program. This program is intended to fund state and local government technical, financial and legal advisory service costs for alternative project delivery. Grant awards will be capped at \$2 million and applications were due by May 10.
- DOT announced the award of \$3.3 billion in Reconnecting Community grants. The full list of awardees can be found [HERE](#).
- House Transportation Committee held a hearing titled '*Department of Transportation Discretionary Grants: Stakeholder Perspectives.*' The hearing can be viewed [HERE](#).
- DOT published a \$500 million [NOFO](#) the Port Infrastructure Development Program. Deadline for applications was May 10.
- DOT announced that it awarded \$50 million in [Strengthening Mobility and Revolutionizing Transportation \(SMART\)](#) grants. The full list of grant awards is [HERE](#).
- FHWA published a \$44.5 million [NOFO](#) for its [Active Transportation Infrastructure Investment Program \(ATIIP\)](#). Grants will be available to help communities plan, design or construct safe and connected active transportation networks such as sidewalks, bikeways, and trails that connect destinations such as schools, workplaces, residences, businesses, recreation areas and medical facilities within a community or metropolitan region. Applications were due June 17.
- FAA announced the award of \$20 million to 20 airport-owned air traffic control towers in 17 states. The funding comes from the [Federal Contract Tower Competitive Grant Program](#).
- Congress approved [FY24 funding for the THUD appropriations bill](#). With a 26% or \$23 billion funding gap between the House and Senate THUD bills, the final numbers ended much closer to the Senate funding numbers.

- FAA announced [\\$110 million in Airport Infrastructure Grants](#) that included 74 grants to airports in 32 states to modernize airport and runway infrastructure, and improve airfield safety.
- The Biden Administration released its FY25 Budget. Highlights of the transportation budget prepared by USDOT is [HERE](#).
- The House Subcommittee on Highways and Transit held a hearing titled '*Rural Transportation Challenges: Stakeholder Perspectives*.' The hearing can be viewed [HERE](#).
- Another extension of FAA programs ([HR 7453](#)) was signed into law and extended current programs to May 10.
- DOT published a \$45 million [NOFO](#) for the Strategic Innovation for Revenue Collection Program. This program funds projects that test the feasibility of a road usage fee and other user-based alternative revenue mechanisms to maintain the long-term solvency of the Highway Trust Fund. Applications were due May 27.
- FRA published a \$2.48 billion [NOFO](#) for the Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program. Applications were due by May 28.
- DOT published a new [report](#) on 'Investing in America: Best Practices to Expand Access to Jobs and Economic Opportunity Through Transportation Infrastructure Investments'. The report includes detailed recommendations on how state and local transportation agencies can expand access to jobs and opportunities for several underrepresented groups.
- The FAA published a \$269 million [NOFO](#) for its [Office of Airports FY2023 Supplemental Discretionary Grants](#). This is a competitive program under project grant authority for the Airport Improvement Program where the objective is to assist airport owners and operators that are eligible to accept grants in the development and improvement of a nationwide airport system. Applications were due by May 2.
- FTA launched a [new website](#) to improve the transit community's understanding of the effects of fatigue in the workplace.
- The Joint Office of Energy and Transportation released the [National Zero-Emission Freight Corridor Strategy](#) that will guide the deployment of zero-emission medium and heavy duty vehicle charging and hydrogen fueling infrastructure from 2024 to 2040.
- DOT published a \$5 billion [NOFO](#) for the [Multimodal Project Discretionary Grant](#) or MPDG that consists of combined National Infrastructure Project Assistance Program ([Mega](#)); the Infrastructure for Rebuilding America Program ([INFRA](#)); and the Rural Surface Transportation Grant Program ([Rural](#)). The funding amounts for each program were as follows: Mega \$1.7 billion; INFRA \$2.7 billion; and Rural \$780 million. Applications were due by May 6.

## April

- FRA issued a [Final Rule](#) establishing minimum safety requirements for the size of train crews.
- FTA announced the [award](#) of \$17.6 million to 20 communities in 16 states to support equitable transit-oriented development under its [Pilot Program for Transit-Oriented Development Planning](#).

- FTA published a [Final Rule](#) in the first major update to the agency's [Public Safety Agency Safety Plan](#) regulation along with a newly [revised National Public Transportation Safety Plan](#).
- DOT announced the [award](#) of \$23.6 million to three national and six regional Thriving Communities Capacity Builders to support 112 communities.
- FTA published a \$316 million [NOFO](#) to support and modernize passenger ferry service across the country. Within this NOFO, \$51 million is available through the [Passenger Ferry Program](#); \$49 million is available through the [Electric or Low Emitting Ferry Program](#); and \$216 million is available through the [Ferry Service for Rural Communities Program](#). Applications for all the programs were due by June 17.
- FRA [released](#) its FY 2024 Corridor Identification and Development Project Pipeline Report to Congress that focused on long-term development of intercity passenger rail across the country.
- FTA [announced](#) the availability of a streaming tool that analyzes greenhouse gas emissions for transit projects called the Greenhouse Gas Emissions from Transit Projects: Programmatic Assessment.
- FTA relaunched its [Environmental and Sustainability Management System \(ESMS\) Program](#). This training and technical assistance program will help up to five transit agencies develop and implement an ESMS at their facilities. The program includes an on-site baseline environmental review, three virtual workshops, a virtual gap audit and on on-site final audit. [Applications](#) to the program were due May 22.
- FHWA [awarded \\$148 million](#) in grants to 11 states for the first round of a new \$400 million program to improve air quality and reduce pollution for truck drivers, port workers and families that live in communities surrounding ports. Of those awards, the Ports of Long Beach and Los Angeles will receive \$49.7 million to replace diesel and gas powered trucks and shuttle buses with zero-emission technologies, electric trucks and EV chargers.
- Secretary Buttigieg testified before the House THUD Appropriations Subcommittee to present and answer questions regarding the Administration's FY25 budget proposal for DOT. His written testimony is [HERE](#) and the hearing can be viewed [HERE](#).

## May

- Secretary Buttigieg testified before the Senate THUD Appropriations Subcommittee to present and answer questions regarding the Administration's FY25 budget proposal for DOT. His written testimony is [HERE](#) and the hearing can be viewed [HERE](#).
- FHWA announced a [Final Rule](#) to update the government-wide Uniform Relocation Assistance and Real Property Acquisition Policies Act which provides protections and assistance for people affected by federally-funded projects.
- House Transportation Committee Chairman Sam Graves (R-MO) and Highways and Transit Subcommittee Chairman Rick Crawford (R-AR) spearheaded a [letter](#) to FTA Acting Administrator Veronica Vanterpool with 12 Republican Members of the Committee highlighting their concerns about the recent spike in reports of violent crime and assaults on transit systems in cities across the country.

- DOT published a \$100 million [NOFO](#) for Stage 1 Planning and Prototyping grants under the Strengthening Mobility and Revolutionizing Transportation (SMART) Grant Program. Funding for this Stage 1 phase will go to projects that solve real-world transportation problems and build data and technology capacity for state, local and tribal governments. An additional NOFO for Stage 2 Implementation grants will be published later this Fall. Applications for Stage 1 were due by July 12.
- DOT announced the [award](#) of over \$63 million in grants to 99 communities under the Safe Streets and Roads for All grant program. This was the first of three rounds of awards that will be made in 2024.
- FRA announced a \$2 billion [NOFO](#) for the Federal-State Partnership for Intercity Passenger Rail program that funds projects along the Northeast Corridor. Applications were due by July 15.
- DOT published an [updated fact sheet](#) on progress made through the halfway point of the IJJA.
- Congress approved and President Biden signed ([PL 118-63](#)) the FAA Reauthorization Act of 2024. The legislation reauthorizes the FAA and aviation infrastructure and safety programs for five years.
- FTA published a \$10.5 million [NOFO](#) for its [Pilot Program for Transit-Oriented Development Planning](#). The funding is intended to support local planning and investment near transit hubs to promote sustainable, livable, and equitable communities. Applications were due by July 22.
- FTA announced that it had [awarded](#) \$343 million to eight transit systems under its [All Stations Accessibility Program](#). This funding will make it easier for people with disabilities and mobility needs to access some of the nation's oldest and busiest rail transit systems through essential upgrades.
- DOT's Advanced Research Projects Agency – Infrastructure (ARPA-I) is seeking input on the potential applications of artificial intelligence across all modes of transportation as well as emerging challenges and opportunities in creating and deploying AI technologies. The RFI is [HERE](#) and comments were due July 2.
- DOT announced \$1.7 million in research funding for a Climate Change and Transportation Research Center at the University of California, Davis. The new [Center for Emissions Reduction, Resiliency, and Climate Equity in Transportation](#) will support the [DOT Climate Change Center](#) as well as many related DOT climate and research programs. The Center is comprised of partner institutions, including California State University Long Beach, Texas Southern University, University of California Riverside, University of Southern California and the University of Vermont.
- FRA issued two final rules that will require railroads to develop certification and training programs for train dispatchers and signal employees. The rules build on FRA actions to increase rail safety and better protect rail workers and communities. The final rule on dispatcher certification is [HERE](#) and the final rule for signal employees is [HERE](#).
- FRA finalized three reports on the safety and performance of long trains and recently sent the reports to the National Academy of Sciences to inform an ongoing [NAS study](#)



mandated by Congress in the BIL to look at the impact of trains longer than 7,500 feet. These are the three FRA reports titled [Phase II](#), [Phase III](#) and [Phase IV](#).

- FHWA announced the appointment of Kristin White as the new FHWA Deputy Administrator. She has served as FHWA's Chief Counsel since July 2023.
- House T&I Chairman Sam Graves (R-MO) and Senate Commerce Ranking Member Ted Cruz (R-TX) sent a [letter](#) to DOT Secretary Buttigieg requesting that the Department turn over documents and information regarding the recent federal grant award of \$3 billion to the CA High Speed Rail project. The letter also requested that DOT schedule an in person briefing with Committee staff and turn over documents no later than June 12.
- FHWA published a \$1.3 billion [NOFO](#) for round 2 of the [Charging and Fueling Infrastructure \(CFI\)](#) discretionary grant program. Applications were due by August 28.
- The FAA announced that it awarded nearly \$187 million in [Airport Infrastructure grants](#) to airports across 34 states to make improvements such as terminal expansions and baggage system upgrades and runway safety enhancements. The list of grant awards is [HERE](#).

## June

- The Senate EPW Committee held a hearing titled '*Oversight and Budget of the Federal Highway Administration*'. FHWA Administrator Shailen Bhatt was the sole witness and his written testimony is [HERE](#). The full hearing can be viewed [HERE](#).
- The White House released a [Climate Capital Guidebook](#) to provide a simple one-stop-shop of capital programs across the federal government available to climate-related start-ups, small and medium-sized businesses and their investors.
- PolicyLink, in partnership with the Emerald Cities Collaborative and in consultation with state and local agencies and policymakers, developed a [Justice40 Implementation Guide for State and Local Governments](#).
- FTA [awarded](#) \$7.8 million to 17 projects in 15 states that will improve access to vital services for older adults, people with disabilities, and those in low-income communities. The funding was made available through FTA's [Innovative Coordinated Access and Mobility Grants](#).
- DOT [finalized the Rule](#) for Corporate Average Fuel Economy (CAFÉ) standards for SUVs and pickup trucks that will require automakers to meet an average of 45 miles per gallon by 2031. The final rule is mandating 7 mpg less than originally proposed.
- FTA [awarded](#) \$7.8 million to 17 projects in 15 states under its Innovative Coordinated Access & Mobility Pilot Program.
- FTA released a [Dear Colleague Letter](#) that provides advice and considerations for transit systems preparing to provide service during major high-profile events such as the upcoming 2026 World Cup and the 2028 Olympics.
- The House Railroads Subcommittee held a hearing titled '*Amtrak and Intercity Passenger Rail Oversight: Promoting Performance, Safety and Accountability*'. The hearing can be viewed [HERE](#).
- The House Highways & Transit Subcommittee held a hearing titled '*Revenue, Ridership and Post-Pandemic Lessons in Public Transit*'. The hearing can be viewed [HERE](#).



- FHWA awarded \$108 million for 85 projects under its [Nationally Significant Federal Lands and Tribal Projects](#) and [Tribal Transportation Program Safety Fund](#) programs. The grants are intended to improve transportation and reduce roadway fatalities and serious injuries on federal and tribal lands. The list of awards under the Nationally Significant Federal Lands and Tribal Projects program is [HERE](#) and the awards under the Tribal Transportation Program Safety Fund are [HERE](#).
- The House Investigations & Oversight Subcommittee held a hearing titled *'Environmentalism Off the Rails: How CARB will Cripple the National Rail Network'*. The hearing can be viewed [HERE](#).
- DOT awarded \$1.8 billion in RAISE grant funding to 148 projects across the country. The full list of awards is [HERE](#).
- DOT's [Project Delivery Center of Excellence](#) released a new resource to help ensure consistency and quality in design and construction contracts.
- DOT awarded \$1.8 billion in grants from its RAISE program for 148 projects across the country. The list of awards is [HERE](#).
- FHWA published a \$784 million [NOFO](#) for its Culvert Aquatic Organism Passage grants program. The deadline for applications was September 23.
- FHWA published a [NOFO](#) for its Wildlife Crossings Pilot Program aimed at reducing wildlife vehicle collisions. Applications were due by September 4.
- FAA awarded \$123 million under its Airport Improvement Program for airfield, safety and other improvement projects at 235 airports in 35 states and the District of Columbia. The list of awards is [HERE](#).
- FTA published a \$1.94 million [NOFO](#) under its Enhancing Mobility Innovation program to support research projects to improve customer convenience. Applications were due by August 30.
- The House Appropriations Committee approved its FY25 THUD appropriations bill ([HR 9028](#)) on a party line vote. The bill cut funding 7.3% below FY24 levels and several popular discretionary grant programs received a 36% cut below FY24 levels. The Committee also printed its report [H.Rept. 118-584](#).

## July

- FAA published a \$1 billion [NOFO](#) for its Airport Terminal Program with applications due by July 31.
- DOT published a \$607 million [NOFO](#) for its Reconnecting Communities Pilot Grant Program that helps to reconnect communities previously cut off from economic opportunities by transportation infrastructure. Applications were due September 30.
- FRA published a \$1.1 billion [NOFO](#) for its Railroad Crossing Elimination grant program. Applications were due by September 23.
- FTA awarded \$1.5 billion from its Bus and Bus Facilities and No-Lo Emission grant programs to support 117 projects in 47 states. The full list of awards is [HERE](#).
- DOT published a report – [Decarbonizing U.S. Transportation](#) – that responds to Congressional direction to outline DOT's strategy and actions to reduce greenhouse gas emissions in line with U.S. international commitments.

- DOT awarded more than \$5 billion in funding to 13 nationally significant bridges in 16 states from its Bridge Investment Program. The list of awards is [HERE](#).
- The Senate Commerce Committee held a field hearing in Lansing, MI titled '*Examining the Impact of the Bipartisan Infrastructure Law on Transportation Infrastructure*'. The hearing focused on the opportunities and challenges implementing the BIL on the state and local levels, including the successes and potential areas of improvement in the rollout of discretionary and formula funding in rural, urban and suburban areas in Michigan. The full hearing can be viewed [HERE](#).
- The House Railroads Subcommittee held a hearing on '*Examining the State of Rail Safety in the Aftermath of the Derailment in East Palestine, Ohio*'. The full hearing can be viewed [HERE](#).
- The Senate Appropriations Committee approved its FY25 THUD appropriations bill by a vote of 28-1. The bill, [S.4796](#), is 13% higher than the House bill and provides a total of \$3.86 billion for the CIG program (includes regular appropriations and IJA advance appropriations). The Committee also printed its report [S.Rept. 118-199](#).
- The House Subcommittee on Highways and Transit held a hearing titled '*Examining the Department of Transportation's Regulatory and Administrative Agenda*'. The full hearing can be viewed [HERE](#).
- FAA awarded more than \$374 million to 299 airports in 46 states from its Airport Improvement Program. The full list of awards is [HERE](#).

### August

- FAA awarded \$636 million for 320 grants in 46 states to improve the nation's airport infrastructure. The funding was awarded through FAA's Airport Improvement Program. The full list of awards is [HERE](#).
- FAA awarded \$566.4 million for 296 grants in 47 states to modernize airports through its Airport Infrastructure Grant Program. The full list of awards is [HERE](#).
- FTA published a \$9.2 million [NOFO](#) for its [Tribal Transit Program](#). Applications were due by November 13.
- FAA awarded \$291 million from the Inflation Reduction Act for projects that will help achieve the goal of net-zero greenhouse emissions from aviation by 2050. The full list of awards is [HERE](#).
- FHWA awarded more than \$26.5 million in planning grants through the Bridge Investment Program that will fund 28 projects in 18 states. The full list of awards is [HERE](#).
- FHWA issued a [NOFO](#) making available \$800 million in funding available under the [Low Carbon Transportation Materials Program](#) that will support the use of low carbon materials and products used in transportation that reduce air pollution, specifically greenhouse gases. Applications were due by November 25.
- FTA announced a [Final Rule](#) that updates its [Public Transportation Safety Certification Training Program](#). These updates maintain a uniform safety training curriculum and minimum requirements for rail transit and state safety personnel, building upon existing training requirements for safety professionals.

- FHWA announced the [Saving Lives with Connectivity: A Plan to Accelerate V2X Deployment](#) that will serve as a guide for the implementation of vehicle-to-everything technologies across the nation and support DOT's commitment to pursue a comprehensive approach to reduce the number of roadway fatalities to zero.
- FHWA awarded more than \$521 million in funding to continue building out the EV charging and alternative-fueling infrastructure across 29 states including more than 9,200 EV charging ports. The full list of awards is [HERE](#).

## September

- DOT announced more than \$1 billion in grants to 354 local, regional and tribal communities from the Safe Streets and Roads for All program. The list of awards is [HERE](#).
- FHWA Administrator Shailen Bhatt announced his departure from FHWA effective September 10. Deputy Administrator Kristin White has been named Acting Administrator.
- FAA awarded \$1.9 billion for 519 grants in 48 states, Guam, Marshall Islands, Northern Mariana Islands, Puerto Rico and the Virgin Islands under its Airport Improvement Program. It awarded an additional \$269 million to fund 62 projects at 56 U.S. airports under the same grant program but with funding from the FY23 Fiscal Year Supplemental Appropriations bill. A list of all the awards is [HERE](#).
- The National Highway Traffic Safety Administration released its [early estimates](#) of traffic fatalities for the first half of 2024, estimating that traffic fatalities declined for the ninth straight quarter.
- FTA announced the award of \$300 million to 18 projects in 14 states from its various ferry programs. The list of awards is [HERE](#).
- President Biden signed an [Executive Order](#) directing federal agencies to prioritize union involvement when making award decisions for funds from the American Rescue Plan, IIJA, IRA and CHIPS.
- FTA released a report - [Effects of the COVID-19 Pandemic on Transit Ridership and Accessibility](#) - that showed as of September 2023, overall ridership levels increased to 74% of September 2019 levels and that in 15 urbanized areas, ridership equals or exceeds 2019 levels.
- DOT awarded \$49.46 million in grants to 45 local, regional, and state public entities through the Innovative Finance and Asset Concession Grant Program. More than 70% of the projects include transit-oriented development and downtown redevelopment initiatives. Information about the awards is [HERE](#).
- DOT [update on progress implementing the IIJA](#) showing that more than \$480 billion in funding has been announced for over 60,000 specific projects and awards in all 50 states, DC and US territories.
- FHWA issued a [NOFO](#) to make available \$26.95 million in funds to states and federally recognized tribes to implement eligible projects on highways under FHWA's [National Scenic Byways Program](#). Applications were due by December 16.

- FTA issued [General Directive 24-1: Required Actions Regarding Assaults on Transit Workers](#) that will require more than 700 transit agencies nationwide to take action and address ongoing incidents of assaults on transit workers.
- FTA published a [Dear Colleague letter](#) that includes updated program guidance and award management requirements from the FAST Act and the IIJA. The revisions are part of a required review of the Uniform Guidance performed every five years. The changes are effective as of October 1, 2024 and FTA has posted all of the updates on the following [webpage](#).
- FTA issued a new [Rail Grade Crossing Safety Fact Sheet](#).
- FTA published an update to the Urbanized Area Formula Circular. Per the [Federal Register Notice](#), the update consolidates and replaces circulars for the Urbanized Area Formula Grants Program (FTA Circular C 9030.1), the State of Good Repair Grants Program (FTA Circular C 5300.1), and the Urbanized Area formula component of the grants for Bus and Bus Facilities Program (FTA Circular C 5100.1).
- FHWA issued an \$800 million [NOFO](#) for its [Low Carbon Transportation Materials Program](#). Applications were due by November 25.
- FTA issued a \$3.25 billion [NOFO](#) for the [National Rural Transportation Assistance Program](#). Applications were due by November 12.
- President Biden signed an [Executive Order](#) on Prioritizing Union Labor for Federally Funded Projects. The EO applies to funding under the American Rescue Plan, the IIJA, the Inflation Reduction Act, and the CHIPS Act.
- IRS published a [Notice of Proposed Rulemaking](#) for the Alternative Fuel Vehicle Refueling Property Tax Credit. The credit applies to property placed in service between December 21, 2022 and January 1, 2023 offering 30% of the cost for non-depreciable property and 6% for depreciable property, which can increase to 30% if wage and apprenticeship conditions are met. To qualify, the property must be in an eligible census tract defined as either a low-income community or a non-urban area. Comments were due November 18.
- FHWA published a report titled [Promising Practices for Transportation Agencies to Address Road Safety Among People Experiencing Homelessness](#).

### October

- FRA issued a \$1 billion [NOFO](#) for its [Federal-State Partnership for Intercity Rail Program](#) for projects not located on the Northeast Corridor. Applications were due by December 16.
- FTA published updates to the State Safety Oversight [Final Rule](#). These updates implement BIL requirements, remove outdated references, clarify existing requirements and simplify the two-hour safety event notification process.
- DOT announced the award of more than \$4.2 billion to 44 projects under the Mega and INFRA programs. Specifically, \$1.68 billion in Mega funding was awarded to 11 projects and \$2.58 billion in INFRA funding was awarded to 36 projects. The full list of Mega projects is [HERE](#) and the full list of INFRA projects is [HERE](#).

- FHWA announced the award of more than \$96.5 million to 16 states for 20 projects under its [ATTAIN program](#). The grants will fund technology-based and multimodal solutions that improve the travel experience for millions of Americans who use the nation's highway and transit systems. The list of awards is [HERE](#).
- FRA announced the award of more than \$108 million in funding through its [STC program](#). Selected projects will upgrade track, acquire new railcars, and improve or eliminate highway-rail grade crossings. The list of awards is [HERE](#).
- FAA announced the award of \$970 million to 125 airport-related projects across 46 states from its [Airport Terminal Program](#). The list of awards is [HERE](#).
- The Pipeline and Hazardous Materials Safety Administration (PHMSA) announced the award of \$196 million to repair and replace gaining natural gas pipes across 20 states. The list of awards is [HERE](#).
- DOT announced the award of more than \$2.4 billion for 122 rail improvement projects in 41 states under its [Consolidated Rail Infrastructure and Safety Improvements \(CRISI\)](#) grants program. The program provides funding for projects that improve safety, efficiency, and reliability of intercity passenger rail and freight rail. The list of awards is [HERE](#).
- FAA announced the award of \$11.99 million to assist 14 communities in 14 states develop their own solutions to local air service needs. Information about the Small Community Air Service Development Program and the list of awards is [HERE](#).
- FTA announced the award of \$10.5 million for 11 projects in 10 states to support equitable transit-oriented development under its [Pilot Program for Transit-Oriented Development Program](#). The list of awards is [HERE](#).
- FHWA announced the award of \$635 million for 22 small and medium sized bridge projects in both rural and urban areas. More information about the Bridge Investment Program and the list of awards is [HERE](#).
- FTA issued a [Final Rule](#) to establish minimum safety standards for a transit worker protection program geared toward personnel that work on or around tracks; implements comprehensive training for workers; and ensures that unsafe acts, conditions, and near-misses are reported.
- FHWA issued a \$876 million [NOFO](#) for the [PROTECT Program](#). This program is intended to make surface transportation more resilient to natural hazards, including climate change, sea level rise, flooding, extreme weather events, and other natural disasters. Applications are due February 24, 2025.
- FHWA announced the award of \$150 million for 12 projects in 9 states under its [Congestion Relief grant program](#). The program funds projects in the most congested, highly populated metro areas with the goal of reducing highway congestion, reducing economic and environmental costs associated with congestion and optimizing existing highway capacity. The list of awards is [HERE](#).
- DOT announced a [\\$544 million loan](#) through the [Transportation Infrastructure Finance and Innovation Act \(TIFIA\)](#) to the San Francisco Bay Area Rapid Transit District to purchase 775 new railcars.

- EPA announced the award of \$3 billion from its Clean Ports Program to 55 projects across 27 states and territories to improve and electrify port infrastructure. The list of awards is [HERE](#).

### November

- FHWA announced the award of \$16.6 million to eight states through its [ADCMS program](#) to improve and expedite the delivery of transportation projects. The list of awards is [HERE](#).
- FHWA announced the award of \$7.6 million to nine projects in eight states to promote state-of-the-art technology in new standards and construction to accelerate construction. The list of awards is [HERE](#).
- FHWA published a \$876 million [NOFO](#) for the [PROTECT grant program](#). This program provides support to help make surface transportation systems, including highways, public transportation, pedestrian facilities, ports and intercity rail more resilient to climate change, sea level rise, flooding, extreme weather events, and other natural hazards. Applications are due February 24, 2025.
- FHWA published a [Notice of Availability of Interim CMAQ Guidance](#). This Interim Guidance provides information and guidance on eligibility, transfer, and other CMAQ Program requirements under the BIL. This Interim Guidance – effective as of November 6, 2024 - replaces the November 12, 2013 Interim CMAQ Program Guidance under MAP-21 and the July 2014 Revised Interim Guidance on CMAQ Operating Assistance under MAP-21. FHWA is seeking comments on the November 6, 2024 Interim Guidance by January 6, 2025.
- DOT's Building America Bureau published a \$10 million [NOFO](#) for the [Regional Infrastructure Accelerators Program](#). This no-match grant opportunity can fund technical resources, planning, and project development to expedite regional transportation infrastructure through innovative financing and delivery methods, including public-private partnerships. Deadline for applications is January 9, 2025.
- FHWA announced the award of \$1.2 billion to 39 state Departments of Transportation under its [Low Carbon Transportation Materials Discretionary Grant Program](#). The investments will support continued growth in clean American manufacturing, boosting competitiveness of clean U.S. industries and reducing pollution from the production of concrete, steel and other bedrock materials of the economy. The list of awards is [HERE](#).
- FRA announced the award of \$1.5 billion for 19 projects along the Northeast Corridor through its [Federal-State Partnership for Intercity Passenger Rail Program](#). The program provides funding for capital projects that reduce the state of good repair backlog, improve performance, or expand or establish new intercity passenger rail service. The list of awards is [HERE](#).
- DOT published a \$1.5 billion [NOFO](#) for the RAISE grant program. For this round of grants, DOT is allowing project applications that have previously been submitted and were not funded to and were identified as a FY24 Project of Merit to resubmit



their prior application requesting that it be re-evaluated. This had to have been done by December 2, 2024. New applications are due by January 30, 2025.

- November 15 marked the third year of the IIJA being signed into law. To mark the occasion, the White House released a [fact sheet](#) highlighting the progress made to date including the announcements for over \$568 billion in funding for 66,000 projects and awards in all 50 states.
- FTA announce a \$10 million [NOFO](#) through its [Bus Safety and Accessibility Research Program](#) for the design and development of prototypes to make existing and new buses safer for operators, riders and vulnerable users, as well as more accessible for passengers. Applications are due by January 17, 2025.
- FTA published a [Notice](#) of extension of a Buy America waiver for certain commercially produced minivans and vans used in public transportation. The waiver – initially granted in October of 2022 - is extended for five years.
- DOT announced the award of \$172 million in grants to 257 communities through the [Safe Streets and Roads for All \(SS4A\) program](#). This announcement was the third and final one for 2024. The full list of the grant awards including rounds one, two and three is [HERE](#).
- The Senate Appropriations Committee held a hearing titled ‘*A Review of Disaster Funding Needs*’. Secretary Buttigieg was one of several witnesses that testified and he described DOT’s efforts to respond to many recent natural disasters and severe weather events, as well as the collapse of the Frances Scott Key Bridge in the Port of Baltimore, highlighted the importance of financing resilient infrastructure through such efforts as the FHWA’s PROTECT Grant program and noted the urgent need for supplemental funding to replenish FHWA’s Emergency Relief Program. Secretary Buttigieg’s prepared testimony is [HERE](#) and the hearing can be viewed [HERE](#).
- FHWA [announced](#) updates to the [Work Zone Safety and Mobility and Temporary Traffic Control Devices](#) rule to improve safety in and around work zones. The final rule is the first update in 20 years.
- President-Elect Trump announced that former Congressman Sean Duffy (R-WI) is his nominee to be Secretary of Transportation.
- FTA published a [Notice](#) in the Federal Register seeking public comment on [proposed Third Party Contracting Guidance](#). The guidance governs how grant recipients award and administer contracts to third-party subcontractors or vendors. The updated circular would replace the [current circular](#) which has not been revised since 2013. Comments were due by December 27, 2024.
- DOT released its ‘[Climate Strategies That Work](#)’ [playbook](#) that emphasizes efficient, convenient, and clean transportation solutions that support safe and economically vibrant communities across the U.S. The strategies in the playbook are informed by the [U.S. National Blueprint for Transportation Decarbonization](#).
- DOT announced the award of nearly \$580 million to fund 31 port improvement projects in 15 states and one U.S. territory through its [Port Infrastructure Development Program](#). The list of awards is [HERE](#).

- FHWA published a [Notice of Proposed Rulemaking](#) that seeks to amend its risk-based Asset Management Plans regulations. Comments are due by January 13.
- As required by law, DOT's Inspector General published a report titled '[DOT's Fiscal Year 2025 Top Management Challenges](#)'.
- DOT and the National Oceanic and Atmospheric Administration (NOAA) signed a [Memorandum of Understanding](#) to collaborate on providing climate and environmental information tools, and technical assistance to the transportation sector that aims to enhance climate resilience and reduce greenhouse gas emissions in transportation infrastructure planning and operations.
- FTA and the Centers for Medicare & Medicaid Services published the [Medical Transportation Coordination Fact Sheet](#) that encourages partnerships between state departments of transportation and state Medicaid agencies to improve the accessibility and efficiency of non-emergency medical transportation for low income individuals, people with disabilities and older adults.
- The Government Accountability Office published a report titled '[Transit Workforce Development: Actions to Support Transition to Zero-Emission Buses](#)'. The report found that while the transit industry's shift to zero-emission buses is progressing, challenges like limited bus supply and the need for workforce training persist.

### December

- FAA announced the award of \$20 million to 20 airport-owned airport traffic control towers in 15 states. The grants are being awarded from FAA's [Contract Tower Competitive Grant Program](#) and will be used to upgrade existing or build new control towers. More information about the program and list of awards is [HERE](#).
- FTA published a [NOFO](#) making available \$5 million for a competitive cooperative agreement to develop and manage a new [Technology Transfer Program](#) to promote the early deployment and demonstration of innovation in public transportation that has broad applicability to public transportation. Applications are due by February 11, 2025.
- The House Transportation Aviation Subcommittee held a hearing titled '*FAA Reauthorization Act of 2024: Stakeholder Perspectives on Implementation*'. The hearing can be viewed [HERE](#).
- FHWA released an updated [National Electric Vehicle Infrastructure \(NEVI\) Program Q&A](#) document as well as slight revisions to the Fully Built Out Certification of its NEVI guidance.
- FAA Administrator Michael Whitaker announced that he would resign on January 20. This is notable as the FAA Administrator serves a five-year term meant to overlap presidential administrations. Whitaker was just confirmed in October 2023 and had 4 years left in his term.
- DOT released a \$27 million [NOFO](#) for its Rural and Tribal Assistance Pilot Program. The NOFO makes funding available for planning and design phase activities for developing transportation projects in rural or tribal communities. Grants will support the hiring of staff or expert firms to provide technical, legal or financial



assistance to advance transportation projects that would be reasonably expected to be eligible for select DOT discretionary or credit programs. Applications are due by April 3, 2025.

- FHWA, FTA and FRA have released updated interim guidance for project sponsors involved with surface transportation projects. The [Section 139 Efficient Environmental Reviews for Project Decision Making and One Federal Decision Interim Final Guidance](#) provides essential information regarding the statutory framework outlined in 23 U.S.C. 139 that governs the agencies' environmental review process and is effective immediately. DOT is seeking comment on this updated interim final guidance with comments due by February 18, 2025.
- FTA published [updated policy guidance](#) for its [Capital Investment Grants \(CIG\) program](#) that replaces the CIG Policy Guidance last updated in January 2023, incorporates feedback received from a July 2021 Request for Information as well as public comments received on the April 2024 Proposed Policy Guidance.
- FTA has proposed issuing a [phased three-year general waiver](#) of its Buy America rolling stock requirements for certain battery electric minibuses used in public transportation due to the unavailability of compliant vehicles in the marketplace. FTA's Buy America statute requires that rolling stock, including minibuses, must have more than 70% domestic content and that final assembly must occur in the United States. Comments are due by January 6, 2025.
- FHWA announced the award of \$125 million in grants for 16 wildlife crossing projects in 16 states under its [Wildlife Crossing Pilot Program](#). The full list of awards is [HERE](#).
- The Bureau of Transportation Statistics released updated findings on average household spending on transportation in 2023. The report is [HERE](#).
- President-elect Trump announced his nomination of David Fink to be the next FRA Administrator. Fink is the former president of Pan Am Railways that was acquired by CSX.
- FRA launched its [Grade Crossing Toolkit](#) which is an interactive resource to identify effective highway-rail grade crossing safety measures.
- DOT announced the award of \$130 million in funding to 8 Stage Two deployment projects and to 34 new Stage One prototyping projects in 21 states under its [SMART grant program](#). The list of awards is [HERE](#).
- The White House Council on Supply Chain Resilience and DOT's Office of Multimodal Freight released the [2021-2024 Quadrennial Supply Chain Review](#).
- FHWA released its [Every Day Counts Round 7 Progress Report](#) that describes seven technologies and practices being promoted by FHWA and summarizes the deployment status of each innovation as of April 2024 and each innovation's goal for adoption in 2025.
- FHWA has published its [Organizational Safety Culture Self-Assessment Toolkit](#)
- FHWA announced the award of \$4.2 million in grants under its [Highway Construction Training Program](#) for 16 programs to recruit, train, and place highway

construction jobs. The grants fund activities to train and employ nearly 1,000 jobs across the country. The list of awards is [HERE](#).

- FHWA announced the availability of the [2024 CMAQ Program Interim Guidance](#) to incorporate requirements and changes enacted in the BIL as well as previous transportation legislation and congressional actions. The interim guidance provides information and guidance on eligibility, funds transfer, and other CMAQ Program requirements. Comments are due by January 6, 2025.



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**Fred Casissa**

Alternate  
Town of Corte Madera

January 13, 2025

Honorable Board of Directors  
Marin County Transit District  
3501 Civic Center Drive  
San Rafael, CA 94903

**Subject: Update on Fiscal Year 2024/25 Contracting Opportunities and Awards**

Dear Board Members:

**Recommendation**

Information only.

**Summary**

At your July 1, 2024, Board of Directors meeting, staff provided a summary of anticipated contracting opportunities for FY2024/25. This report provides an update on contracts that have been awarded this fiscal year to date and upcoming solicitations.

**FY 2024/25 Contract Awards**

During the period July 1, 2024-December 31, 2024, Marin Transit recorded 23 agreements. Of these, six were revenue agreements, and three were non-financial agreements. The remaining 14 contracts awarded had a total value of \$18.4 million (Attachment A). Your Board awarded five contracts for a total value of \$18.2 million. The General Manager has the authority to approve contracts up to \$150,000 and approved a total of nine contracts with a value of \$233,067.58.

The largest award was for the purchase of property at 1075 E Francisco Blvd for \$14 million. In December your Board awarded Ghilotti Bros. Inc. a contract for construction at the District owned property at 3010/3020 Kerner Blvd for a total value of \$3.67 million. The third largest contract award was awarded to Urban Transportation Associates Inc. for an automatic passenger counter system for a total of \$511, 500. Smaller contract awards were for rider guide printing, utility connection, and other annual agreements.

**FY 2024/25 Contracting Opportunities**

Anticipated contracting opportunities were included in the July 2024 procurement report. These opportunities are also listed on the Marin Transit website. Table 1 provides an updated list of FY2024/25 opportunities along with the procurement status of each opportunity



**Table 1: FY2024/25 Contracting Opportunities**

Product or Service	Type of Procurement	Procurement Method	Anticipated Release Date/Status	Contract Value over or under \$1 Million	Federal
Operation and Maintenance of Local and Rural Fixed Route Service	Operations	RFP	In Progress	Over	Yes
Realtime Sign – Redwood and Grant	Equipment	RFQ	Postponed	Under	No
3010/3020 Kerner Parking Redevelopment	Construction	IFB	Awarded	Over	Yes
ADA Bus Stop Improvements	Construction	IFB	In Progress	Over	Yes
Fixed Route Scheduling Software	Software	RFP	FY2025 Q3	Under	Yes
Automated Passenger Counter	Services	RFP	Awarded	Under	Yes
Computer Aided Dispatch / Automatic Vehicle Location	Software	RFP	In progress	Over	Yes
Transit Mobility Wallet	Services	RFQ	In Progress	Under	Yes
Demand Response Scheduling Software	Software	RFP	FY2025 Q3	Under	No
Data Management	Software	RFP	FY2025 Q3	Under	No
Electric Paratransit Vehicle	Vehicles	Cooperative Agreement	FY2025 Q4	Under	No
5 40ft and 4 30ft Transit Buses	Vehicles	Cooperative Agreement	FY2025 Q3	Over	Yes
Design for Bus Maintenance and ZEB Charging Facility	Services	RFP	FY2026 Q2	Over	Yes

Source: Marin Transit

**Fiscal/Staffing Impact**

None associated with this report.

Respectfully Submitted,

Holly Lundgren  
 Director of Administrative Services

**Attachment A: FY 2024/25 Contract Awards**



Agreement Number	Contract Title	Approval Date	Vendor	Board Approval	Board Awards	Other Awards	Previous Board Authorizations
1263	Fuel Services Agreement	8/5/2024	County of Marin	Yes			
1267	Fixed Route Scheduling Software*	6/28/2024	Optibus	No		\$53,680	
1268	Porta Potty Rentals for Los Gamos	7/11/2024	United Site Services	No		\$583	
1269	Not Issued						
1270	Revenue Agreement	7/18/2024					
1271	Revenue Agreement	7/18/2024					
1272	Revenue Agreement	8/15/2024					
1273	FY25 License Agreement for Yellow Bus Parking Los Gamos	8/13/2024	County of Marin	No		\$28,260	
1274	3000 Kerner Solar/Battery Connection	8/7/2024	PG&E	No		\$14,454	
1275	Revenue Agreement	9/3/2024		No			
1276	Automated Passenger Counter System	9/9/2024	Urban Transportation Associates Inc	Yes	\$511,500		
1277	Non Financial Agreement	11/12/2024					
1278	Agreement Purchase of Real Estate at 1075 E. Francisco Blvd. San Rafael, CA 94901	8/5/2024	Marin Hospitality Inc.	Yes	\$14,000,000		
1279	Third Party Administrator Services for Retirement Plans 401(a) and 457	10/25/2024	C-Ben Group	No		\$10,000	
1280	Non Financial Agreement	11/6/2024					



1281	Revenue Agreement	10/31/2024					
1282	Contract and Procurement Management Software Renewal	11/18/2024	Bonfire Interactive Ltd	No		\$13,662	
1283	Rider Guide Printing	11/21/2024	Consolidated Printers, Inc.	No		\$67,081	
1284	Revenue Agreement	12/3/2024					
1285	Amendment to base contract to account for sales tax on equipment	12/3/2024	Urban Transportation Associates Inc	No		\$32,143	
1286	3010/3020 Kerner Blvd Construction	12/2/2024	Ghilotti Bros. Inc	Yes	\$3,462,902		
1287	Bid Alternate for 3010/3020 Kerner Construction (ESS System)	12/2/2024	Ghilotti Bros. Inc	Yes	\$211,500		
1288	Promotional Items for Outreach	12/13/2024	4imprint	No		\$13,204	
1289	Non Financial Agreement	12/20/2024					
	Subtotal Value By Type				\$18,185,902	\$233,068	
	Total Value Awarded				\$18,418,970		

\*Contracts awarded in FY2023/24 but not included in prior year procurement report.



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January 13, 2025

Honorable Board of Directors  
Marin County Transit District  
3501 Civic Center Drive  
San Rafael, CA 94903

**Subject: Marin Transit 2024 Accomplishments and 2025 Look Ahead**

Dear Board Members:

### **Recommendation**

Information only.

### **Summary**

As we begin a new year, staff has reflected on our organization's accomplishments in 2024 and we look forward to the challenges and opportunities 2025 will bring. Attached is a list of 2024 accomplishments and look ahead into calendar year 2025. A few highlights of Marin Transit's accomplishments this last year include:

- Ridership on fixed route service exceeded pre-pandemic levels.
- Coordinated service and schedule changes with Golden Gate Transit and SMART to improve transit connections along the Highway 101 corridor.
- Purchased a 3.5 acre site in San Rafael for the potential development of a zero-emission fixed route bus charging and maintenance facility. Funding for the property purchase and development is available from a \$31.5 million Federal Transit Administration Grant awarded to Marin Transit in 2023.
- Completed a comprehensive Fare Collection Study to define the next generation of fare collection, fare policy, and passenger counting at Marin Transit.
- Began a pilot shuttle connecting Bolinas and Point Reyes.
- Analyzed Marin Access post-pandemic paratransit ridership trends.
- Celebrated Marin Transit's 60<sup>th</sup> Anniversary with free ride tickets and tokens of appreciation for our loyal riders and contractor staff.

Looking ahead into 2025, the agency anticipates advancing Marin Transit's mission, supporting our riders, and benefiting the communities we serve in the following ways:



- Advance the zero-emission facility project and other facility capital projects.
- Transition to the NextGen Clipper system and replace fareboxes.
- Complete a 10-year Short Range Transit Plan.
- Advance the Transit Priority Corridor Project.
- Implement a workforce development program.

**Fiscal/Staffing Impact**

None associated with this report.

Respectfully Submitted,

A handwritten signature in black ink that reads "Nancy E. Whelan".

Nancy Whelan  
General Manager

**Attachment A:** 2024 Accomplishments and 2025 Look Ahead



## Marin Transit 2024 Accomplishments

### SERVICE IMPROVEMENTS AND RIDERSHIP

- ❖ Ridership on fixed route service exceeded pre-pandemic (2019) levels. Marin Transit provided over 3 million unlinked passenger trips on all services in FY 2023/24 with 215,000 revenue hours of service.
- ❖ Ridership has steadily increased following a successful service restructuring on fixed route services in June of 2023 and August of 2024. The restructuring effort resulted in a more efficient use of District resources (hours, drivers, and vehicles) and has increased service productivity (passengers per hour), reduced missed trips, increased reliability, and helped control cost increases.
- ❖ Ridership recovery on Marin Access services has steadily improved following a successful service restructuring on programs and services, including consolidation of low-productivity programs into a new expanded Catch-A-Ride program that offers vouchers on taxi, Uber, and Lyft services and increased volunteer driver reimbursement rates. Ridership on Catch-A-Ride has tripled in its first full year under the new model and is now higher than pre-COVID. Over 700 users are now enrolled in the program.
- ❖ Bid and awarded new contract for Operations & Maintenance of the Muir Woods Shuttle.
- ❖ Bid a new contract for Operations & Maintenance of Local Fixed Route services.
- ❖ Offered free summer fares for youth and free fares during the Marin County Fair.
- ❖ Approved a free fare pilot for six expanded dates for both fixed route and paratransit service.
- ❖ Initiated a pilot shuttle service between Stinson Beach and Point Reyes to address community need to travel within West Marin communities and provide access to critical social services and US Post Office.
- ❖ Revised Ross Valley Yellow Bus service to better manage demand for the service within constrained resources and to streamline pass sales.
- ❖ Coordinated service and schedule changes with Golden Gate Transit and SMART to improve transit connections along the Highway 101 corridor.

## CAPITAL INVESTMENTS

### Fleet

- ❖ Placed seven new Gillig hybrid buses into service.
- ❖ Installed Automated Passenger Counter system on all fixed route buses.
- ❖ Enabled wi-fi service on all fixed route buses to improve passenger experience.
- ❖ Began planning efforts to update the Zero Emission Fleet Transition plan.

### Facility Projects

- ❖ Purchased a 3.5 acre site in San Rafael and initiated environmental studies to develop an electric bus charging and maintenance facility on the property.
- ❖ Completed demolition of existing buildings, completed Design and Engineering, and awarded construction contract for parking and EV charging facility on 3010/3020 Kerner property.
- ❖ Contracted a new property manager to both manage the property, and aid in the development of a long term facility management plan.

### Bus Stop Projects

- ❖ Began to address Golden Gate Transit's transfer of maintenance responsibilities for 188 bus stops in the county.
- ❖ Completed design work and requested bids for ADA Bus Stop Improvement project at 23 stops.
- ❖ Received RM3 grant for future bus stop improvement project.
- ❖ Coordinated with the City of Novato to replace shelters at eight locations where the shelters had fallen into disrepair.
- ❖ Supported efforts of cities, towns, and other local groups on bus stop improvements.

### Transit Priority

- ❖ Initiated planning for Transit Priority Corridors project to improve key transit corridors in San Rafael and Novato, including signal priority, infrastructure improvements, and upgraded bus stops.
- ❖ Staff participated in MTC Transit Priority Policy workshop and MTC staff provided the Marin Transit Board an overview of transit priority treatments.

## **PLANNING AND COORDINATION WITH PARTNERS**

- ❖ Completed a comprehensive Fare Collection Study to define the next generation of fare collection, fare policy, and passenger counting at Marin Transit.
- ❖ The Board of Directors adopted principles guiding Marin Transit's participation in regional transit coordination and potential positions on legislation regarding a regional transportation revenue measure.
- ❖ Engaged in outreach to better understand transit service needs in West Marin through surveys, staff ride-alongs, and community partner meetings.
- ❖ Based on an evaluation of the Catch-A-Ride pilot, the program was extended for a year and expanded to include Lyft as a provider.
- ❖ Completed an analysis of Marin Access paratransit ridership which demonstrated that while ridership on our system has been very slow to recover from the pandemic, older adults and people with disabilities have found other options, and preferences have shifted among this population.
- ❖ Joined the regional transfer pilot program, which will provide riders with improved regional mobility by making inter-operator transfers effectively free for Marin Transit riders.
- ❖ Prepared for the debut of the next generation of Clipper card functionality in early 2025 by preparing a marketing and implementation plan that will ease the customer transition and provide better fare products for riders.
- ❖ Promoted Transit Month in September jointly with peer agencies and TAM.
- ❖ Adopted new free fare days to highlight special days when transit is aligned with related environmental and congestion reduction goals or supports other civic goals.
- ❖ Celebrated Marin Transit's 60<sup>th</sup> Anniversary with free ride tickets and tokens of appreciation for our loyal riders and contractor staff.
- ❖ Expanded use of social media as a way to directly engage with riders.
- ❖ Completed the 2023 Muir Woods Shuttle evaluation report.
- ❖ Actively participated in several regional efforts to better coordinate transit services in the Bay Area.
- ❖ The Marin and Sonoma County transit coordination effort (MASCOTS) further advanced the study to improve service coordination in the 101 corridor. Existing conditions and draft recommendations were reviewed by the General Managers/CEOs and the Policy Advisory Group.
- ❖ Continued participation in design for the San Rafael Transit Center led by Golden Gate Transit.

<b>ADMINISTRATION AND PERSONNEL</b>
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- ❖ Developed and adopted the FY2025 Annual Budget and completed a successful year-end financial audit.
- ❖ Added a staff position to the Operations department to address the increased workload related to bus stop maintenance, school transportation support, technology and rider communications, and on-board technology advancements.
- ❖ Added a grant funded Facility Development Project Manager position to guide the development of a new electric bus charging and maintenance facility.
- ❖ Piloted a change from monthly Board meetings to Board meetings every other month.
- ❖ Completed the FTA Triennial Review with only one corrective action required.
- ❖ Adopted a Workplace Violence Prevention Plan.

## Marin Transit 2025 Look Ahead

- ❖ Purchase first electric paratransit vehicles
- ❖ Start construction of the 3010/3020 Kerner parking facility
- ❖ Award contract and construct ADA Bus Stop Improvements
- ❖ Complete NEPA/CEQA analyses for ZEB Operations & Maintenance facility
- ❖ Develop implementation plan for grant funded Workforce Development and childcare program
- ❖ Finalize Marin Sonoma transit operations (MASCOTS) analysis and begin implementing recommendations
- ❖ Transition to Next Gen Clipper, replace current fareboxes, and introduce new fare offering to simplify the payment experience
- ❖ Implement new CAD/AVL system
- ❖ Participate in TAM's Measure AA expenditure plan update
- ❖ Update the Short Range Transit Plan
- ❖ Advance transit signal priority projects in San Rafael and Novato
- ❖ Further evaluate and update the Catch A Ride program
- ❖ Introduce a new Mobility Wallet program to streamline subsidy disbursement for income qualified riders
- ❖ Zero Emission Vehicle Transition plan update
- ❖ Mid-life battery replacement of hybrid buses
- ❖ Replace fixed route vehicles



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Director  
 City of San Rafael

**Fred Casissa**

Alternate  
 Town of Corte Madera

January 13, 2025

Honorable Board of Directors  
 Marin County Transit District  
 3501 Civic Center Drive  
 San Rafael, CA 94903

**Subject: Contract with Coastside Concrete and Construction, Inc. for the Construction of Marin County Transit District Bus Stop Improvements**

Dear Board Members:

**Recommendation**

Authorize General Manager to execute a contract with Coastside Concrete and Construction, Inc. for an amount not to exceed \$1,333,130 and approve Budget Amendment 2025-05.

**Summary**

Staff recommends that your Board authorize the General Manager to enter into an agreement with Coastside Concrete and Construction, Inc. (Coastside) for the construction of countywide bus stop improvements. This project will make improvements at 22 bus stops. These improvements include Americans with Disabilities Act (ADA) accessibility improvements at fourteen stops, thirteen new or replacement shelters, and the creation of three new stops; one is in the Canal at E. Francisco Blvd and Medway and the others are two paired stops near Marin Community Clinics in Novato.

Marin Transit released an Invitation for Bids (IFB) for this project on November 5, 2024. A non-mandatory pre-bid meeting was held virtually on November 13<sup>th</sup>, 2024, and there was a public bid opening on December 10, at 2:00pm.

Bids were received from Coastside, Bauman Landscape & Construction, Ghilotti Construction, and Ghilotti Bros. Coastside was the apparent low bidder with a bid of \$1,333,130. Analysis by Marin Transit staff and the project’s Construction Manager affirmed that Coastside is the lowest responsible bidder.

**Table 1: Bids Received**

Bid Submitted by	Total Bid	Responsive Bid?
Coastside Concrete	\$1,333,130	Yes
Bauman Landscaping and Construction	\$1,525,000	Yes
Ghilotti Construction Co.	\$1,815,178	Yes
Ghilotti Bros.	\$1,961,583	Yes



Marin Transit received a bid protest from Bauman Landscape and Construction on December 16, 2024, claiming that Coastside Concrete did not include sufficient subcontractors for the scope of work that included welding and should therefore be deemed non-responsive. Marin Transit investigated the claim and found that the welding work would be completed in house by Coastside, thereby resulting in no need for a subcontractor. Bauman’s protest was rejected on December 19, 2024.

The low bid is less than the Engineer’s estimate and staff determined that the pricing is fair and reasonable. An Intent to Award to Coastside was issued on January 3, 2025 and staff recommends your board award the contract to Coastside. Pending board award, the District will initiate a contract with Coastside Concrete for the construction of these improvements. The project has been organized to initiate with a limited Notice to Proceed (NTP) for procurement of long lead time items like the bus shelters. A second NTP will then be issued for construction. Construction is anticipated to begin in spring of 2025 and last about 5 months.

### Background

Marin Transit started working on this project in 2018 following a 2017 Bus Stop Conditions Assessment where surveyors tagged stops that needed improvement. Within that list of stops, staff prioritized improvements by ridership and the need for ADA accessibility improvements. Conceptual plans were developed for those stops by the consultant team leading the conditions assessment.

In 2021, Marin Transit executed a task order to complete design work for the bus stop improvements through an on-call engineering contract with Mark Thomas and Company (Mark Thomas). Below is the list of stops which will be improved.

**Table 2: Bus Stop Improvements**

Stop ID	Stop Location	Direction	Jurisdiction	Primary Improvements
40673	San Marin Dr & San Carlos Way	WB	Novato	Replace Shelter
40726	Ignacio Blvd & Sunset Parkway	WB	Novato	Add Shelter
41328	Smith Ranch Rd & Yosemite Rd	EB	San Rafael	ADA Landing Pad, Add Shelter
40515	Sir Francis Drake Blvd & Alhambra Circle	WB	Fairfax	ADA Landing Pad, Add Bench, Red Curb
40519	Sir Francis Drake Blvd & Oak Manor Dr	WB	Fairfax	ADA Landing Pad, Add Bench, Red Curb
40472	Sir Francis Drake Blvd & San Anselmo Ave	EB	San Anselmo	ADA Landing Pad, Replace Shelter
40418	Fourth St & Santa Margarita Ave	WB	San Rafael	Repair sidewalk for ADA Landing, Red Curb
New Stop	Francisco East Blvd & Medway Rd	EB	Caltrans & San Rafael	New Sidewalk, Bus Pad, Crosswalk, Solar Light
40330	College Ave & Sir Francis Drake Blvd	EB	County of Marin	Replace Shelter, Red Curb
40150	Miller Ave & Camino Alto	WB	Mill Valley	Add Shelter
40153	Almonte Blvd & Rosemont Ave	SB	County of Marin	ADA Landing Pad
40184	Strawberry Frontage Rd & US 101 NB On Ramp	SB	Caltrans	ADA Landing Pad, Crosswalk

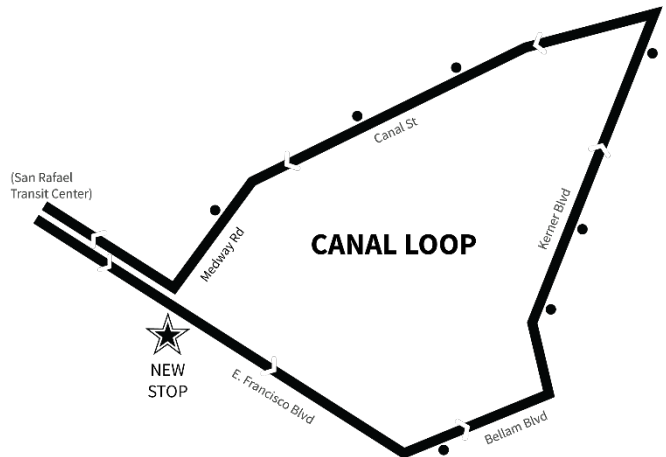


New Stop	Redwood Blvd & Hill Rd	WB	Novato	Add Shelter
41326	N Redwood Dr & Smith Ranch Rd	WB	San Rafael	ADA Landing Pad, Add Shelter
40580	Merrydale Rd & N San Pedro Rd	NB	San Rafael	ADA Landing Pad
40319	Sir Francis Drake Blvd & Bon Air Rd	WB	County of Marin	Add Shelter
40765	Alameda Del Prado & Hwy 101 SB	SB	Novato	ADA Landing Pad, Add Shelter
New Stop	Redwood Blvd & Landing Ct	EB	Novato	ADA Landing Pad, Add Shelter
41361	Sir Francis Drake Blvd & Bank St	SB	San Anselmo	ADA Landing Pad, Add Shelter, Red Curb
40279	Tamalpais Dr & Meadowsweet Dr	EB	Corte Madera	ADA Landing Pad, Add Shelter, Red Curb
41364	Hamilton Pkwy & Aberdeen Rd	NB	Novato	ADA Landing Pad
41365	Hamilton Pkwy & Aberdeen Rd	SB	Novato	ADA Landing Pad

**E. Francisco Blvd & Medway Rd.**

The largest improvement in this project is a new stop at E Francisco Blvd & Medway Rd. The stop is located in the Canal District of San Rafael, where buses mostly travel in a counterclockwise direction in a loop. This new stop will give riders a new drop off point at the beginning of the loop, benefiting passengers by decreasing their travel time.

The stop required extensive coordination with both Caltrans and the City of San Rafael. The stop itself is in Caltrans right of way, as U.S. 101 passes right behind this location. However, many of the improvements, like a new sidewalk, crosswalk and traffic signal adjustments are in City of San Rafael right of way. Roadway improvements, like the bus pad and asphalt extend into both jurisdictions.



Coordination on this stop began with both Caltrans and the City of San Rafael in 2018, when the initial concept was developed. In the final round of jurisdictional approvals, which began in July 2023, there were comments from Caltrans during their lengthy review process which led to some revisions which were finally approved in October 2024. When the City of San Rafael reviewed the planset after these changes, the City also requested design revisions, resulting in additional necessary coordination. This delayed finalization of the planset and added cost to the design contract, as well as cost to the Engineer’s estimate for construction.

**Marin Community Clinics – Redwood Blvd., Novato**

The project will also create two new stops near Marin Community Clinics in Novato. Marin Community Clinics was first established in 2009. Since that time, its services have grown, it is becoming an increasingly common requested destination from passengers, and was a frequent destination of the





Novato Dial a Ride service. While it's close to the bus stop at Redwood Blvd and Grant Ave, it's too long of a distance for many to walk.

Once the new stops open, our current routing will be adjusted to serve Redwood Blvd and these locations. There will be a stop directly in front of the Clinics, but the paired stop is about 1000 feet northwest. The City required the paired stop to be near a signalized intersection at Redwood Blvd and Landing Ct. due to high traffic speeds along this corridor and to increase pedestrian safety.

On October 22, 2024, after the development of this project, a new housing development for 301 units with no onsite parking was approved by the City of Novato at Redwood Blvd and Landing Court. This location is very close to the planned new bus stops and it's expected that these stops will also be used by residents of this future development.

### **Fiscal/Staffing Impact**

The bid from Coastside Concrete is less than the Engineer's Estimate, and the construction costs for this contract will not exceed \$1,333,130. However, both the Engineer's Estimate and the bid exceed the project budget included in the FY 2024/25 Capital Budget as BP – ADA Bus Stop Improvements since additional scope was added to accommodate design revisions for Caltrans.

The proposed budget amendment 2025-05 increases the project budget by \$250,000 to \$2,053,000 to fund costs resulting from additional necessary coordination and design revisions for stops in Caltrans jurisdiction. Most of the cost increases relate to the stop at E. Francisco Blvd and Medway which is in both the Caltrans and City of San Rafael right of way and required both design modifications and significant coordination to get through the permitting process. Staff understood that the design changes would increase both the design and construction budgets but they were determined to be both warranted and necessary since they were for critical improvements. The additional costs will be funded by local property tax funds.

The project is funded 70% through FTA 5307 funds including an MTC Quick-Strike Grant for \$1.2 million. The remaining 20% is funded through Measure A/AA and Property Tax funds.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Anna Penoyar".

Anna Penoyar  
Capital Projects Manager

**Attachment A:** Draft Contract

**Attachment B:** Presentation

Contract # XXX

**MARIN COUNTY TRANSIT DISTRICT**

**PROJECT NO. PC202504**

THIS AGREEMENT made and concluded, in triplicate, this 13th day of January, 2025 between the Marin County Transit District, party of the first part, and Coastside Concrete and Construction, Inc., CONTRACTOR, part of the second part.

ARTICLE I, WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the said party of the first part, and under the conditions expressed in the Payment Bond and Performance Bond, bearing even with these presents, and hereunto annexed, the said party of the second part agrees with the said party of the first part, at his own proper cost and expense, to do all the work and furnish all the materials, except such as are mentioned in the specifications to be furnished by said party of the first part, necessary to construct and complete in a good, workmanlike and substantial manner and to the satisfaction of the District Engineer for:

**MARIN COUNTY TRANSIT DISTRICT**

**BUS STOP IMPROVEMENTS**

in accordance with the Special Provisions hereto annexed and also in accordance with the Standard Plans, dated 2023, the Standard Specifications dated 2023, Uniform Construction Standards – All Cities of Marin County dated 2018, and the Equipment Rental Rates and General Prevailing Wage Rates of the Department of Transportation (attached to the Contract Documents) which said Special Provisions, Standard Plans, Standard Specifications, and Equipment Rental Rates and General Prevailing Wage Rates are hereby specially referred to and by such reference made a part hereof.

The work to be done is shown on plans entitled:

**MARIN COUNTY BUS STOP IMPROVEMENTS**

**in**

**CITY OF MILL VALLEY, TOWN OF SAN ANSELMO, CITY OF SAN RAFAEL, CITY OF NOVATO, TOWN OF FAIRFAX, TOWN OF CORTE MADERA, AND UNINCORPORATED MARIN COUNTY, CA  
PROJECT NO. PC202504**

APPROVED: On January 13, 2025, which said project special provisions and project plans are hereby made a part of this contract.

ARTICLE II. The said party of the first hereby promises and agrees with said Contractor to employ, and does hereby employ, the said Contractor to provide the materials and to do the work according to the terms and conditions herein contained and referred to for the prices hereinafter set forth, and hereby contracts to pay the same at the time, in the manner and upon the conditions herein set forth;

and the said parties for themselves, their heirs, executors, administrators, successors and assigns, do hereby agree to the full performance of the covenants herein contained.

ARTICLE III. The State general prevailing wage rates determined by the Director of Industrial Relations are hereby made a part of this contract. It is further expressly agreed by and between the parties hereto that should there be any conflict between the terms of this instrument and the bid of said Contractor, then this instrument shall control, and nothing herein shall be considered as an acceptance of the said terms of said bid conflicting herewith.

ARTICLE IV. By my signature hereunder, as Contractor, I certify that I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workmen's compensation or to undertake self-insurance in **conformance** with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

ARTICLE V. Said Contractor agrees to receive and accept the following prices as full compensation for furnishing all materials and for doing all the work contemplated and embraced in this agreement; also for all loss or damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its acceptance by the **Marin County Transit District**, and for all risks of every description connected with the work; also for all expenses incurred by or in consequence of the suspension on or discontinuance of work and for well and faithfully completing the work and the whole thereof, in the manner and according to the plans and specifications, and the requirements of the Engineer under them to wit:

Not to exceed: \$1,333,130

IN WITNESS WHEREOF, the Parties of these presents have hereunto set their hands the year and date first above written.

By: \_\_\_\_\_  
President, Board of Directors

By: \_\_\_\_\_  
Clerk

CONTRACTOR

By: \_\_\_\_\_

\_\_\_\_\_  
(Print Name)



# Marin County Bus Stop Improvements

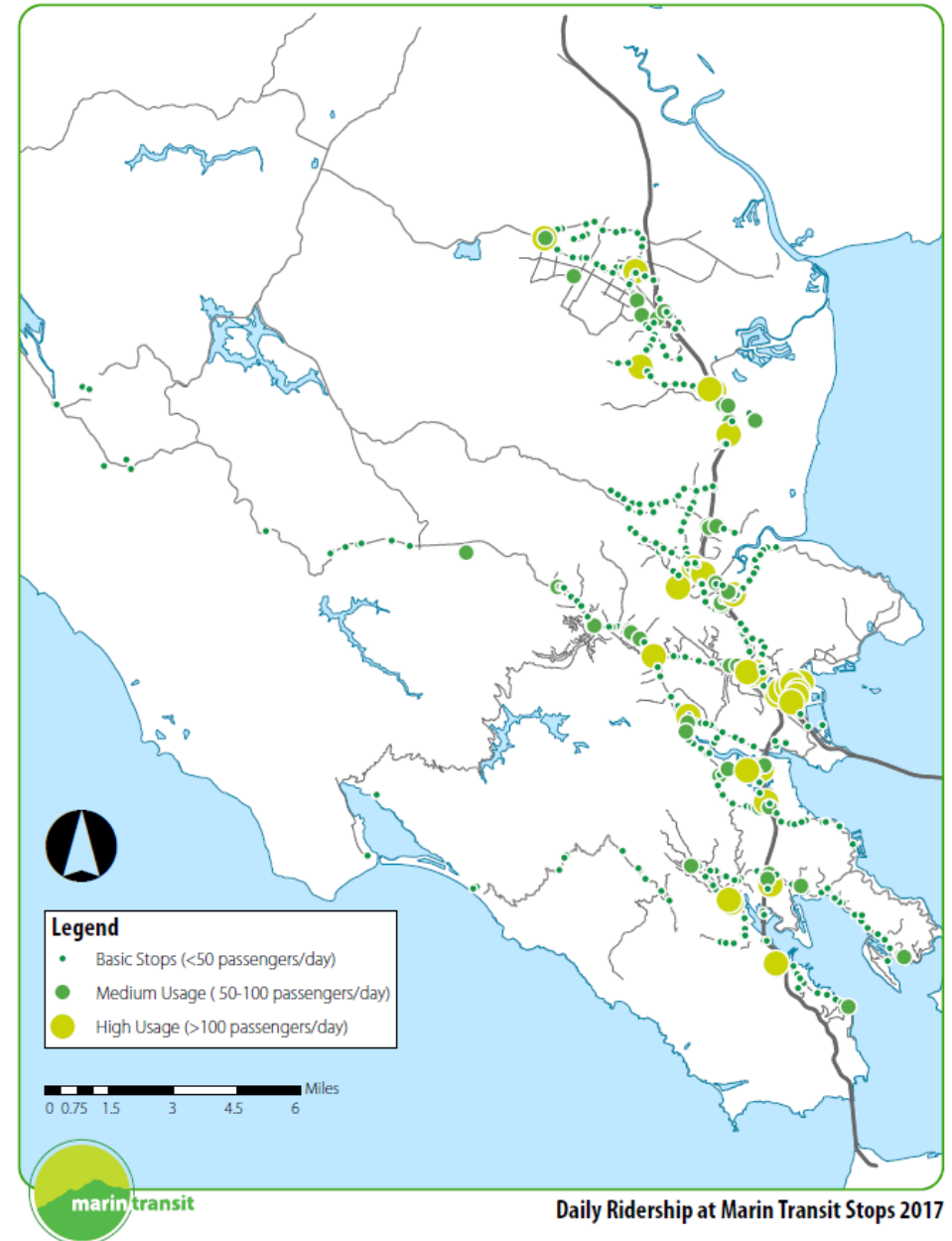
**CONSTRUCTION CONTRACT AWARD**

# Agenda

- 01** Project History
- 02** Overview of Project
- 03** Bidding Process
- 04** Fiscal and Staffing Impact

# Project History




- 2017 – Bus Stop Conditions Assessment
- 2018 – Conceptual Plans
  - Accessibility
  - Ridership
- 2021 – Task Order for Full Design
- July 2023 – Final Jurisdictional Review initiated
- October 2024 – Final Approvals





# Project Overview

# Description

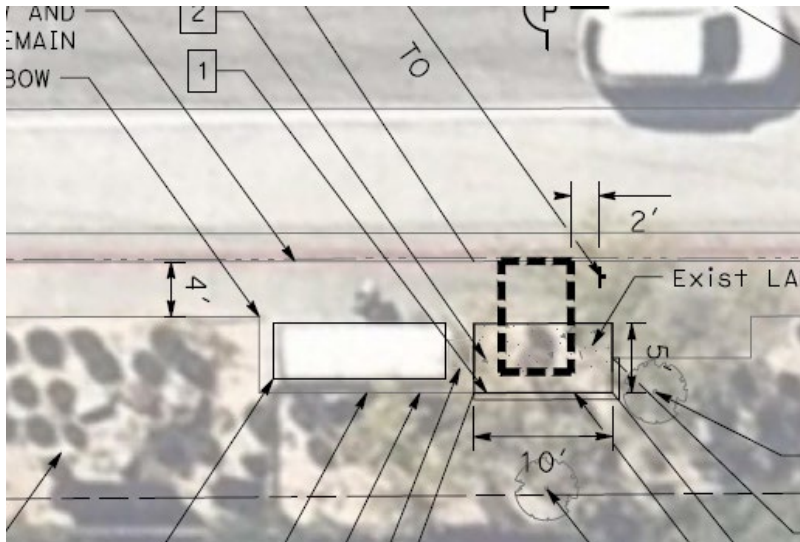
-  • ADA Improvements at 14 locations
-  • New or Replacement Shelters at 13 locations
-  • Three new bus stops!

Stop ID	Stop Location	Direction	Jurisdiction	
40673	San Marin Dr & San Carlos Way	WB	Novato	
40726	Ignacio Blvd & Sunset Parkway	WB	Novato	
41328	Smith Ranch Rd & Yosemite Rd	EB	San Rafael	 
40515	Sir Francis Drake Blvd & Alhambra Circle	WB	Fairfax	
40519	Sir Francis Drake Blvd & Oak Manor Dr	WB	Fairfax	
40472	Sir Francis Drake Blvd & San Anselmo Ave	EB	San Anselmo	 
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40330	College Ave & Sir Francis Drake Blvd	EB	County of Marin	
40150	Miller Ave & Camino Alto	WB	Mill Valley	
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New Stop	Redwood Blvd & Landing Ct	EB	Novato	 
41361	Sir Francis Drake Blvd & Bank St	SB	San Anselmo	 
40279	Tamalpais Dr & Meadowsweet Dr	EB	Corte Madera	 
41364	Hamilton Pkwy & Aberdeen Rd	NB	Novato	
41365	Hamilton Pkwy & Aberdeen Rd	SB	Novato	Item 7 



# Overview – ADA Landing Pad

- Clear, stable area where ramp is deployed for riders using mobility devices
- 5 ft parallel to curb, 8 ft perpendicular, flat



# Overview – Basic Stop Improvement

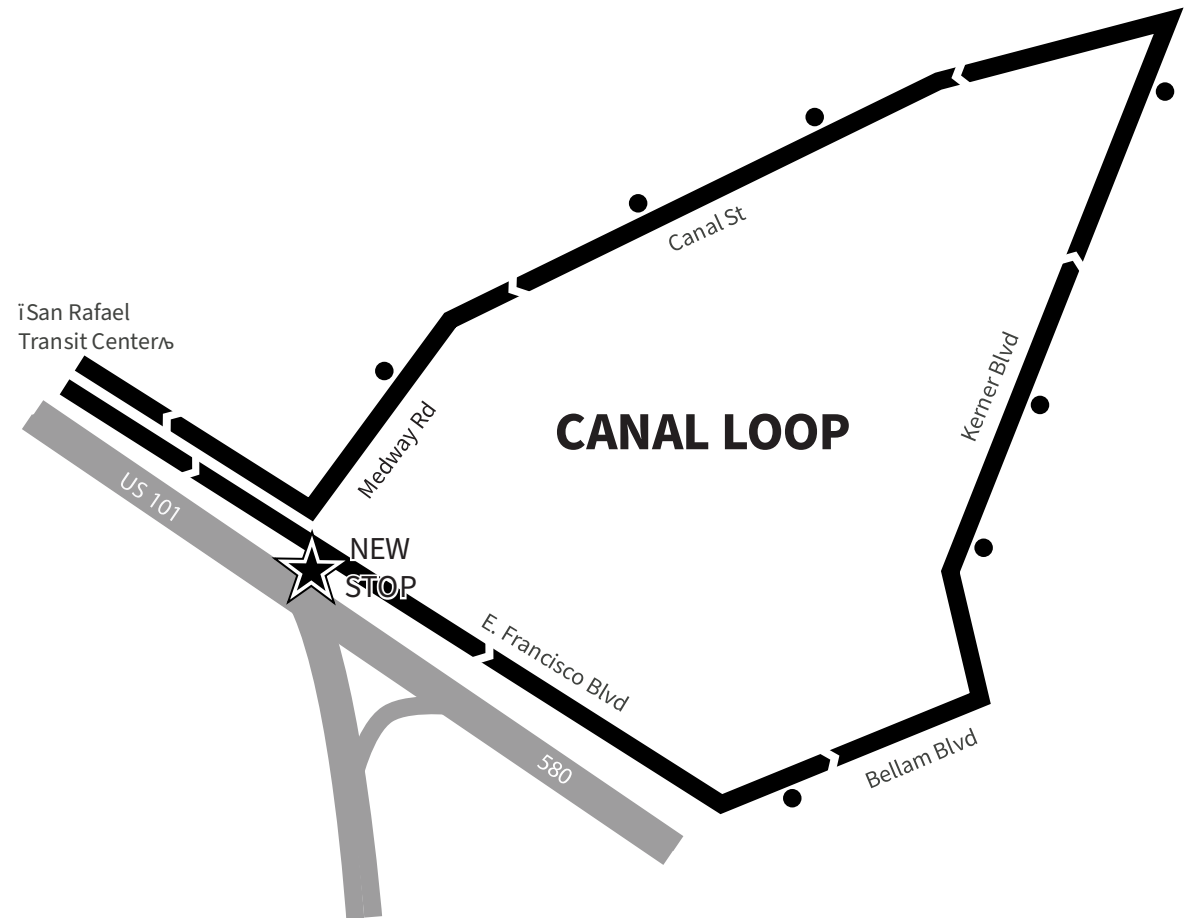
- Example past improvement in Larkspur (Magnolia & Bon Air Rd)
- Fill in landscaping strip for ADA Landing Pad
- New Marin Transit standard shelter



# New Stop 1 – E. Francisco Blvd & Medway Rd

## E. Francisco Blvd & Medway Rd.

- New Stop at beginning of Canal loop
- Provides Canal riders with a shorter ride
- Located in multiple jurisdictions
  - Coordination with Caltrans & City of San Rafael
- Extensive Caltrans approval process
- Sidewalk, Crosswalk, Bus Pad, Signal Improvements

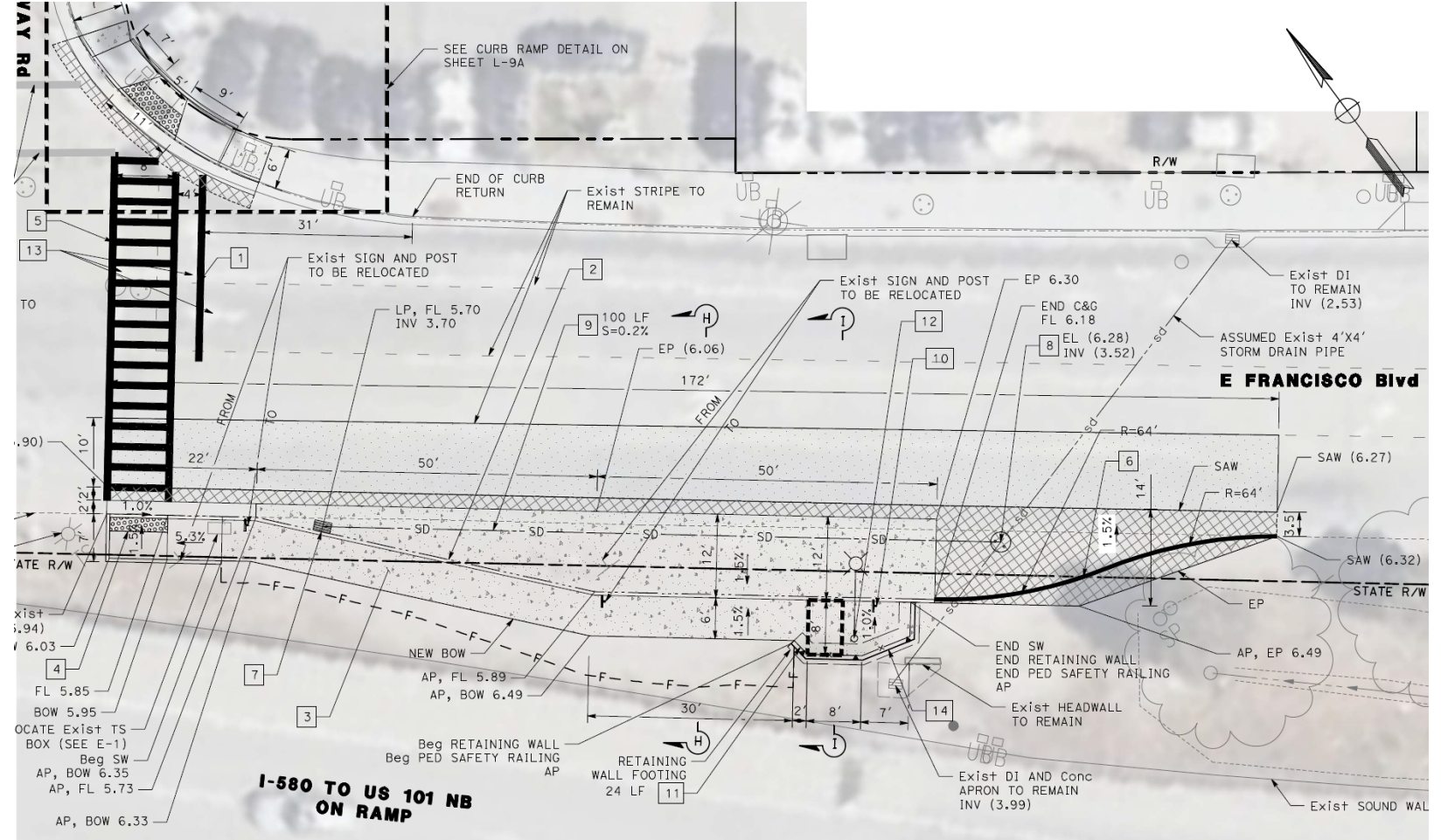




# New Stop 1 – E. Francisco Blvd & Medway Rd.



New stop rendering



# New Stop 2 – Redwood Blvd & Hill Rd

- Stop will serve Marin Community Clinics
- Increasingly requested stop
- Routing will be adjusted to serve once stop is opened
- Adding pad for ADA landing, waiting area, and bus shelter



Google Streetview at Redwood Blvd & Hill Rd



# New Stop 3 – Redwood Blvd. & Landing Ct

- Stop paired with Marin Community Clinics stop
- Required by City of Novato to be at the nearest signalized intersection for pedestrian safety
- Future housing development
- Filling in some of landscaping strip for ADA landing pad, waiting area, and bus shelter



Google Streetview at Redwood Blvd & Landing Ct.



# Contractor Procurement



# Contractor Procurement - Bids

- Bid released: November 4, 2024
- Pre-Bid Meeting: November 13, 2024
- Public Bid Opening: December 10, 2024
- Bid Protest

Bid Submitted by	Total Bid	Responsive Bid?
Coastside Concrete & Construction, Inc.	\$1,333,130	Yes
Bauman Landscape & Construction, Inc.	\$1,525,000	Yes
Ghilotti Construction Company, Inc.	\$1,815,278	Yes
Ghilotti Bros., Inc.	\$1,961,583	Yes

# Schedule

- Award (today, pending Board action)
- January - NTP for Procurement of Stop Amenities
- Spring 2025 - Expected Construction Start
- Fall 2025 - Construction Complete





# Fiscal/Staffing Impact

# Fiscal/Staffing Impact

- Project included in Capital Budget – BP – ADA Bus Stop Improvements
- Budget Amendment 2025-05 – budget increase to \$2,053,000
  - Additional design and coordination for stops in Caltrans Jurisdiction

## Funding

Federal Funding 5307 -	\$1,442,400
Property Tax	\$300,000
Measure AA	\$80,600
Budget Amendment 2025-05	\$250,000
<b>Total Project Budget:</b>	<b>\$2,053,000</b>



# Thank you

## CONTACT

**Anna Penoyar**

**Capital Manager**

**[apenoyar@marintransit.org](mailto:apenoyar@marintransit.org)**





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#### **Maribeth Bushey**

Director  
City of San Rafael

#### **Fred Casissa**

Alternate  
Town of Corte Madera

January 13, 2025

Honorable Board of Directors  
Marin County Transit District  
3501 Civic Center Drive  
San Rafael, CA 94903

**Subject: Contract with Equans-Ineo Systrans USA for a Computer-Aided Dispatch and Automatic Vehicle Location (CAD/AVL) System**

Dear Board Members:

### **Recommendation**

Authorize General Manager to sign and award a contract with Equans-Ineo Systrans USA for a CAD/AVL system for an initial five-year support and maintenance term beginning on July 1, 2025, with a total contract value not to exceed to \$1,344,898.

### **Summary**

On September 3, 2024, Marin Transit issued a Request for Proposal (RFP) for the deployment and installation of a technology platform to support the ongoing operational needs for the fixed route bus services known as CAD/AVL (Computer-Aided Dispatch/Automatic Vehicle Location). The full and complete system to be installed through this procurement includes a wide variety of onboard technology systems and integrations needed to monitor service and provide our passengers with real-time information. The current CAD/AVL solution was originally procured in 2009 and has undergone several iterations and updates to both the hardware and software components to meet the ever-changing needs of the District.

Marin Transit received ten (10) responses from vendors interested in partnering with the District on this project and interviews were conducted with five vendors who provided proposals that were determined to be full and complete. After completing interviews and reference checks, Staff rated the proposal from **Equans-Ineo** the highest with a total of 87.1 out of 100 points.

### **Background**

On October 19, 2009, your Board awarded the initial contract for an AVL system to be provided through Syncromatics, a California-based Intelligent Transportation Systems (ITS) vendor, to provide services funded through the 2009 federal grant. Since execution, District staff has seen continued expansion in technology available for the transit industry, made multiple amendments



and extensions to the original agreement, and Syncromatics has been purchased and merged with GMV, a capital business group based out of Madrid, Spain.

The current and final contract amendment with GMV ends on June 30, 2025. In alignment with our internal procurement policies, the District is required to procure goods and services through competitive means. The issuance and award of services through a Request for Proposals meets those requirements.

The District's CAD/AVL system<sup>1</sup> is the most essential piece of ITS infrastructure needed to support multiple areas of the operation. The system allows tracking, monitoring, and communication with each vehicle and driver in real-time. District Staff uses this information to monitor contract operation, by our contractor's Dispatch team (Marin Airporter) to monitor daily service, and by the public to track and understand when the vehicle will arrive and/depart from a stop based on the scheduled service. The system provides real-time dashboards and reporting capabilities needed to understand on-time performance, to help resolve customer service issues, and to efficiently monitor service disruptions and detours.

The core system is based on an onboard hardware platform that would be updated across all Marin Airporter operated revenue vehicles (~50 vehicles). This equipment is intended to provide more reliable and more accurate audible and visual announcements required under the Americans with Disabilities Act and complete integration with vehicle telematics to allow maintenance staff to make faster and more accurate diagnostics when vehicles are out of service. The CAD/AVL system will also integrate with our onboard SEON camera systems and additional Voice over Internet Protocol (VoIP) communications. In addition to providing enhanced operator and vehicle security, this will allow the District to see and hear what is happening onboard our vehicles in real time for the first time.

This replacement CAD/AVL system will also be able to respond to the future needs of the District such as tracking battery charge status across the electric vehicle fleet, managing facility and yard logistics at our planned Operations & Maintenance facility, and participation in the traffic signal communication needed for transit priority requests.

## **Procurement Summary**

Staff released the RFP on September 3, 2024, and held a bidder's conference on September 19, 2024, for interested parties to ask clarifying questions to the solicitation. Throughout the RFP solicitation period, Marin Transit received interest from multiple local and global ITS providers. Following the September 27, 2024, deadline for questions, the District received nearly one hundred questions from vendors, including a request to extend the submission deadline, which was granted, to allow vendors a longer opportunity to submit a proposal.

Staff received 10 responses to our RFP at the November 6, 2024, deadline. Of the proposals received, four proposals were determined not to be full and complete as they did not include complete information regarding the required integration with Golden Gate Transit's CAD/AVL system.

---

<sup>1</sup> This existing system, and the proposed replacement system, is specific to the contracted fixed route services not operated by Golden Gate Transit and has expanded as service with these contractors has increased over time. Golden Gate Transit uses its own CAD/AVL system (INIT) and has not agreed to implement the District's solution on vehicles operated under this interagency agreement. A key part of the District's CAD/AVL procurement is to require potential vendors to provide a solution that integrates their system with the INIT system.



A technical panel composed of Marin Transit operations staff completed preliminary scoring on the remaining six proposals. The technical panel evaluated proposals based on the following criteria:

1. **Functional and Technical Requirements** including the completeness of solution, driver usability, and integration of vehicles operated by Golden Gate Transit.
2. **Vendor Experience and Qualifications** including organizational logic, corporate stability, and a reference review.
3. **Implementation Approach** including a demonstrated knowledge of work required, evidence of team competence, and the proposed approach and methodology to project scope and schedule.
4. **Support and Maintenance** including the thoroughness of the proposed training plan and the short- and long-term warranties and product support.
5. **Cost Effectiveness**, evaluated by District finance staff.

Operations staff on the Evaluation Panel reviewed and scored the technical proposals based on the first four criteria listed above. Pricing information was evaluated separately by our Finance team and determined to be fair and accurate. Of the six proposals reviewed, vendors with the five highest scores were invited to interview.

On December 12, 2024, after interviews were completed, Marin Transit issued a request for a best and final offer from the top three vendors – Equans-Ineo, Clever Devices, and GMV Syncromatics. Best and final offers were received on December 19, 2024.

After a final review of the proposals based on the best and final requests received, the District scored Equans-Ineo the highest overall, with a total of 87.10 points out of 100 available. The table below shows the scoring for the six proposals that were deemed complete and responsive.

Vendor/Firm	Score
Equans-Ineo	87.10
GMV Syncromatics	80.35
Clever Devices	80.15
ETA Transit Systems	75.21
Swiftly, Inc.	72.50
Peak Transit	44.75

Equans-Ineo has been providing Intelligent Transportation System for 45 years and comprises over 600 employees dedicated the CAD/AVL business. More than 250 public transit agencies worldwide use their CAD/AVL solution and the system is deployed on over 50,000 buses. The company’s worldwide headquarters is based in Paris, France with its US headquarters in Atlanta, GA. Our contract will be served from its West Coast Office in Irvine, CA and our Program Manager is based on the Bay Area.

### Fiscal/Staffing Impact

The Equans-Ineo contract includes capital costs for the integration and startup, along with annual maintenance fees for the five-year base agreement. Maintenance fee pricing for the for the five additional one-year options is included the contract and, if executed, will be brought to your board for approval. Hardware procured for this system is anticipated to have a minimum 10-year useful life. Table 1 below shows these costs by fiscal year for the five-year base agreement for a total contract amount of \$1,194,898. The board authorization amount of \$1,344,898 includes \$150,000 in





contingency funds that can be added to the contract by amendment. The contingency budget would be used to purchase hardware for additional vehicles as they come online and to allow staff to work with Equans to identify new solutions to implement on Marin Transit services.

**Table 1: Equans-Ineo Contract Costs**

	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30
	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Capital Cost for Integration and Startup</b>	\$859,148	\$--.--	\$--.--	\$--.--	\$--.--
<b>CAD/AVL System Maintenance</b>	\$57,123	\$59,356	\$61,676	\$64,088	\$66,597
<b>VoIP System Maintenance</b>	\$5,203	\$5,203	\$5,352	\$5,501	\$5,651
<b>Total Fiscal Year Cost</b>	\$921,474	\$64,559	\$67,028	\$69,589	\$72,248
<b>Base Equans-Ineo Contract Award</b>					<b>\$1,194,898</b>
<b>Contingency for fleet expansion and additional services</b>					<b>\$150,000</b>
<b>Board Authorized Equans-Ineo Contract Value</b>					<b>\$1,344,898</b>

For the new system the District will also need to pay an estimated \$95,000 upfront and \$7,000 per year (\$140,000 for base period), for design and maintenance of a dedicated data feed for integration with Golden Gate Bridge Highway and Transportation District’s INIT CAD/AVL system (Table 2).

The capital cost for replacing Marin Transit’s CAD/AVL System was included in the District’s capital plan and is 80% funded with a Federal Section 5307 grant through Metropolitan Transportation Commission’s (MTC’s) regional Transit Capital Priority (TCP) program. The 20% local match will be funded with Measure AA local sales tax funding. The capital cost of \$954,148 for the system (\$859,148 for Equans-Ineo and the estimated \$95,000 for INIT integration) is 5% below the Independent Cost Estimate.

The annual maintenance costs for the Equans-Ineo system will replace the current annual maintenance costs for the existing CAD/AVL System Syncromatics system.

Staff evaluated the option to use the same system as GGBHTD but this option was anticipated to be cost prohibitive and INIT did not bid on the procurement. The agreement for INIT data access is being negotiated independently of the Equans-Ineo contract and will be authorized by the General Manager.

Table 2 shows the total operations costs for the CAD/AVL system. Year One costs include the upfront INIT implementation cost of approximately \$95,000. These annual costs are 26% below the current costs for CAD/AVL maintenance.



**Table 2: Annual Project Operations Costs**

	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30
	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Equans-Ineo Operations Costs</b>	\$62,326	\$64,559	\$67,028	\$69,590	\$72,247
<b>INIT Feed Maintenance (estimated)</b>	\$102,000	\$7,000	\$7,000	\$7,000	\$7,000
<b>Total Operations Costs</b>	<b>\$164,326</b>	<b>\$71,559</b>	<b>\$74,028</b>	<b>\$76,590</b>	<b>\$79,247</b>

Staff are asking your board to authorize a contract value of up to \$1,344,898 with Equans-Ineo, to include the base contract amount of \$1,194,898 and \$150,000 in contingency value. The proposed costs of installation, maintenance, training, and all associated fees are below District’s independent cost estimates and include an average 3.4% annual maintenance cost escalation.

Respectfully Submitted,

Kyle French  
Operations Manager

**Attachment A:** Draft Short Form Contract for Installation and Maintenance of Computer-Aided Dispatch and Automatic Vehicle Location (CAD/AVL) Systems

**Attachment B:** Presentation



Contract #

**MARIN COUNTY TRANSIT DISTRICT  
PROFESSIONAL SERVICES CONTRACT**

**THIS CONTRACT** is made and entered into this 13 day of January, 2025, by and between the MARIN COUNTY TRANSIT DISTRICT, hereinafter referred to as "District" and Equans Ineo Systrans USA, hereinafter referred to as "Contractor."

**RECITALS:**

**WHEREAS**, District desires to retain a person or firm to provide the following service: Installatoin and Maintenance of a Computer-Aided Dispatch and Automatic Vehicle Location (CAD/AVL) system ; and

**WHEREAS**, Contractor warrants that it is qualified and competent to render the aforesaid services;

**NOW, THEREFORE**, for and in consideration of the Contract made, and the payments to be made by District, the parties agree to the following:

**1. SCOPE OF SERVICES:**

Contractor agrees to provide all of the services described in **Exhibit A** attached hereto and by this reference made a part hereof.

**2. FURNISHED SERVICES:**

The District agrees to:

- A. Guarantee access to and make provisions for the Contractor to enter upon public and private lands as required to perform their work.
- B. Make available all pertinent data and records for review.
- C. Provide general bid and Contract forms and special provisions format when needed.

**3. FEES AND PAYMENT SCHEDULE:**

The fees and payment schedule for furnishing services under this Contract shall be based on the rate schedule which is attached hereto as **Exhibit B** and by this reference incorporated herein. Said fees shall remain in effect for the entire term of the Contract. Contractor shall provide District with his/her/its Federal Tax I.D. number prior to submitting the first invoice.

**4. MAXIMUM COST TO DISTRICT:**

In no event will the cost to District for the services to be provided herein exceed the maximum sum of \$ **1,194,898** including direct non-salary expenses. As set forth in section 14 of this Contract, should the funding source for this Contract be reduced, Contractor agrees that this maximum cost to District may be amended by written notice from District to reflect that reduction.

**5. TIME OF CONTRACT:**

This Contract shall commence on January 13, 2025 , and shall terminate on June 30, 2030 . Certificate(s) of Insurance must be current on day Contract commences and if scheduled to lapse prior to termination date, must be automatically updated before final payment may be made to Contractor. The final invoice must be submitted within 30 days of completion of the stated scope of services.

**6. INSURANCE:**

**Commercial General Liability:**

The Contractor shall maintain a commercial general liability insurance policy in the amount of \$1,000,000 (\$2,000,000 aggregate). The District shall be named as an additional insured on the commercial general liability policy.

**Commercial Automobile Liability:**

Where the services to be provided under this Contract involve or require the use of any type of vehicle by Contractor, Contractor shall provide comprehensive business or commercial automobile liability coverage, including non-owned and hired automobile liability, in the amount of \$1,000,000.00.



Workers' Compensation:

The Contractor acknowledges the State of California requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the Labor Code. If Contractor has employees, a copy of the certificate evidencing such insurance, a letter of self-insurance, or a copy of the Certificate of Consent to Self-Insure shall be provided to the District prior to commencement of work.

Errors and Omissions, Professional Liability or Malpractice Insurance.

Contractor may be required to carry errors and omissions, professional liability or malpractice insurance.

All policies shall remain in force through the life of this Contract and shall be payable on a "per occurrence" basis unless District specifically consents to a "claims made" basis. The insurer shall supply District adequate proof of insurance and/or a certificate of insurance evidencing coverages and limits prior to commencement of work. Should any of the required insurance policies in this Contract be cancelled or non-renewed, it is the Contractor's duty to notify the District immediately upon receipt of the notice of cancellation or non-renewal.

If Contractor does not carry a required insurance coverage and/or does not meet the required limits, the coverage limits and deductibles shall be set forth on a waiver, **Exhibit C**, attached hereto.

Failure to provide and maintain the insurance required by this Contract will constitute a material breach of this Contract. In addition to any other available remedies, District may suspend payment to the Contractor for any services provided during any time that insurance was not in effect and until such time as the Contractor provides adequate evidence that Contractor has obtained the required coverage.

**7. ANTI DISCRIMINATION AND ANTI HARASSMENT:**

Contractor and/or any subcontractor shall not unlawfully discriminate against or harass any individual including, but not limited to, any employee or volunteer of the Marin County Transit District based on race, color, religion, nationality, sex, sexual orientation, age or condition of disability. Contractor and/or any subcontractor understands and agrees that Contractor and/or any subcontractor is bound by and will comply with the anti discrimination and anti harassment mandates of all Federal, State and local statutes, regulations and ordinances.

**8. SUBCONTRACTING:**

The Contractor shall not subcontract nor assign any portion of the work required by this Contract without prior written approval of the District except for any subcontract work identified herein. If Contractor hires a subcontractor under this Contract, Contractor shall require subcontractor to provide and maintain insurance coverage(s) identical to what is required of Contractor under this Contract and shall require subcontractor to name Contractor and Marin County Transit District as an additional insured under this Contract for general liability. It shall be Contractor's responsibility to collect and maintain current evidence of insurance provided by its subcontractors and shall forward to the District evidence of same.

**9. ASSIGNMENT:**

The rights, responsibilities and duties under this Contract are personal to the Contractor and may not be transferred or assigned without the express prior written consent of the District.

**10. LICENSING AND PERMITS:**

The Contractor shall maintain the appropriate licenses throughout the life of this Contract. Contractor shall also obtain any and all permits which might be required by the work to be performed herein.

**11. BOOKS OF RECORD AND AUDIT PROVISION:**

Contractor shall maintain on a current basis complete books and records relating to this Contract. Such records shall include, but not be limited to, documents supporting all bids, all income and all expenditures. The books and records shall be original entry books with a general ledger itemizing all debits and credits for the work on this Contract. In addition, Contractor shall maintain detailed payroll records including all subsistence, travel and field expenses, and canceled checks, receipts and invoices for all items. These documents and records



shall be retained for at least five years from the completion of this Contract. Contractor will permit District to audit all books, accounts or records relating to this Contract or all books, accounts or records of any business entities controlled by Contractor who participated in this Contract in any way. Any audit may be conducted on Contractor's premises or, at District's option, Contractor shall provide all books and records within a maximum of fifteen (15) days upon receipt of written notice from District. Contractor shall refund any monies erroneously charged.

**12. WORK PRODUCT/PRE-EXISTING WORK PRODUCT OF CONTRACTOR:**

Any and all work product resulting from this Contract is commissioned by the Marin County Transit District as a work for hire. The Marin County Transit District shall be considered, for all purposes, the author of the work product and shall have all rights of authorship to the work, including, but not limited to, the exclusive right to use, publish, reproduce, copy and make derivative use of, the work product or otherwise grant others limited rights to use the work product.

To the extent Contractor incorporates into the work product any pre-existing work product owned by Contractor, Contractor hereby acknowledges and agrees that ownership of such work product shall be transferred to the Marin County Transit District.

**13. TERMINATION:**

See Exhibit D: FTA GRANT CONTRACT PROVISIONS PROFESSIONAL SERVICES, Item 5.

**14. APPROPRIATIONS:**

The District's performance and obligation to pay under this Contract is contingent upon an annual appropriation by the Marin County Transit District Board of Directors, the State of California or other third party. Should the funds not be appropriated District may terminate this Contract with respect to those payments for which such funds are not appropriated. District will give Contractor thirty (30) days' written notice of such termination. All obligations of District to make payments after the termination date will cease.

Where the funding source for this Contract is contingent upon an annual appropriation or grant from the Marin County Transit District Board of Directors, the State of California or other third party, District's performance and obligation to pay under this Contract is limited by the availability of those funds. Should the funding source for this Contract be eliminated or reduced, upon written notice to Contractor, District may reduce the Maximum Cost to District identified in section 4 to reflect that elimination or reduction.

**15. RELATIONSHIP BETWEEN THE PARTIES:**

It is expressly understood that in the performance of the services herein, the Contractor, and the agents and employees thereof, shall act in an independent capacity and as an independent Contractor and not as officers, employees or agents of the District. Contractor shall be solely responsible to pay all required taxes, including but not limited to, all withholding social security, and workers' compensation.

**16. AMENDMENT:**

This Contract may be amended or modified only by written Contract of all parties.

**17. ASSIGNMENT OF PERSONNEL:**

The Contractor shall not substitute any personnel for those specifically named in its proposal unless personnel with substantially equal or better qualifications and experience are provided, acceptable to District, as is evidenced in writing.

**18. JURISDICTION AND VENUE:**

This Contract shall be construed in accordance with the laws of the State of California and the parties hereto agree that venue shall be in Marin County, California.

**19. INDEMNIFICATION:**

Contractor agrees to indemnify, defend, and hold District, its employees, officers, and agents, harmless from any and all liabilities including, but not limited to, litigation costs and attorney's fees arising from any and all claims and losses to anyone who may be injured or damaged by reason of Contractor's negligence, recklessness or willful misconduct in the performance of this Contract.

**20. COMPLIANCE WITH APPLICABLE LAWS:**

The Contractor shall comply with any and all Federal, State and local laws and resolutions: including, but not limited to the County of Marin Nuclear Free Zone and Living Wage Ordinance Copies of any of the above-referenced local laws and resolutions may be secured from the Contract Manager referenced in section 21. In addition, the following NOTICES may apply:



1. Pursuant to California Franchise Tax Board regulations, District will automatically withhold 7% from all payments made to vendors who are non-residents of California.
2. Contractor agrees to meet all applicable program access and physical accessibility requirements under State and Federal laws as may apply to services, programs or activities for the benefit of the public.
3. For Contracts involving any Federal Transit Administration grant funds, Exhibit D must be attached. Exhibit D provides all Federal Transit Administration Contract Provisions relevant to this Contract.
4. For Contracts involving any State or Federal grant funds, Exhibit E must be attached. Exhibit E shall consist of the printout results obtained by search of the System for Award Management at [www.sam.gov](http://www.sam.gov).

**Exhibit E - Debarment Certification**

By signing and submitting this Contract, the Contractor is agreeing to abide by the debarment requirements as set out below.

1. The certification in this clause is a material representation of fact relied upon by District.
2. The Contractor shall provide immediate written notice to District if at any time the Contractor learns that its certification was erroneous or has become erroneous by reason of changed circumstances.
3. Contractor certifies that none of its principals, affiliates, agents, representatives or contractors are excluded, disqualified or ineligible for the award of contracts by any Federal agency and Contractor further certifies to the best of its knowledge and belief, that it and its principals:
  - a. are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal Department or Agency;
  - b. Have not been convicted within the preceding three-years of any of the offenses listed in 2 CFR 180.800(a) or had a civil judgment rendered against it for one of those offenses within that time period;
  - c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or Local) with commission of any of the offenses listed in 2 CFR 180.800(a);
  - d. Have not had one or more public transactions (Federal, State, or Local) terminated within the preceding three-years for cause or default.
- e. The Contractor agrees by signing this Contract that it will not knowingly enter into any subcontract or covered transaction with a person who is proposed for debarment, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction.
- f. Any subcontractor will provide a debarment certification that includes the debarment clause as noted in preceding bullets above, without modification.

**21. NOTICES:**

This Contract shall be managed and administered on District’s behalf by the Department Contract Manager named below. All invoices shall be submitted and approved by this Department and all notices shall be given to District at the following location:

Contract Manager:	Kyle French Operations Manager
	Operations
Dept./Location:	711 Grand Avenue, Suite 110, San Rafael CA, 94901
Telephone No.:	415.226.0877

Notices shall be given to Contractor at the following address:

Contractor: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_



**22. ACKNOWLEDGEMENT OF EXHIBITS**

<input checked="" type="checkbox"/>	<u>Check applicable Exhibits</u>	<u>CONTRACTOR'S INITIALS</u>
<input type="checkbox"/>	Scope of Services	
<input type="checkbox"/>	Fees and Payment	
<input type="checkbox"/>	Insurance Reduction/Waiver	
<input type="checkbox"/>	Federal Transit Administration Contract Provisions	
<input type="checkbox"/>	Contractor's Debarment Certification	
<input type="checkbox"/>	Subcontractor's Debarment Certification	

IN WITNESS WHEREOF, the parties have executed this Contract on the date first above written.

**CONTRACTOR**

By: \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Title: \_\_\_\_\_

**APPROVED BY  
 MARIN COUNTY TRANSIT DISTRICT:**

By: \_\_\_\_\_

**COUNTY COUNSEL REVIEW AND APPROVAL** *(required if template content has been modified)*

County Counsel: \_\_\_\_\_ Date: \_\_\_\_\_



**EXHIBIT "A"**

**SCOPE OF SERVICES (required)**

**DRAFT**





**DV24-5070**

**NOVEMBER 2024**

**REQUEST FOR PROPOSALS FOR  
COMPUTER-AIDED DISPATCH (CAD) AND  
AUTOMATIC VEHICLE LOCATION (AVL) SOLUTIONS  
FOR THE MARIN COUNTY TRANSIT DISTRICT**



**EQUANS CAD/AVL SYSTEM FOR  
MARIN TRANSIT**

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EQUANS - INEO SYSTRANS USA Inc. 8601 Dunwoody Place, Suite 115, Sandy Springs, GA 30350



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## A. SYSTEM ARCHITECTURE/TECHNICAL AND FUNCTIONAL CAPABILITIES

To meet the requirements of Marin Transit, EQUANS is offering its proven and reliable Computer Aided Dispatch / Automatic Vehicle Location (CAD/AVL) platform, which is an all integrated solution with Automated Voice Announcements (AVA), Real time passenger information, GTFS/GTFS RT, bus tracking app and website, and is fully integrated with the Cradlepoint Router, UTA APC, Destination signs, and Genfare Farebox system.

**This is a complete solution that meets all of Marin Transit’s requirements.**

### A.1 COMPLIANCE MATRIX

To ease the evaluation, EQUANS has created the below compliance matrix with each requirement for the Marin Transit RFP.

EQUANS is compliant with all requirements from the RFP.

REQUIREMENT	Compliant (C); Not Compliant (NC); Compliant with Modification (CM)
<b>1. Company and Product</b>	
a. A tested, mature product that provides a full range of fixed route transit CAD/AVL functions.	C ; The EQUANS CAD/AVL is a mature product that has been on the market for 45 years, live on more than 250 public transit agencies.
b. A strong history of continued product development and enhancement with at least one major product release or improvement within the last eighteen (18) months	C ; In the past 4 years, more than 8000 days of development and enhancements have been recorded to improve the EQUANS CAD/AVL product. There is one to two major releases per year, with multiple minor releases. The last major release was Q1 2024, and the next major release is schedule for Q1 2025, which Marin Transit will have.
c. Informed, experienced, and responsive product support staff and system technicians, available 24x7 via phone or email and a support website or portal to assist with operation, configuration, reporting, or troubleshooting of your system.	C; In addition to a support staff, Marin Transit will have the direct line to your dedicated Project Manager. EQUANS will provide access to a 24/7 support website (Salesforce).
d. Written support policies, clearly defined response times, and service level agreements with both scheduled and readily-available performance reporting. Please provide the written policy for on-site and remote technical training and support.	C Please find our policy for on-site and remote technical training and support in <b>Section E: Training</b> and <b>Section G: Customer Service and Support</b> of the proposal. See also <b>EQUANS Standard Warranty and</b>



	<b>Maintenance Agreement</b> in the Appendix.
e. A named account manager as the District’s primary point of contact for product and service discussions and issue escalations. Please provide name, title, email and mailing address, and phone number in the requested Key Personnel section of your proposal.	C; Hoki Tse will be the Project Manager and primary point of contact. Hoki is conveniently located on the West Coast to be closer to Marin Transit.
f. A product available as a hosted or a SAAS product with cloud based servers. All server procurement, implementation, maintenance, update, and support shall be included in the cost of the proposed solution.	C ; The EQUANS CAD/AVL system is hosted on Amazon Web Services (AWS), hosted in Northern California.
g. An application for administrative, dispatch, and other office-based agency roles.	C
h. A mobile supervisory application – app based or web based – available for field staff, accessible either through a mobile device (phone or tablet) or laptop	C
i. A native ability to import fixed route schedules from a fixed route scheduling system or from GTFS format. No vendor involvement should be required for schedule import, agency staff must be able to perform this function independently.	C
j. Exports fixed route information and vehicle location data compliant with the GTFS-RT format, including trip updates, vehicle positions, schedule status, and service adjustment information at no more than a 30 second interval.	C – Interval is configurable and can be as low as 1 sec. Recommendation is every 3 second interval for integration with Miovision TSP.
k. The existing bus stop database, where stops are identified by no less than 5 numeric characters, shall be retained.	C
l. The existing representation and management of fixed route service shall be retained, including but not limited to – driver block, route identifier, service branch, individualized trips, and timepoints / stops.	C
m. Hardware and software that is new and is the current, supported model. Used, reconditioned, discontinued, or otherwise non-supported equipment shall not be supplied under this agreement.	C
n. All component software, licenses, keys, hardware and software warranties, and items installed on District premises or vehicles shall be registered in the District’s name.	C
<b>REQUIREMENT</b>	<b>Compliant (C); Not Compliant (NC); Compliant with Modification (CM)</b>
<b>2. Implementation</b>	
a. A realistic project schedule, including all relevant project phases covering, but not limited to, design, configuration, hardware procurement and installation, system integration, testing, training, system acceptance, and a ‘Live’ date. A timeline should be provided in your proposal. The District has a goal date of Q3 for system implementation, as outlined in Phase 2 of the project above. Please identify if you think that is a feasible goal for your proposed solution.	C; Yes, EQUANS proposes a Go-Live by the end of June.





b. A formal Integration Test Plan for all external systems, covering both the external systems (scheduling software, etc.) and the vehicle onboard systems (headsigns, farebox, etc.). Contractor will perform these tests and will be validated by District staff	C
c. A formal training plan will be developed and executed as part of this project and will include specific training at least for Administrative / Dispatchers, Operators, and Road Supervisors. All pre-recorded and electronic training materials will remain available to District staff at no cost.	C
d. A formal Live Support plan will be developed that includes increased monitoring, onsite and onboard systems and hardware support, remedial training, etc., for at least 90 days after the software has been accepted. Please include or highlight a previous example of a support plan in your proposal.	C Please refer to <b>EQUANS Standard Warranty and Maintenance Agreement</b> located as an attachment in the Appendix.
<b>REQUIREMENTS</b>	<b>Compliant (C ); Not Compliant (NC); Compliant with Modification (CM)</b>
<b>3. Operations</b>	
a. The system shall allow an Operator to login to only one vehicle at a time. If an Operator logs into more than one vehicle at a time, an automated message will be sent to both Operators to verify credentials. The system will also generate an automated message to supervisory staff.	C
b. The system shall allow only one Operator to log into a trip at the same time. If more than one Operator logs onto the trip, an automated message will be sent to both Operators to verify the service. The system will also generate an automated message to supervisory staff.	C
c. The system shall only allow an Operator to log into a service block/run within a predetermined window in relation to the start time of said block/run. The District would prefer the system to prevent Operators to log onto service that does not match the current service day (i.e. an operator cannot log into a block designated for Sunday/Holiday service on a weekday).	C
d. The system shall allow supervisory staff to log a driver in remotely in the event that an operator has logged in or logged a run incorrectly. This may also log an Operator off the system.	C
e. The system shall allow supervisory staff to manage and modify vehicle assignment or operator assignment in real time.	C
f. The system shall allow to view, at any given time, details about any vehicle in network including but not limited to route, run, location, operator, and early/late status.	C
g. The system shall record the departure and arrival times, and the difference between scheduled and actual arrival or departure times, of all trips at route terminals, layovers, and other key points.	C
h. The system shall allow both pre-defined and ad hoc messaging from supervisory staff to specific operators, with confirmed delivery, with all messages sent stored in the system database.	C
i. The system shall allow operators to send pre-defined messages to Dispatch, with confirmed delivery, with all messages sent in the system database.	C
j. The District strongly prefers a solution that would include the necessary hardware to allow the vehicle operator to initiate a	C





<p>request to talk (RTT) and priority request to talk (PRTT) voice call with Dispatch. The proposed solution will primarily rely on Voice over IP (VoIP). The District would also be interested in a solution that would be able to utilize existing Motorola talk-channels for communications between supervisory staff and operators in the event of a network outage or if the vehicle is otherwise in fallback.</p>	
<p>k. The system shall include an emergency / covert / silent alarm that will allow the operator to remotely alert Dispatch to an emergency on the vehicle. Vendor shall integrate with existing alarm switches whenever possible or provide new hardware on vehicles that do not currently have alarm switches installed.</p>	C
<p>l. The system shall include a robust map display capability, and automatically update maps as they become available, showing at least these key features for supervisory staff: i. Display of road network ii. Route path display for a single route and for multiple routes (which must be able to be distinguished from one another) iii. Vehicle icon, direction of travel, and vehicle status and on time performance. iv. Vehicle passenger loads and overloads, provided by the APC system. v. Filters or other configuration of what information to display for a vehicle vi. Filters or other configuration of what vehicles to display vii. Vehicle tracking viii. Route timepoints and terminals</p>	C
<p>m. The system shall allow supervisory staff to handle unplanned situations such as road closures, detours, accidents, etc., through live dispatching features, including but not limited to: i. Same day service changes, including addition or cancellation of trips ii. Creation of or change of an existing detour iii. Closure of stop for one or more routes When such action occurs, information shall be updated on the operator AMDT as well as on all public facing information channels (headsigns, onboard and public digital signage, GTFS-RT feed, etc.), and data will be stored in the system database.</p>	C
<p>n. The system shall allow supervisory staff to view, in as close to real time as possible, the schedule adherence for each route and its trend.</p>	C
<p>o. The system shall import planned revenue, relief, layover, garage, and interline/deadhead/pull in/out runs from scheduling software.</p>	C
<p>p. The system shall provide the ability for all supervisory staff to replay stored CAD/AVL data. Replay shall include the ability to select and replay one or multiple vehicles, single or multiple routes, and shall provide all status, timing, and location data associated with the vehicles for the replay period.</p>	C
<p>q. The system shall allow supervisory staff as well as Operators the ability to see which version of software/firmware/data is on a given coach.</p>	C
<p>r. The system shall automatically log critical events (such as a wheelchair lift deployment) based on District specifications.</p>	C
<p>s. The system shall support and not interfere with the future introduction of a Transit Signal Priority (TSP) system, through either auxiliary hardware or through API integration with traffic controllers.</p>	C ; EQUANS has standard, tested integration with multiple TSP providers such as Miovision (GTT Opticom) or EMTRAC, and can



	integrate either onboard or through an API.
<b>REQUIREMENTS</b>	<b>Compliant (C ); Not Compliant (NC); Compliant with Modification (CM)</b>
<b>4. Onboard Systems and Integrations</b>	
a. System includes a color touchscreen automated mobile data terminal (AMDT), mobile data computer (MDC), or similar device. Device should have an operator user interface (UI) that is intuitive and easy to understand. UI should focus on customizable important data elements while operating, including but not limited to current system time, next stop information, map guidance / turn by turn routing directions, and on time performance / schedule adherence guidelines.	C
b. The AMDT/MDC shall automatically turn on when the vehicle is powered up and automatically shut down after a configurable amount of time once the vehicle is powered off.	C
c. The system shall support a single operator logon to the AMDT/MDC for all connected devices that require additional data.	C
d. The AMDT/MDC shall connect with onboard Cradlepoint routers to enable bi-directional data exchange with system servers. The District prefers a hardwired connection.	C
e. The system shall include hardware required to integrate to all onboard systems via compatible Ethernet, serial (RS-232), or J1708/J1939 interfaces.	C
f. Includes a tested integration with Hanover headsigs to allow the system to automatically switch to pre-programmed sign codes.	C - Integration with Hanover is tested and proven, implemented at dozens of transit agencies (RVTD, Corpus Christi, Green Bay, Lynchburg...). It allows for single sign-on, interline, switch pre-programmed sign codes, and wireless updates of sign codes.
g. Includes a feature for drivers to record fare-specific passenger classes - i.e., tallying students with passes, seniors with discounted fares, single-ride tickets, etc. While the creation of paper fare media is not a required element of the proposed system, the District would be very interested in understanding what options your system would offer for the printing or issuance of visually validated paper fare media.	C
h. Include an Automatic Vehicle Announcement System (AVAS), an Automated Stop Annunciator (ASA), or similar system that would allow the System to broadcast, over the internal PA speakers, automated or manually activated text-to-speech or prerecorded announcements.	C
i. System announcements via the AVAS, ASA, or similar system, should automatically update based on detours, closed stops, or routing adjustments made in real time by supervisory staff.	C - When a detour or other adjustments are made in real-time, the AVAS, the interior sign, but also the GTFS RT feed will automatically update and announce the service change / detour, in real-time, without any additional action.



<p>j. System announcements via the AVAS, ASA, or similar system, should not interfere with the operator ability to make a public announcement via a personal microphone.</p>	<p>C</p>
<p>k. System announcements should be available in multiple languages.</p>	<p>C – English and Spanish is offered as a base for this project. Additional languages are available and can be added such as French, Chinese, Japanese, German, etc.</p>
<p>l. System shall make at least the following audible and visual announcements, using the AVAS/ASA and digital signage onboard the vehicle: i. Next stop ii. Transfer points iii. Stop requests (reset upon door opening) iv. Public service announcements at set intervals, set locations, or randomly throughout the route, or any combination of these</p>	<p>C</p>
<p>m. System shall make the following audible announcements on the exterior of the vehicle at door opening: i. Route ii. Destination iii. Public service announcements at set intervals</p>	<p>C</p>
<p>n. The system shall allow operators to log off and log on mid-run or mid-trip for mid-shift operator changes.</p>	<p>C</p>
<p>o. Contractor shall configure and provide two (2) Bus in a Box (“BIBs”) for training purposes. This is a set of all integrated onboard equipment simulating the proposed system in a live environment, and should include at minimum the driver AMDT/MDC, network communication equipment, AVAS/ASA speakers, digital signage, and power inverters to supply required power via standard 120v circuitry. Additional items may be provided by the District for integration, including a farebox and headsign.</p>	<p>C</p>
<p>p. For any hardware items that can be ‘hot-swapped’ by on-site maintenance teams, contractor shall provide an appropriate amount of ‘spare’ units to allow vehicles to resume service as quickly as possible.</p>	<p>C</p>
<p><b>REQUIREMENTS</b></p>	<p><b>Compliant (C); Not Compliant (NC); Compliant with Modification (CM)</b></p>
<p><b>5. Public Information</b></p>	
<p>a. The system shall generate stop arrival predictions to the best ability of Contractor, using any and all available data including but not limited to scheduled travel time, historical travel time, day of week, passenger load, or any other factors affecting travel time</p>	<p>C</p>
<p>b. The system shall support real time public facing digital signage at bus stops, stations, transfer points, and the like. The system should be capable of informing passengers of predicted or pending arrivals and departures and should be able to feed to the District’s existing passenger facing audio/visual technology.</p>	<p>C</p>
<p>c. The system shall allow supervisory staff to add customized alerts to the GTFS-RT feed, able to be assigned to specific routes or stops, on an ad hoc or prescheduled basis.</p>	<p>C</p>
<p>d. The system shall update real time arrival predictions and will generate alerts to the GTFSRT feed based upon real time service adjustments and measures implemented by supervisory staff, including but not limited to: i. Cancellation of service. ii. Additional</p>	<p>C</p>



service (“trippers”) in addition to scheduled trips iii. Detours, ad hoc and preplanned, at route, trip, and/or stop level. iv. Any operational issue that may result in service being curtailed or otherwise made partially or completely unavailable.	
e. The system shall provide a text messaging, SMS, or other similar feature for real-time information at a bus stop.	C ; For a live example of the EQUANS SMS features, please text “Greenlink 1000” at 22827.

REQUIREMENTS	Compliant (C ); Not Compliant (NC); Compliant with Modification (CM)
<b>6. Reporting</b>	
a. System includes a robust and flexible data reporting system with reporting capabilities both predefined and ad hoc. Reporting tools should access real time, or as near as possible, data. Please include an extensive list of other standard reports that use real time or near real time data.	C
b. Where appropriate, reports should include parameters to drill down into desired data – for example, reports should be able to be filtered by (but not limited to) route or branch, trip or shift, stop or stop typology, and service day, to get the best idea about individual stop performance.	C
c. The reporting system shall allow for the customization and branding of all standard reports delivered within the system.	C
d. The system shall allow the integration and automatic export of reports and data to TransTrack, the District’s standalone data management system.	C ; EQUANS has a standard, tested integration with TransTrack, implemented at multiple transit agencies such as Memphis Area Transit Authority or Kanawha Regional Transit.

REQUIREMENTS	Compliant (C ); Not Compliant (NC); Compliant with Modification (CM)
<b>7. Informational</b>	
a. The system shall have the ability to integrate with vehicle powertrain and electronic diagnostic systems present operating metrics and alerts to supervisory and maintenance staff. System shall be configured to upload data at set intervals or predetermined metrics. This integration must be tested and proven operational for diesel, hybrid, and battery electric buses.	C ; The EQUANS CAD/AVL will connect to the vehicle’s J1939 to report vehicle health data as well as vehicle real-time state of charge for electric buses.
b. The system shall have the ability to notify staff when vehicles are brought in / out of service	C
c. The system shall include a Bus Yard / Garage geofencing feature.	C – The EQUANS Yard Management software has been included at no cost.

<p>d. The system shall, within 18 months of implementation, support the publishing of live ridership data through the GTFS-RT feed.</p>	<p>C – Live ridership via GTFS RT (occupancy status) is already available and will be implemented for Marin Transit.</p>
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## A.2 CAD/AVL SYSTEM OVERVIEW

At the Back office, schedule data is imported into the CAD/AVL through automatic GTFS import. The EQUANS CAD/AVL allows transit agencies to edit stop location and route, enter new schedule data, manage assignments, and more – the CAD/AVL will be automatically updated.



When not in service, the vehicles upload and download data by 4G/5G/LTE or Wi-Fi with the central CAD/AVL.



In the vehicle, bus drivers will perform a single log-in. Data are automatically transferred to the Destination Signs, Farebox, AVA, and other onboard system.



The touch screen Mobile Data Terminal guides bus drivers through their trip, starting with a single log-in. The bus driver interface allows sign in and sign out, route selection, next stop arrival information, trip switching, on-time performance indication, turn-by-turn directions, detour information, connection information, 2-way data communication, emergency alerting, dispatch messaging, pre-trip inspection, maintenance indications and troubleshooting. The MDT is hard-wired into the onboard system.



Bus drivers and dispatchers can communicate in real-time via 2-way text messaging, directly from the MDT. In addition, Voice over IP (VOIP) is available as a standard part of the EQUANS CAD/AVL.



ADA-compliant Automatic Voice Announcement (AVA) and on-board next stop signs will improve the rider experience by providing real-time information your passengers rely on.



In the back office, the CAD/AVL makes it possible to monitor service pull-in and pull-out, on-time performance and block progress through dedicated table and dashboard views.



To respond to disruptions, the CAD/AVL application allows for dynamic dispatching to manage disruptions, modify assignments, real-time detour, short turn, and more.

A Mobile Dispatch App on Android Smartphone and Tablet allows road supervisor to monitor the operation remotely, without being in front of a workstations. The Mobile Dispatch App also include Voice over IP.



Technical alarms (engine failures, etc.), and operating alarms (delays, off route, speeding, etc.) are displayed to dispatch and can be configured to be sent by email to a specific list of recipients.



The vehicle replay feature makes it possible to replay the position of vehicles at any time of the current day or of any previous day.



The reporting module provides more than 70 canned reports and allows data extraction from periodic reports which can be exported in .csv (Excel) and PDF format to third party tools.



The data includes all the information needed including vehicle mileage, vehicle hours, alarms, on-time performance indicators, the number of trips completed and missed, run times, commercial speed, passenger count etc. with the ability to drill down into the data to identify single stop performance or single trip performance.



In addition, the EQUANS CAD/AVL include 1-click NTD S-10 reporting.

Open API, including GTFS, GTFS-RT and SIRI allows export of real-time data, including vehicle position, trip update and service alerts to any third party system, including SMS notifications, Transit App, Google Maps, website, third party developers, and more.



EQUANS partners with bus manufacturers such as GILLIG to allow professional installation at the factory, so your buses arrive ready to deploy.



Best in class customer support and training, always available on an unlimited basis.



### A.3 SYSTEM LIFE CYCLE, EXPANDABILITY AND MAINTAINABILITY

The EQUANS proposed CAD/AVL is design for a minimum of 12 years life cycle, which makes it a long term investment for Marin Transit.

The EQUANS CAD/AVL comes with a standard five years warranty, which can be extended up to 12 years warranty, demonstrating the long term maintainability of our solutions.

EQUANS will provide Marin Transit with its latest, state of the art platform, and upgrade Marin Transit to the latest and greatest every year.

The EQUANS CAD/AVL is designed to facilitate future expansion in functionality and transit operating conditions, with open, fully documented interfaces. The EQUANS CAD/AVL allow for expansion without upgrading initial equipment, without restructuring initial software, and with no loss in performance.

### A.4 SYSTEM ARCHITECTURE

The EQUANS CAD/AVL has been designed based on an open architecture that can link with existing or future systems, 100% cloud based with no need of infrastructure, and scalable, which allows Marin Transit to keep up with the pace of technology changes with new features delivered as part of the roadmap.

The EQUANS CAD/AVL is accessible at any time, from anywhere, using a computer connected to the internet. The System provides System Administrators with the ability to review and modify the configuration and parameters, and to monitor the status of all components in real-time.





The CAD/AVL provides Marin Transit System Administrators with the ability to review and modify the configuration and parameters, and to monitor the status of all CAD/AVL components.

- **Open System Architecture:** The EQUANS CAD/AVL is designed using off-the-shelf hardware and software, using Open data Architecture and nonproprietary software allowing Marin Transit to develop system interfaces independently or enable integration with other internal or third-party systems. There is no restrictions for Marin Transit for the implementation of third-party integrations.

The EQUANS CAD/AVL use standard network communication protocols such as Transmission Control Protocol/Internet Protocol (TCP/IP) and system interfaces such as open database connectivity (ODBC) for databases.

- **Cloud-hosted system:** The EQUANS CAD/AVL is a fully cloud-based system, requiring no physical server to facilitate daily IT work. EQUANS uses Amazon Web Services (AWS) as its cloud provider, to deliver cloud-based solutions to its clients.

powered by 

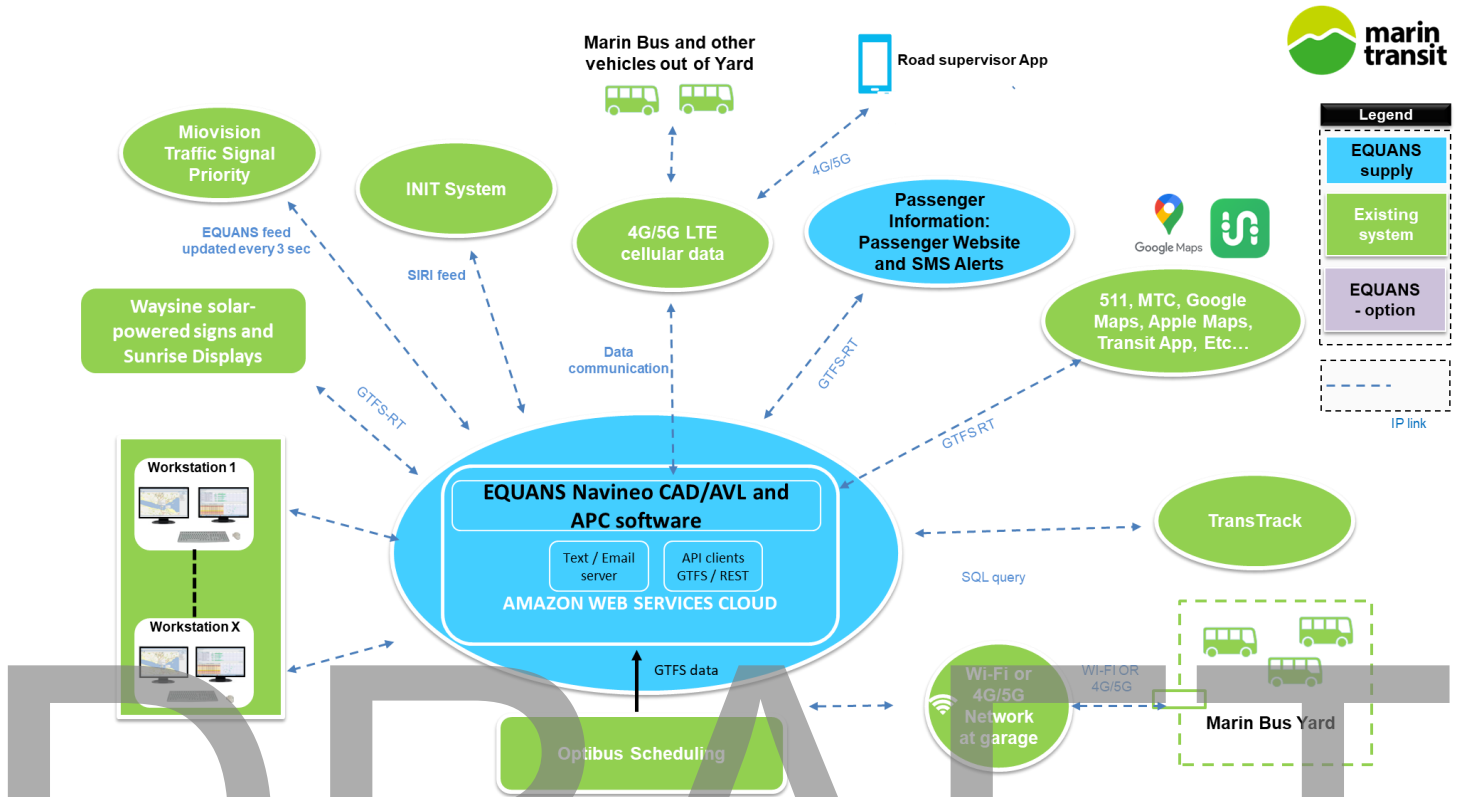
The EQUANS CAD/AVL reach a **99.99% availability** rate through the AWS cloud. In the past 5 years, there has been no downtime recorded for all our US customers hosted in the cloud. The use of the cloud will allow Marin Transit to increase system up-time, lower adoption cost and maintenance expenses (no purchase of hardware needed), and ease software updates and patches, with no intervention on your end.

AWS enables us to provide real-time services running 24/7, 365 days a year, with greater efficiency and the highest availability available.

The EQUANS system is designed for 24/7 operations with no need of planned maintenance. Most of our clients never experienced a single downtime or loss of data. EQUANS can commit to an availability of 99.99% as required.

- **Workstations:** The EQUANS CAD/AVL will work with the Marin Transit current workstations.
- **Database:** The data in the CAD/AVL database are accessible through SQL queries. The EQUANS CAD/AVL allow extraction of historical data via SQL queries using an ODBC connection. EQUANS provide a data dictionary and definitions for the tables and databases so ad-hoc reports can be created by Marin Transit staff.
- **Adaptability:** The EQUANS CAD/AVL have been designed on an open architecture with open API and open standard, which allows us to adapt very easily to any changes Marin Transit may desire.
- **Data logging:** The EQUANS CAD/AVL log all data from buses, without lost events, 100% of the time, based on 24 hour a day operation, 365 days a year.
- **Data Flow and System Architecture:** The following is the System Diagram presenting back office architecture and system integration.





### A.4.1 DISASTER RECOVERY AND 24/7 DATA ACCESS

AWS Data centers are designed to anticipate and tolerate failure while maintaining service levels. In case of failure, automated processes move traffic away from the affected area. Core applications are deployed to an N+1 standard, so that in the event of a data center failure, there is sufficient capacity to enable traffic to be load-balanced to the remaining sites.

In the United States, Amazon Web Services (AWS) operates data centers in the following regions: US East (Ohio), US West (Oregon), US West (Northern California), and US East (Northern Virginia).

**The data center that will host the Marin Transit data is US West “Northern California”.**

The EQUANS CAD/AVL is fully redundant in case of natural disaster. Amazon Web Services (AWS) store a backup database which is updated frequently and allow us to restart a server on the fly, within a few minutes if necessary.

### A.4.2 SYSTEM AND DATA SECURITY

EQUANS commits to ensure and maintain the confidentiality, security, safety, and integrity of all data, including setting up physical and electronic safeguards designed to prevent unauthorized access or use and protect against known or anticipated threats to the security or integrity of such data.

EQUANS provide software security in accordance with best practices from ISO 27001, which is an international standard to manage information security.

All device, network, element, and connection used by EQUANS to provide the solution to Marin Transit will be secured to prevent unauthorized access by third party. Cloud services is done over a secure connection. All data stored in the Cloud are free from any Personally Identifiable Information (PII).

In addition, EQUANS benefits from the EQUANS SOC (Security Operations Center) which monitors 24/7 all Amazon Cloud environment set-up by all EQUANS company.

The access to the AWS server goes through the EQUANS SOC (Security Operation Center). The access is only done through the EQUANS internal network and must go through double authentication through OKTA.

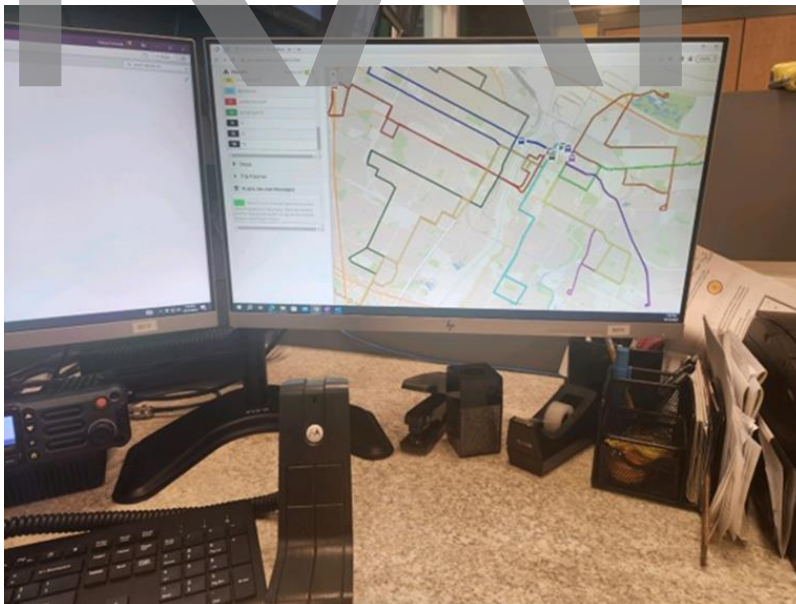
The CAD/AVL will limit access to its workstation functions and the Samsung tablets through password controls.

## A.5 EQUANS CAD/AVL SYSTEM OVERVIEW

The EQUANS CAD/AVL is a cloud-based, state-of-the-art, live transit dispatching solution, fully integrated and designed to be in operation 24/7. It has been designed for transit agencies such as Marin Transit that require the ability to actively monitor and proactively manage active on-road schedule adherence through situational awareness and real-time management capabilities. It is designed to monitor and improve communications with your fleet and passengers, and is the primary means of assigning, overseeing, and communicating with vehicles, as well as preparing and processing incident reports.

The EQUANS CAD/AVL software is modular in design, easy to use, and easily configurable by Marin Transit staff.

The EQUANS CAD/AVL provides vehicle position very accurately, and is capable of providing position updates a better than once every five seconds - The EQUANS system will have a polling rate of three seconds which will provide very accurate bus tracking for dispatch and passengers.



*Above is a picture of the EQUANS CAD/AVL in use at the Green Bay Metro Transit Dispatch office, on a fleet of 30 GILLIG buses.*

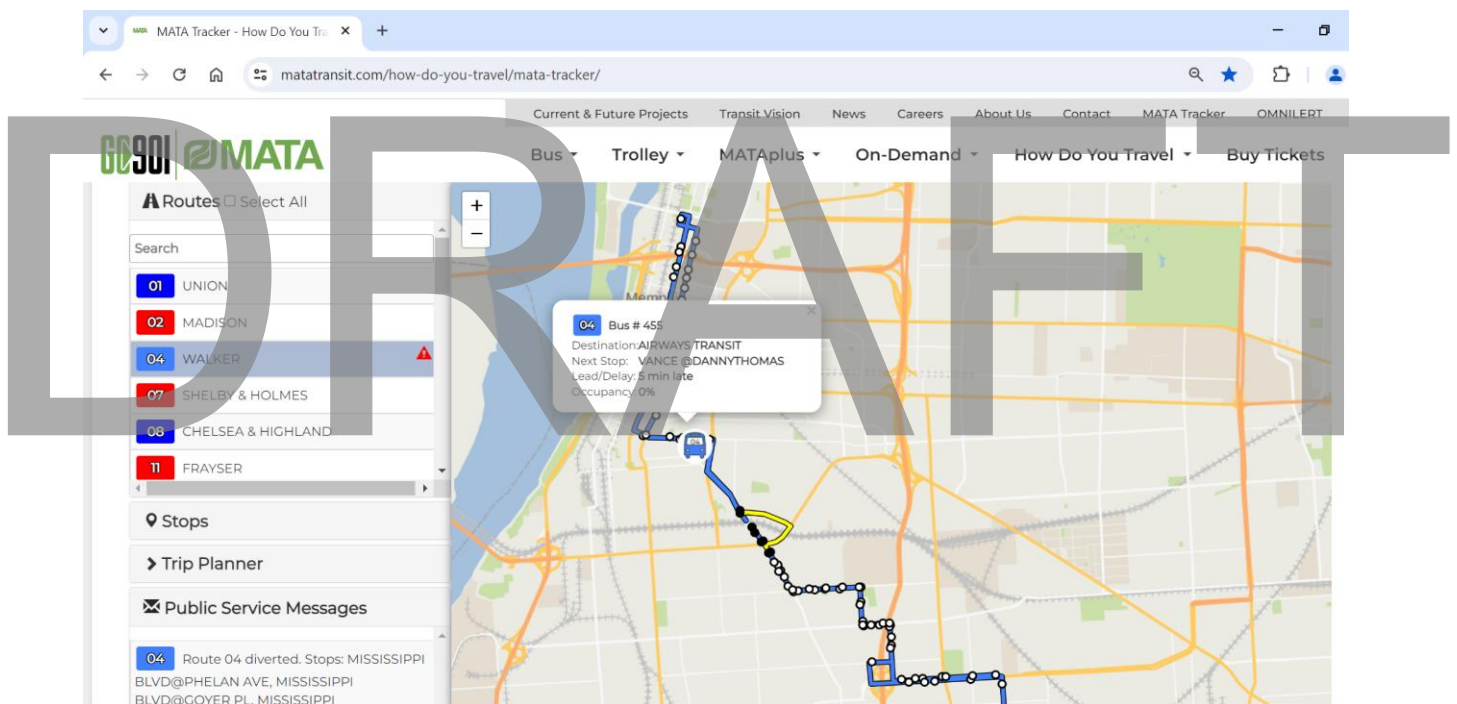
The proposed EQUANS CAD/AVL benefits Marin Transit by providing service and operational capabilities such as real-time, dynamic route modification, remote stop placement and adjustment, turn-by-turn capability, real-time passenger counting, and more.

Indeed, the EQUANS CAD/AVL natively includes a rich set of real-time dispatching features to dynamically manage scheduled service changes and unforeseen disruptions, assign vehicles and drivers in real-time, and provide real-time alerts based on configurable parameters (bus late, bus full, spacing violation, speeding, etc.).

The EQUANS CAD/AVL can integrate with any mobile platform and provide and publish real-time information in the General Transit Feed Specification Real-Time (GTFS-RT) format, linked by trip ID to Marin Transit’s static GTFS feed.

For passengers, the EQUANS CAD/AVL keeps passengers in the loop with live vehicle tracking, real-time arrival time, passenger notifications, stop and route info, alerts, trip planning, and more.

Below is an example of the passenger experience on the website in Memphis, TN:

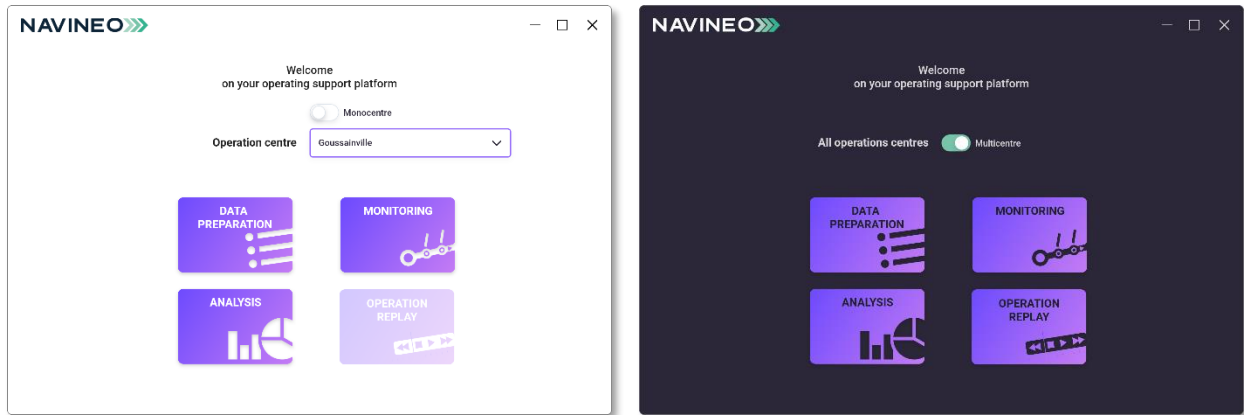


### A.5.1 EASE OF USE

The EQUANS CAD/AVL offers an easy to use and intuitive Graphical User Interface (GUI) available to dispatchers, supervisors, Operations Managers and other users for understanding real-time status of the overall system.

The EQUANS CAD/AVL offers an end-user experience that is straightforward, based on Microsoft Windows architecture. It is intuitive and easy to use and facilitates quick decision-making for dispatchers, supervisors, and other transit staff.

Both a dark mode and a light mode are available for users:



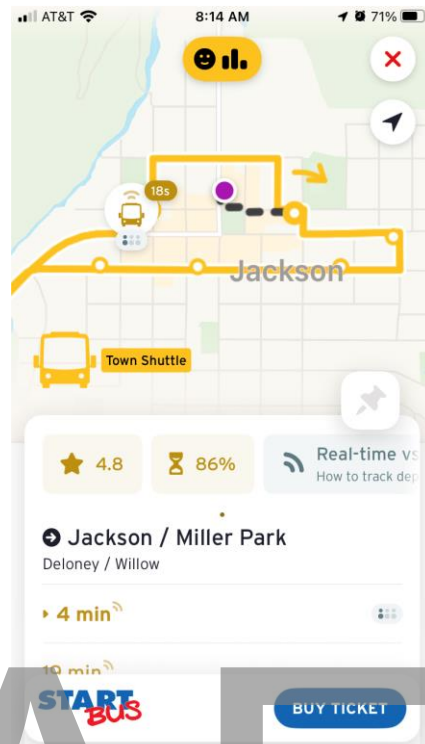
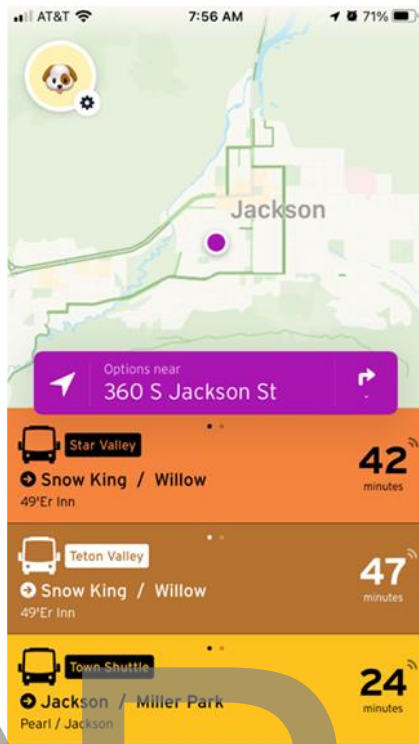
*Standard mode and dark mode.*

For remote access, Marin Transit's Road Supervisors, customer service, off site dispatch, Managers, and other authorized users will be able to access the CAD/AVL via remote access to the central CAD/AVL through any mobile workstation (laptop) or tablet.

For drivers, the EQUANS MDT offers a very intuitive user interface, that has been designed with transit drivers to take into account what they need to see during revenue service (on-time performance indicator, vehicle position, incoming message...).

For Marin Transit passengers, the mobile application and passenger are designed to be accessible and user-friendly. Users can select one or more routes, view the distance from their current location and pin their favorite routes.

The mobile app is freely available for both Apple (iOS) and Android (Google Play) users.



## A.5.2 USER ACCESS

The CAD/AVL include a System Administrator role with access to all system functions, including configuration management and authority to set access privileges for other users. Access privileges can be set differently for each user groups (dispatcher, supervisor, Operations Manager, Maintenance...).

The EQUANS CAD/AVL support the use of Marin Transit assigned user roles and passwords, including a logon, logoff feature that is password protected and allow a user to logon to a specific user access level.

The EQUANS CAD/AVL support multiple user groups (e.g., driver, supervisors, operations managers, system administrator...) with settable system rights, privileges, and access control by roles.

The central CAD/AVL allows the Marin Transit system administrator to manage user access permissions for specific user groups. The administrator also have the capability to add, delete, or modify users, groups, or roles. The login to the EQUANS application is done via username / password. Each user will have a unique password. Stored passwords are encrypted using industry standard encryption methods.

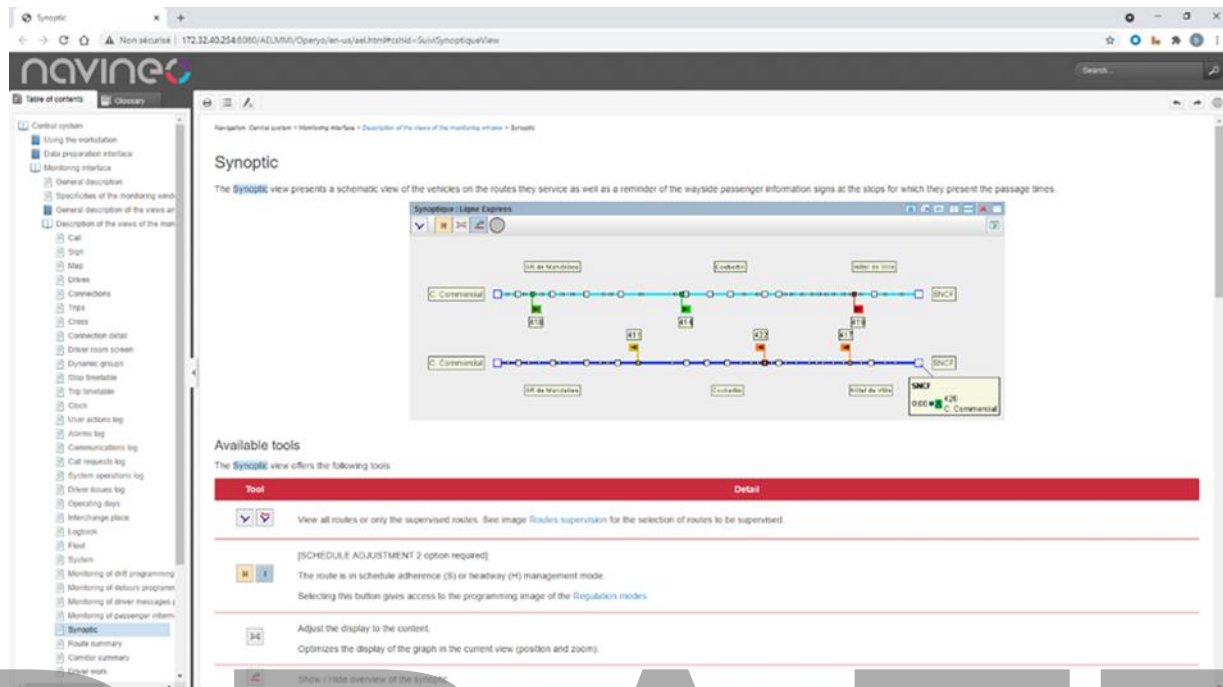
The EQUANS CAD/AVL offers great flexibility for end-users, can modify, and add menus into the user interface, allows for multiple screen sessions available for each workstation, and toggle between tab and window.

## A.5.3 CONTEXT SENSITIVE HELP PAGE

The EQUANS CAD/AVL include context sensitive help capability.

All views have online help accessible via the "F1" key, automatically opening a web interface, allowing users to get support while using the system.





Online help by pressing F1.

## A.6 CAD/AVL – GENERAL OVERVIEW

The proposed EQUANS CAD/AVL solution is a proven, turnkey, commercially available cloud-based platform that is already developed, deployed, and operational in the real world on more than 50,000 buses.

The EQUANS CAD/AVL platform, is completely cloud based, user friendly, and offers a large flexibility for users, dispatchers, drivers, and maintenance. The EQUANS CAD/AVL offer Marin Transit administrators the ability to change and update route paths and bus stop locations via a cloud-based interface in real-time, allowing these updates/changes to be available immediately for customers and bus drivers.

The EQUANS CAD/AVL offers functionality and hardware that has been previously proven in transit operations for the past 40 years.

The proposed CAD/AVL by EQUANS is a full turnkey system. The proposed CAD/AVL allows multiple users to access or edit data simultaneously. There is no limitation in the number of users working in the system at the same time.

The EQUANS CAD/AVL is designed for continuous, 24/7 operation without the need to manually “reboot” computers or devices on an unscheduled basis.

The EQUANS CAD/AVL capture and transmit vehicle location information on a real-time basis. The CAD/AVL have a polling rate as close to real-time as possible, which can be 1 second. The EQUANS CAD/AVL has real-time transit capabilities with an open API for mobile and web applications.

The EQUANS CAD/AVL and components have been designed for use in a public transit environment, including all cables, wiring, mounts, and other hardware, able to withstand the heavy-duty operation of a transit bus agency.

All hardware/ software proposed can operate at peak performance in the geographical climate of Marin Transit , and all proposed on-board systems will continue to function in areas without cellular data reception.

The EQUANS CAD/AVL offer a one-click Google ready GTFS export of static and real time feeds for any purpose that Marin Transit determines. The EQUANS GTFS and GTFS RT feed has been approved by Google.

The EQUANS CAD/AVL have the capability of providing Automated Voice Announcements (AVA) with customizable pronunciation, customizable voices, customizable languages, the ability to announce every stop and intersections, which will make the system compliant with the Americans with Disabilities Act (ADA).

The EQUANS CAD/AVL has standard integration with Hanover Destination Signs and with Genfare Fareboxes for single log-in.

Finally, the EQUANS CAD/AVL allows Marin Transit to expand and offer add-on's (Infotainment, Pre/post trip inspection, integration with Maintenance/EAM software etc.) in the future with no additional hardware needed.

### **A.6.1 ACCESS TO LOCATION DATA**

Marin Transit will have access to real-time, static and archives vehicle locations data, and make it available to third party vendors vetted by Marin Transit.

EQUANS always has had an open data policy, developing open API for third party use.

The EQUANS system provide capability of Real-Time Transit Data API that allows for querying data from AVL services. The API provide real-time vehicle location data and estimated arrival times for vehicles as they approach bus stops.

The EQUANS real-time API is updated in real-time to reflect changes in routes, detour, delay, and more.

The EQUANS database is open to third party authorized, to access all real-time and archived vehicle location data for external development purposes via SQL.

Real-time API is available via XML, JSON, GTFS and GTFS RT.

### **A.6.2 INTEGRATION WITH OPTIBUS SCHEDULING**

Full-featured Intelligent Transportation System requires complete and accurate schedule data. The EQUANS CAD/AVL system can automatically import schedule data from GTFS or other formats from Optibus, and will automatically load the daily schedule of blocks, runs, and assignments.

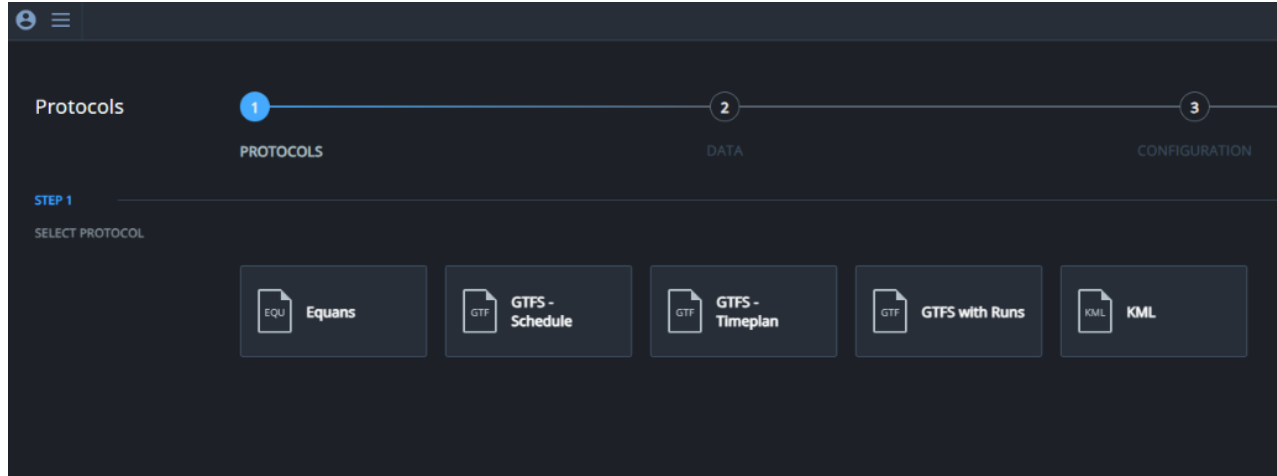
**EQUANS has a proven integration with Optibus, as our system are integrated on multiple CAD/AVL implementation, including in Jackson, WY, Portland, ME, and Naples, FL.**





The EQUANS CAD/AVL automatically import schedule data from Optibus, and will automatically load the daily schedule of blocks, runs, and assignments, without manual actions.

**EQUANS and Optibus have worked together on an export process that is more automated and seamless, as seen below:**



*Screenshot from the Optibus Software with the "EQUANS export"*

The EQUANS CAD/AVL includes an automatic process to automatically import the Optibus files when a new file or new schedule is delivered. The new schedule will be automatically imported into the CAD/AVL and ready to deploy.

During the import process, the EQUANS CAD/AVL system perform a consistency checks and provide an automatic errors report to the system administrator if any errors or inconsistency are reported.

The EQUANS CAD/AVL will automatically import and incorporate the following data from the scheduling system:

- Stops;
- Timepoints;
- Combined stop/Timepoints; Routes;
- Route traces/Shape files;
- Route variants; Patterns;
- Blocks;
- Runs;
- Trips;
- Relief;
- Layovers;
- Pull-in / pull-out;
- Garages & facilities;
- Timetables;
- Service calendars;
- Sign-up period;
- Day types;

- Service types;
- Polygons;
- and Exceptions.

Our solution supports schedule-based and frequency-based GTFS for route varieties. With just a few clicks, Marin Transit planning and scheduling staff can easily modify routes, stops, schedules and vehicle data, and automatically update the GTFS feeds.

Our solution include the ability to store multiple future scheduling dataset with a set future validity start date. The system will automatically download this future dataset to all buses via Wi-Fi prior to the start date. At the start of the validity period for a new scheduling dataset, the system will automatically transition to using the new scheduling dataset in production.

EQUANS has the ability to automatically exports all recorded real operating data to the run-time and performance analysis module of the Optibus scheduling system, for schedule optimization.

### A.6.3 SCHEDULING SOFTWARE EXPERIENCE

**In addition to EQUANS proven integration with Optibus, EQUANS can also integrate with many other scheduling software solutions including, but not limited to, Remix, HASTUS, and Trapeze.**

EQUANS has integrated with Remix scheduling in Greenville, Lynchburg, Williamsburg, Rochester, and others. The integration with Remix is done via ODS, which is the new standard developed by Cal-ITP. EQUANS and Remix were among the first to implement such ODS integration.

EQUANS has integrated with Trapeze FX scheduling in Memphis, TN.

EQUANS has integrated with HASTUS in more than 50 transit agencies in Europe but also in North America (Little Rock, Corpus Christi, Quebec City, Brampton and Gatineau).

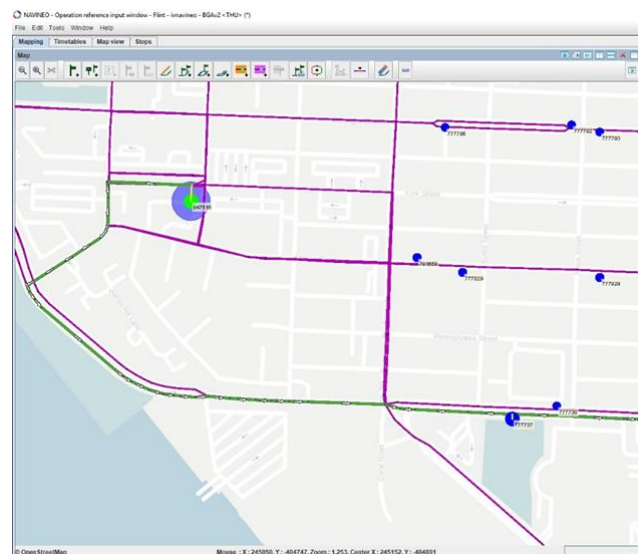
As Marin Transit is planning for a new scheduling procurement in the near future, EQUANS foresees no issues in integration with the scheduling software of Marin Transit's choice.

### A.6.4 DAILY SCHEDULE DATA MANAGEMENT

Our solution supports schedule-based and frequency-based for route varieties. With just a few clicks, your planning and scheduling staff can easily modify routes, stops, schedules and vehicle data, and automatically update the GTFS feeds.

Once the schedule data has been imported, the data management module allows the system to create connections between routes, assign drivers to runs, modify stop locations, create long-term detours, and more.

The system also supports the creation and management of geofences, such as stop areas, garage areas, or other geofences around specific locations.





With just a few clicks, the Marin Transit staff can use our Data Set Manager and easily create a new route or edit existing routes, edit stop locations, modify vehicle data, modify schedules, or create a planned detour without having to contact EQUANS.

Marin Transit will be able to use a simple point and click interface to create or adjust a route and add, remove, or edit a stop location instantly. Editing a stop location is as easy as drag and dropping the stop to the new location and validating.

The data set manager also allows you to modify schedule data start date and new bid data in a few seconds, by just selecting a new applicable date for the new set of schedules.

In this way, the team can plan future schedule changes and even publish them with a go-live date to see future schedule/block changes. For example, if you desire to modify voice announcement starting January 1<sup>st</sup>, you can modify the announcement directly into the AVL, and select the date you want the announcement to be live. This can be a same day edit if needed. At the start of the validity period for a new scheduling dataset, the system will automatically transition to using the new scheduling dataset in production, including publishing the dataset to all buses.

It is also possible to have different schedules based on day of the week - for example reduced service on Fridays or weekends, or different schedule for other time periods (school in – school out, holidays).

To support an emergency reduction in service, the system allows you to immediately apply a Saturday or Sunday schedule to any/all routes. Any schedule changes activated automatically modify the GTFS RT feed / predictions.

### **A.6.5 BUS ROUTES, PATTERN AND SCHEDULE**

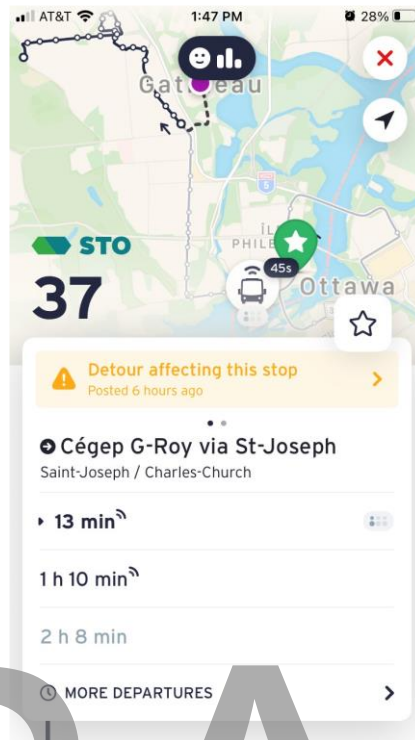
The CAD/AVL have the ability to incorporate schedule changes either on demand (in real-time) or at a scheduled time. The CAD/AVL will automatically check changes for impacts to related CAD/AVL subsystems such as the traveler information and the Automatic Voice Annunciation subsystems.

The EQUANS CAD/AVL have the capability to make changes to the bus route, pattern, and schedule data from a workstation, including driver assignments, planned or ad-hoc detour, short turn, addition or cancellation of a trip, removing a bus stop, adding a bus stop, change in schedule, and more.

The EQUANS CAD/AVL allow Marin Transit users to enter changes using a simple, graphical interface to enter changes by drawing a detour on a map. The data entered include the effective dates and pattern, and automatically detect if the detour applies to multiple routes. In one action, Marin Transit can create a detour for several routes.

The CAD/AVL archive every detour for future use.

Upon validation, the EQUANS CAD/AVL immediately pass relevant data about the bus route, pattern, and schedule changes to the appropriate CAD/AVL subsystems and external applications such as Transit App, Website, or Google.

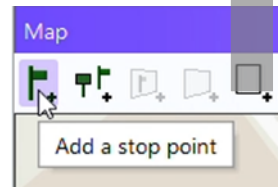


*Detour information transmitted to the Transit App.*

### A.6.6 BUS STOP MANAGEMENT

The EQUANS CAD/AVL can easily integrate the existing Marin Transit bus stop inventory, in any format, into the system. The existing bus stop database will be retained.

The EQUANS CAD/AVL also provide a graphical user interface to manage the database attributes of all stops. A stop can be set as a stop point, a timing point, or a layover. To add a stop, user can place the new stop directly on the map or input the coordinates.



### A.6.7 OPERATIONS STATUS

The EQUANS CAD/AVL automatically generate operations status alarm when it detects an out-of-tolerance condition.

The EQUANS CAD/AVL allows to monitor events based upon real-time bus performance, current on-road conditions, conditions that deviates from the schedule, or bus drivers incidents. The real-time vehicle events are based on threshold crossed and immediately reported to Marin Transit staff. The CAD/AVL enable the setting of tolerances and threshold for determining each abnormal condition by the Marin Transit system administrator.

The system will trigger an alert directed to the dispatchers for the following situations:

- Off Route.
- Missed relief.

- Communications failure.
- Behind schedule by a configurable period.
- Running early by a configurable period.
- Not logged in and/or logged into wrong vehicle.
- Silent alarm activated.
- Late pull-out by a configurable period.
- Late departure from first time point.

The CAD/AVL monitors additional situations and provide notifications in real-time, such as, but not limited to: Late or early log-on / log-off, Vehicle out of the yard without logon, vehicle idling, Speeding, Missed relief, Passenger Capacity (bus full), Schedule Deviation (mis-assignment/different bus, not deployed, not assigned), as well as for hardware failure/technical issues such as GPS issue / Loss of cellular connectivity, Destination signs connection failed.

System users can filter by type of alarms, by route, by category, by vehicle, and more.

Alarm	Route	Start	End	Important	Code	Category	Sub-category	Equipment Fleet num	Driver Number	Duty set	Block set	Stop shLBl
1 Vehicle in large delay	17	18:59:45 04/10/2024	19:00:27 04/10/2024		302	Operation	Vehicle	662	11292	219	1701	5262 S Staples
2 Vehicle in large delay	27	18:29:52 04/10/2024	18:45:19 04/10/2024		302	Operation	Vehicle	638	851577	247	2701	Leopard @ Por
3 Vehicle in large delay	27	17:29:52 04/10/2024	17:30:19 04/10/2024		302	Operation	Vehicle	666	20926	235	2704	Leopard @ Por
4 Vehicle in large delay	27	15:29:52 04/10/2024	15:30:19 04/10/2024		302	Operation	Vehicle	700	848789	238	2705	Leopard @ Por
5 Vehicle in large delay	29	13:37:43 04/10/2024	13:40:35 04/10/2024		302	Operation	Vehicle	751	11162	210	2905	Staples @ Bluch
6 Vehicle in large delay	26	13:14:57 04/10/2024	13:15:24 04/10/2024		302	Operation	Vehicle	653	11049	226	2601	5714 McArdle

*Alarm filter on vehicle with large delay.*

System settings can be configured to send any of these alarms by email to specific employees.

Each alert is logged in the CAD/AVL Dispatch view and tied to vehicle ID, driver ID, run, block, and time information, as seen below.

### A.6.8 REMOTE LOG-IN

The CAD/AVL will automatically notify dispatchers if any vehicle(s) have left the yard and have not been logged in.

The dispatchers have the capability to remotely login any vehicles with the driver and route credentials which populate all the other on-vehicle systems through single sign-on.

### A.6.9 SCHEDULE ADHERENCE

The EQUANS CAD/AVL support schedule adherence functionality, with vehicles tracked against the schedule and the difference monitored by the system.



The EQUANS CAD/AVL monitors Schedule Adherence for all vehicles. Based on configurable thresholds (configurable in minutes behind schedule, and minutes ahead of schedule), the system use the reported schedule adherence data to designate when vehicles are “early,” “late,” or “on time.” Early and late thresholds are configurable by route.

The CAD/AVL records and stores both the time of arrival and departure at all scheduled timepoints. Marin Transit will be able to define and configure the schedule adherence threshold parameters (what is late, what is early). Schedule adherence parameters can be set differently by route.

Schedule adherence is displayed for dispatchers and made available to customer applications in real time.

An alarm is triggered when a bus is running at a Marin Transit configurable number of minutes ahead or behind schedule. On the MDT display, the schedule adherence is shown at all times to the bus driver.

### A.6.10 HEADWAY MANAGEMENT

The EQUANS CAD/AVL includes and supports Headway Management to avoid bus bunching and help maintain regular spacing of vehicles on route. The system allows Marin Transit to manually configure a scheduled headway for any route.

For headway-based service, the EQUANS CAD/AVL calculate schedule adherence status based on headway adherence, the system will report departure from each stop to the central system for comparison purposes, and the MDT display headway information to the bus driver.

The system provides an alert for vehicle bunching and allows dispatch to hold vehicles at terminal or stops to recover headway spacing.

The CAD/AVL include a route ladder view that shows the location of buses relative to stops on a particular route. The route ladder view display the headway between vehicles on a particular route and aid the dispatcher in determining schedule adherence of the vehicles.



Example of Route Ladder

The live route ladder helps dispatchers stay proactive about vehicle spacing by flagging, in real time, the vehicles that are contributing most to bunching, gapping, and poor schedule adherence.



### A.6.11 ROUTE ADHERENCE / OFF ROUTE

When a vehicle is off route, dispatch is automatically notified with a pop-up alarm. When the vehicle is off route, the vehicle turns a different color on the map. The system does not consider a bus to be off route if it is following an applicable detour routing.

There is no voice announcement while the vehicle is off route – it comes back automatically when the bus is back on route. When returning to an on-route condition, the VLU resume normal operation immediately.

The MDT will display whether the vehicle is on-route or off-route.

### A.6.12 GEOGRAPHIC DISPLAY – LIVE MAP

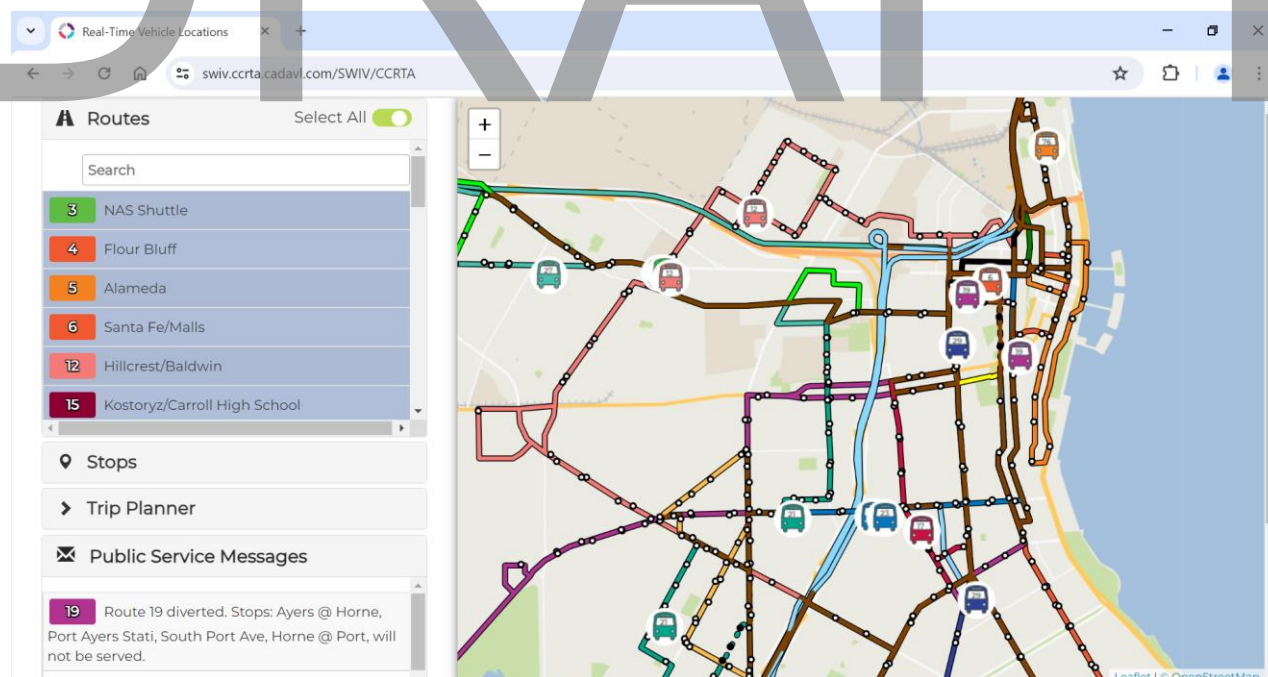
The EQUANS CAD/AVL uses GPS from the Cradlepoint router and the existing GPS antenna installed in every buses.

**It allows to accurately track all buses in real-time and provide a visual mapping display. Real-time bus location is reported every 3 seconds for highly accurate data.**

Dispatchers can find and track a single vehicle by selecting the vehicle ID through a list window. Once selected, the vehicle is centered on a map at an appropriate zoom level.

Hovering over a vehicle quickly provides the dispatcher with specific Schedule Adherence status information, bus driver identification (driver ID), vehicle details (vehicle ID), crowding in %, speed as well as current work information such as route, block and run details.

The map is available on a public website and viewable through various devices (Smartphone, Kiosk, Bus Stop, PC, etc.).



#### A.6.12.1 VEHICLE LOCATION DATA

The EQUANS CAD/AVL provide a Graphic User Interface for real-time automatic vehicle location data display.



Vehicle icon on the map clearly indicate Vehicle ID, Route Direction, and Location. It also include information on the vehicle such as Run, Block, Trip, Date/Time and Speed.

### A.6.12.2 MAPS

The CAD/AVL system includes a map. The map support various map views, with full zoom, pan and auto-centering capability. The EQUANS CAD/AVL allows to display vehicle information in real-time on a geographic map at workstations for dispatch, customer service and other stakeholders along with other pertinent information regarding the route, vehicle, and schedule data.

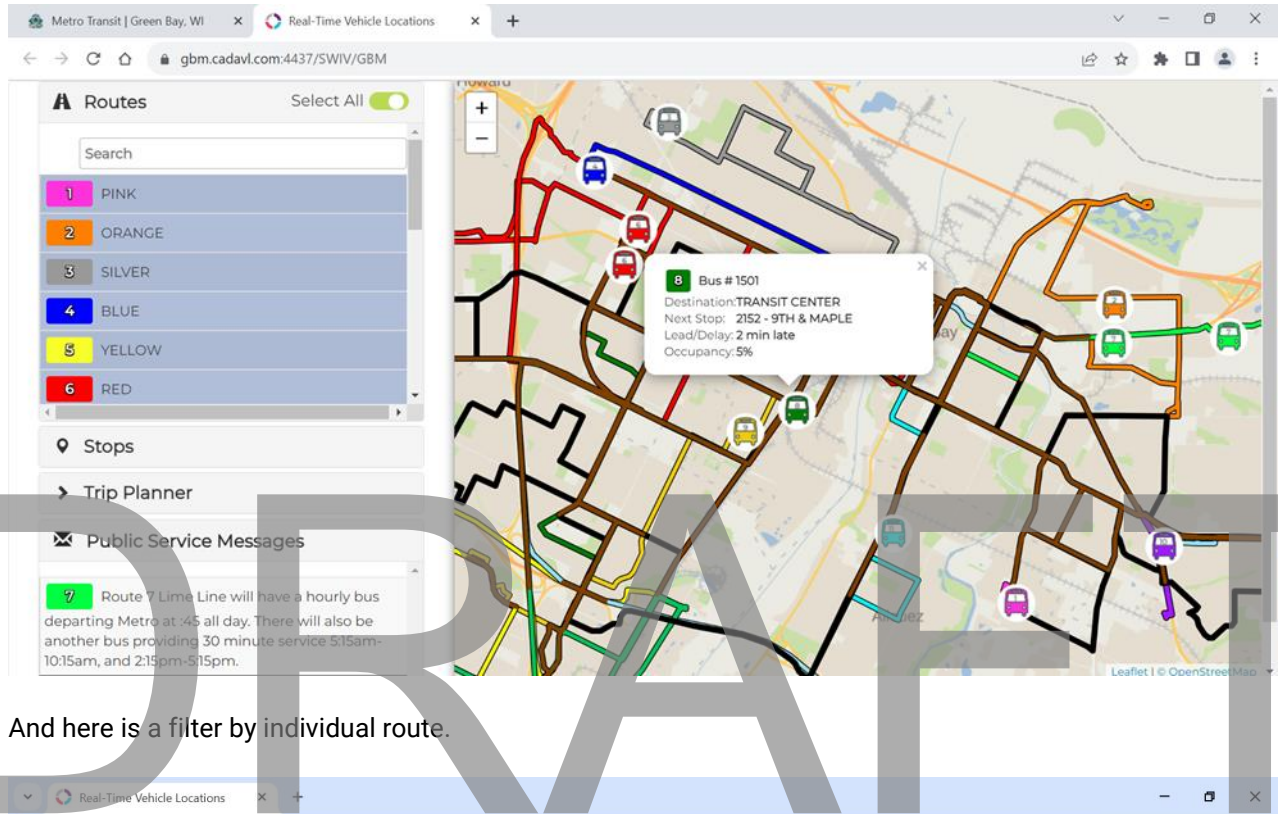
The EQUANS Map view allows dispatchers to see live bus tracking on a map with a view of the Marin Transit service area with information that is intuitive and customizable. All vehicles will be tracked with a high-level of accuracy, reported every three seconds.

**This also helps Marin Transit respond to customers' inquiries more quickly: Customer service agents have the tools they need to answer the most common questions about "where is the bus", which helps shorten average call lengths. Customer service teams also have access to the playback feature, which helps to resolve issues like, "My bus never showed up" in just a few clicks.**

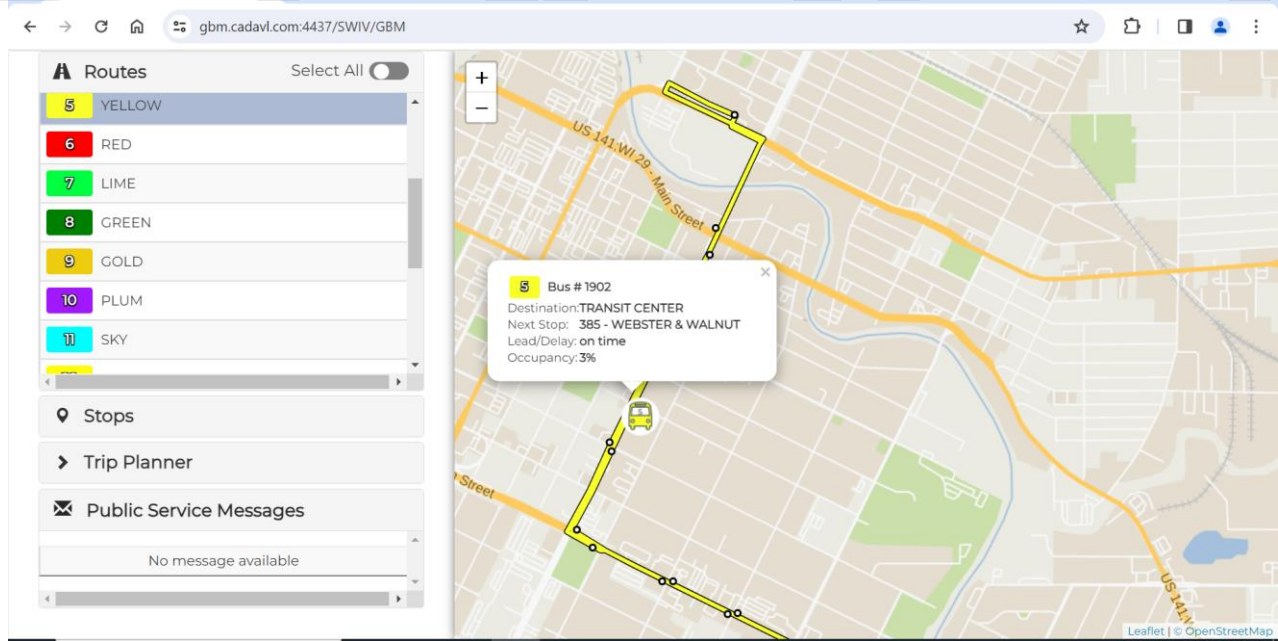
- From the highest level showing the entire service area to the lowest-level map, the user interface shows all road network, streets, intersections, roads, railroad tracks, water boundaries, jurisdictional boundaries, bus stops, transfer points, terminal, and significant landmarks within the area.
- The map reflect all current or planned routes (including weekday, Saturday, Sunday, and Holidays). Facility locations are displayed on the map as well as any wayside passenger information displays, such as Waysine and Sunrise.
- Dispatcher can zoom in/zoom out or pan the map by dragging their computer mouse in any direction. As the zoom level increases, more and more details become visible.
- The map includes continuously refreshed real-time updates of vehicle location and status, every 3 seconds.
- Vehicle location with vehicle information (direction, vehicle ID, block, run, driver name, current speed, schedule adherence status...). The vehicle icon and color are updated in real-time to report their on-time performance. The colors for each status is system settable.
- The CAD/AVL enable the centering of the map on a specified bus and tracking that bus automatically by panning and scrolling the display.
- Real-time crowding for each vehicle, coming from the UTA APC system.
- Stop location and route information overlay on a map with ability to filter by individual stop or individual route.
- On-time performance status for all vehicles: dispatchers can easily see if a vehicle is running early or late based on a visual change to the vehicle icon.
- The bus yard layout and geofence.
- The map automatically centers the display on a vehicle with a silent alarm active.
- Point and click on a symbol (vehicle, stop) provides additional information and access to a command menu. Marin Transit has the ability to configure and filter the information to display for a vehicle.
- Capability to establish Voice communication or data communication by individual vehicle or by banding a group of vehicles together from the map.

- EQUANS updates the map multiple times per year and at Marin Transit's request.

Below are examples of the map of with route overlay and route color-coded:



And here is a filter by individual route.



### **A.6.13 GOLDEN GATE BUSES - DATA IMPORT FROM INIT**

EQUANS will import real-time bus location from Golden Gate Transit vehicles from INIT via SIRI feed.

SIRI is a standard integration part of the EQUANS CAD/AVL and comes at no cost. The SIRI feed includes all information necessary for EQUANS to display buses, routes, destination, etc. and to include these buses into a GTFS RT feed if necessary.

Via this integration, Marin Transit will be able to locate and track the Golden Gate buses within the same software, on the same map.

EQUANS has been working with SIRI feed since early 2010s, primarily in Europe. With SIRI, EQUANS is able to not only display vehicles from Golden Gate or other third-parties within the CAD/AVL, but also provide connection information to passengers aboard Marin Transit which may want to connect to a Golden Gate bus route. This will provide an enhanced and seamless experience for passengers.

In the past, EQUANS has used this SIRI feed to display connections with other bus systems in the Paris area where multiple cities coexist. It displayed train information, provided details about when trains are departing and from what platform, when the trains are arriving at a train station, as well as bike sharing information, so that when a bus arrives at a bike sharing station, the system can provide the number of bikes available.

### **A.6.14 VEHICLE HISTORY PLAYBACK**

The EQUANS CAD/AVL includes a playback feature, which allows Marin Transit to replay one or several trips with all events and historical data associated. The replay feature allows users to see vehicles time-stamped locations, status, quality of GPS reception, door openings, detours, canned message, and more.

The system allows selection of any time period for the historical data stored in the database.

The system allows users to review the chronological sequence of reported locations and events for a specified vehicle(s) or route(s) over a specified time period.

The EQUANS CAD/AVL allow users to store vehicle data replay in a video file format that can be exported for viewing on a different computer equipped to view such files using a standard video file format.

- Ability to select a date range, time, route, run, and vehicle(s).
- Ability to select a starting point.
- Option to replay one or several trips.
- Configurable speed of replay: Replay at normal speed, accelerated speed, skip forward, skip reverse, and pause.
- Provides representation of all event data on the map.
- The playback function provide functionality to save and export playback files.

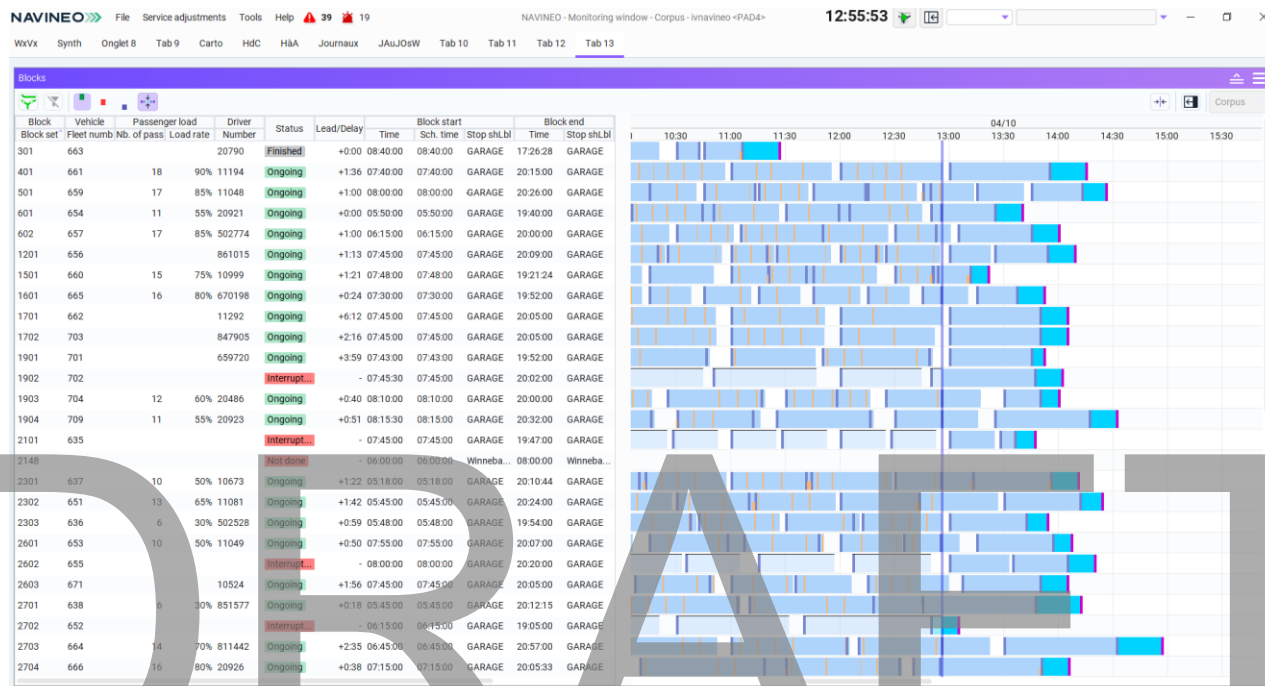
Through the playback feature, Marin Transit can do retrospective analysis and understand exactly when and where performance issues arise. This will also facilitate Marin Transit customer service staff daily tasks by providing a tool to answer passenger's calls.

### **A.6.15 BLOCK MANAGEMENT & INTERLINING**

The block view allows dispatchers to monitor vehicle pull-in and pull-out more efficiently, check if a block is unassigned, and more.

The EQUANS CAD/AVL fully supports interlining, without any driver or dispatcher actions. The destination signs, the interior signs, and the Automatic Voice Announcement will be automatically updated to the new route as a vehicle moves between routes.

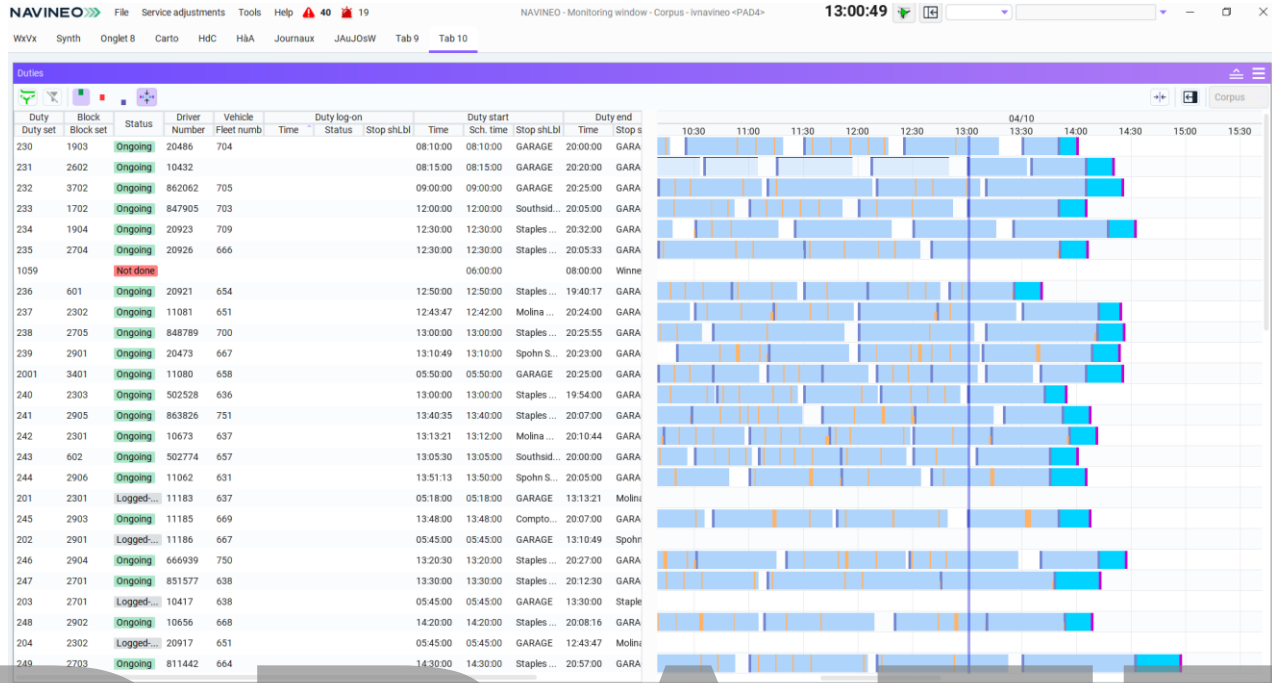
From this one view, dispatchers can monitor the progress of all blocks and modify vehicle and driver assignment in real-time.



### A.6.16 DRIVER RUN MANAGEMENT

If dispatchers/supervisors need to look at the work of a particular driver, they can filter on a driver and access information such as run ID, his on-going work, on-going block, on-time performance, which vehicle they are using, and his work to be done for the rest of the day.

From this view, dispatch can edit driver assignment, split runs, etc.



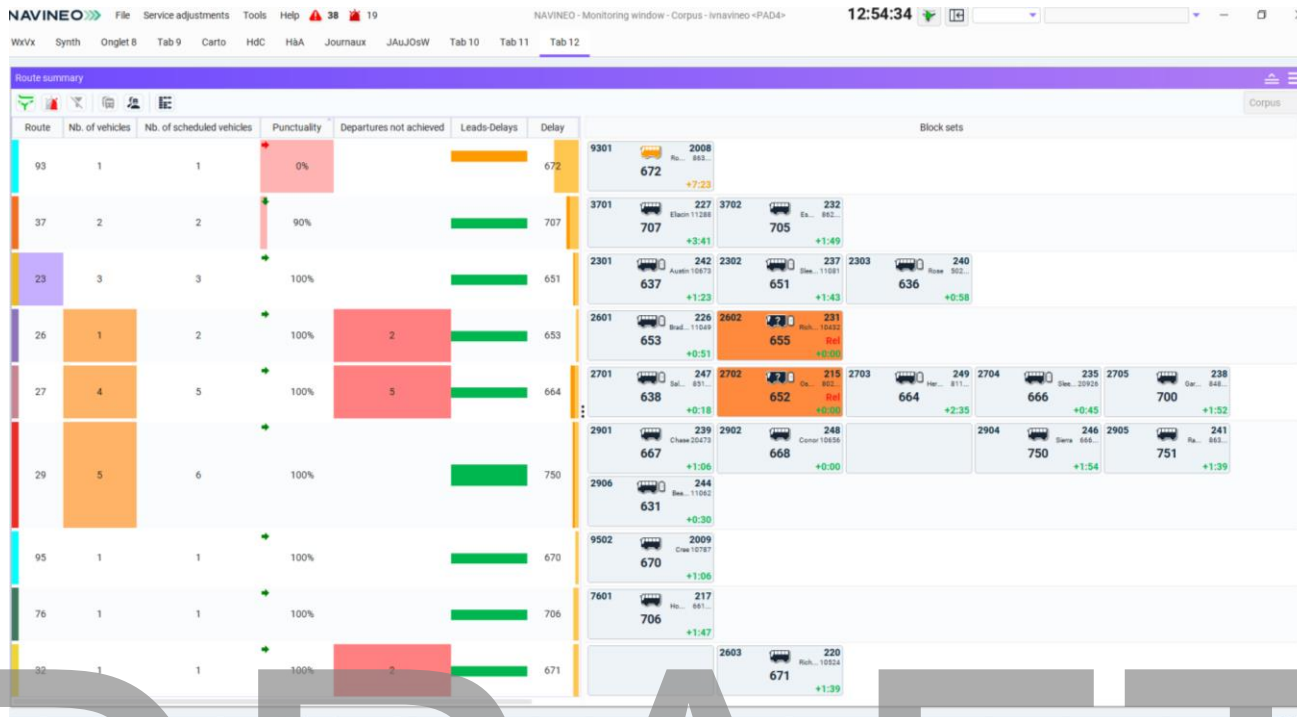
### A.6.17 ROUTE PERFORMANCE DASHBOARD

The CAD/AVL include a graphical dashboard to provide a visual indication for the schedule and route adherence of selected route(s) and trip(s).

The Dashboard allows dispatchers to monitor fixed route schedule adherence, find which routes have the highest rate of disruption among all routes, which routes have the poorest on-time performance or regularity, or the number of vehicles bunched, in real-time.

This view allows the user to view, at a glance, the general trend of the quality of service on the system. The color code highlights the routes where service is degraded, for example, due to lack of punctuality.





### A.6.18 MOBILE DISPATCHING

The EQUANS CAD/AVL allow access to the CAD/AVL by Road Supervisors in the field using the EQUANS Mobile dispatch app.

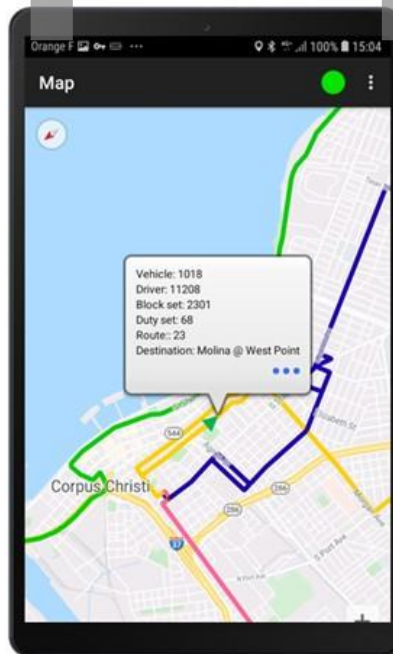
One of the biggest advantages of the EQUANS CAD/AVL is that it naturally extends to mobile devices. Indeed, Dispatching and Monitoring of the fleet can be carried out not only from Dispatch workstations but also remotely from an Android tablet or smartphone, from any location and at any time by authorized staff.

The mobile dispatch app gives field staff complete visibility of the entire network so they can answer passenger inquiries and keep service moving smoothly. Road supervisors can track their vehicles, track on-time performance, send a message to one or several bus drivers and modify vehicle assignment. Operations managers and executives are also able to see the overall system performance even while away from the office.

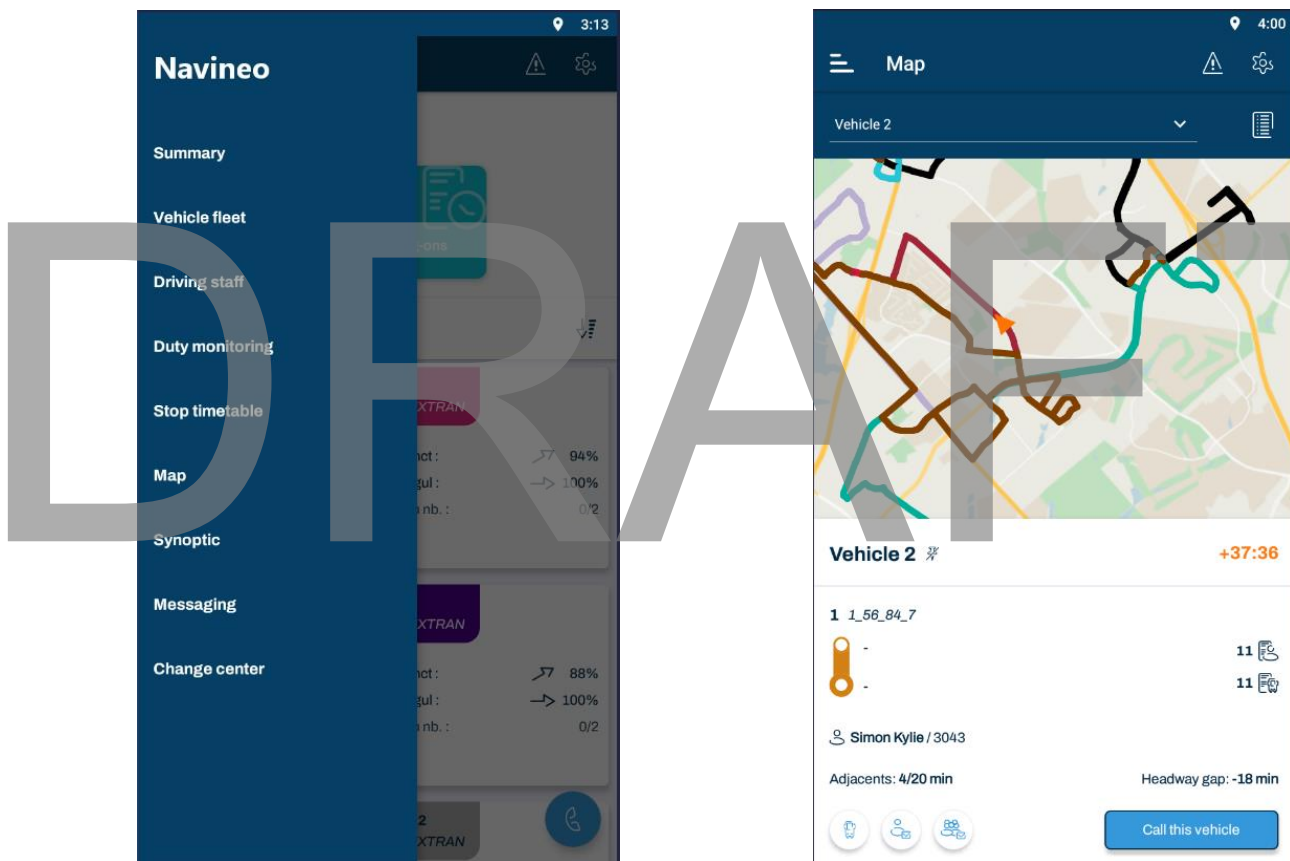
Marin Transit can track the location of all road supervisors and maintenance/service devices using the remote mobile access software.

The mobile dispatch app provides the following functionality optimized for the remote access equipment:

- Tracking vehicle locations.



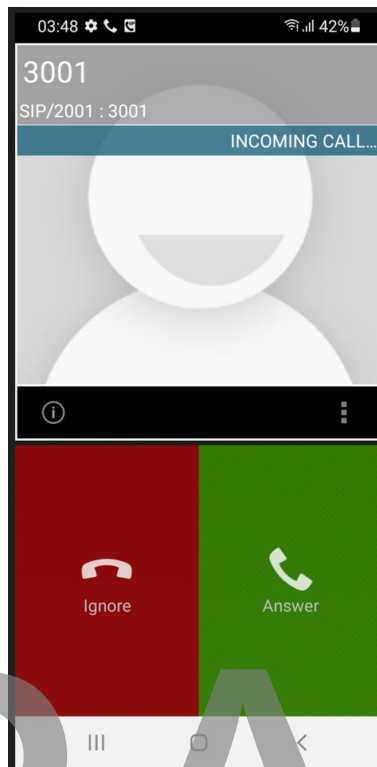
- Viewing vehicle information (e.g., operator, block/run, route, trip).
- Tracking adherence status to vehicle schedule and headway.
- Receiving system generated alert/event notifications.
- Receiving operator and controller generated messages.
- Allowing supervisors to navigate to alternate apps and programs (e.g., email) while maintaining logon status, configuration, and connectivity to their remote access session.
- Dispatch can track the position of the road supervisor via the tablet. Their position will be shown on the map just like the other buses are displayed on the map.



*App images of supervisor viewpoint*

From the supervisor app, road supervisors can be called by dispatch or initiate calls. Here is a screenshot of an incoming call:





*Incoming call on road supervisor mobile dispatch app.*

### A.6.19 SERVICE ADJUSTMENT AND DISPATCH FEATURES

The EQUANS' CAD/AVL provides real-time information about vehicles in the system so managers can make decisions about service based upon what is happening in real-time. The EQUANS CAD/AVL natively includes a rich set of real-time dispatching features to dynamically manage scheduled service changes and unforeseen disruptions.

Operations staff can make ad hoc service changes on the fly, like canceling service if a driver doesn't show up last minute, and the information will seamlessly be released to passengers via apps and dynamic bus signage, so passengers aren't left in the dark. Dispatch can also send bus drivers service corrections - like short turns or holds - to reduce bus bunching and gapping. For all the service changes, this automatically updates vehicle arrival predictions, schedules, and passenger information, to always provide passengers with accurate and real-time information.

With the Disruption Management features of the EQUANS CAD/AVL, the moment there is a deviation from the planned schedule, the driver is automatically informed. The MDT gets updated with the new route path and turn-by-turn directions, and Headway is updated to reflect the adjustments. On-time performance metrics are modified to reflect the change for more accurate historical reporting.

Live Dispatching features available to dispatchers and Supervisors are the following:

Dispatch Feature	Description
<b>Planned Detour</b>	Activate predefined detours for service routes. The system provides dispatchers with a list of previously created detours for use as a template by scheduling the start and end.

<b>Ad-Hoc detour</b>	Ability to create real-time detours for accidents/incidents and events.
<b>Headway Management</b>	This initiates headway management instead of schedules: The headway mode will automatically evenly distribute the vehicles on the route. This function communicates the revised “headway adherence” to all affected vehicles.
<b>Short Turn</b>	Marin Transit dispatchers can modify the terminus of a route and perform a short turn. This is useful to address gap occurring in the opposite direction, or if the regular terminus is not accessible because of road closure or civil work on the street. The dispatcher can define a turn back for one, several or all future trips on this route for the remainder of the day.
<b>Adding / Canceling a trip</b>	Delete or add trip to a block/run to adjust service levels. This feature allows the dispatch to add or cancel a trip on the fly, for example cancelling a trip because of bus breakdown, or adding one or more trips to fill in a gap when vehicles are running late.  When a trip is cancelled or added, the information is pushed to all real-time passenger information media (Transit app, website, SMS, digital signage...).  This is an important differentiator of the EQUANS CAD/AVL – when Marin Transit cancels a trip or changes the schedule, the information is pushed in real-time to all passenger facing media (Google, Website, Transit App, Wayside signs...), so your passengers are always up to date.
<b>Adding / Canceling a block</b>	Adding a block consists of enabling the addition of a vehicle to a route. In case of driver shortage, dispatchers can also cancel a block.
<b>Holding</b>	Dispatchers can define specific locations where a vehicle needs to hold a specific time. This feature is particularly useful for transfer station or stop with several routes connecting, to make sure passengers are not missing their connections. Marin Transit dispatchers can also hold buses by simply changing the departure time. The bus driver sees this in the intuitive countdown, reflecting the ad-hoc change. Passenger prediction for the impacted stop and all following stops also update.
<b>Vehicle Swap</b>	If a vehicle is disabled (engine breakdown for example), a replacement vehicle can be sent on route to perform the remaining service.
<b>Bus Bridge / Special Work</b>	Create route and trip on the fly quickly to provide ad-hoc service during disruptions or special events. It provides bus drivers with turn-by-turn indications and inform passengers immediately of the new service.

For all service adjustment and dispatch features, real-time service alerts and updates are sent to your passengers via GTFIS RT and all other media: Passenger Information Display, Voice Announcement, mobile app, etc. keeping your passengers informed at all times.

## **A.6.20 TRIP CANCELLATION**

With systemic driver shortage, cancelled trip has become a daily reality for transit agencies. We’re helping agencies communicate this unfortunate new reality by updating cancelled trips in real-time, so passengers don’t show up early for a cancelled bus.

When dispatch cancel a trip in the CAD/AVL, it is automatically pushed to the GTFS real-time feed, so passengers will know about it.

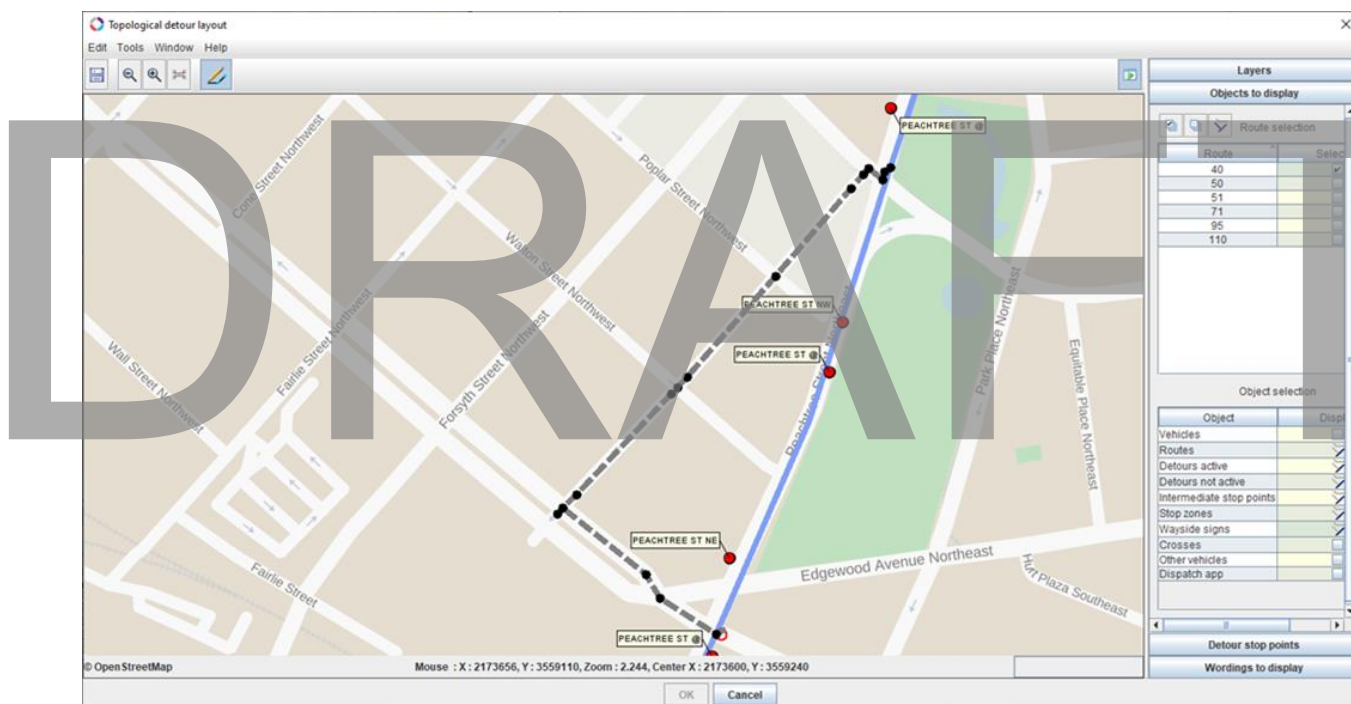
## A.6.21 DETOUR MANAGEMENT

The EQUANS CAD/AVL manages both scheduled/pre-defined detours as well as real-time detour.

The detour management feature is available to re-route vehicles to adjust for the road closure or accident, creating a new path for the bus. When a detour is activated, detour information is pushed in real-time to the GTFS RT, to the AVA, on-board signs, and terminal displays. A new prediction is calculated taking into account the detour in real-time and provided to all passenger facing media.

Here we created a detour on the map, which is bypassing the Peachtree stop. The detour is created through a map-based click-and-draw feature within the controller user interface.

The EQUANS system easily allows for saved back-up routes which can be implemented for the same day or for a future day, such as snow routes in the case of a storm.



The dispatcher draws the detour on the map (as seen in the screenshot above) by clicking from the start point and continuing a sequence of clicks along the path that the detour is to follow until reaching the end point. When drawing a new detour, the system provides support with a “snap to street” map matching mode to ensure the detour is created accurately. The EQUANS CAD/AVL allows the dispatcher to define temporary stops for use during a detour, including existing stops from the stop database.

Dispatchers can associate dates, hours of beginning and end of the detour, as well as a time/day of validity. Once the detour is complete, the detour is sent in real-time to the fleet.

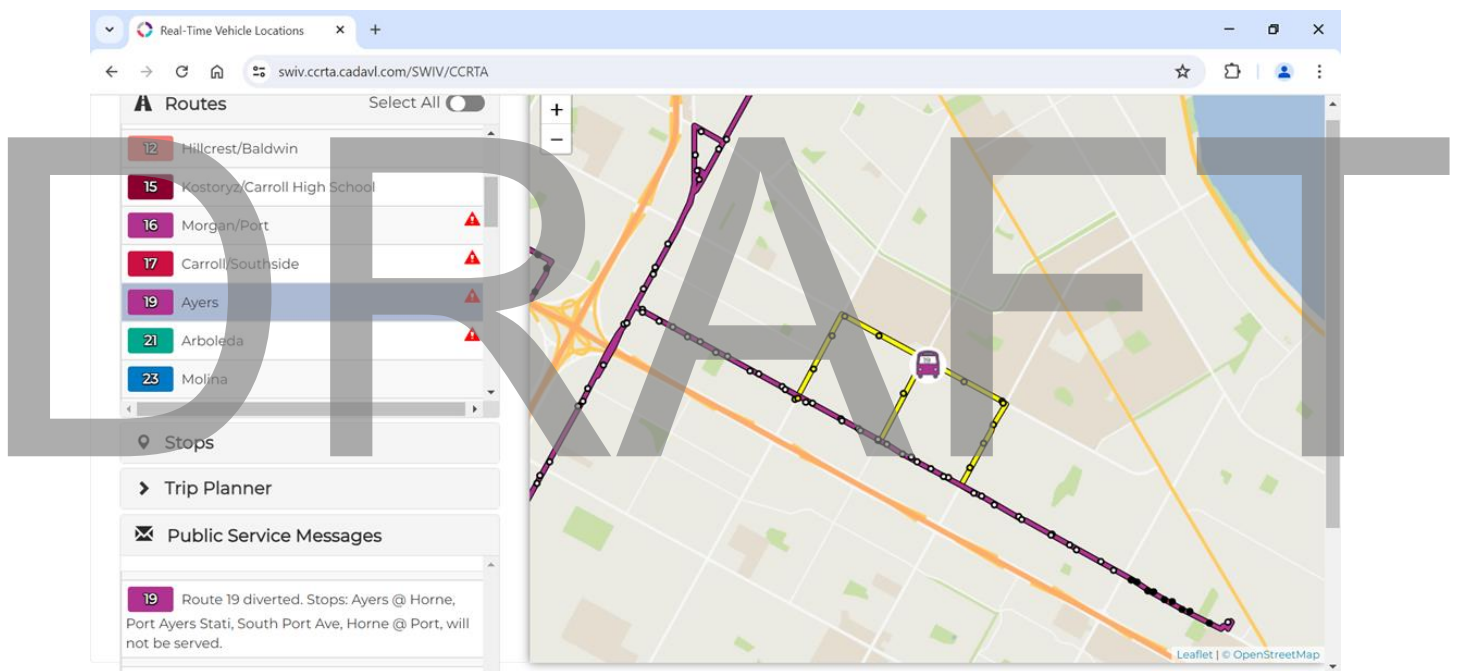
Marin Transit dispatchers can then monitor and follow the progress, edit, or cancel any detour, at any time. The system enables controllers to edit both active and inactive detours and distribute updates to active detours in real-time.

For reporting purposes, the CAD/AVL also automatically records any additional mileage on detour and additional time spent on detour.

The EQUANS CAD/AVL will transmit all relevant detour data to buses impacted from the time they log on to affected blocks and remains available for the duration of the detour. For affected blocks that are already in service, the system pushes the relevant detour data via cellular and adjust the block in real-time, providing a visible and audible alert to the driver, together with detour information which includes messaging, turn-by-turn instructions or other details about the detour, paddle updates, and new routing on the map.

Every detour is saved in the database and can be re-used at any time. For example, if Marin Transit always uses the same detour when a bridge closure happens, dispatchers can just re-use the same detour, which is time saving. The list of previously created detours is available to controllers for use as templates, with configurable start and end times.

Once a detour is created, it is pushed in real-time to the Marin Transit website, mobile app, Google, and automatically available within public service message.



*Passenger Website with detour information.*

## **A.6.22 MANAGING CONNECTION / TRANSFERS**

The EQUANS CAD/AVL system allows for the seamless management of transfers / connection.

The feature is fully automated and allows for vehicles to be held for a configurable amount of time in order to accommodate for transferring route/buses, for example at the San Rafael Transit Center.

For a late night transfer or last bus, this allows to ensure your riders can make their connections and are not left without a bus.

In details, the CAD/AVL will automatically monitor the progress of connecting vehicles and automatically requires a bus to hold for a transfer for a configurable amount of time. Dispatchers can monitor connection progress and status through the CAD interface.

The system evaluates whether the connection can be protected based on several parameters, including schedule deviation, transfer time, and current on-time performance of each vehicle.

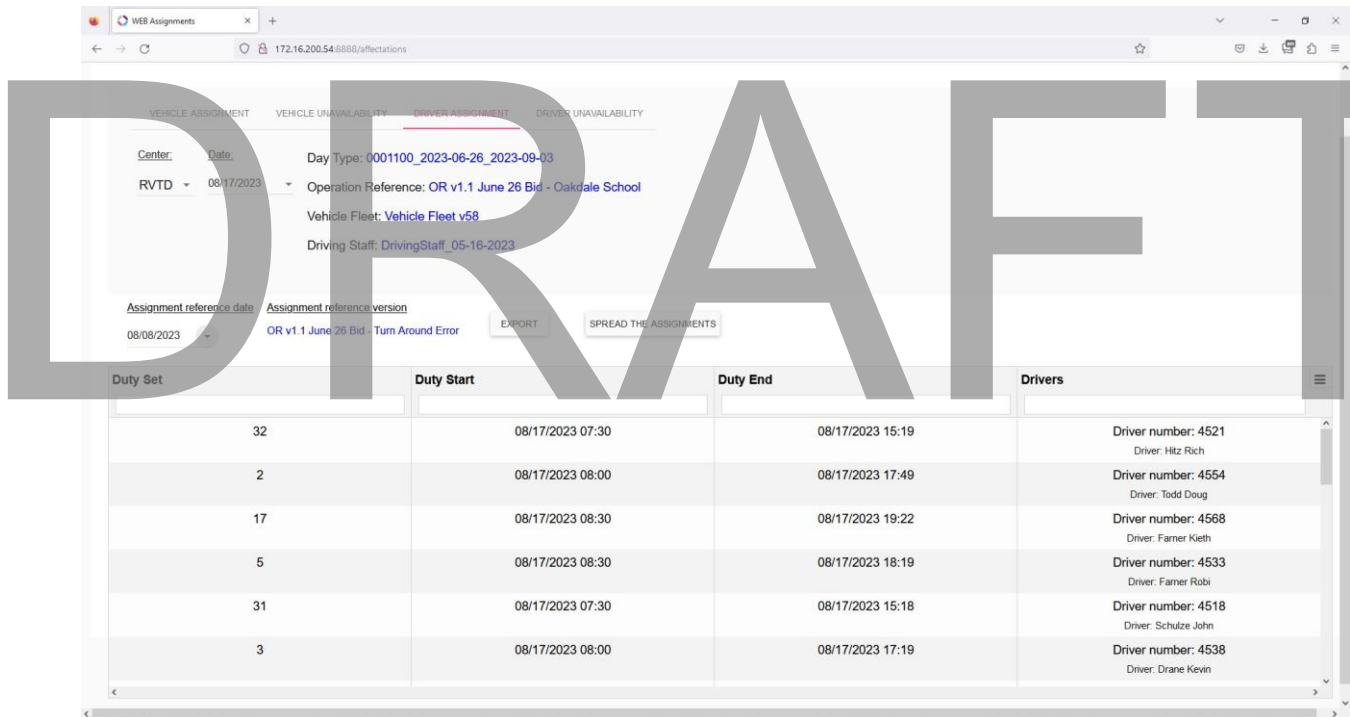
The EQUANS CAD/AVL system will send hold instructions to the MDT of the connecting vehicle(s) if the requested connection can be protected. A message will be displayed on the driver MDT with details of the transfer. The driver can also look at what buses are connecting and when they are arriving.

If the connection can no longer be protected, the system will automatically send release instructions to the waiting connecting vehicle. The system allow dispatch to cancel a requested connection protection or to create new connection on the fly.

### A.6.23 VEHICLE & DRIVER ASSIGNMENT

A web-based module is available to manage and edit bus driver and vehicle assignment. This will provide a more automated way to manage assignments and allow unscheduled assignment change.

The web based assignment module display all assignment, bus assigned, driver assigned, and allows changes in real-time, due to sick call offs, assignment changes, and available staff or available bus.



Duty Set	Duty Start	Duty End	Drivers
32	08/17/2023 07:30	08/17/2023 15:19	Driver number: 4521 Driver: Hitz Rich
2	08/17/2023 08:00	08/17/2023 17:49	Driver number: 4554 Driver: Todd Doug
17	08/17/2023 08:30	08/17/2023 19:22	Driver number: 4568 Driver: Farmer Kieth
5	08/17/2023 08:30	08/17/2023 18:19	Driver number: 4533 Driver: Farmer Robi
31	08/17/2023 07:30	08/17/2023 15:18	Driver number: 4518 Driver: Schulze John
3	08/17/2023 08:00	08/17/2023 17:19	Driver number: 4538 Driver: Drane Kevin

The EQUANS CAD/AVL supports the modification of driver and vehicle assignments in both real-time and same day planned vehicle changes. For example, if a bus driver is a no show, dispatchers are able to switch the assignment and change the driver on the fly.

Driver and vehicle assignments update automatically as drivers are signed-in/out of their vehicle either directly or by Dispatcher action (manual login/off). The dispatchers can also carry out the following assignment modifications manually for bus drivers:

- Assign a driver to a run.
- Change the driver assigned to a run.



- Swap the assignments of two drivers.
- Replace a driver by another on a partial run (by creating reliefs)

They can also carry out the following assignment modifications for vehicles:

- Assign a vehicle to a free block.
- Change the assigned vehicle on a block.
- Swap the assignments of two vehicles.
- Reserve a vehicle or modify/cancel a reservation of a vehicle for maintenance.

### A.6.24 DATA MESSAGING

The EQUANS CAD/AVL support data messaging functionality to communicate between dispatchers and bus drivers. Communications with bus drivers is as easy as typing a text and is a quick and affordable alternative to voice communications, reducing radio chatter.

The system allows the dispatcher to select a predefined messages (canned data messages) or enter a free text message.

From dispatch, Marin Transit can send messages to an individual bus driver/vehicle, all vehicles operating on a route, all vehicles within an area selected on the map, a pre-defined group of vehicles, or fleet wide. This provides an easy opportunity for dispatchers to communicate about various issues with drivers, or broadcast system-wide concerns, detours, or other information to a larger selection of bus drivers with ease.

The message is sent over cellular and displayed on the MDT of the receiving vehicles.

The bus driver can quickly acknowledge a message upon receipt from dispatch which may require a response.

New driver messaging programming: Free text message Accident

Corpus

Message

Select a message from the library      Create a free text message

Importance:  Normal    Important

Name: Accident

Text: Delay due to accident on Main Street

Visa monitoring

Recipients

	Network	Route	Direction	Start stop	End stop	Vehicle	Driver	Block set	Duty set
1		12							
2		26							



Dispatchers can schedule text messages to be sent at logon or at future time, to notify drivers of route changes, detours, weather situation or special announcements.

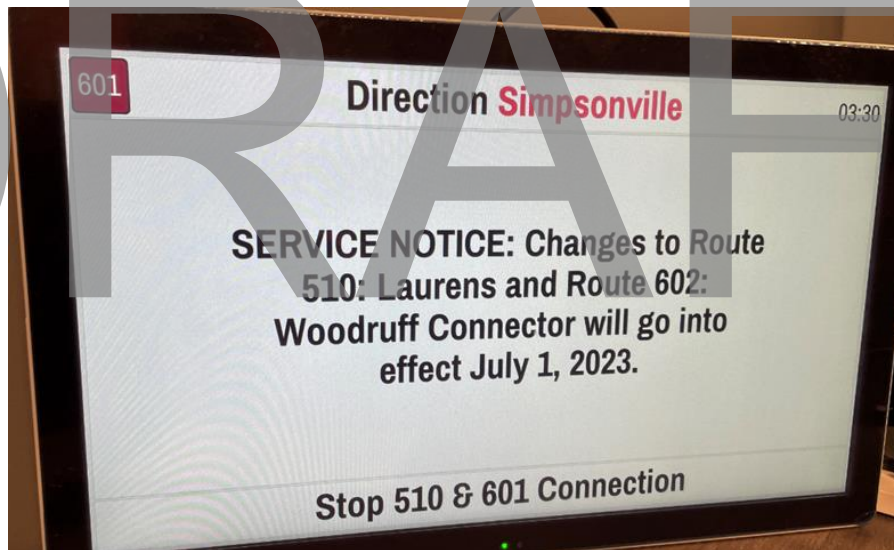
### **A.6.25 REAL TIME CUSTOMER COMMUNICATION**

The CAD/AVL allow Dispatchers to send a canned or ad-hoc public announcement to a vehicle or group of vehicles.

The CAD/AVL allow Dispatchers to select whether public announcements are displayed on the Infotainment display, played on the interior speakers, transmitted via the GTFS RT feed, and any other passenger facing feed.

The EQUANS CAD/AVL pushes real-time communication and voice announcements out to any vehicle immediately or at pre-determined times. The interface allows for controlling customer messages and service alerts to be distributed through a number of different channels, including AVA, digital signage, GTFS RT, agency website and SMS notification.

The “Passenger Messaging” feature allow Marin Transit to communicate service alerts across the system, to onboard infotainment displays (please see picture below) and the GTFS RT feed and all third party receiving the EQUANS GTFS RT feed, such as Google, Transit App, Passenger Information Displays in stations, etc.



*Service Alerts on the Infotainment display.*

The Marin Transit dispatcher or customer service representative choose a pre-defined message in a dedicated library or writes a free text and selects the vehicle(s) receiving the voice announcement.

### **A.6.26 INTEGRATION WITH FUTURE TRANSIT SIGNAL PRIORITY**

This section describes the integration between the future Transit Signal Priority (TSP) system and the EQUANS CAD/AVL system.

The EQUANS CAD/AVL system supports the integration with Transit Signal Priority (TSP) systems, including the Miovision Opticom system, either via onboard integration through J1708 or via a real-time API.

**After discussing with Miovision, the preferred method of integration for the Marin Transit project is via an API, which EQUANS will update every 3 seconds. The API will be based off the GTFS RT and also include door signal and turn signal.**

EQUANS has extensive experience in integration with Transit Signal Priority (TSP), which is an advantage to Marin Transit. Our experience and expertise in integrating with Transit Signal Priority (TSP) systems sets us apart in the industry, with more than 30 of our CAD/AVL projects integrating with TSP systems over the past 20 years. Example of CAD/AVL projects that include Transit Signal Priority integration are Québec City, QC, Collier Area Transit (Miovision GPS TSP integration), Gatineau, QC (EMTRAC TSP integration), RVTD (EMTRAC TSP integration), Rochester, MN, (and Memphis (Miovision TSP integration). We believe this unique expertise will be helpful to support Marin Transit for a smooth and successful implementation of TSP.

The EQUANS CAD/AVL system embeds intelligence dedicated for Transit Signal Priority. Each parameter, such as OTP or ridership, is taken into account in the TSP algorithm and has a different priority level. We can share data such as bus schedule information, on-time performance, route ID, block ID, passenger count, and door opening/closing, which can be transmitted to the TSP at a high frequency. For example, in Memphis, the data is provided every 3 seconds to the Miovision Opticom TSP system, and includes schedule information, on-time performance, passenger count and door status.

Two key aspects of the TSP are the vehicle location accuracy, as it needs to be extremely accurate, and the speed of data transmission.

The system allows for configuration of which bus routes can have priority. For example, Marin Transit can configure only some routes to have priority, or routes running downtown versus routes in the suburbs.

## **A.7 ONBOARD SYSTEM AND INTEGRATION**

**All hardware offered by EQUANS to Marin Transit has been designed to withstand public transit conditions,** whether in service or not. The EQUANS CAD/AVL equipment is ruggedized, able to cope with extreme temperatures (-40C / +70C), humidity (up to 95%), vibrations, shock-proof, waterproof, and resist vibration, impact, shakings, and bumps.

All equipment modules, cables, mounting hardware, and connectors provided by EQUANS are designed to withstand the full range of operating environments found in a transit bus environment and will not interfere with the operation of existing and future equipment.

EQUANS will install communications cabling and connections compliant with the Society of Automobile Engineers (SAE) J-1939 or SAE 1708/1587 network standard, to form a vehicle area network connecting the VLU, MDT, destination sign, fare system, APC, and interior AVA sign for common login, operating control, status indication and other integrated functionalities.

All onboard equipment provided by EQUANS has a minimum of 80,000 hours of Mean Time Between Failures (MTBF).

All proposed hardware can be updated remotely, without any in-vehicle intervention. The EQUANS CAD/AVL equipment can operate in regular conditions even in areas without consistent cellular coverage.

EQUANS can guarantee a minimum twelve years of availability of devices for replacement or fleet expansion. Any new versions are backwards compatible with existing devices and systems.

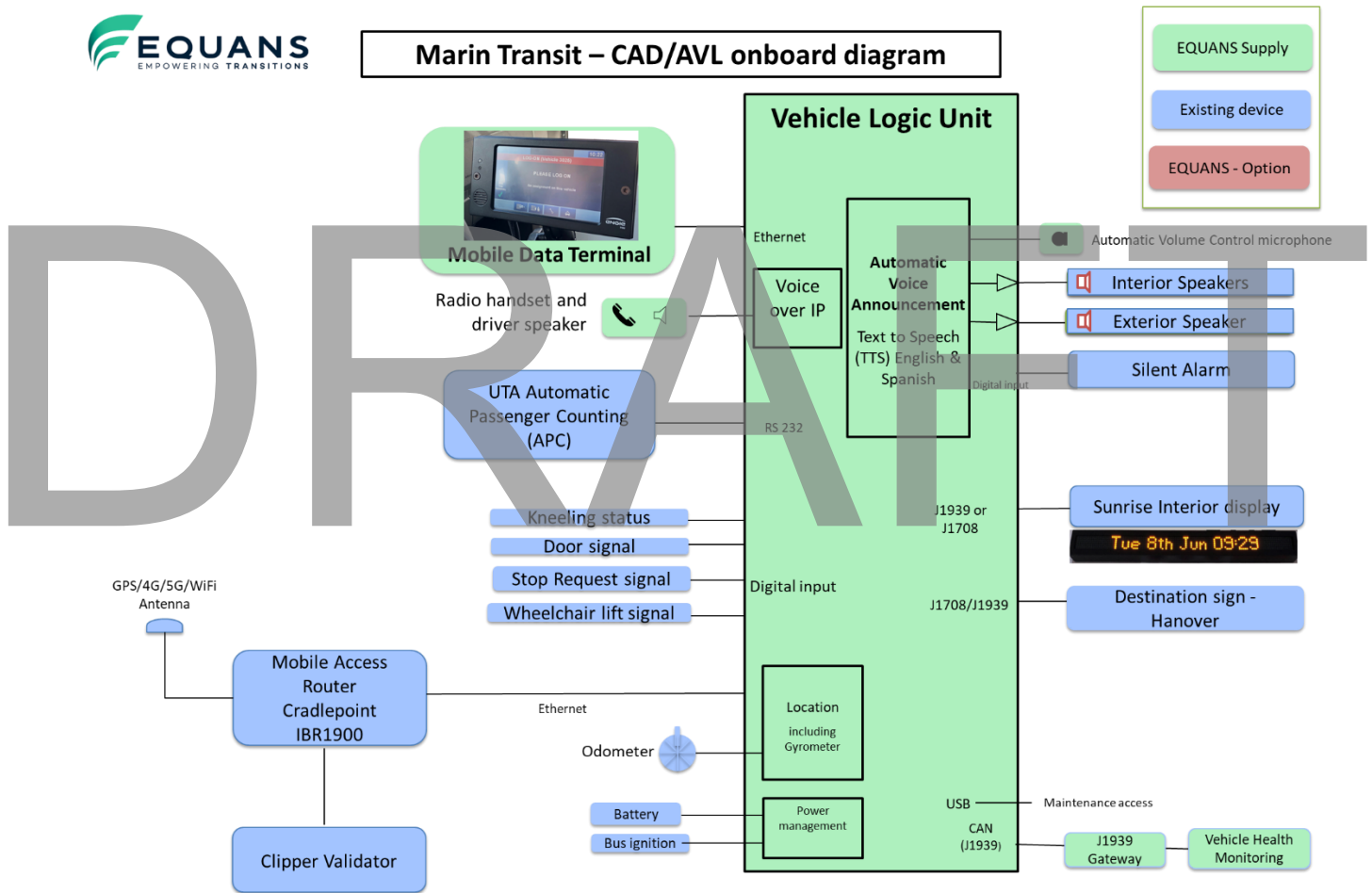
All equipment needed by Marin Transit , provided by EQUANS for this project is listed below:

- EQUANS Vehicle Logic Unit (VLU)

- EQUANS Mobile Data Terminal (MDT)
- Automatic Gain Control (AGC) Microphone
- Operator headset, operator speaker, covert microphone for Voice Over IP solution (Optional)
- Silent Alarm (for the 23 buses without current Silent alarm)
- All cables, brackets and needed accessories for installation

### A.7.1 ONBOARD INTEGRATION

This section represents a diagram of the EQUANS system in the vehicle.



The EQUANS CAD/AVL integrates with:

- Interior and exterior Speakers
- Silent alarm
- Sunrise Interior Displays

- Hanover Destinations Signs
- UTA APC system
- Cradlepoint IBR900 router, GPS antenna,
- Odometer, Battery, Bus Ignition
- Door signal, stop request signal, kneeling status, and wheelchair lift signal

### A.7.2 VEHICLE LOGIC UNIT (VLU)

The EQUANS Vehicle Logic Unit (VLU) is the intelligence embedded in Marin Transit's vehicle. Designed specifically for the transit environment, it is a ruggedized device and powerful onboard computer which manages and integrates with your on-board applications. It acts as a central processing unit collecting, storing, and transferring data in real-time and upon arrival at the depot.



The EQUANS Vehicle Logic Unit features are as follows:

- The VLU act as the central onboard intelligence, central processor, data storage, and allows for single log-in with all onboard components such as Destination Signs, Farebox, Traffic Signal Priority, Automatic Passenger Counting, Validators, and Interior Signs. The VLU provide the master time synchronization available to all other onboard devices.
- The VLU integrate all in-vehicle CAD/AVL functions and hardware, including the GPS receiver, APC, AVAS, Destination Signs, Infotainment, LED Signs, etc.
- Supports radio integration without any additional hardware.
- The VLU receive software updates over the air and does not need any manual interaction.
- The VLU compute the vehicle position, speed, and direction based on multiple positioning systems: The vehicle position, speed and direction are computed from the GPS antenna and vehicle odometer, gyro meter and GPS-Dead Reckoning, which provides a position accuracy better than 2 feet.
- The VLU is designed for operation in urban, suburban, and rural areas, including the ability to continue vehicle tracking when a GPS signal is not available. This includes environments such as mountainous areas, forested areas, "Urban Canyons", tunnels, multimodal transit centers, and transit yards.
- Routine location is reported every three (3) seconds or less (this is a parameter that Marin Transit can modify with up to 1 second frequency) while the vehicle is in operation. The VLU can provide the computed vehicle position information to other onboard devices as requested by these devices. The

VLU is able to provide vehicle position updates when the vehicle is in a covered area, thanks to the GPS DR.

- Multiple connector types such as SAE J1708, SAE J1939, RS232, RS485, 1 USB, 4 Ethernet port, TCP/IP, discrete inputs and outputs, odometer, audio inputs and outputs, are available to connect its most important on-board systems. It also integrates with front and rear door opening signal, lift/ramp deployment, bicycle rack and stop request signal.
- Built-in audio amplifiers with 4 audio outputs driving the speakers on the vehicle for both interior and exterior announcements, including automated voice announcement.
- The VLU allows quick and simple update of the onboard software and configuration settings. All updates of the onboard software or firmware are automatic and wireless.
- The VLU, when connected to Marin Transit WLAN, will check for and download bulk data files (e.g., containing schedule service information, driver assignment) required for system operation. The VLU has the capacity to allow for storage of more than two full bus service schedule changes of data. The system also allows for a data push for same day changes.
- If internet connection is lost, the vehicle can still operate autonomously and store data locally with no loss of data. All data are stored locally on the VLU until connectivity is re-established.

### A.7.3 HARDWARE - MOBILE DATA TERMINAL (MDT)

The EQUANS MDT for bus drivers is designed to safely aid bus driver navigation, communications, and incident reporting. The MDT provide a single, unique login for drivers that then automatically connects them to the CAD/AVL, and all connected systems provided by EQUANS.

The MDT also serves as a platform for two-way messaging with dispatch.

The MDT provides bus drivers with a visual display of operational status and incoming messages, is designed to simplify bus driver's tasks, and improve communications between bus drivers and dispatchers/supervisors. The MDT provides bus drivers with an intuitive interface and all features needed to operate safely.



The MDT will be installed at the right of the steering wheel, so that bus drivers can easily view and use the screen. An adjustable RAM mount is also included with each MDT for flexible installation within the vehicle. Several mounting options are available, so that bus driver can easily adjust the screen for optimal viewing.

**Unlike a tablet-based system, EQUANS Mobile Data Terminal is designed and manufactured by EQUANS and is hardwired into the onboard system for the most dependable and secure solution possible, with no risk of losing connectivity.**

*"The EQUANS MDTs have been far more reliable than our previous system which ran on tablets. We've had far less connection and durability issues. The tablets would get damaged as the weather changed and we haven't had those issues with the wired EQUANS MDTs" –Jacob Pittman, Director of Operations for KRT.*



The MDT display is readable by the driver from the seated position under the full range of ambient illumination conditions, through the incorporation of such measures as driver-operated brightness control, anti-glare coating and adjustable orientation mounting. Other MDT hardware features includes:

- The MDT is IP65, designed for Transit environment and more ruggedized than a commercial-grade tablet, designed to withstand harsh weather events. The MDT is designed to absorb shock from driving and can operate in extreme cold and hot temperature (-40°C / +70°C) and up to 95% humidity.
- The MDT have a scratch free display with damage-resistant glass to allow easy readability.
- Can be used by drivers wearing gloves, is readable by drivers wearing polarized lenses, readable in direct sunlight and offer a low glare setting for night operation.
- The MDT automatically switch between daytime and nighttime brightness modes as it embeds a smart lighting sensor to adapt screen brightness to the current lighting.
- The MDT provides unique audio tones to alert the driver of incoming messages. The MDT contains a speaker and tone generator for audio alerts to ensure that incoming messages are being read.
- The MDT allows drivers to set brightness and volume settings within pre-defined limits.
- The EQUANS MDT automatically powers up when the vehicle ignition is turned on, and powers down at a programmable time after the vehicle ignition is turned off.
- Automatic display of driver log-in when vehicle is powered-up.
- When vehicle is back to the yard at the end of the service day, the log off is automatic and the bus driver has nothing to do. The MDT automatically power off and auto-shutdown.
- The EQUANS MDT store the most recent location received from the GPS receiver, so that if the GPS receiver is not able to report the location, the last known good location remain available.
- The MDT have capabilities to show the driver turn by turn directions on a map.
- The MDT have the capabilities to show the driver if they are ahead of schedule or behind schedule in number of minutes and color code.
- The driver is not able to manually shut off or disconnect the MDT power or manually shut down the application software.
- The MDT support in route changes of the assigned driver for cases such as mechanical breakdowns, driver substitutions, etc.





*EQUANS MDT installed on a GILLIG bus in Memphis.*

DRAFT



*EQUANS MDT*

### **A.7.4 ANTI TAMPERING**

EQUANS always includes necessary provision to protect all onboard and publicly accessible equipment and components from common vandalism, unauthorized access and physical abuse as may be expected on transit vehicles and at stops.

The EQUANS hardware is designed and installed to ensure the system cannot be tampered with or disconnected by a passenger or driver. Most equipment is installed in a locked area of the vehicles, such as the IT cabinet. MDT or interior sign cables are not visible by passengers. For Ethernet connection, we use M12 ethernet cable, which offers extremely robust and resistant termination.

### **A.7.5 REAL-TIME DATA COMMUNICATIONS**

The EQUANS CAD/AVL real-time data communications will happen through the Cradlepoint router and can be used via any cellular carrier (Verizon, AT&T, T-Mobile) and is agnostic of the technology used: 4G, 5G, FirstNET.

Real-time vehicle data is routed over a secure a VPN tunnel from the cellular provider to the EQUANS network.

### **A.7.6 INTEGRATION WITH DESTINATION SIGNS**

EQUANS has extensive experience interfacing its CAD/AVL with destination sign providers such as Hanover, Luminator, Twin Vision, and Aesys. EQUANS uses the J1708 interface protocols to interface with the destination sign for single log-in.

EQUANS has integration with Hanover Destination Signs at RVTD (Medford, OR), CCRTA (Corpus Christi, TX), GLTC (Lynchburg, VA), among others.

The CAD/AVL will control existing electronic head signs on vehicles through single log-on. The AVL will automatically display the correct route, general service message, out-of-service status etc. As routes and stops change, so does the message that is displayed on the head sign.

The driver can use all features of the headsign controller, regardless of whether the driver has logged into a run or if the MDT is operational.

The CAD/AVL will automatically switch the destination sign to the correct route and destination in case of interlining.

Marin Transit can configure messages such as "OUTBOUND", "INBOUND", "TO GARAGE", "FROM GARAGE", or "OUT OF SERVICE" on the destination sign, which will be displayed automatically based on the trip the vehicle is currently operating on.

When the vehicle is logged into a "special" run, such as training, the AVL will display a message configured by Marin Transit, such as "IN TRAINING".

EQUANS can update the sign program wirelessly and remotely from our system directly. We can also program special message (for example 'Happy 4th of July') wirelessly from dispatch. This has been done previously on several projects such as Memphis TN.

### **A.7.7 INTEGRATION WITH GENFARE FAREBOX**

The EQUANS' CAD/AVL has integrated single point of log-in with fareboxes from several manufacturers, including Genfare Odyssey and Fast Fare.



The EQUANS CAD/AVL is compatible with any farebox to perform single log-in. Our system uses the J1708 interface protocol to export GPS location, Driver, Route, Block, Run, Position, Stop ID and route data and import ridership data from the farebox.

Any directions, run, route, trip, or driver change is automatically communicated by the CAD/AVL to the farebox. The CAD/AVL can also report farebox alarms back to the central system.

EQUANS has already integrated with the Genfare Fareboxes (both the Odyssey and the Fast Fare) in other projects, for example in Corpus Christi, TX, Williamsburg, VA, Taunton, MA or Green Bay, WI. Therefore, Genfare integration comes at no additional cost.

### **A.7.8 INTEGRATION WITH UTA APC**

EQUANS has vast experience working with UTA for APC integration. All APC data coming from UTA will be transmitted to the EQUANS CAD/AVL, tied to route, block, run, stop, and time information, and available in the database.

EQUANS is currently partnering with UTA on several projects such as Green Bay CAD/AVL and APC project, Lowell CAD/AVL/APC, Corpus Christi Bus APC, Rochester CAD/AVL/APC, as well as Greenville ITS project.

EQUANS also integrate with UTA APC Hardware for the Kanawha Valley RTA in Charleston, WV.

EQUANS has worked with UTA and discussed the best way to integrate our systems for Marin Transit. The integration is the same as the one done in Charleston. The proposed integration with UTA is via RS232 protocol in the vehicle between the EQUANS Vehicle Logic Unit and the UTA controller.

This will allow us to receive UTA APC data and integrate the APC data to the CAD/AVL as well as the real-time crowding for passenger information.

### **A.7.9 SILENT ALARM**

EQUANS will provide and install a Silent Alarm for vehicles with no current alarm.

When activated, the Silent Alarm includes the following functionality:

- Issues a silent alarm with vehicle location pop-up on the dispatch screen.
- An audible alarm is generated in dispatch to ensure the dispatcher is notified of the urgent situation.
- Triggers activation of the covert microphone so that dispatch can listen-in.
- The vehicle is placed in a priority status with increased, high-speed vehicle tracking (1 second polling rate for emergency status).
- Silent Alarms have the highest priority of all data messages.
- Discreet display of the Emergency activation to the bus driver.
- Option to display a configurable message i.e., "Call 911" on the vehicle head sign.
- Option to create an incident report for each silent alarm activation.

## **A.8 MOBILE DATA TERMINAL (MDT) – BUS DRIVER FEATURES**

The EQUANS Mobile Data Terminal (MDT) interface has been designed to simplify driver sign-in and driver daily routine. The MDT provide a single logon interface for the EQUANS CAD/AVL, as well as all other systems

integrated to (Headsign, farebox, APC, AVA). The MDT synchronize with the main systems to ensure the correct time is shown on all systems onboard.

**EQUANS MDT has been designed, manufactured, tested, and used at many locations ensuring it's driver usability is easy to use and encompasses all items a driver may need.**

The MDT functionalities allow:

- |                                 |   |
|---------------------------------|---|
| • Sign in and sign out          | • Turn by turn directions with map indication |
| • Route/Trip selection          | • 2-way data communication with dispatch      |
| • Review of driver paddle       | • Broadcast bus wide announcements            |
| • Next stop arrival information | • Emergency alerting                          |
| • Trip switching                | • Pre- and Post-trip inspection               |
| • On-time performance indicator | • Maintenance indications and troubleshooting |

The MDT provides for automatic control of all destination signs in vehicles. The destination signs are automatically updated by the driver logon and at predefined points along each route.

The MDT does produce audible & visual notifications to the bus drivers, especially in case of incoming messages from dispatch.

When the MDT power-up, it automatically run an internal systems check to ensure all components of the system are working properly with any faults or system errors being reported to Marin Transit staff.

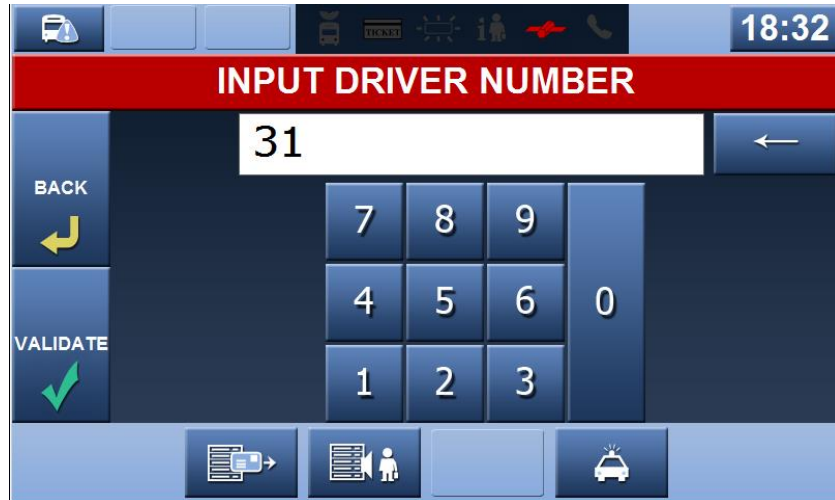
### A.8.1 SINGLE LOG-ON

The login procedure is simple, quick unique to each driver via their driver ID, and supports single sign-on.





The system automatically check with the central CAD/AVL to validate that the driver ID and block/run ID are valid and not already in use. In the event of a conflict, the system will refuse the login and notify the driver of an “invalid” logon.



After successful logon, the MDT display the current Block, Route, Trip, Next time point, and run ID.

Upon successful logon, all interfaced systems are automatically initialized and fully automated, requiring no driver interaction for the remainder of the day. This level of automation minimizes driver interaction with the system, so the focus remains on driving the vehicle and the safety of the passengers.

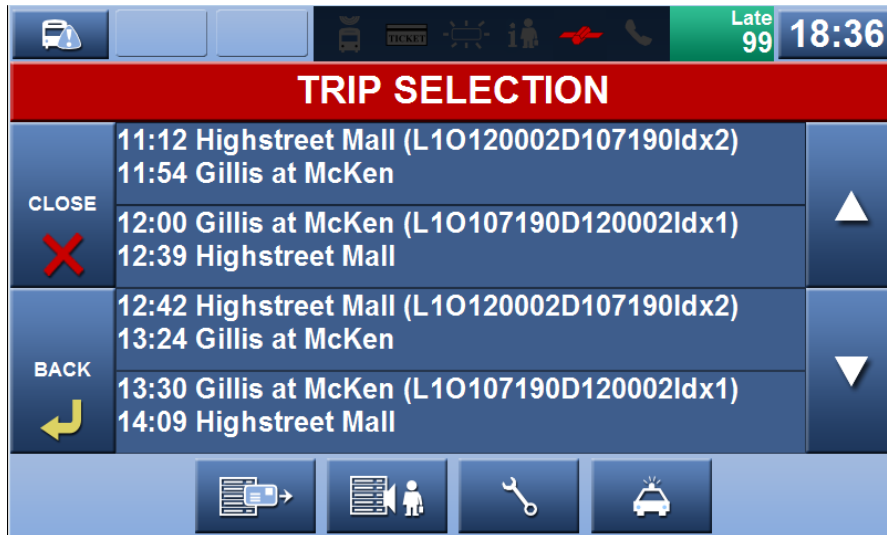
This provides an easier work environment and less workload for Marin Transit’s bus drivers.

### **A.8.2 ROUTE & TRIP SELECTION**

The EQUANS MDT allows bus drivers to initialize and select their route and trip simply and quickly.

The “open block” feature allows them to select the route and the trip associated to the route. This way, bus drivers can easily select a designated route or a partial route.

There is no need for paper paddle since it is electronically available on the MDT.



### A.8.3 DEPARTURE PROMPT

The departure prompt feature consists of displaying a countdown on the MDT and giving the bus driver a visual and audible signal to indicate that departure is imminent. A countdown is displayed on the MDT, which supports helping bus drivers improve on-time departure and decrease early or late departure at timing points.

**The Corpus Christi Regional Transportation Authority (CCRTA), using the EQUANS CAD/AVL system, recorded an improvement of 8.4% of on-time departure since the EQUANS CAD/AVL solution was implemented.**

Here below, the driver is at the Danz and Basten, departing in 08 minutes.



Now, the MDT indicates it is time for departure. An audio sound is also triggered to let the driver know it is time for departure.



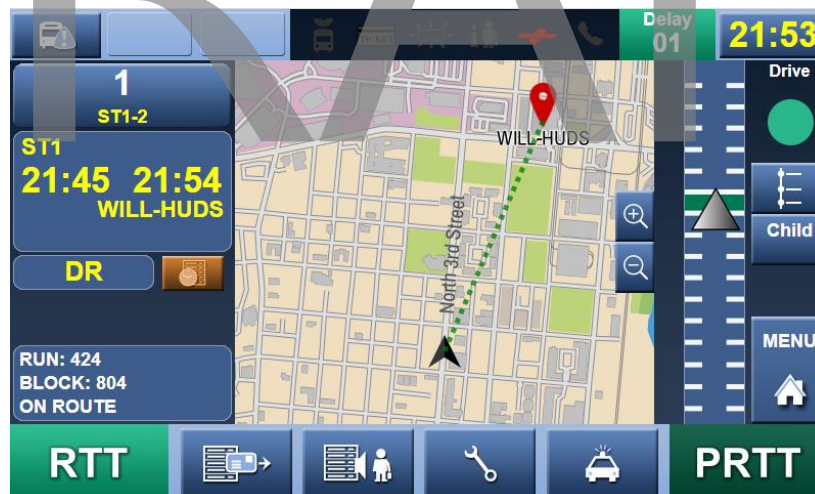


### A.8.4 DEADHEAD TRIP

The EQUANS CAD/AVL manage deadhead (or dead run) trips. The system automatically knows when a vehicle is on a deadhead trip, either from the garage to the first stop, or from the last stop back to the garage.

Mileage and vehicle hours in deadhead/non-revenue are automatically recorded and saved for reporting and NTD reports purposes.

The map is also available providing mapping information for deadhead trip:



### A.8.5 SAFE DRIVING MODE

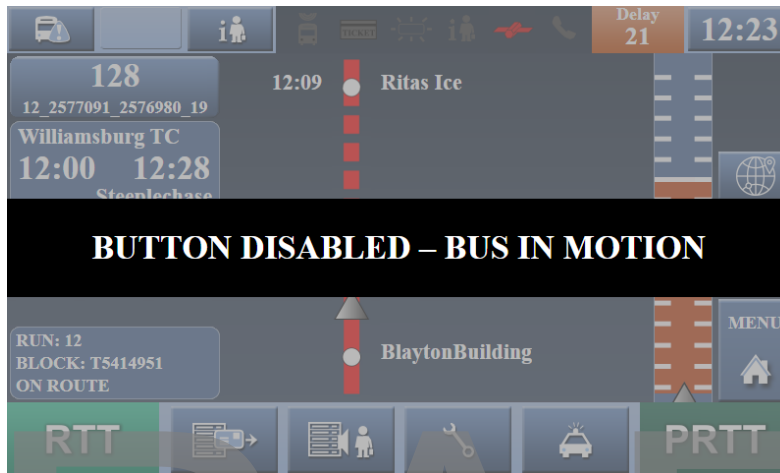
For driver safety, the MDT include a safe driving mode when the vehicle is moving above a configurable speed limit (e.g., 5 miles/hour).

The safe driving mode allow management to determine the criteria that will prevent drivers from interacting with MDT when driving. The MDT allow Marin Transit to enable the following screen configurations under safe driving mode:

- Disabled MDT buttons to stop drivers from performing any actions on the screen.

- Display of information relevant to driver when of high priority (e.g., route and schedule adherence status, missed messages or calls from dispatchers).

Marin Transit can remotely change configurations for the safe driving mode. For example, the safe driving mode could be disabled for maintenance or training purposes.



*Disabled screen when bus is in motion.*

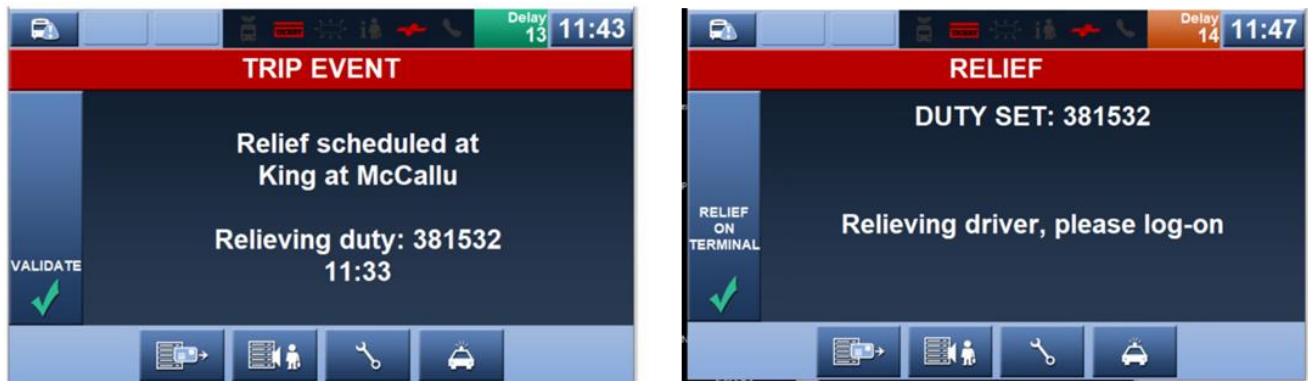
### A.8.6 DRIVER RELIEF

The EQUANS CAD/AVL completely manages scheduled relief for fixed-route drivers. Reliefs can be imported or created in the EQUANS CAD/AVL.

The CAD/AVL monitor the status of scheduled reliefs for drivers. A comprehensive view shows the status of each scheduled relief. Drivers are informed on the MDT that a relief is scheduled. Dispatchers can modify, add, cancel these reliefs in real-time, if needed.

In the view below, you can see what the bus driver will see on the MDT when a planned relief is coming; The log off of the relieved driver is automatic, and the new driver will be invited to log-on.

If a driver does not show, a missed relief notifications will be created for dispatch.



*Relief information on the MDT*

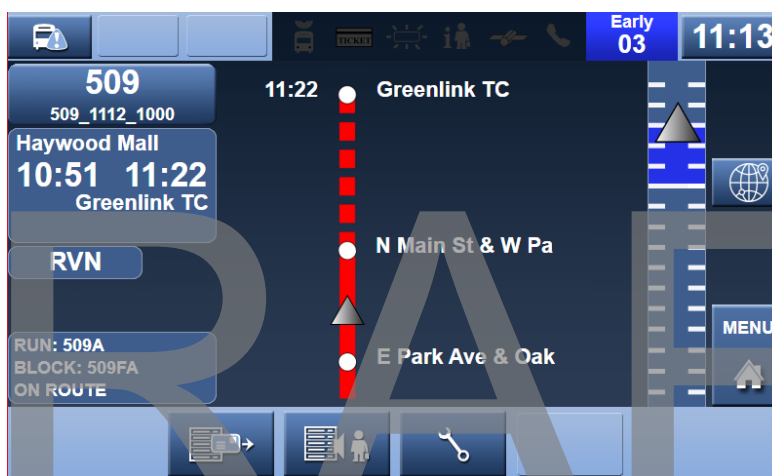
### A.8.7 SCHEDULE INDICATION

When a bus driver is logged into a fixed route run, the MDT provide continuous feedback on schedule adherence. The EQUANS MDT allows Bus drivers to understand current on-time performance status quickly and easily through numeric and colored indicators. The MDT indicate to drivers the current schedule or headway adherence according to the service paradigm in place for that route.

The MDT provides continuous feedback on current schedule adherence status and update every second. It also indicates current schedule adherence in the form of text based Early / Delay and + or – XX minutes.

The MDT provide distinct audio and visual alerts to drivers when they are a configurable time ahead of or behind schedule.

See below “Early 03 Min”. This ensures bus drivers keep track of their performance and stay on-time.

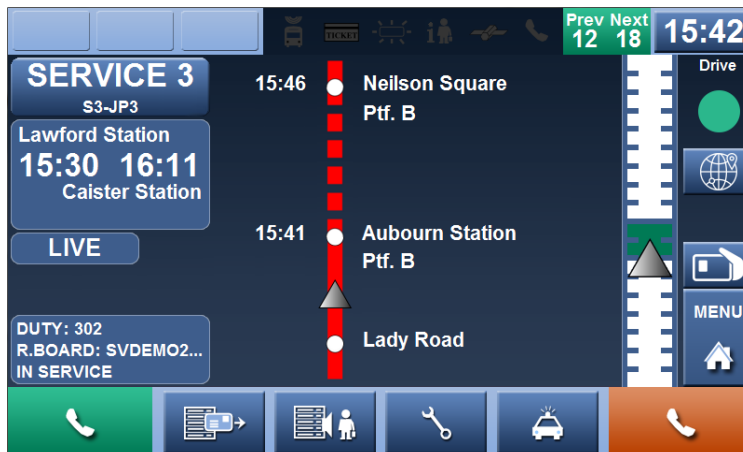


*Bus on Route 509 direction Greenlink TC is early by 3 minutes.*

### A.8.8 HEADWAY ADHERENCE

For the management of special event or routes running on a frequency-based system, EQUANS fully manages headway. The MDT supports headway adherence and provides each vehicle with gap time information for vehicles ahead and behind. See below “Prev 12 / Next 18”.

This allows the bus driver to know exactly the spacing with the bus ahead and make sure to avoid “bunching” by getting too close. This is an ideal solution to allow regular spacing on the BRT (Bus Rapid Transit), high frequency routes, or shuttle services.



The MDT indicates audibly and visually when a vehicle is required to hold to address headway issues, and when it should proceed after holding.

### A.8.9 MESSAGING FEATURES

The MDT allows two-way text messaging between the transit vehicles and dispatch using a set of predefined text messages with minimum interaction. The MDT enable drivers to send text data messages to dispatch such as wheelchair loaded, bike loaded etc.

These text messages are user configurable by the system administrator and flexible in the way they are ordered on the MDT. The system allows staff to add, edit, delete, or reorder the listing of canned data messages to be stored on MDT without EQUANS' assistance.

All canned messages to the dispatch include the date, time, location, vehicle ID and driver ID.

This provides two-way text communication in real-time between the MDT on any bus and the dispatchers.



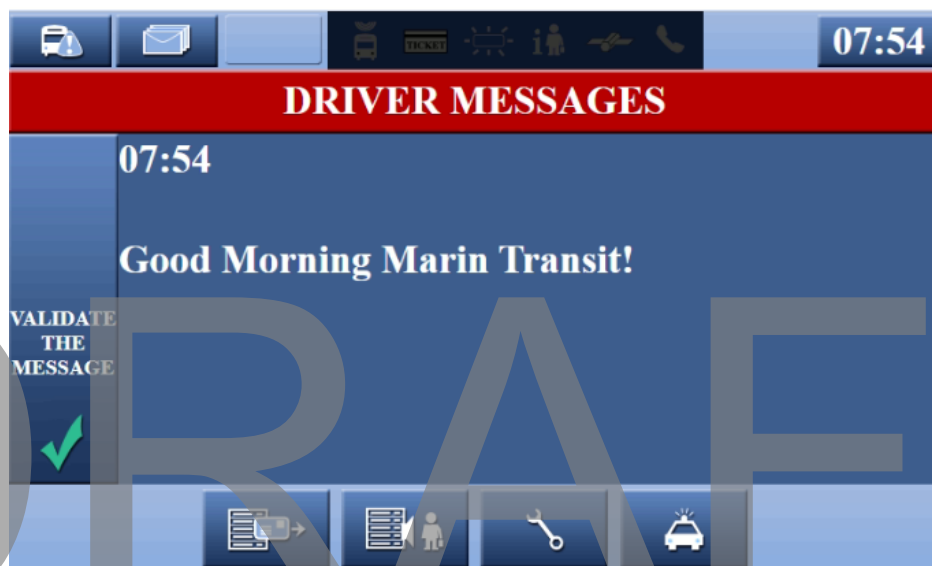
All canned messages can be selected by drivers with no more than three key presses.

### A.8.10 MESSAGES FROM DISPATCH

When the vehicle receives a message, the bus driver is notified by a mutable audio tone signal and the message is available for display on the MDT within one second after it is received.

The MDT stores multiple messages received from dispatch and indicates those text messages that are unread. Bus driver can review recently received messages at any time with minimum interaction. The MDT is capable of retaining at least the last ten (10) received messages for driver review. The received messages are ordered chronologically with the most recently received message presented first.

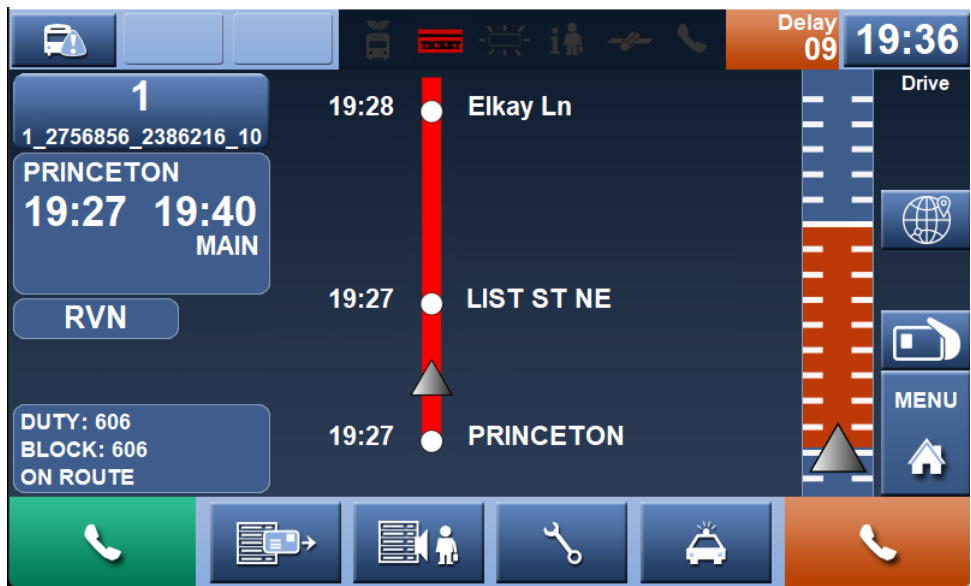
Here above is an example of how the message would appear on the MDT:



### A.8.11 ROUTE LADDER

The route ladder is the main driver view on the MDT, presenting the 3 next stops as well as timing point with arrival time information, with the vehicle position moving along the ladder.

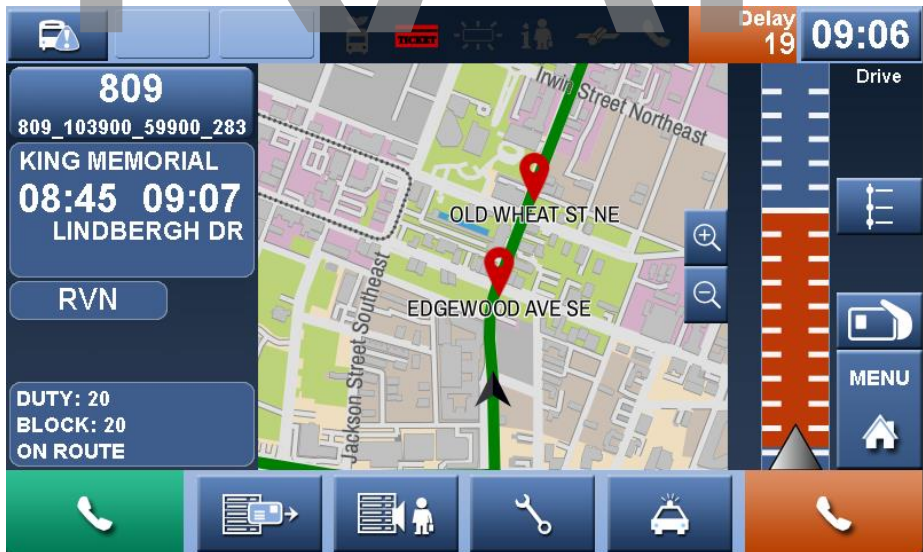
Here on Route 1, the vehicle left Princeton and is approaching List St NE.:



### A.8.12 TURN-BY-TURN NAVIGATION

The MDT provides the bus driver with an accurate geographic map that supports drivers navigation along their assigned block and allows drivers to pan and zoom as required. Once the driver logs on, the MDT provide the option to display turn-by-turn navigation showing the current location of the vehicle, the location of bus stops and timepoints, and the routing between them. As the vehicle travels, the map view automatically pans and zooms to follow the vehicle.

The MDT indicates clear turn by turn information for the standard routes, activates detours, street names and upcoming stops.



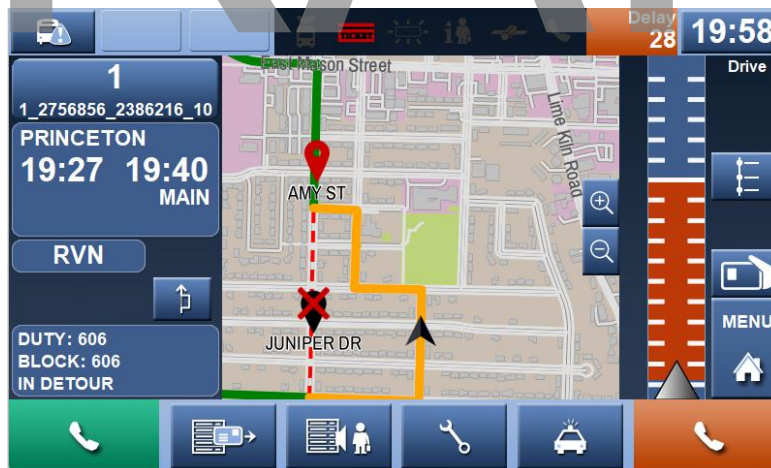
Here is a picture of the navigation map on the EQUANS MDT:





When a vehicle is performing an active detour, the system provide turn-by turn directions to the driver as map display and audible instructions via the MDT. As seen below, the itinerary of the vehicle on the trip is automatically updated to consider the diverted path. The new route path below is highlighted in yellow with information about bypassed stop on the detour visually available.

Here we created a detour on Route 1 – the vehicle is now on detour, following the new path highlighted in yellow. The navigation map indicate visually that the driver is on a detour. The driver can see that the Juniper Dr stop is bypassed.



### A.8.13 COUNTING PASSENGER BY FARE CLASS

The EQUANS MDT supports manual passenger counting by fare class type. Manual Passenger Counting allows vehicle operators to easily count passenger boardings and alighting using the MDT at each stop, and enter the specific fare type for each passenger boarding.

Passenger data such as time, date, location, stop, route, and other pertinent vehicle information are automatically recorded.



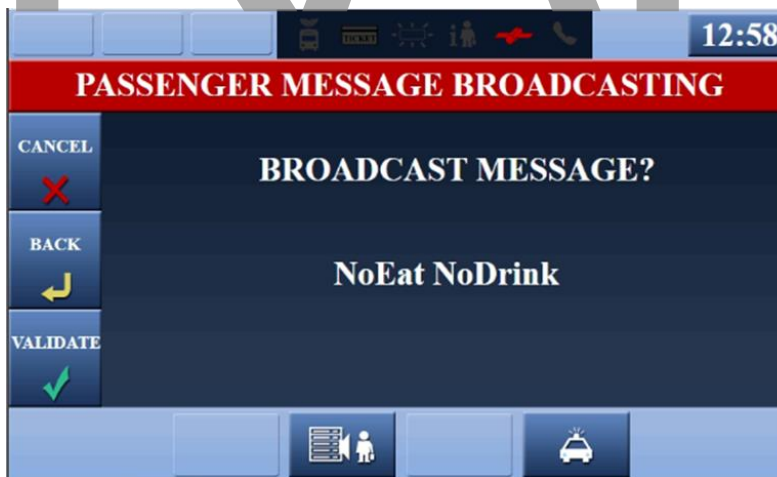
The fare types specific to Marin Transit can be created and edited by administrators and operators can track the classes with a simple tap on the MDT of the corresponding class.

### A.8.14 MANUAL ANNOUNCEMENTS

The MDT enable drivers to initiate public service announcements from a menu of predefined messages.

The EQUANS MDT helps drivers easily and quickly select from a pre-set list of bus-wide announcements. (i.e., "No consumption of food or beverage is allowed on a transit vehicle").

These messages are automatically broadcast to the passengers in real-time via the interior speakers.



Example of Audio announcement that the driver can broadcast in the bus.

### A.8.15 EMERGENCY ALERTS

The EQUANS MDT allows you to manage emergency alerts when an incident has occurred or if the drivers requires attention from dispatch.



The MDT offers an additional security layer with an emergency button. When triggered, an alarm is sent to the dispatch which causes the opening of a map-view centered on the vehicle’s current location.

### A.8.16 MDT MAINTENANCE AND TROUBLESHOOTING

The MDT menu provides onboard diagnostics for the onboard CAD/AVL and peripherals to ease diagnostics. The EQUANS onboard software automatically detects equipment failure and informs the Bus driver and the maintenance staff via several alarms. The diagnostics and troubleshooting information available to view on the MDT update once every one second. The diagnostics and troubleshooting information available to view by the driver or maintenance personnel on the MDT include information such as odometer configuration, status of discrete circuits (open or closed, high or low, etc.), status of J1708/J1939, and status and test screens for each connected device (e.g., APC, VHM, headsigs).

## A.9 AUTOMATED VOICE ANNOUNCEMENTS (AVA)

The EQUANS CAD/AVL include an integrated Automated Voice Announcements (AVA) system that uses Vehicle Locations and GPS geofences to announce stops both internally and externally, announce stop requests, and change onboard visual signs.

The Onboard CAD/AVL will be interfaced to the existing onboard LED sign and the PA system to provide for an automatic announcement of each upcoming stop, stop requested, and other general service announcements in both audio and visual formats. The AVA system determine where or when to make stop announcements and onboard visual signs changes using AVL system data AVA pre-defined location or time parameters.

The AVA module will allow to generate and manage next stop voice announcement, inside and outside the vehicles. The AVA module is managed from the Vehicle Logic Unit, and is reliable, proven, and fully customizable to Marin Transit’s needs (Marin Transit can select the voice, which stops to announce, announce all stops, etc.).

**Once the bus driver is logged into the MDT, the AVA system is fully automatic requiring no driver interaction.**

The AVA meets the ADA standards, offers automatic volume controls for both the inside and outside speakers, and integrates with on-board signage for a comprehensive passenger information system.

#### Automatic Voice Annunciation (AVA)

ADA-compliant Interior and exterior announcements

Real-time wireless update: Announcements made from your desk take effect on the bus in seconds

Multi-Language Announcement from a Text-to-Speech engine

‘Stop Requested’ Integration

Automatic Volume Control

Fully configurable to highlight landmarks, transfer, service announcements

The EQUANS AVA can be configured to make stop announcements at locations designated by Marin Transit.



The solution provides clear voice announcements for next stops, upcoming transfer points, current route, destinations, service alerts. Marin Transit can easily create and edit announcements on all routes.

In case of weather emergency or other situation, the EQUANS AVA module allows Marin Transit to type a message from your computer and push that message out wirelessly to be played in every single equipped vehicle within seconds.

### A.9.1 AVA ANNOUNCEMENT DATABASE

EQUANS is responsible for the creation of the initial version of the AVA database that will be used for the CAD/AVL implementation.

The AVA management system can remotely manage the onboard AVA equipment. The database includes an administrative tool for Marin Transit to easily modify announcement for individual stops including but not limited to announcement content, location, frequency, and type. Through the Text-To-Speech (TTS) engine, Marin Transit administrators can efficiently make incremental corrections to mispronunciations of bus routes and stop names as required.

The TTS engine support multiple voice, and multiple languages including English and Spanish. The TTS engine used by EQUANS can support other languages such as German, Portuguese, Spanish, Japanese, and Chinese.

The tool provides the ability to adjust text spelling to ensure proper local pronunciation.

The AVA system allows abbreviations to be configured, so that when they are used in the configuration data the TTS engine interprets them as corresponding complete words (e.g., “St” to be interpreted as “Street”).

### A.9.2 AVA GEOFENCE TRIGGER ZONE

The EQUANS AVA module supports geofence trigger zone that will be used for activating announcements.

The system uses the vehicle location information from the AVL system to trigger the appropriate announcements onboard the vehicle whenever the vehicle enters a “trigger zone.” Trigger zones are configurable by stop to accommodate for differences in operations, including but not limited to the direction of approach and size of stop.

Location-based announcements and visual displays can be programmed to be made onboard the vehicle when that vehicle passes any designated location(s), such as a mall, stadium, Transit Center, or any other point of interest define as a trigger zone. All messages will begin playing within one (1) second of being triggered.

### A.9.3 STOP REQUEST FUNCTIONALITY

**The AVA system include functionality to display a “stop requested” message** on the interior next stop sign, Infotainment Display, and make an audible ‘stop requested’ announcement when a customer activates a stop request or wheelchair stop request.

If the stop request signal is received while another message is being announced, the AVA system will show and announce the stop requested message after the current message is completed.





*Stop requested displayed on the interior sign in Rochester.*

### A.9.4 AVA FEATURES

The AVA is provided by the onboard CAD/AVL, interfaced with the existing internal and external speakers to automatically announce the vehicle's status along its trip. One important feature is that the AVA functionality keeps working even with no cellular coverage. There is no situation when Marin Transit would lose the AVA. The key features of the Automatic Voice Announcement system are:

- Multi language (English, Spanish) is supported. The announcement is done via the Text-To-Speech (TTS) engine of the onboard CAD/AVL. MP3 and/or WAV files are also supported. Marin Transit can select the voice out of a list of available voices and customize the announcements for each stop.
- The AVA system includes the capability to announce all or only selected stops.
- The AVA is fully integrated with the CAD/AVL and doesn't need third-party hardware.
- Through the use of an automatic volume control microphone, the AVA system includes Automatic Gain Control (AGC) to automatically adjust internal volume levels depending on vehicle ambient noise level. The system provides maintenance technicians with a means of testing and setting the internal audio default volumes and ambient noise through the MDT. The EQUANS CAD/AVL provides the capability to adjust the minimum and maximum volume levels separately for interior and exterior announcements. The operator cannot manually adjust the volume below or above these levels.
- Marin Transit can test each announcement prior to use on-board and is as easy as typing a text.
- The content of audio and visual announcement messages is configurable by Marin Transit (next stop, upcoming transfer, service announcement, and more.). The AVA include the ability to add announcements for additional content beyond stop names (e.g., transfers, intersections).
- Marin Transit can make real-time AVA announcement updates from the dispatch to be played on vehicles in revenue service. Marin Transit dispatchers can activate the announcements simultaneously on a group of buses.
- The distance and time prior to the stop at which the announcement can be made is configurable.

One important feature is that the AVA functionality keeps working even with no cellular coverage. There is no situation when Marin Transit would lose AVA functionality.

- There is no announcement when the vehicle is off-route or out-of-service.
- The AVA is updated in real-time when a schedule change/delay/detour occurs. When a detour occurs, the AVA will announce that the bus is on detour and the stop(s) that are not serviced. The LED signs onboard will provide the same visual information about the detour.
- The Automated announcements continue to operate normally when the MDT is in silent alarm mode.
- The driver has the ability to manually trigger the activation of any pre-recorded announcements if needed. Drivers cannot disengage AVA operations.
- The Onboard CAD/AVL will make the correct stop announcements when the bus has been placed into service to provide additional unscheduled service on a route.
- The Onboard CAD/AVL subsystem can display text message from dispatchers on the onboard LED sign and/or headsign.
- **Interior announcement messages such as:**
  - Route number, destination, next stop, upcoming transfers, customer service announcement.
  - For example, **"Now arriving at Lake & Hobson. Next stop is Central Station. Connection with Route 3, Route 4, Route 7 and Route 8."**
- **Exterior announcement messages such as:**
  - Route and Destination - For example, **"This is Route 2 to Time Corners"**.
  - Marin Transit can disable exterior audio announcement by stop, by time of day, by route, by location, and by vehicle. The system allow dispatch to disable announcements on a single bus or a group of buses.
- Finally, Marin Transit can configure reoccurring message to be played at a pre-defined time, without driver interaction. For example, **"Get where you need to go, with Marin Transit!"**

### **A.9.5 ON-BOARD NEXT STOP SIGNS INTEGRATION**

EQUANS will integrate with the existing Sunrise interior LED signs. The signs will be fully integrated with the CAD/AVL via J1708. EQUANS has a standard integration with Sunrise, already implemented at multiple transit agencies, such as Corpus Christi or Lowell, MA.

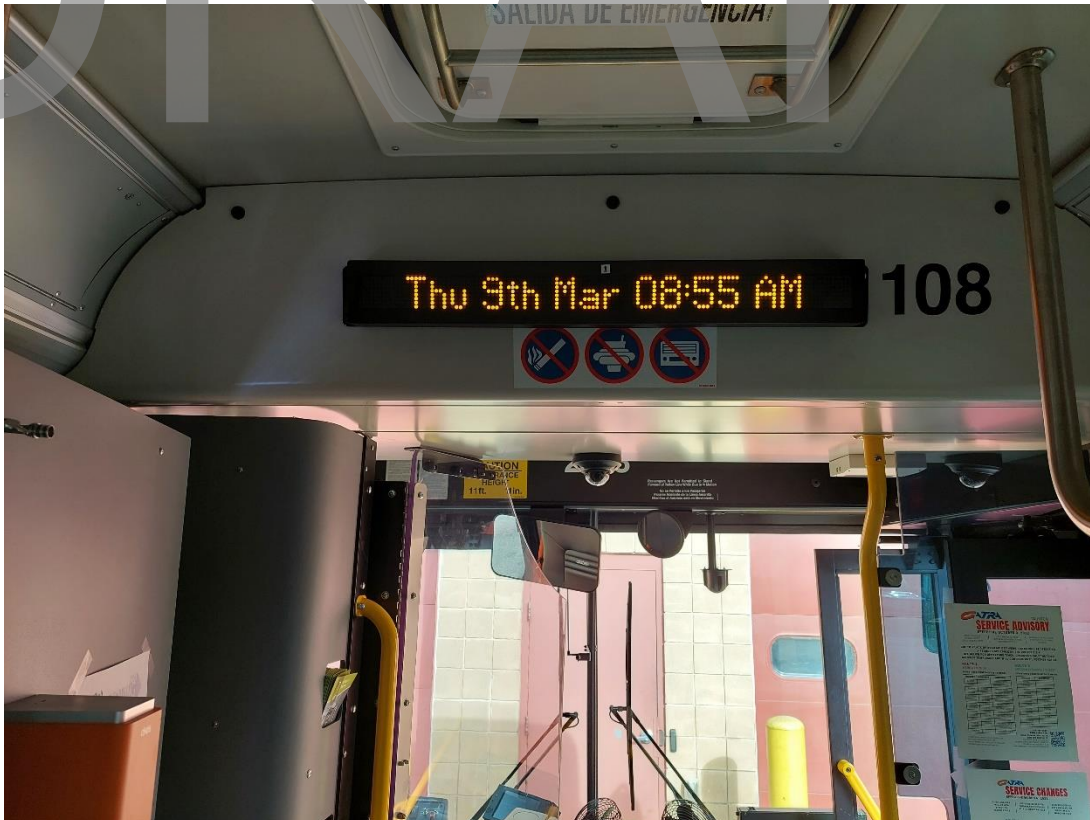




*Integration with a Sunrise sign in Lowell, MA.*

As an option and for buses with no digital interior signs, EQUANS has offered to install a new interior sign. The price quoted is for Hanover interior signs, which comes with a 12-years warranty.

Below are examples of the Hanover on-board next stop sign installed by EQUANS:





Information displayed on the on-board next stop sign include:

- Route number, destination, next stop, upcoming connections, estimated arrival time at the next major stop
- When the vehicle is at a stop (and doors are open), the on-board sign indicates the name of the stop. Once the doors are closed, the sign announces the destination.
- When the vehicle is located at a departure terminal, the on-board sign indicates the time remaining before departure, i.e., "Departure in 05 minutes".
- Transfer information with connecting routes is displayed when arriving at the next stop.
- The on-board sign will display "STOP REQUESTED" when a passenger has requested a stop.
- If a detour is activated, the LED sign displays "route diverted" and the list of stops not serviced.
- Multi-language (English/Spanish) is supported on the on-board sign. Here is a detour announcement, in Spanish:



*Detour announcement in Spanish.*



## A.10 PUBLIC INFORMATION

**The EQUANS system is the insurance of a reliable and accurate passenger information.**

The EQUANS Real-Time Passenger Information solution enables Marin Transit to communicate with its passengers in real-time.

The EQUANS CAD/AVL will support Marin Transit's goal to improve customer service level, by offering increased levels of customer self-service options, including real-time information and real-time service alerts, providing effective customer communication.

Using real-time analytics, it calculates the real-time predicted arrival time of buses for all stops and routes and disseminates information to external display devices or external systems including the Transit App, digital display, website, SMS notifications, and third-party developers.

The EQUANS CAD/AVL offers full seamless integration with the Transit App, Google Maps or Apple Map via GTFS-RT. The API endpoints provided by EQUANS will be updated at least every three seconds.

The Information provided to passengers includes GTFS and GTFS-RT, and the feed is made available for Passenger Information Displays, Marin Transit's website, Google Maps, Transit App, and other apps, to provide and display real-time arrival/departure data for fixed-route vehicles.

### A.10.1 REAL-TIME PREDICTIONS

The EQUANS CAD/AVL generates real-time arrival/departure predictions for all vehicles. The predictions for a given bus can span across multiple trips. The EQUANS CAD/AVL uses schedule data, historical data, and real-time data to provide Marin Transit with the highest predictions.

A unique aspect of the EQUANS CAD/AVL is that all predictions are based on real-time analytics calculation. The accuracy of EQUANS' predictions is the result of reliable schedule data, real-time GPS, mature algorithms, and historical data from past trips, for continuous improvement.

The predictions made by the EQUANS CAD/AVL account for real-time service adjustments, including canceled trips, added trips, detours, skipped stops, and modified departure times.

The predictions displayed are identical 100% of the time on all media (Mobile app, Website, SMS, GTFS RT, Google).

The CAD/AVL predictive algorithm is a learning algorithm that considers historical data collected to improve prediction based on past trips.

## A.11 GTFS

The EQUANS CAD/AVL manage all GTFS and GTFS RT data and provide a simple GTFS export feature.

The GTFS data files is the property of Marin Transit and available to Marin Transit at all times. It will continue to be open to developers and published on the Marin Transit website and other websites containing transit feeds.

EQUANS will upload the real-time GTFS to Google so that potential passengers can access Marin Transit real-time bus tracking via Google Map.

### A.11.1 GTFS STATIC

A GTFS schedule module is included and integrated with the EQUANS CAD/AVL to receive and export transit schedule information.

EQUANS has been following and actively participating in the development of the GTFS and GTFS RT standard, often proposing modifications or development to the standard. As such, the EQUANS software product follows GTFS Best Practices.

All data generated by the GTFS Schedule Module, including the GTFS dataset, will be the property of Marin Transit.

### A.11.2 GTFS-RT DATA FEED /FEED CREATION

The EQUANS CAD/AVL provides Marin Transit with the ability to both import and export GTFS and GTFS RT data. The RTPi module support real-time information, including vehicle position data, active detours, vehicle occupancy, and information about trip additions and cancellations. EQUANS ensure that the GTFS-RT feeds is consistent with the imported GTFS schedule information including common identifiers for routes, trips, and stops.

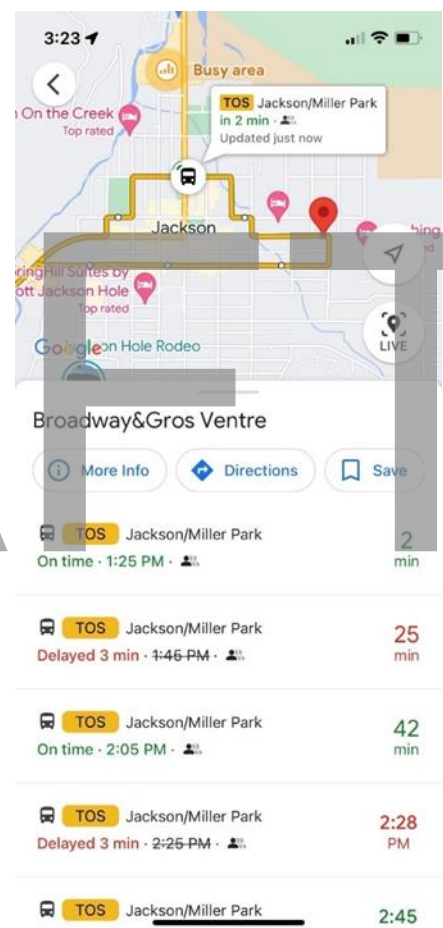
EQUANS will be responsible for creating and maintaining GTFS-Realtime feeds with Trip Update, Vehicle Position, and Service Alert entities to transmit real-time departure and arrival times, as well as service alerts for use in Google Maps, mobile applications, Mobility as a Service (MaaS) solutions, as well as third party passenger information sign providers.

EQUANS provide the option to host GTFS feeds for access by third parties.

The GTFS-RT feeds reflect all currently applicable detours in the Trip Updates feed, by indicating which stops are skipped because of a detour. The EQUANS GTFS-RT updates every 3 seconds.

The EQUANS CAD/AVL can export its data toward third-party systems via open API:

- In Static GTFS format - with the exporting of route, schedule, and stop data updates into Google Transit Feed Specifications (GTFS).
- In real-time through GTFS Real-time 2.0-conforming Trip updates; Service Alerts and Vehicle Positions feeds. The EQUANS GTFS RT feed includes all service alerts and updates such as stop closure, detour, new trips, etc. The Service Alerts feed include all of the latest service alerts entered by dispatchers through the CAD/AVL. The Service Alerts feed incorporate alerts that are categorized by Route, trip and stop.
  - The EQUANS GTFS RT Vehicle Positions feed include locations for all vehicles in service, status of a vehicle with respect to which stop it is stopped at, incoming at, or in transit to (i.e., current status field), and buses that have been taken out of service.





- The EQUANS GTFS RT Trip Updates feed include predicted arrival and departure times, trip additions and cancellations, and skipped stops.
- The EQUANS GTFS RT Service Alerts feed include, for all current and future service alerts, the header and description, cause and effect, active period(s), affected entities including agency, route, mode, trip and stop, and a web link.
- The EQUANS GTFS RT feed include the Occupancy status for real-time bus crowding.
- For trip deleted, EQUANS uses the CANCELED field status.
- For stop not serviced because of a detour or another service change, EQUANS uses the SKIPPED status.
- SIRI real-time feed.

EQUANS is proven to upload real-time data to Google. Google has approved the EQUANS feed.

### **A.11.3 UNIFIED GTFS RT FEED**

Through the integration with INIT, the EQUANS CAD/AVL system will create a comprehensive and unified GTFS-RT feed for Marin Transit, regardless of the CAD/AVL provider.

### **A.11.4 GTFS-RT FEED VALIDATION**

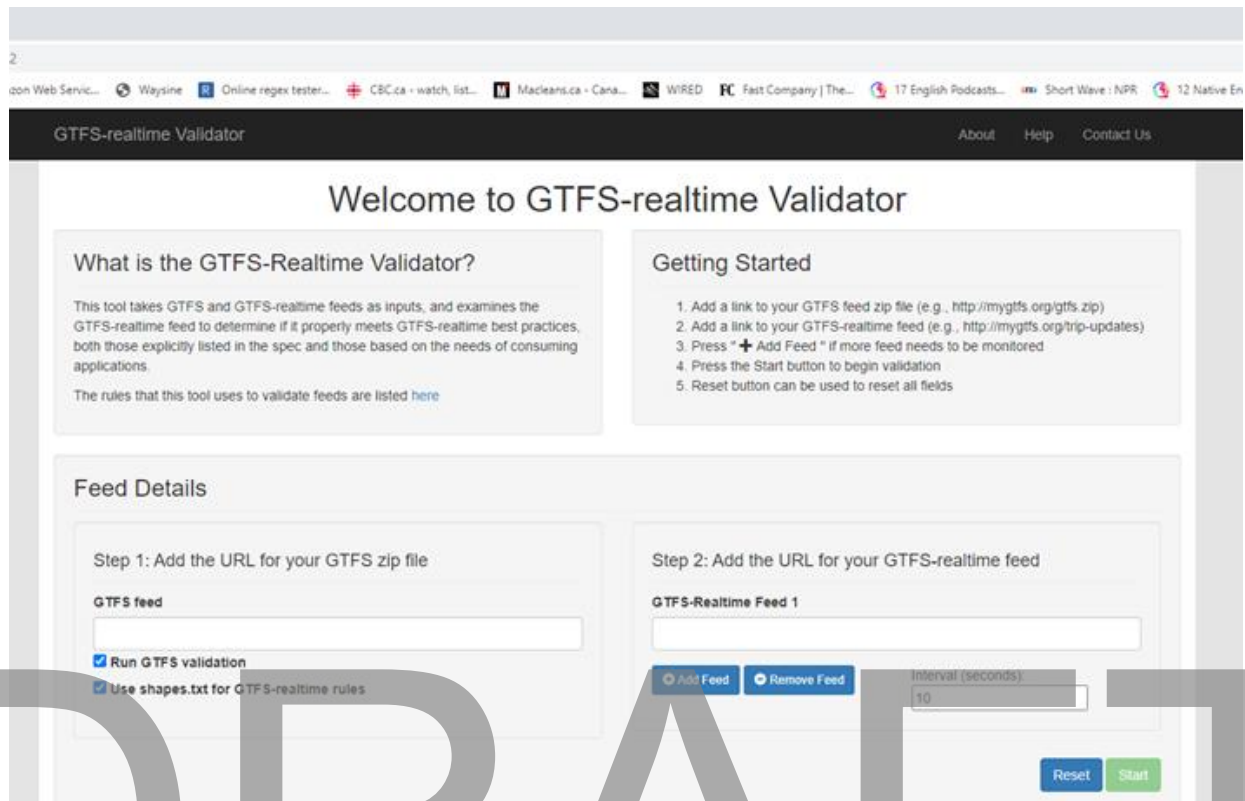
Before publishing, GTFS and GTFS RT feeds should be validated in order to catch errors. EQUANS always verify and ensure that the exported GTFS datasheet result in zero critical warnings when tested using the Google-provided schedule validator.

The EQUANS GTFS and GTFS RT feeds use external validation tool provided by Google:

<https://developers.google.com/transit/gtfs/guides/tools>

This allow us to ensure that our GTFS and GTFS RT feed are fully compliant with the standard. The GTFS-real-time Validator is a tool created by the Center for Urban Transportation Research at the University of South Florida to verify that your real-time feed data correctly matches your GTFS dataset and contains all required information.

Here is an example of our validator in use for the Memphis Area Transit Authority (MATA):



### A.11.5 CAD/AVL WEBSITE

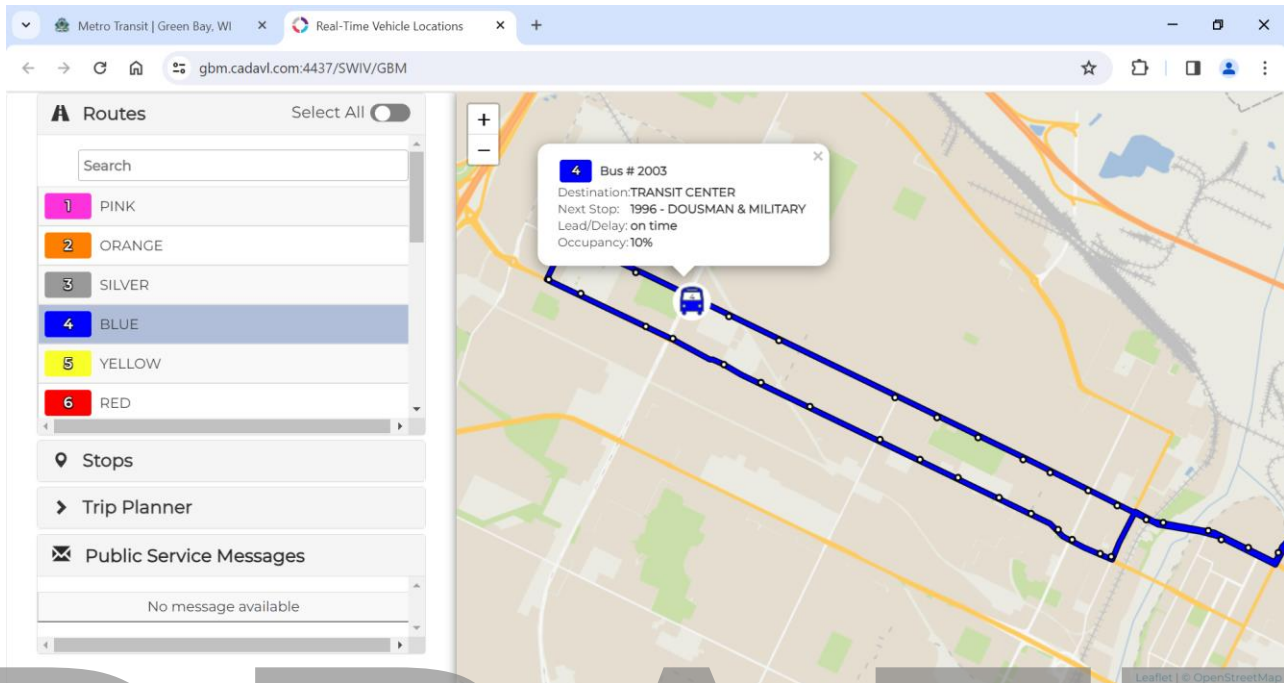
The EQUANS CAD/AVL include a public web interface that provides customers with bus location information based on real time location data.

Website map and app show steady vehicle movement on map without reloading. Motion of vehicles tracked on website and app will appear smooth and fluid.

Other information distribution interfaces are available such as stop-based electronic displays, text/SMS messaging, smartphone, smart TV and monitor display.

EQUANS provides a Public Website, for customer information that integrates directly into Marin Transit's website, so passengers can track their buses and plan their trip.





*Example of Passenger Website here integrated into the Green Bay website, showing bus tracking.*

The public website is a web application using responsive design that accommodate both desktop and mobile device users without requiring separate software or app.

Examples can be found at the following link:

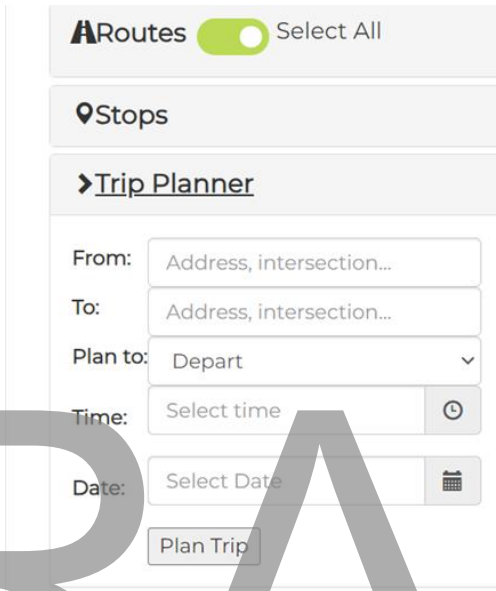
- Memphis: <https://www.matatransit.com/how-do-you-travel/mata-tracker/>
- Corpus Christi: <https://swiv.ccrta.cadavl.com/SWIV/CCRTA>

The public website is continuously updated to ensure all maps, routes, and stop information is current and provides passengers with 24/7/365 access to transit information and provide map-based predictions by route and stops for the user. The interface displays vehicles, routes, stops, service messages, trip planner and has search functionality for routes/stops by location. Features include:

- View real-time bus locations on a map with smooth vehicle tracking.
- Trip Planning functionality.
- View the predicted arrival times at a stop selected by the user for the next two buses of each bus route serving the bus stop.
- Messages and alerts that are broadcast by CAD/AVL to all system users and for specific routes.
- Heading/direction for each vehicle.
- All stops on the Marin Transit system: By clicking on a stop, a box appears and presents the stop name, the routes arriving at this stop and the estimated arrival times of the next vehicles.
- Departure times/ by clicking on a vehicle: information about the current route, the destination, on-time performance, next stop.
- Users can select and view only routes or stop that interest them.

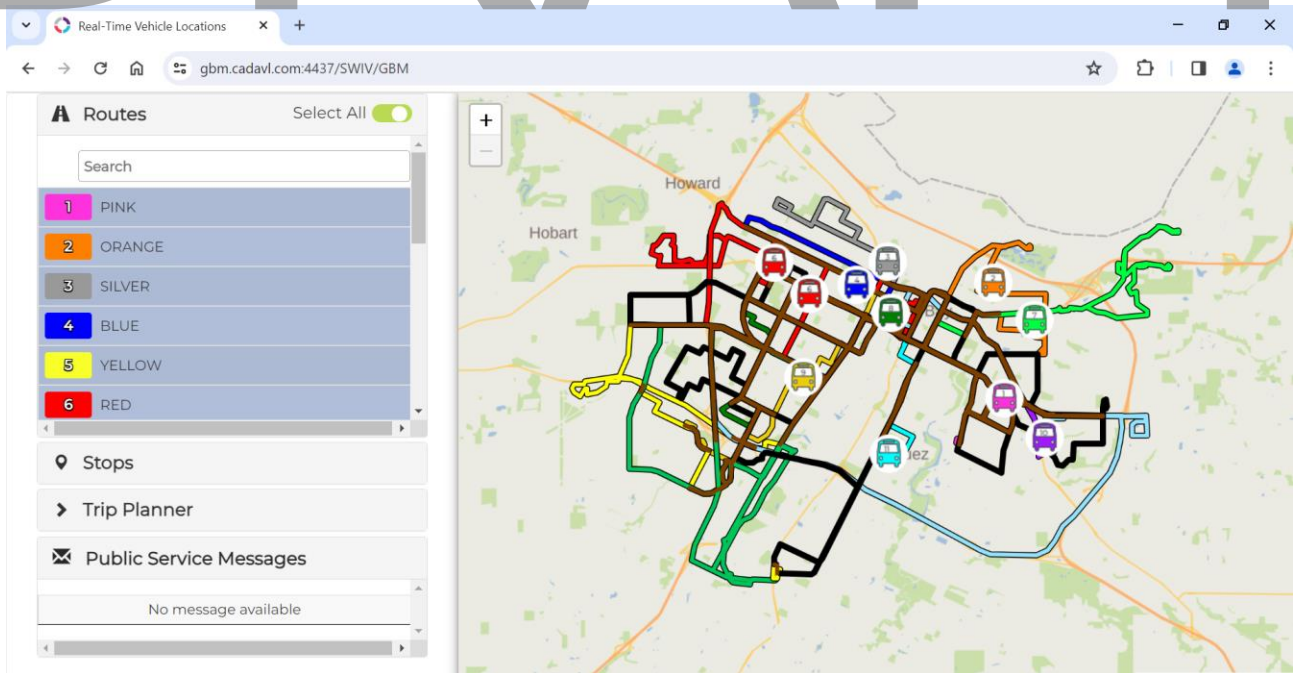
- Real-time occupancy information for each vehicle with Passenger Counting.
- Any fixed route bus cancelled by dispatch in the CAD/AVL will automatically be removed from the web page.

Trip Planners is integrated to the Public Website, and allow the input of an origin, input of destination, and can describe any needed transfers:



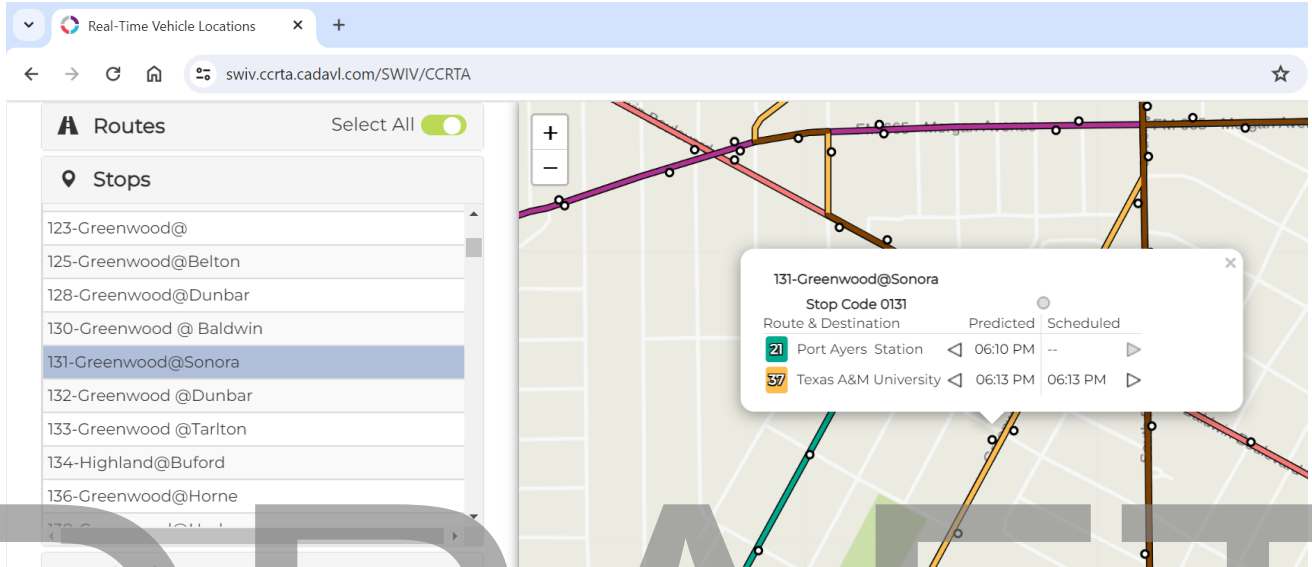
DRAFT

Customers can turn on “All Routes” or select any specific Routes, show the current locations of all vehicles servicing the selected route:

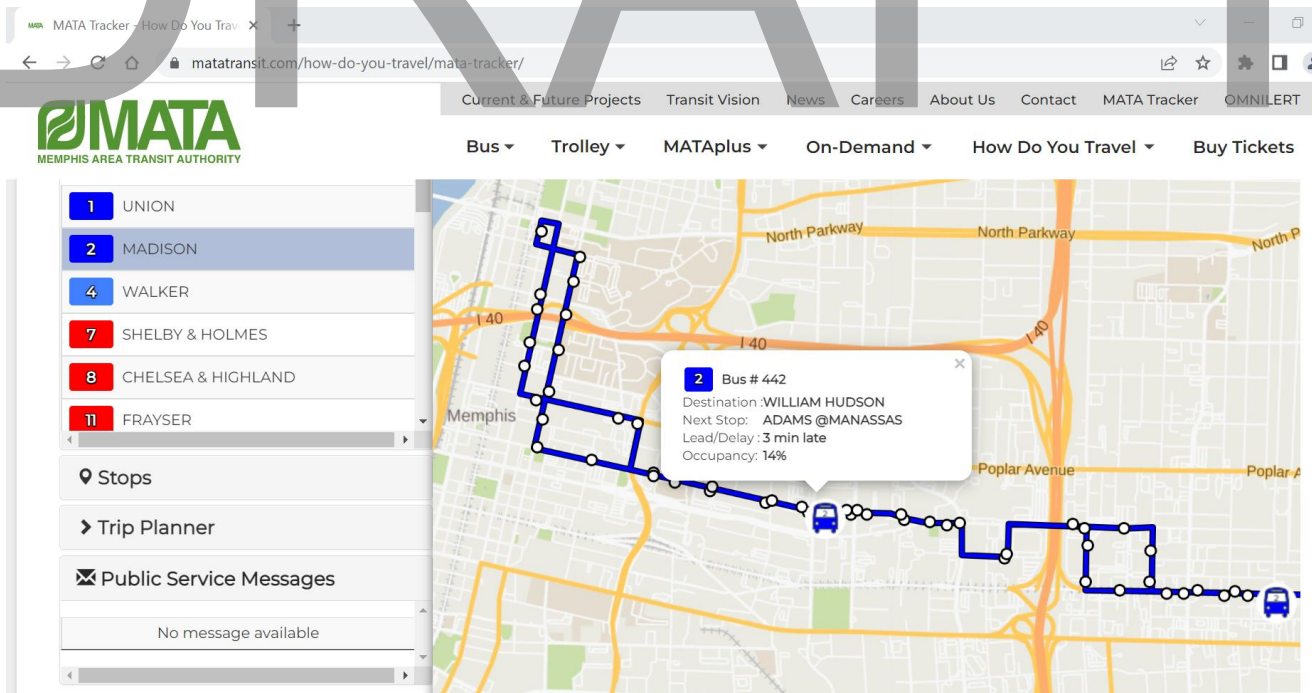


Customers may find information about a specific stop by looking for their stop name in the left menu. Once selected, the map will automatically center on the selected stop with real-time arrival information.

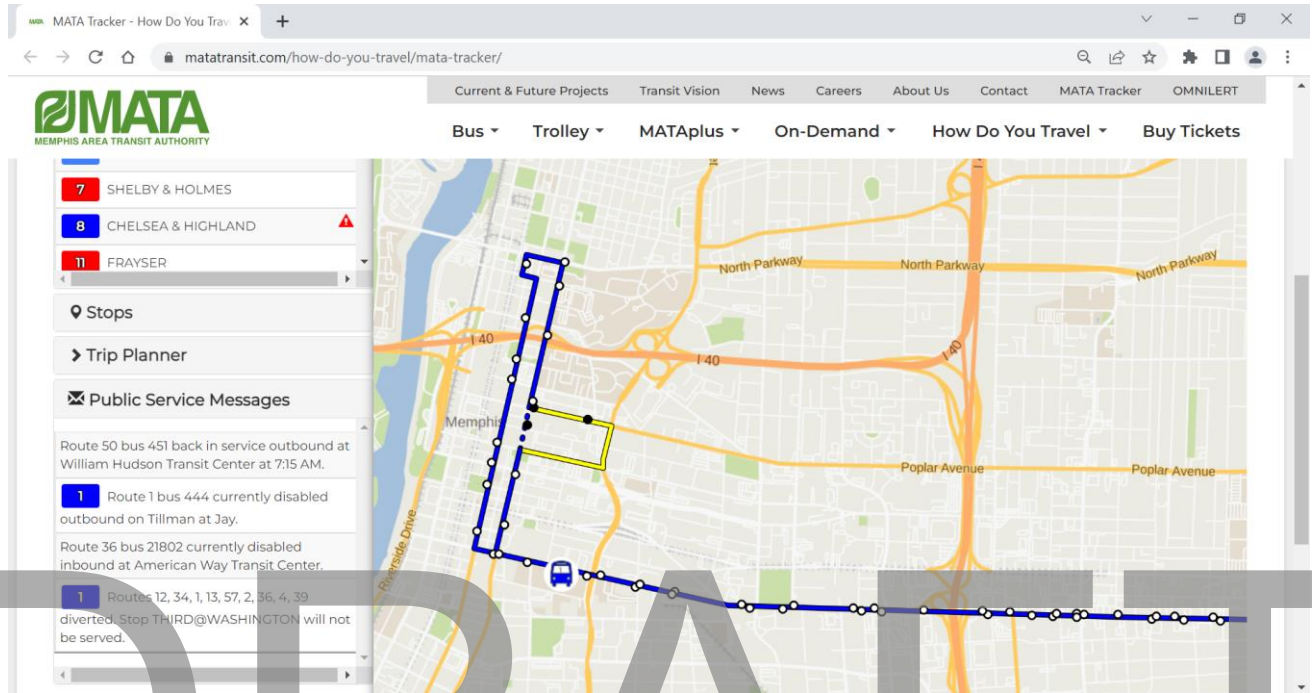
Here is an example in Corpus Christi, selecting the Greenwood @ Sonora stop:



Customers can also track their vehicle, as seen on the screenshot below with on time performance, occupancy status, destination, next stop information. The example below is from Memphis, TN:

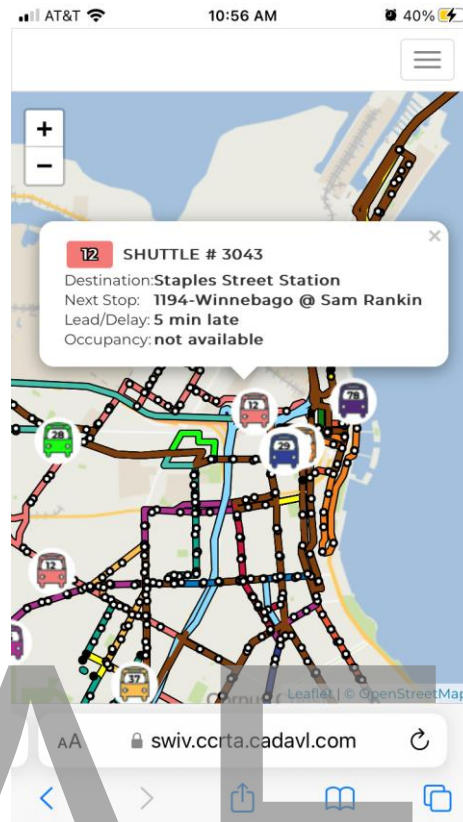
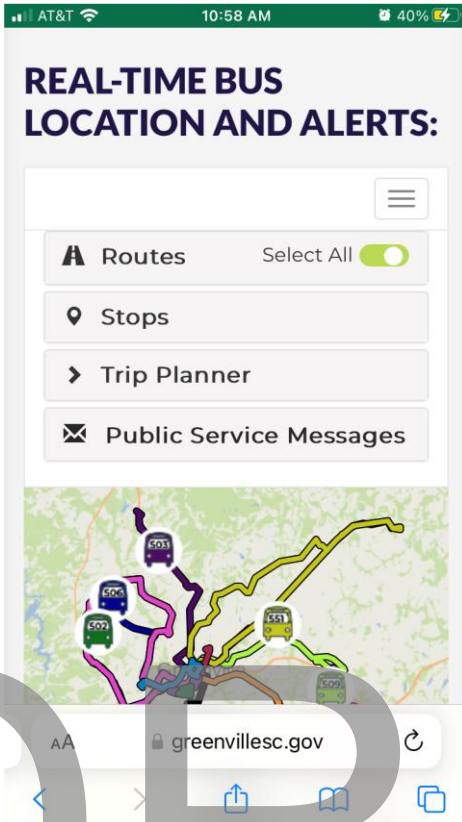


Here below is an example of the Service Alerts and Public Service Messages, including detour and bus disabled. Passengers can clearly see the detour on the map.



The Passenger Website can also be accessed from any smartphone, as seen below:





### A.11.6 INTEGRATION WITH WAYSINE

EQUANS has worked with Waysine multiple times in the past at several locations including Corpus Christi, TX, Fort Pierce, FL; and in Gatineau, QC. The integration with Waysine is done via GTFS RT feed.

EQUANS will integrate seamlessly with the existing Waysine signs installed at Marin Transit. EQUANS has the ability to send planned or ad-hoc message to a single sign or a group of sign.

In Corpus Christi, TX, EQUANS installed two solar-powered Waysine LED signs, as seen below:



*Waysine installed in Corpus Christi by EQUANS.*



*Waysine installed in a bus shelter in Fort Pierce, FL, by EQUANS.*

### **A.11.7 SMS NOTIFICATIONS**

The EQUANS CAD/AVL enable mobile phone users to make a schedule inquiry via text message to a special CAD/AVL number.



The SMS request/response allows passengers to text to an easy-to-remember short code and receive, in real-time, arrival information via text message. It allows transit agencies to broadcast system wide text alerts to passengers who subscribe to the service.



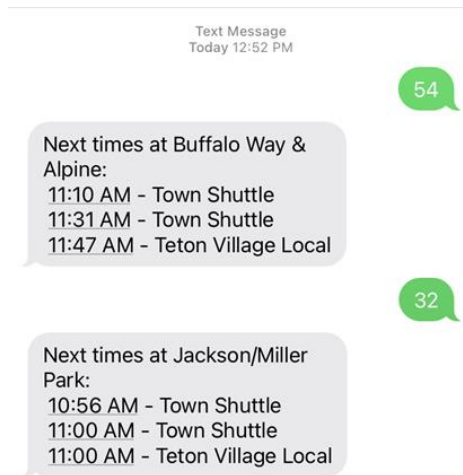
Receive **SERVICE ALERTS** right to your phone

Text  
**MARIN TRANSIT 32**  
to 41411  
No cellular data plan required

Stay alerts and receive real-time bus arrival by **Text**!

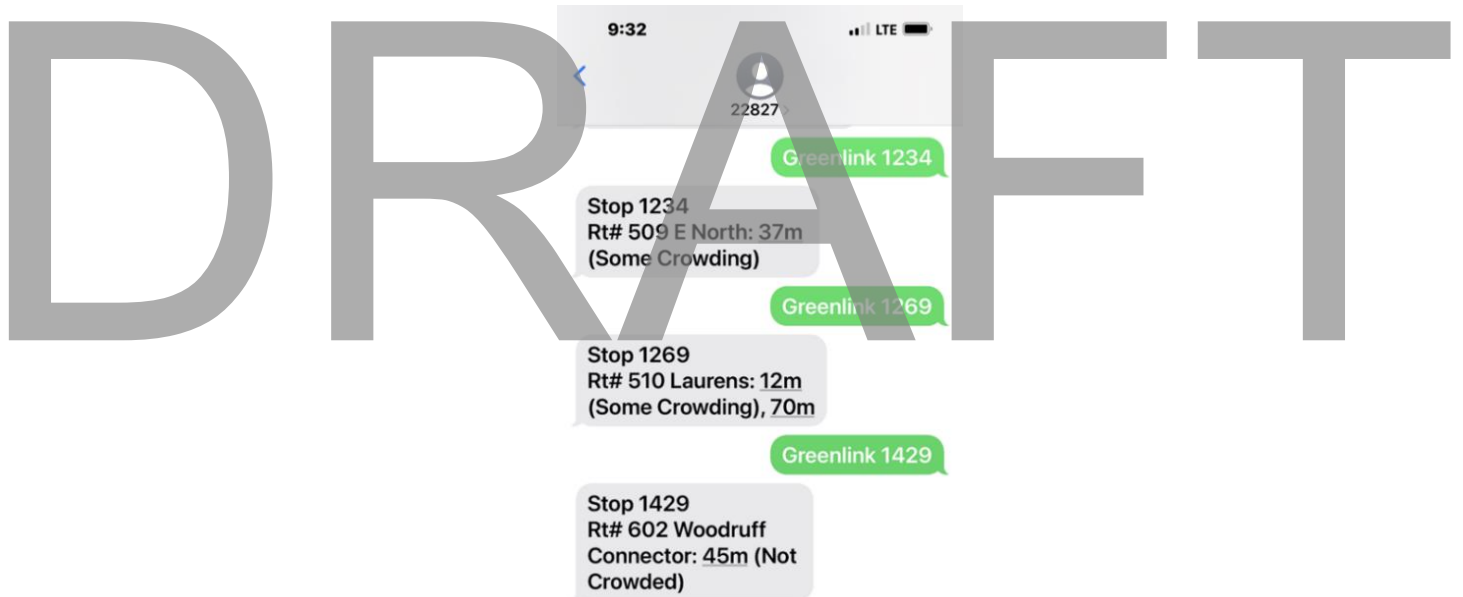
Types of alerts may include temporary route changes due to construction or other unforeseen circumstances, new schedules, stop relocations, and more. Passengers may also subscribe to scheduled alerts that notify them of arrival information for a stop. The SMS Notification features include:

- Full compliance with ADA accessibility.
- Rider sends a SMS text message which includes the transit agency's unique keyword followed by a stop number to 41411.
  - Example: Rider would text "Marin Transit 32" to 41411
  - The CAD/AVL send a response within 1 second of receiving a user's text message inquiry. Information included in the text message response is configurable by Marin Transit.
  - EQUANS makes a request to the real-time server with the message.
  - The server looks up information and responds with real-time accurate arrival data.
  - EQUANS sends your response back to the rider as a text message within seconds.



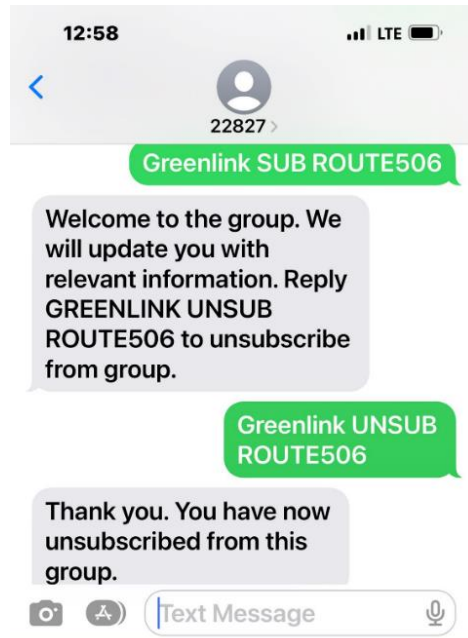
*Real-time arrival via SMS in Jackson, WY.*

- Real-time crowding coming from the EQUANS APC is also available on the SMS:



*Example of SMS with bus real-time crowding information.*

- Passengers can also subscribe and unsubscribe from text alerts groups to be inform of real-time impacts of the bus service. To subscribe to receive RideText alerts, passengers needs to send a text message to the number 22827.



*Subscription to text alerts for Route 506.*

Marin Transit can also choose to place signs with a QR code for passengers to scan and receive helpful information.

**For a live demo of our SMS alerts features, please scan the QR Code below:**



*QR code which can be scan to access real-time information at bus stops.*

### A.11.8 INTEGRATION WITH TRANSIT APP

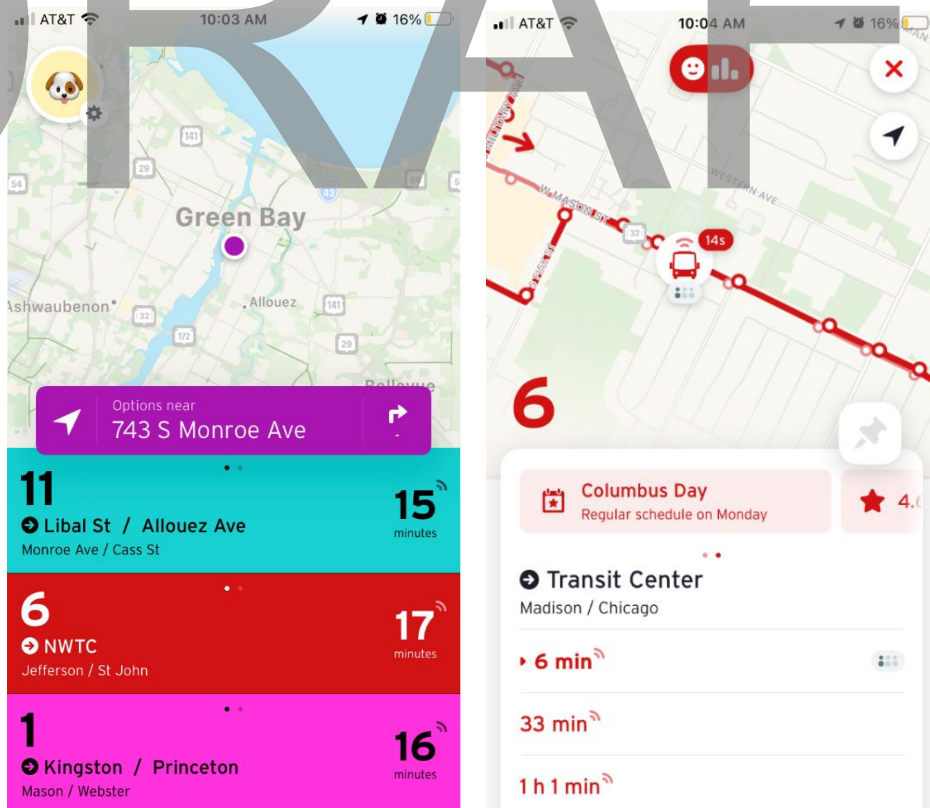
Among many passenger facing media available, EQUANS can offer full integration of its CAD/AVL and real-time passenger information system with the Transit App. In fact, EQUANS usually suggest its clients use the Transit App instead of a proprietary app.

EQUANS produces high quality GTFS-RT data, which is then seamlessly integrated by Transit. Transit and EQUANS' teams have worked closely for several years, ensuring an effective working relationship where both of their solutions are deployed.

Transit shows users all nearby transport options and departures times in big text and bright colors. Users can easily navigate public transit with accurate real-time information, simple multimodal trip planning, step-by-step navigation, and seamless in-app fare payment and validation. With public transportation at its core, Transit also integrates real-time information and payment functionalities for other sustainable mobility modes, including bikeshare, scooters, carshare, and ridehail.

One of the main advantages is that the EQUANS CAD/AVL, being directly integrated with Transit App through GTFS RT, will provide it with real-time detour, service alerts, trip cancellation and more, so Marin Transit passengers can access all information and service change happening, as they occur. **The Transit App is fully ADA-compliant and available for both Android and iPhone.** All vehicle tracking information will be updated every three seconds.

Below is our client Green Bay Metro real-time arrival information as well as real-time crowding information.



Screenshots from Green Bay Metro Transit App

### A.11.8.1 TRANSIT'S CORE CUSTOMER-FACING FEATURES

The following section details the standard features currently deployed in Transit at no cost to passengers around the world. Transit App core features for Marin Transit includes:

- The Transit App is brandable with Marin Transit's logo, route colors, customized rider messages, and social media link.
- View bus stops in the vicinity of the user's GPS-enabled location on a map. The app allows mobile app users to select bus stops that are not in the immediate vicinity of a user's location by moving the map to view a desired location and/or by entering a desired location. The app allows mobile app users to zoom in and out on the map.
- View the predicted arrival times at a stop selected by the user for the next three buses.
- View real-time bus locations on a map.
- Receive messages and alerts that are broadcast by CAD/AVL to all system users.
- Up-to-the-second arrival times for every route at any stop, based on the actual location of the vehicle.
- Real-time crowding
- An easy-to-use trip planning tool to get you to your destination quickly and efficiently
- Step-by-step directions using Transit's "GO" feature, so you'll know where to get on and off
- Integrated trip planning with real-time arrivals
- Real-time info from other transit systems and services, no matter where you're traveling
- Saved favorite routes and locations for easy access to alerts and directions
- Marin Transit specific rider alerts within the app, customizable to the routes you're interested in
- Full compliance with ADA accessibility

The Transit App is EQUANS' go to mobile app We believe in open data, and encourage our clients in using the Transit App instead of a custom made, expensive app.

### A.11.8.2 MAIN SCREEN

Transit's main screen gives users immediate access to the real-time departure information for local routes at the nearest bus stops.

At the top of the main screen, the user sees a map with their location marked by a dot. The app automatically provides all nearby routes around the user's location as well as arrival time for each route.

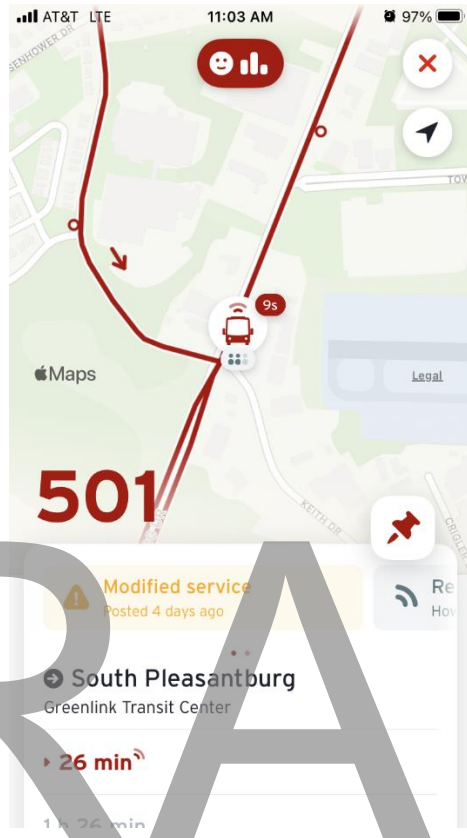
Each entry in the list displays the time until departure on the right, and the line name or number, the direction, and the nearest stop on the left. In order to see the departure time for the opposite direction, users swipe across the cell.

From the main screen, users can also access the Route Detail Screen, the Trip Planner, and Settings.

### A.11.8.3 ROUTE DETAIL SCREEN

Tapping any route in the main screen will reveal much more information, including a route map, real-time bus vehicle locations (when available), the next three departures on the line, the list of remaining stops based on

the user's location and the chosen direction (as well as the time the bus should arrive at each stop and the nearby connections available there), the option to enter GO (Transit's step-by-step intelligent navigator), to make a line a favorite, and display any service advisories (when in effect).



*Example of Route detail for 501 and bus tracking in Greenville, SC.*

Tapping the star icon on a line will add the route to the user's "Favorites" – an option that provides two separate advantages to the user. First, the line will always show up at the top of the list on the main screen, provided it has at least one stop nearby.

Second, making a line a favorite will prompt the user to accept receiving push notifications to their mobile device each time a new service alert is posted for the route.

If the line currently has disrupted service, the user will see a warning symbol and a button to read the relevant service advisories, whether or not the user has made the line a favorite. Transit supports stop-specific service alerts, allowing us to display stops that are out of service with an orange or warning circle on the route map depending on severity, and to avoid those stops within the trip planner.

#### **A.11.8.4 TRIP PLANNER**

Accessible directly from the main screen via the green search bar, Transit's trip planner displays a range of mobility options available for getting from A to B - active transportation (cycling and walking), public transit, and ride hailing - all with visual timelines so users can instantly understand the tradeoffs between different options.



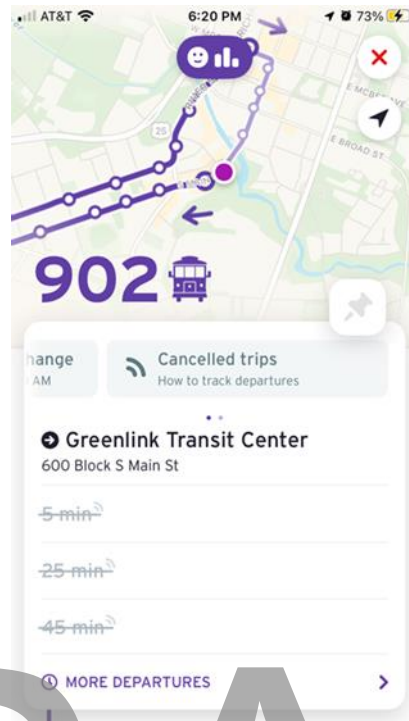
By default, Transit assumes that most trips are taken from the user's current location, and the default departure time is immediately. In the trip planner, users can adjust their origin and destination locations, as well as their departure or arrival time.



#### A.11.8.5 CANCELLED TRIP

With systemic driver shortage, cancelled trip has become a daily reality for transit agencies. We're helping agencies communicate this unfortunate new reality by highlighting cancelled trips with a strikethrough so passengers don't show up early for a cancelled bus.

When we see a cancelled trip in the GTFS real-time feed, passengers will know about it. If a passenger open Transit while they are at a bus stop, it will show the real-time location of the next bus heading their way. If the next scheduled bus trip has been cancelled, that time will be crossed off.



*Here are cancelled trips published on the app in Greenville SC.*

### A.11.8.6 FAVORITES

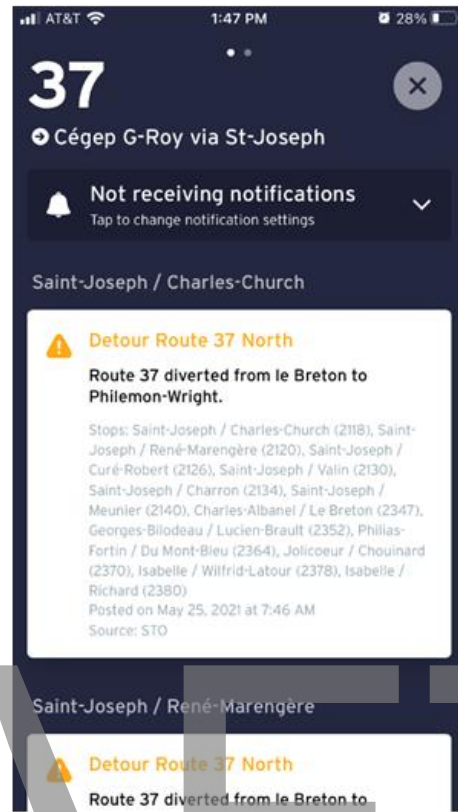
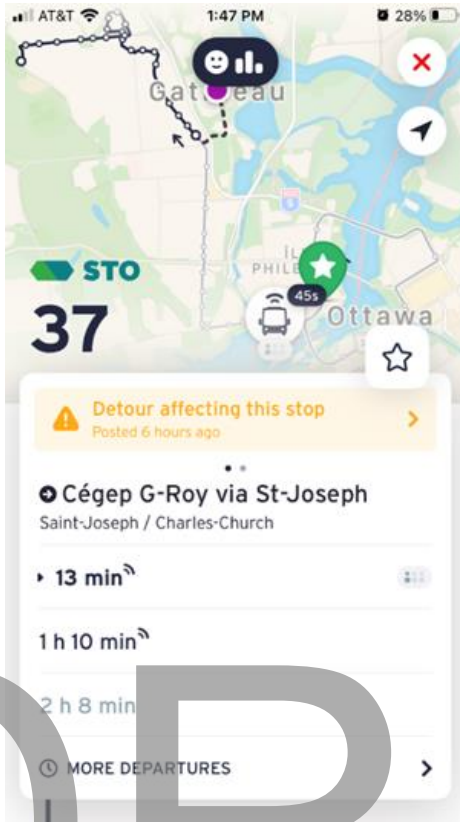
Always take the same route or stop? Tap the star icon to add it to your favorites. Favorite routes and stops always show up at the top of the list on the home screen when they are nearby. You can view and modify your favorite routes, stops, and service alert subscriptions in the 'Settings' section.

### A.11.8.7 REAL-TIME DETOUR AND SERVICE ALERTS

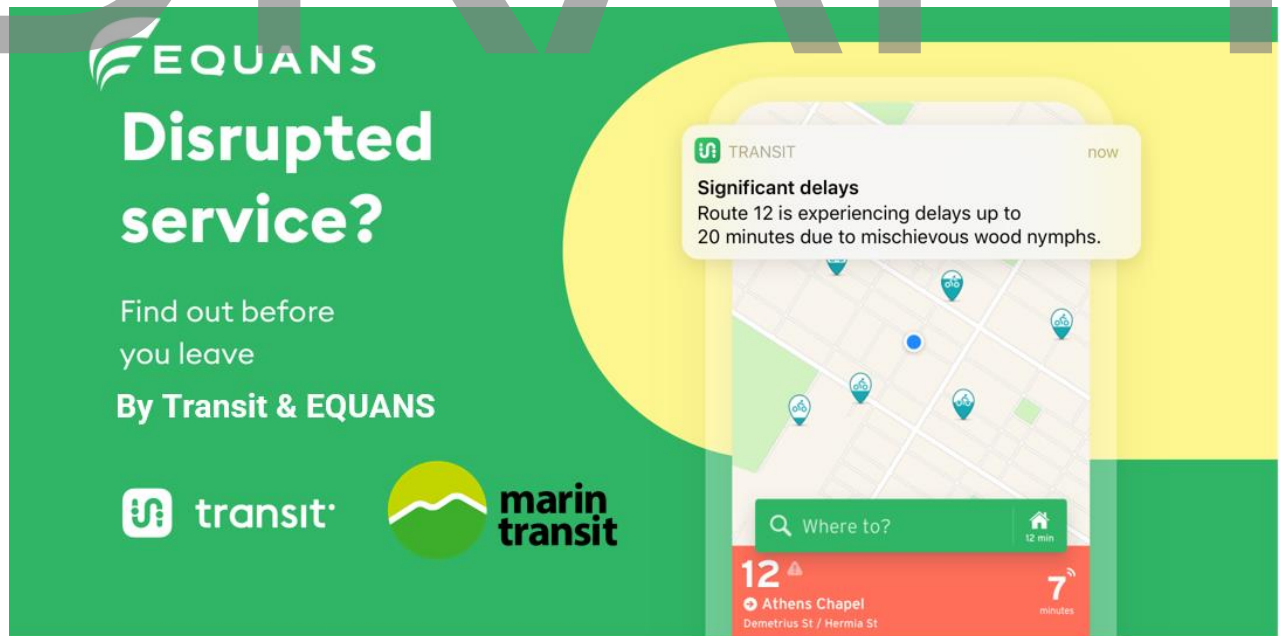
When an event takes place that requires a change to the service provided by Marin Transit (such as a motor vehicle accident, planned construction, etc.) a detour is put in place within the EQUANS CAD/AVL. Marin Transit can create precise service alerts to warn users about stop closures, detours, or other service changes. The CAD/AVL solution then automatically inserts the detour information into the GTFS real-time feed allowing the new information to be consumed by any third-party applications that have integrated Marin Transit GTFS RT feed.

Service advisories provided by Marin Transit are displayed in the app. When an alert is active, you will see an exclamation mark beside the route number. **Passengers can also choose to receive push notifications to their phone when alerts are issued.**

Here is a screenshot of the Transit App at EQUANS client property of STO in Gatineau, QC. The Transit App receives the service alerts via EQUANS' GTFS RT feed- such as an on-going detour - directly from the CAD/AVL.




The Service Alerts component is fully integrated within the CAD/AVL and does not require any additional actions from Marin Transit staff.



**EQUANS**


# Disrupted service?

Find out before you leave  
By Transit & EQUANS

**transit** 

**TRANSIT** now

**Significant delays**  
Route 12 is experiencing delays up to 20 minutes due to mischievous wood nymphs.

12   
Athens Chapel  
Demetrius St / Hermia St

7 minutes

### A.11.8.8 LANGUAGE SETTINGS

The Mobile App is available in seven languages, including English, Spanish and French. Transit App operates in the language of the user's phone operating settings. Transit can provide agency communications in any language via in-app banners and push notifications.

### A.11.8.9 ACCESSIBILITY

The Mobile App is compatible with both major mobile OS screen readers, VoiceOver (iOS) and TalkBack (Android). In particular, visually-impaired people have expressed how helpful Transit's GO mode is in navigating public transit, as it can provide contextual instructions by audio prompt as the user makes their journey. Transit has a dedicated group of visually-impaired beta testers who assist Transit in locating bugs related to screen readers and provide feedback on features. In addition, Transit works closely with consultants and its agency partners to ensure it follows WCAG 2.0's accessibility standards. Transit also displays wheelchair accessibility information for individual stops and vehicles when provided this data by the agency, and offers a complete step-free-trip option in our trip planner.

## A.12 REPORTING

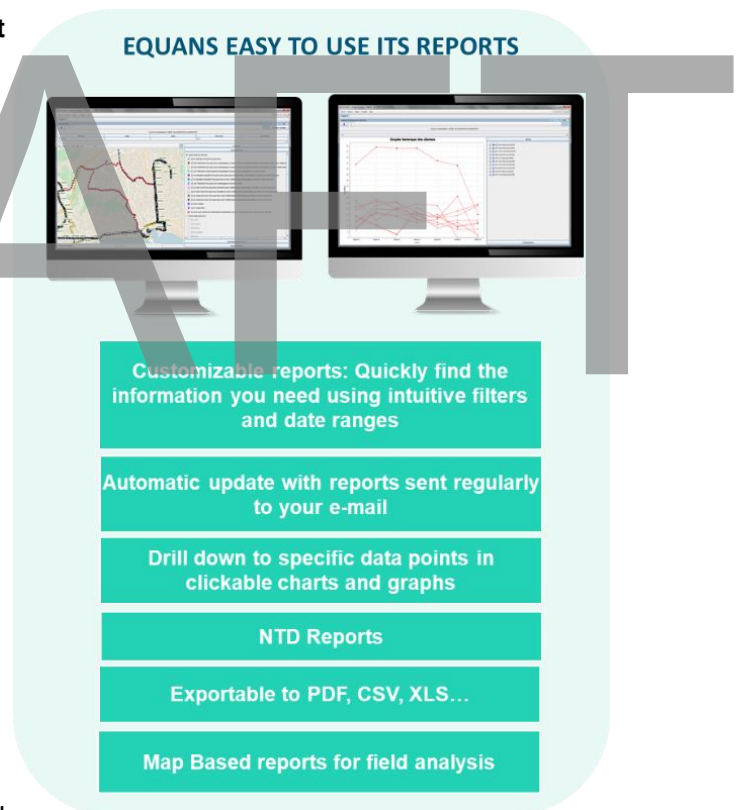
The EQUANS CAD/AVL includes a state-of-the-art reporting and data analytics tools to provide Marin Transit with the historical visibility needed to make the changes that improve efficiency and optimize operations.

Marin Transit is now able to measure how well the fleet is performing against key performance indicators, so better service can be planned, and efficiencies improved. View actual vehicle speeds, run-times, and dwell time between stops to find quick improvements to your schedule's efficiency.

The EQUANS reporting module includes on-time performance, revenue and non-revenue mileage, vehicle hours, bus driver performance, route, run and block performance, log-on/log-off, vehicle position, messaging data, all logs, incident data report, vehicle report, schedule run time analysis, route adherence scheduled versus actual, passenger counting data, and vehicle health monitoring data.

Marin Transit can view any of this data at a high level and then drill down for more granular details to identify the routes that are giving the most trouble, the bus drivers that are underperforming, and more.

Marin Transit staff can generate reports and, for each data report, apply filters and sorts. All reports are customizable for specific time periods (annually, monthly, weekly, daily, hourly) and can be filtered by weekday service, Saturday service, or all service days.



**EQUANS EASY TO USE ITS REPORTS**

- Customizable reports: Quickly find the information you need using intuitive filters and date ranges
- Automatic update with reports sent regularly to your e-mail
- Drill down to specific data points in clickable charts and graphs
- NTD Reports
- Exportable to PDF, CSV, XLS...
- Map Based reports for field analysis

All data and results produced by the EQUANS system are accessible for display, printing, and exporting data that can be viewed and edited with standard office software (e.g., PDF, CSV, etc.) for sharing with colleagues or exported to Excel for further data analysis.

### A.12.1 DATA STORAGE

All data is available for a minimum of five years at no cost. This timeframe can be extended without limitation. Marin Transit can access the archived data at any time.

### A.12.2 OPERATIONS REPORTS

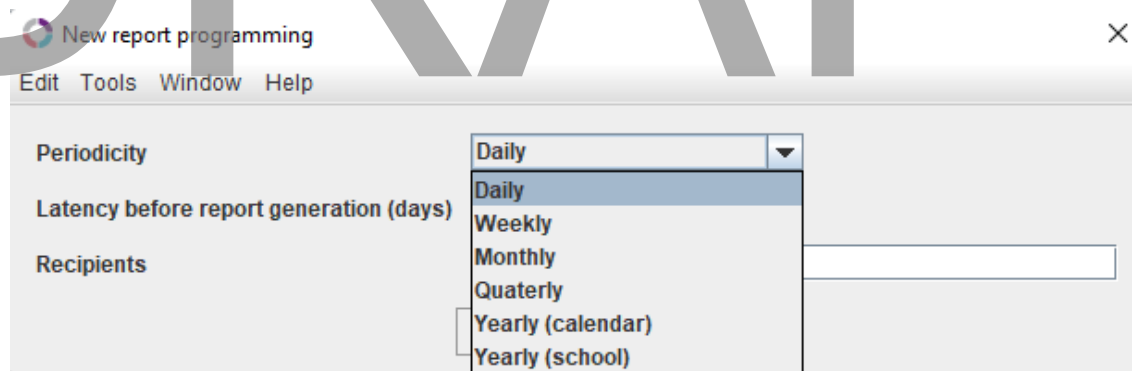
A major feature of the EQUANS AVL reporting system is that the user can browse along the operation reports and drill down for more granular details.

Marin Transit can select the date range, and access global reports for key indicators (for example, passenger count for a specific time period, for the entire system, or vehicle mileage for an entire day), and by successive drill down, the user obtains more and more details (for example, passenger count for a single stop).

### A.12.3 REPORTS GENERATION

Marin Transit can create on-demand reports using our report builder - The AVL system automatically runs the report when needed and sends the result as a PDF attachment. No need to go back and run the report every week.

For example, Marin Transit will be able to create an on-time performance report, and receive the report monthly, to monitor and measure the schedule adherence performance on a monthly basis for all routes or per individual route. The desired period for the report generation can be Daily, Weekly, Monthly, Quarterly, Yearly (civil), or Yearly (school).



### A.12.4 NTD REPORTS

**EQUANS offers a full NTD reporting solution as a standard element of its CAD/AVL system** to support transit agencies comply with their federal reporting requirements and generates data allowing Marin Transit to easily produce NTD reporting. EQUANS provide all data needed to complete the NTD S-10 Form:

- VRM/VRH: Vehicle Revenue Miles/Hours,
- Deadhead Miles/Hours
- UPT: Unlinked Passenger Trips





- PMT: Passenger Miles Traveled
- Days operated

The EQUANS NTD solution allows to generate automatically the NTD S-10 reporting form with 1-click.

The NTD report can be exported to Excel to enable further analysis, data adjustment, or import into a third-party business intelligence tool.

NTD report							
Operating center: GTA From 08/04/23 To 08/11/23							
Max number of block sets 23							
	Periods of service		Days operated	Services consumed			
	Begins	Ends		Unlinked passenger trip	Average unlinked passenger trip	Passenger miles traveled	Average Passenger miles traveled
Weekday schedule			6	13,316	2,219	50,500	8,416
Saturday schedule	06:00 AM	22:00 PM	1	1,885	1,885	7,337	7,337
Sunday schedule	07:00 AM	19:00 PM	1	493	493	594	594
Unknown schedule			0	0		0	
Total schedule			8	15,694	1,961	58,431	7,303
Weekday schedule - AM peak	06:30 AM	09:00 AM	6				
Weekday schedule - Midday peak	11:15 AM	13:15 PM	6				
Weekday schedule - PM peak	16:30 PM	18:30 PM	6				
Weekday schedule - Off peak			6				

Example of NTD reports with Unlinked Passenger Trip (UPT) and Passenger Miles Traveled (PMT).

## A.12.5 CAD/AVL & CAD/AVL SAMPLE REPORTS

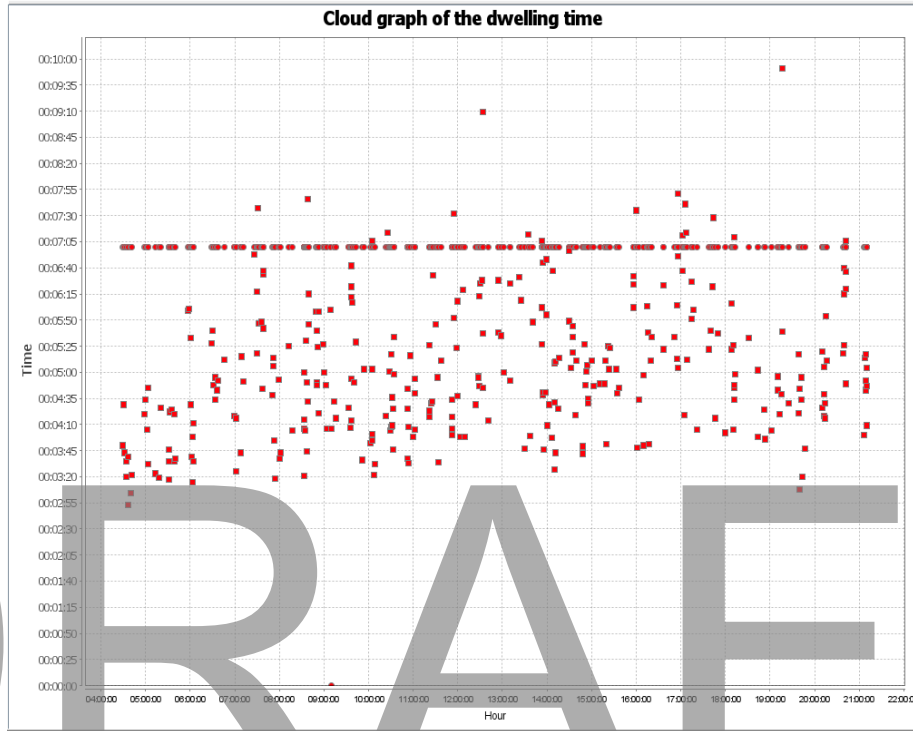
The EQUANS reporting module provides Marin Transit with more than 70 different canned reports about Marin Transit performance, and a few examples of reports are provided here:

- **Route Report:** Provide a summary of each Route performance, including mileage (total miles and scheduled mileage), time (scheduled time and real time achieved for each route), speed in revenue service, and On-time performance for each route.
- **Vehicle Hours and Mileage:** Provides the distance travelled in miles and hours of service on revenue service, non-revenue, out of service and on detour for every vehicle in the fleet.
- **Deadhead summary report and deadhead running time:** report on deadhead miles and deadhead hours.
- **On-time performance** reports are available per Block, route, branch, and trip; Per Time of day, day, month, service or calendar day, and schedule type (e.g., weekday, Saturday, Sunday, holiday); and per Stop, transit center, or other specific locations, including time points.
- Arrival and departure time at stop.
- **Headway reports.** For each route, the reports provide the standard deviation to the regular headway, the number of trips too frequent, frequent, or not frequent enough, on a defined time range. Historical graphs are also available to visualize regularity for a route over a time period.
- **Missed Trip:** Here we focus on the number of trips scheduled, the number of missed trips, as well as the number of trips with off route and with detour events.
- **Missed Stops:** This report provides a comparison between the number of stops scheduled to be serviced and the number of missed stops, network wide, per route, per trip, per stop, on a defined time range.
- **Run time analysis:** The AVL solution provides scheduled trip time analysis, comparing schedule run time with actual run time.



This report is a way for planners and schedulers to identify variance between the schedule run time and actual run time performance, identify idling time and modify/optimize schedule based on the real running time happening in the field.

This report will help Marin Transit tweak schedules and headway to be more realistic about travel times, which help improve scheduling efficiencies and save unproductive time.



*Run time analysis report: The straight line represent schedule run time while the cloud graph represents real running time recorded by the buses.*

- **Bus travel times / run times on specific, popular corridors.** You can define specific areas/corridors within the city and retrieve run time reports inside these areas.
- Average dwell time by route and stop.
- **Bus driver data reports:** The bus driver reports provide information about bus driver's performance:
  - Bus assignments
  - mileage and run times achieved by each bus driver.
  - time and place of each bus driver logon and relief
  - Incidents per driver
  - Off Route per driver
- **Map based reports:** The reports can be displayed on a map to establish trends in the local context and see how the topology affects the data. Map based data for field analysis includes off route, route entry, door opening and closure, idle time, GPS coverage, cellular coverage, shadow zone, log on/off, and more.
- **Fuel consumption report:** Fuel consumption per vehicle and gallon per miles.



- **Off Route summary Report:** A summary of the off-route event per day, per route, and display of the off-route event on a map.
- **Idling report:** The AVL solution provides reports about vehicle idling too long on the route. Planners can visualize on the map reports where bus are idling and how long.
- Mechanical alarms and issues such as farebox malfunctions, MDT malfunctions, etc.
- **Maintenance reports:** The data collected and reported includes engine temperature, engine, transmission, and radiator fluid pressures and/or levels, air, charging, interlock, and A/C system status, vehicle speed, throttle, and brake activity. The alarms generated provide information of criticality, helping Marin Transit to decide if it is necessary to pull the vehicle out of service or not. The reports also include exact mileage, fuel consumption, and miles per gallon (mpg) reports.

The EQUANS CAD/AVL allow ad hoc retrieval of event records (Playback) of bus, driver, supervisor, and dispatcher activities, by bus, driver, route, dispatcher, supervisor, and event type or time interval via a user friendly and efficient user interface.

### A.12.6 TRANSTRACK INTEGRATION

EQUANS has worked with TransTrack on several projects where TransTrack is a subcontractor of EQUANS.

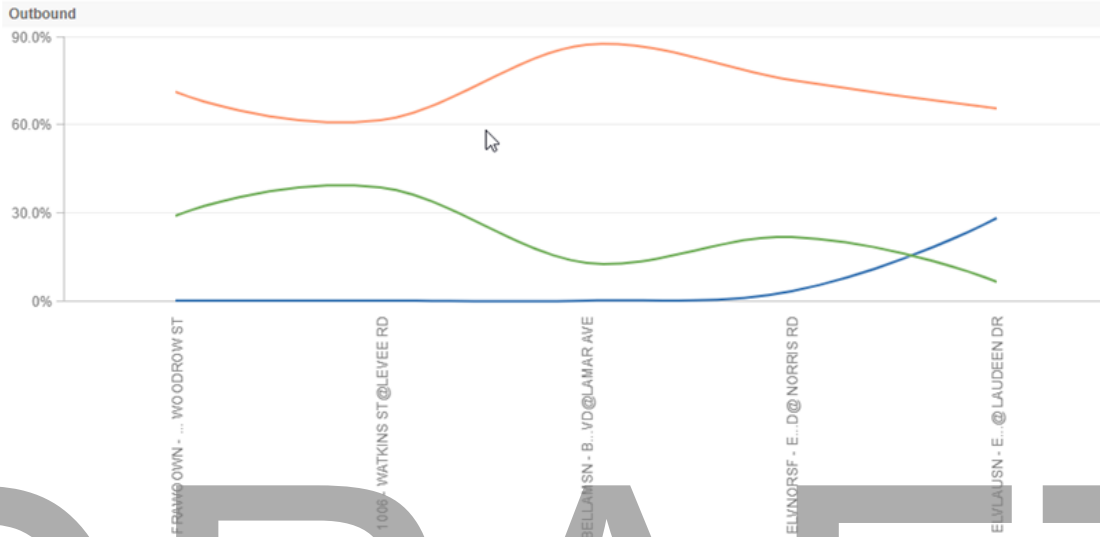
**The integration between TransTrack and EQUANS is already developed and proven.**

The EQUANS CAD/AVL database is an open database, based on SQL, which allows third party vetted by Marin Transit to access the data. EQUANS and TransTrack have already established such connection and the integration is a standard part of the EQUANS offering.

Here are screenshots of the TransTrack software with EQUANS' CAD/AVL and APC data in Memphis, TN:



Date Range	Day Type	Day of Week	Route	Direction
Feb 14 2023	All	All	042	All
Time Period	Pattern	Trip	Block	Badge #
All	All	All	All	All

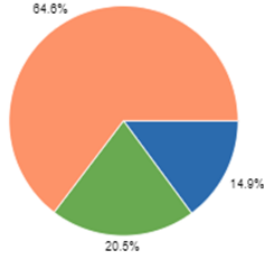


DRAFT

On-Time Performance per Stop.

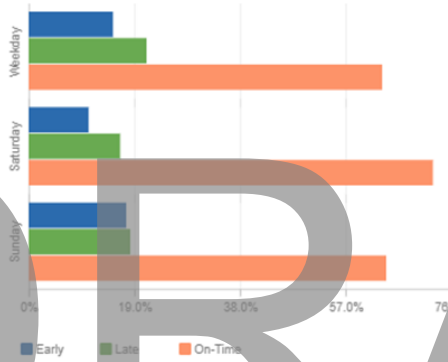


Date Range: Aug 1 2022 - Nov 30 2022 | Day Type: All | Day of Week: All | Route: 011 | Direction: All  
 Time Period: All | Pattern: All | Trip: All | Block: All | Badge #: All

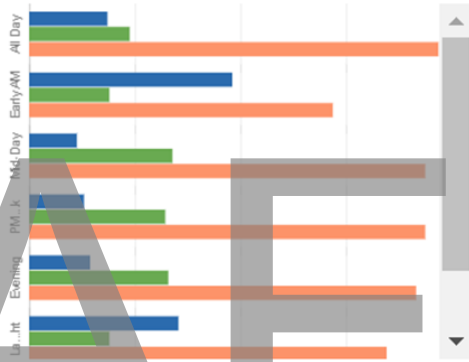


Indicators	Current
% On-Time	64.8%
% Early	14.9%
% Late	20.5%
Total Sample	14,261
# On-Time	9,219
# Early	2,120
# Late	2,922

By Day Type

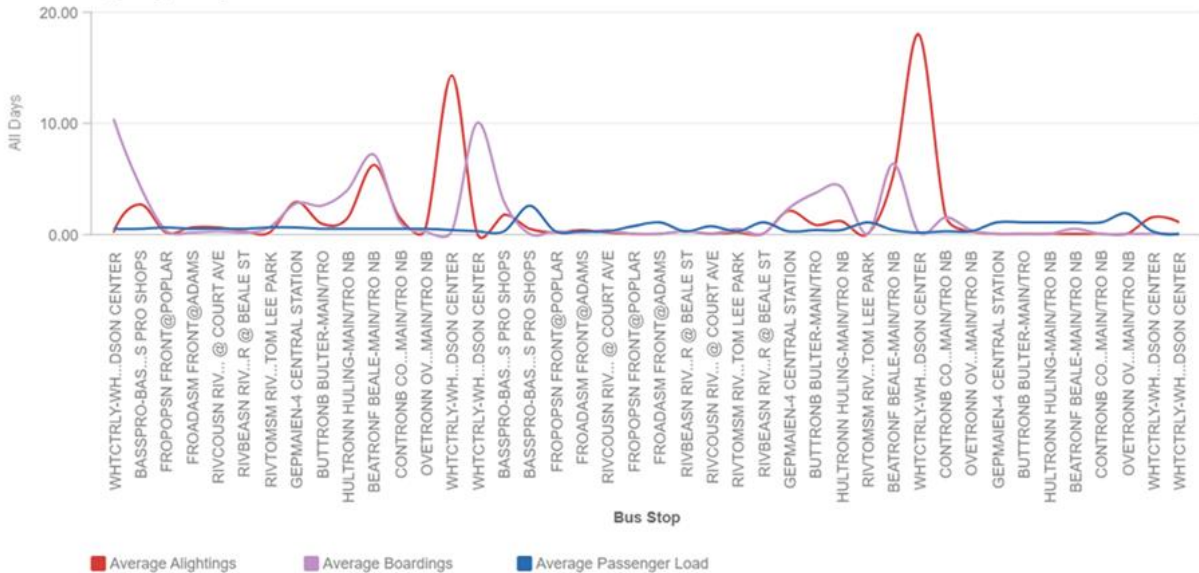


By Time Period - all



On-Time Performance graphs.

Boardings by Stop and Route

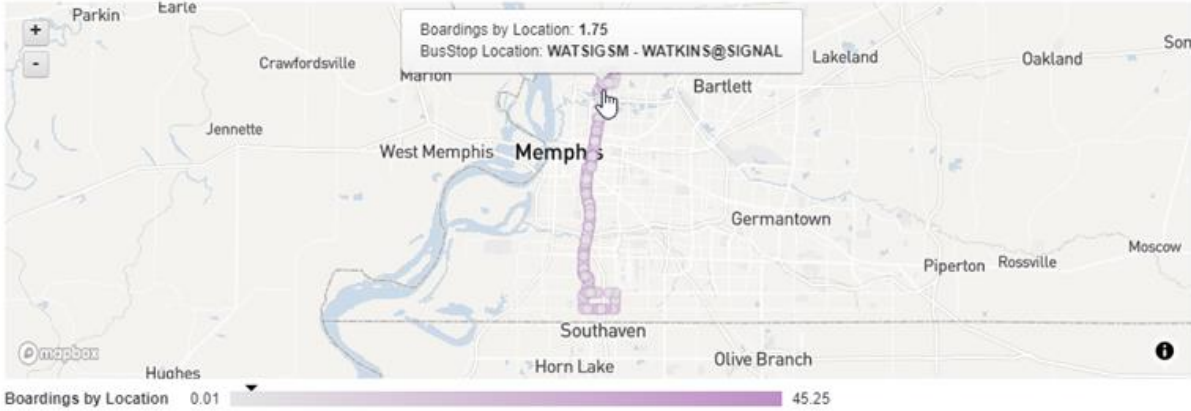


Boarding by stop and Routes.

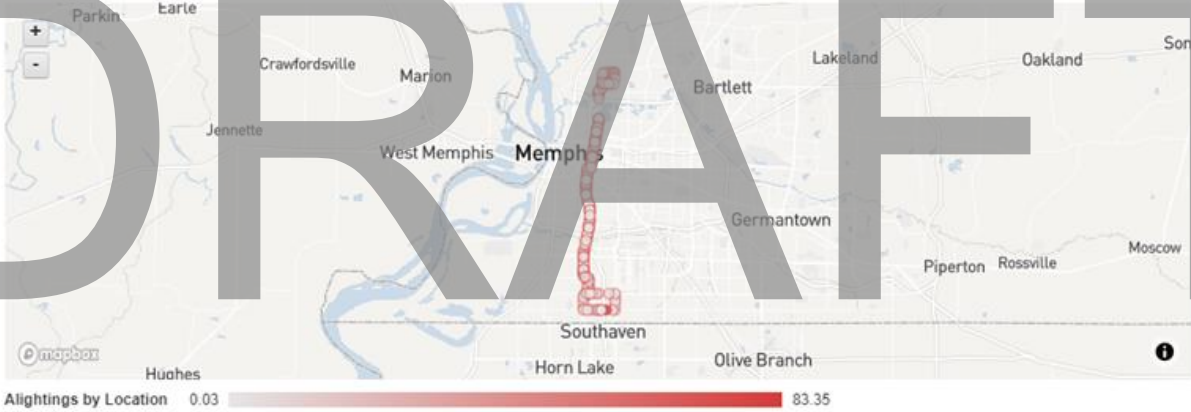


Date Range	Reporting Route	Direction	Day Type	Time Period	Valid
Jan 1 2023 - Mar 31 2023	042	All	All	All	All

### Boardings by Route



### Alightings by Route



DRAFT

Boardings by Routes.

Passengers Per Revenue Mile - Analysis



Key Performance Indicator Dashboard.

**A.13 INFORMATIONAL**

As requested in the informational section EQUANS offers the following:

- Integration with vehicle powertrain (Bus CAN / J1939) and electronic diagnostic systems via our Vehicle Health Monitoring module. This is offered at no cost to Marin Transit.
- Bus Yard management system. This is offered at no cost to Marin Transit.
- Live ridership data.

**A.13.1 VEHICLE HEALTH DIAGNOSTIC**

The EQUANS CAD/AVL includes a Vehicle Health Monitoring (VHM) module, which is a maintenance diagnostic solution which continuously monitors the functionality, performance, and health of onboard equipment and vehicles via the Bus CAN/J1939 interface.

This integration has been tested and proven operational for diesel, hybrid, and battery electric buses. For example, in Memphis, this works on Diesel and electric buses (all GILLIG), while in Medford, it works on diesel and hybrid buses.

This provides detailed operational vehicle fault, alarm, and performance information that allows Operations and Maintenance to respond to maintenance issues efficiently and proactively. The data collected and reported include vehicle mileage, any failure of the equipment, engine temperature, transmission, and radiator fluid pressures and/or levels, air, charging, interlock, methane detection system, fire suppression system, Door system, vehicle signals, and A/C system status, vehicle speed, throttle, and brake position activity.



The EQUANS VHM module will monitor, report and store fault codes, and the frequency of collection is configurable by your staff. These will be transmitted to the central software in real-time or as part of bulk data transfer and available through maintenance reporting.

The VHM notifies dispatch and maintenance in real-time when a vehicle is out of the set tolerance. The alarms generated provide information of criticality, helping your staff to decide if it is necessary to pull the vehicle out of service or not.

The CAD/AVL also connects to each vehicle's odometer to report exact vehicle mileage. Through this integration, the system will report total mileage per vehicle, exact fuel consumption per vehicle, and provide a gallon per miles report. This will help maintenance staff by automatically reporting vehicle mileage instead of going into each bus and reporting the mileage manually.

## **A.13.2 BUS YARD / GARAGE MANAGEMENT**

### **A.13.2.1 YARD GEOFENCE**

The EQUANS CAD/AVL system include a Bus Yard / Garage geofence. For any Marin Transit facilities, such as the garage, maintenance area, transit center, stop, the EQUANS system include a geofence which can be customized.

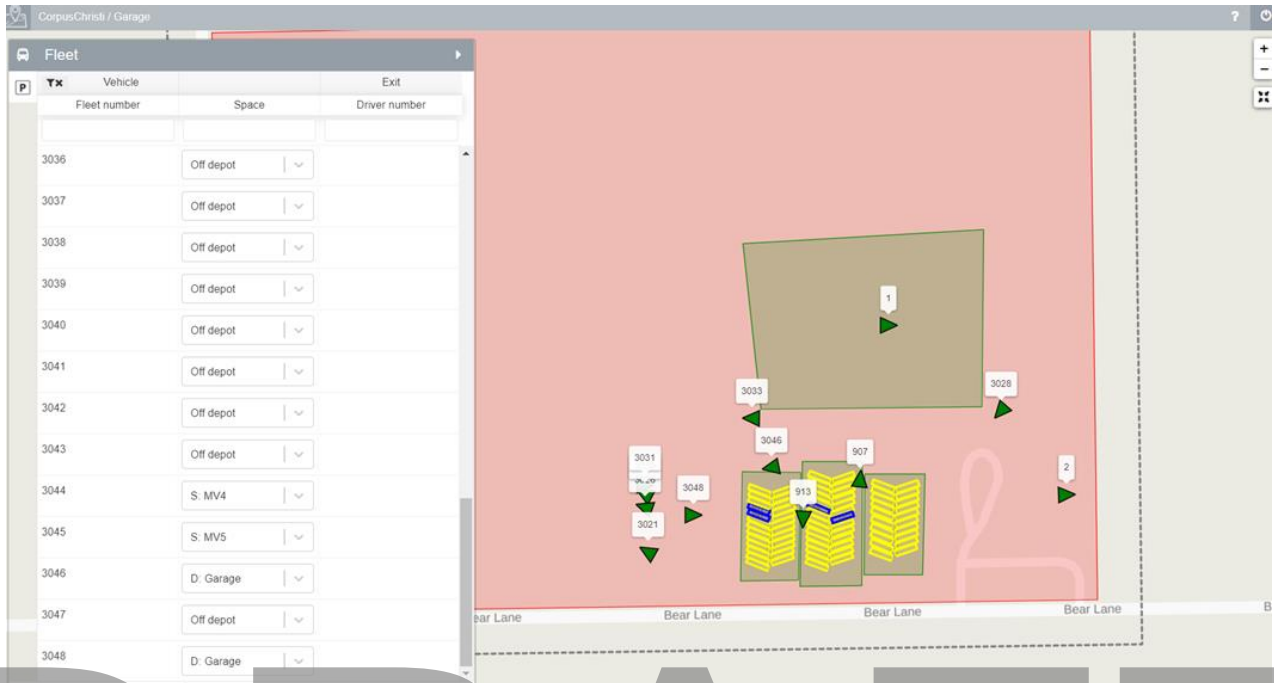
### **A.13.2.2 YARD MANAGEMENT SYSTEM**

If Marin Transit would like a full yard management software, to track buses in the yard and at their parking spot, the EQUANS CAD/AVL include a Yard Management which allows to track all vehicles within the Marin Transit yard with an accuracy of about three yards.

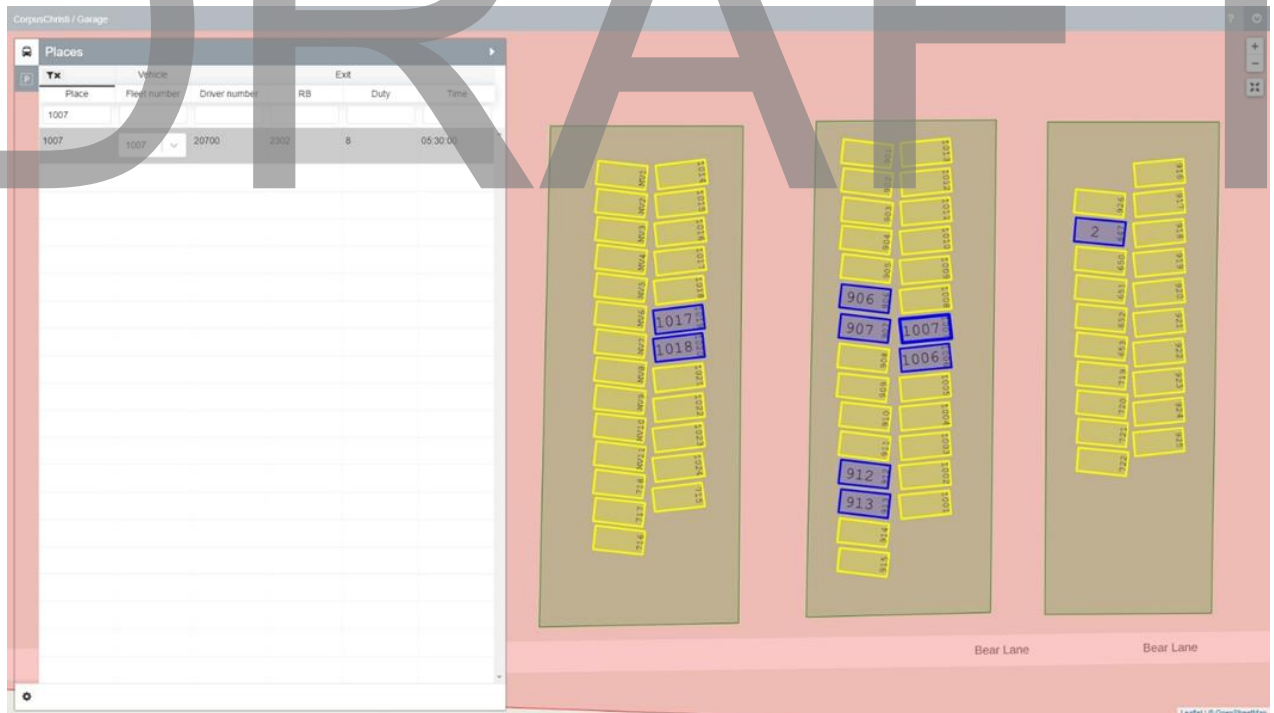
This level of accuracy allows your maintenance staff to find the vehicle they need to service quickly, and bus driver to get to the right bus, on-time.

This will support Maintenance and drivers in locating their vehicles accurately when at the facilities. Bus locations are continuously updated in the software from the underlying location system and end-users can find objects using the web map.

- Get a clear overview of the yard with simple and clear map or grid view using color code, icons, and drop-down menus that drill down to vehicle data details.
- Color code indicate bus status (available, down, etc.).
- Directly visualize the location of vehicles on a yard plan matching the actual layout of the yard.
- The Yard Manager and Yard Map is available on Tablet.
- Yard maps are always up to date and will reflect the vehicles location as it moves through the garage. Vehicle locations are updated once per second.
- Automatically record movements of a vehicle in, out of, and within the yard.
- Notifications are sent automatically when vehicles leaves the yard without a login or leaves the yard late.



In addition, the Yard management system checks the vehicle status such as vehicles plans for maintenance, vehicle being cleaned and disinfected, vehicle disinfected and ready for revenue service etc.



Time for pull-out and vehicle parking position can be displayed on large screens so drivers don't have to check with dispatch on the status of their bus.

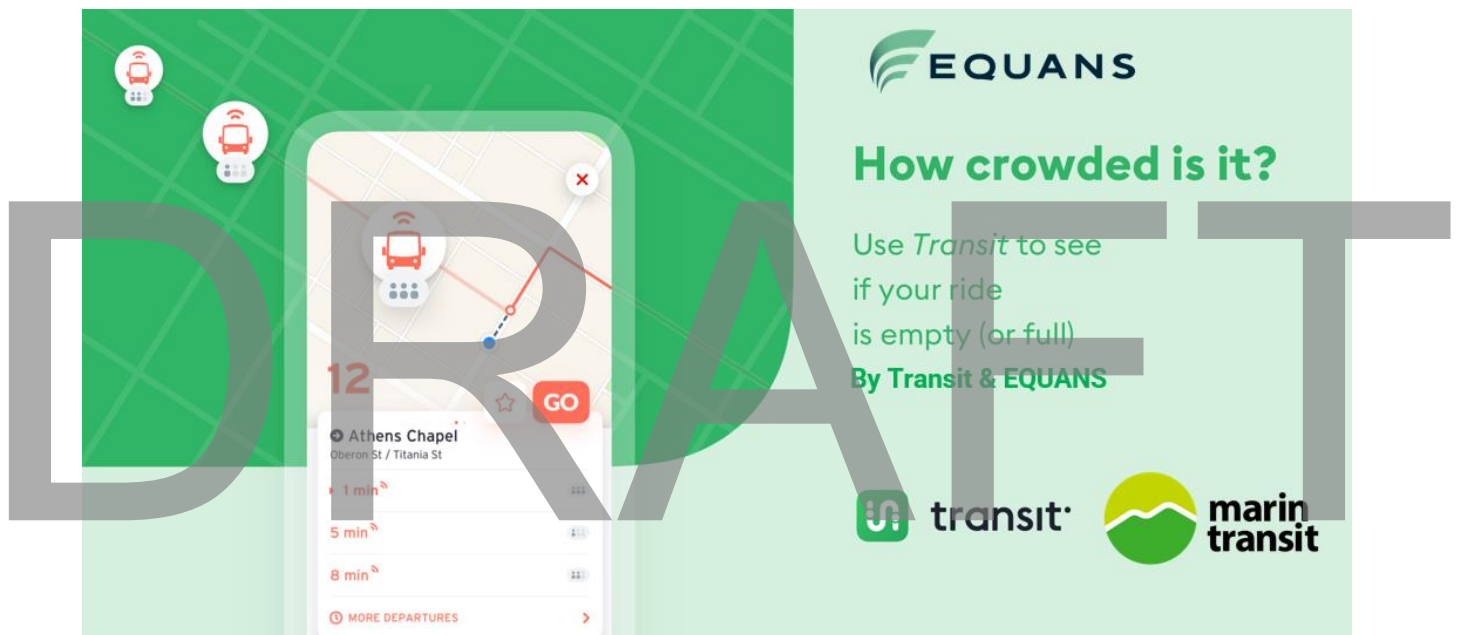
### A.13.3 LIVE RIDERSHIP DATA

#### A.13.3.1 REAL-TIME CROWDING INFORMATION

As part of the EQUANS CAD/AVL system, real-time occupancy data as part of the GTFS/GTFS RT feed is already available.

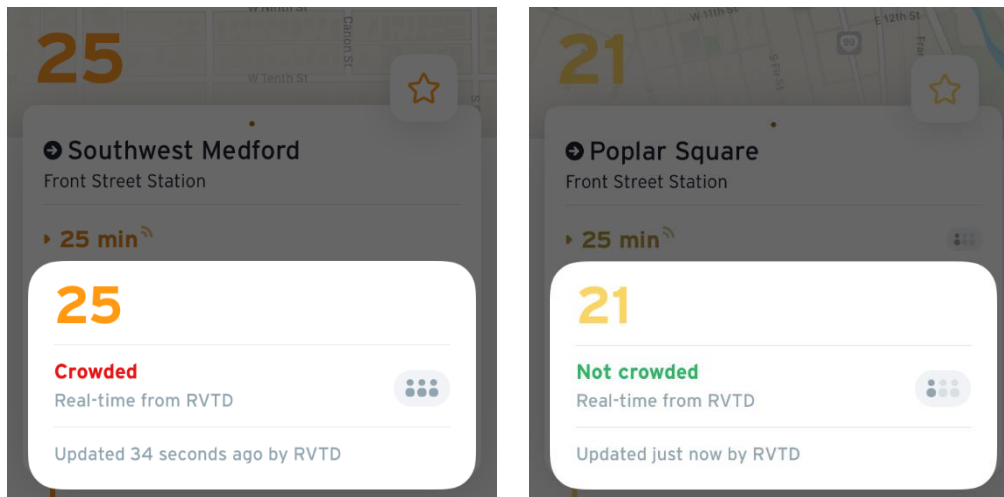
Since 2020, EQUANS has included the occupancy data into its CAD/AVL system. The occupancy information is available for dispatchers and supervisors but also included as part of the GTFS RT feed to external application, such as Google, Transit App, Website, and more. Below are details about the occupancy information into the Transit App.

Available on the Transit app is the passenger load (or occupancy information), for each vehicle. The load information is sent through GTFS RT to the app.



EQUANS natively integrate the real-time crowding to provide the information to Marin Transit's passengers. The crowding level is updated on the app every few seconds, helping passengers feels safe and comfortable as transit ridership increase.

**Here is the example of crowding information in the Rogue Valley app in Medford, OR.**



## A.14 OPTIONAL COMPONENTS

EQUANS is happy to offer a couple optional components to Marin Transit. These items could be included with the required scope of work, or, if EQUANS is chosen as the vendor, these items could be added at any future time as desired by Marin Transit.

VoIP is being proposed as a cost-effective option instead of a MERA integration. The EQUANS Voice over IP (VoIP) radio module is an off the shelf functionality of the EQUANS CAD/AVL solution.

EQUANS is also offering optional Fare Media Creation through its partner Paragon ID. EQUANS knows Marin is currently working with Paragon ID and they have also included an optional Hex Tag option. The Hex Tag option is an industrial-grade, printed QR codes that can be affixed to the boarding area of a vehicle.

In addition to the optional components asked for by Marin Transit, EQUANS can also offer Driver Check In and Incident Management free of charge.

The EQUANS CAD/AVL system can easily add new components at any time without the need to restructure the system. The EQUANS system is designed to be able to add new solutions or integrations seamlessly and Marin's PM and support staff is well-versed in adding anything new Marin would need whether into the base system or years into the project management.

Detailed information for all options is detailed below.

### A.14.1 VOICE OVER IP (VOIP)

Since the 2000s, EQUANS has deployed its CAD/AVL system fully integrated with voice radio and our public transit clients have benefitted from a fully integrated CAD/AVL/Radio system for their transit operations. EQUANS has an in-house radio engineering department with several worldwide expert in radio integration related to public transit communications.

**For Marin Transit, EQUANS has included the Voice over IP module. While integration with the MERA radio system is possible, we believe VOIP is a more cost effective solution for Marin Transit.**

**Using the MERA network as a fallback is possible, but EQUANS would require additional technical details from the MERA system and design discussion with the radio authority to quote such an integration.**

The EQUANS Voice over IP (VoIP) radio module is an off the shelf functionality of the EQUANS solution, and natively integrates radio functionality such as private call, group call, open mic, or closed mic. The VoIP module provides one-to-one/private and one-to-many/group-style voice call capabilities between the user, transit vehicle, and handheld Supervisor/Maintenance user devices.

The EQUANS CAD/AVL system provides the Operator with Priority Request to Talk (PRTT), Request To Talk (RTT), and Covert Emergency Alarm functions directly from the Mobile Data Terminal (MDT). Dispatch has the ability to initiate and manage both closed and open mic calls, start one way call with individual driver or group of drivers, two way call with individual driver or group of drivers, as well as include 911 in an emergency call.

#### **A.14.1.1 VOIP ARCHITECTURE**

Voice communications, between Marin Transit dispatch and the mobile units (vehicles, and possibly hand portables), are provided through the cellular network. Calls are always initiated by dispatchers or road supervisors. Drivers send RTT or PRTT through the cellular network which are then processed by the dispatchers / supervisors according to the priority of the request.

#### **A.14.1.2 VOIP HARDWARE**

EQUANS will provide all necessary VOIP radio user-interface devices required to meet performance requirements, such as the handset and microphone.

All audio user-interface devices (e.g., speakers and handsets) have volume levels appropriate for typical public transit environments. The speaker has a maximum volume so as not to be heard beyond the operator area.

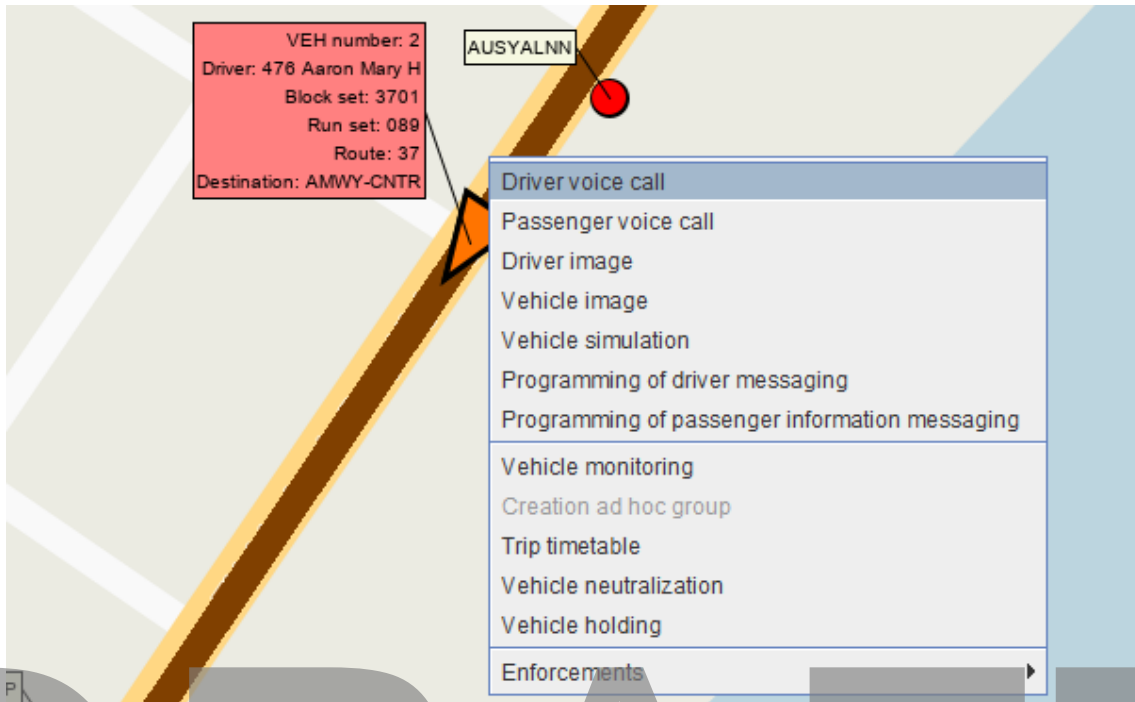
#### **A.14.1.3 VOICE CALL FUNCTIONALITIES**

**EQUANS' Voice radio module provides key functions of a two-way, closed mic mobile radio.**

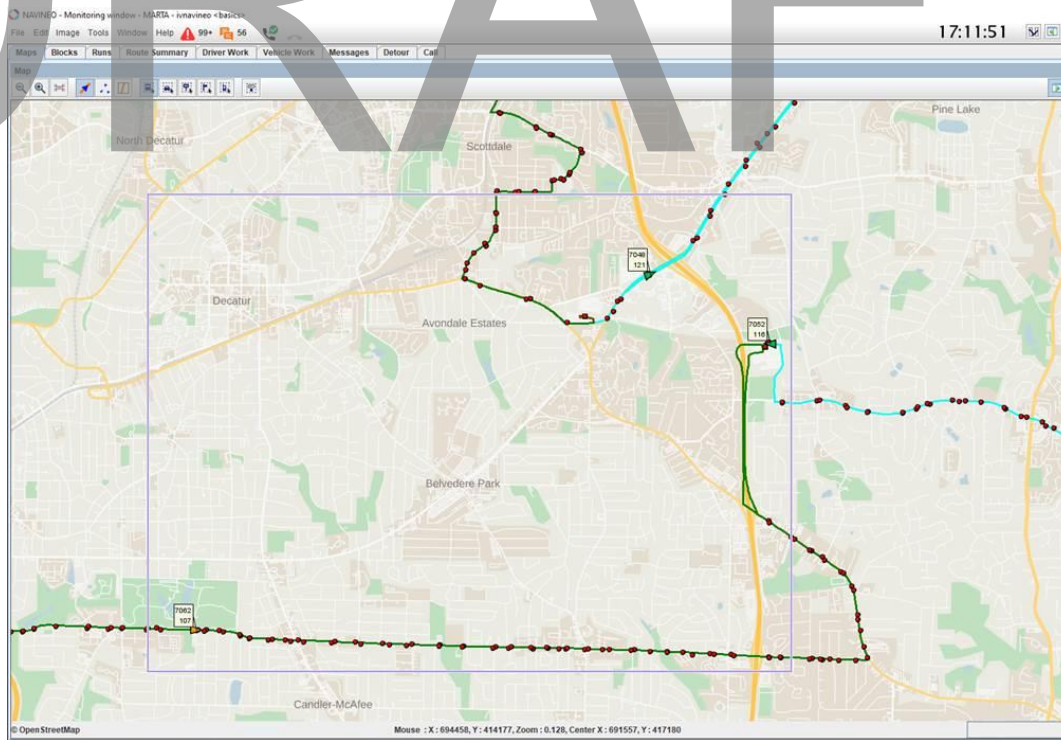
It provides a comprehensive and reliable voice communication system for operators and dispatch that runs on the EQUANS' MDT and dispatch software. Dispatchers have a dedicated, customizable radio view for the management of on-going communications, call request, and placement of individual or group calls.

The call function is accessible from all the views including the route ladder view, the timetables, and the map. Selecting the "Driver voice call" establishes contact with the call recipient. Dispatch can also use a drop-down menu and select any individual vehicles as well as any selection of vehicles to establish a call.



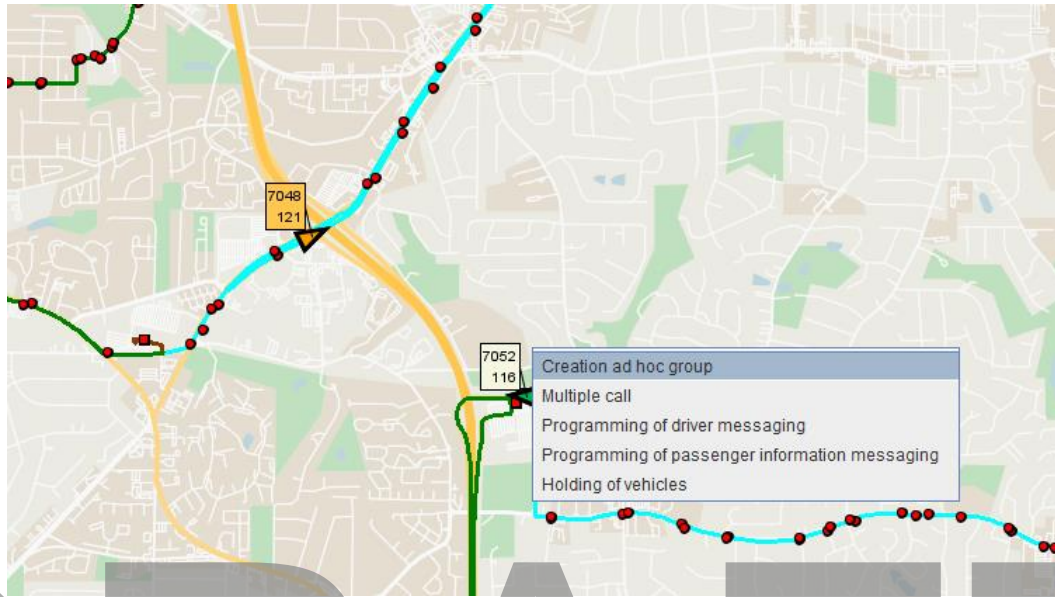


**Rubberband buses for voice call and text message:** Dispatchers can select a specific area on the map, and right click for the ability to either call or text all vehicles in the selected area. A screenshot of the functionality is provided below. First, the user selects the area on the map:

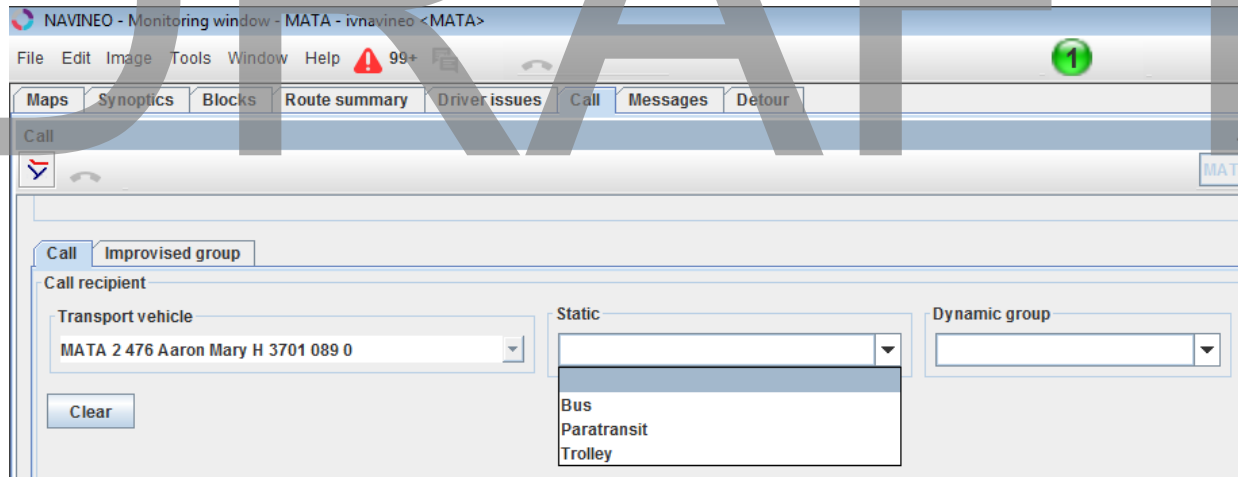




Then the user will right click, which will allow them to select multiple actions, including voice call. From there, the system will automatically create an ad-hoc group call to the buses located in the selected area. Once the call has started, Marin Transit users can select additional vehicles or road supervisors to join the call.



Dispatch can also use a drop-down menu and select any individual vehicles as well as any selection of vehicles to establish a call:



*Dispatch view of how to make a VoIP call*

The radio module supports the following call functionality:

- Dispatchers can initiate calls by entering a vehicle number, route/run number, or Operator ID, or by selecting a vehicle or a set of vehicles directly from the map
- Fleet-wide call
- One-way voice calls to an individual vehicle or to a group
- One-way voice calls to all radio-enabled users including any supervisors with a tablet or smartphone

- Two-way voice calls to an individual or to groups
- Support multiple pre-defined group (such as: all vehicles on route 1, all vehicle within an area) or dynamic group call
- The dispatcher is notified of incoming RTT and PRTT by a visual and a warning sound, along with which talk group to be used.
- The CAD/AVL system records all voice communication details, including the time when the call was initiated and ended, participants, and communications, which can be played back at any time
- A one-way call can be turned to a two way call in real-time if needed.
- During a call with a driver, dispatch can select additional recipients to be added to the call (other vehicles, supervisors, or even 911).
- Dispatcher can establish a timeout interval for any voice call.
- For supervisors and maintenance, the VoIP application is designed to operate on latest-generation Android tablets.

The MDT provides Request to Talk (RTT) and Priority Request to Talk (PRTT) buttons to allow the vehicle operator to request a voice call. When dispatch enables a one-way voice call to the vehicle, the MDT provides a distinct audible tone and visual alert. The audio is routed through the driver speaker. If the operator picks up the handset, the audio is instead routed through the handset. When the vehicle operator hangs up the handset during a two-way voice call, the MDT detect the action and end the voice call. The user can adjust the operator speaker volume at any time while the MDT is on.



The CAD/AVL system includes a tabular display to manage voice communications with operators with sortable fields, including level of priority, vehicle type, route/run ID, and more. Dispatchers are notified of an incoming request to talk by an informative symbol and a warning sound. The Call requests are sorted by priorities. The dispatcher can pick up any of the call requests and can select the most urgent using a shortcut. The following screenshot shows how the call requests are displayed to the dispatcher.

Service	Start	Status	Emergency	Order	Remote CS	Requester			Stop area
						Type	Fleet	Driver comp	Stop area shw
128A	05:56:24 09-03-2015	Waiting	Urgent	1		Transport vehicle	37143	-	
2 81	07:44:12 09-03-2015	Waiting	Urgent	2		Transport vehicle	68558	-	
3 26	08:35:43 09-03-2015	Waiting	Urgent	3		Transport vehicle	36009	Livingston	
4 X28	07:36:19 10-03-2015	Waiting	Urgent	4		Transport vehicle	31884	Livingston	Fergus Avenue
5 1C	14:21:52 08-03-2015	Waiting	Urgent	5		Transport vehicle	69231	Larbert	
6	16:05:50 09-03-2015	Waiting	Urgent	6		Transport vehicle	20354	-	
7	06:34:11 10-03-2015	Waiting	Urgent	7		Transport vehicle	36024	-	
8 800	10:32:56 08-03-2015	Waiting	Normal	8		Transport vehicle	32225	Livingston	Turning Circle
9 X95	07:07:56 09-03-2015	Waiting	Normal	9		Transport vehicle	65744	Borders	Newton Farm
10 396	08:05:55 10-03-2015	Waiting	Normal	10		Transport vehicle	31684	-	Shops
11 17	09:08:55 10-03-2015	Waiting	Normal	11		Transport vehicle	61229	Larbert	
12 X8	15:58:56 10-03-2015	Waiting	Normal	12		Transport vehicle	20358	Livingston	
13	20:50:05 10-03-2015	Completed	Distress			Transport vehicle	64003	Livingston	
14	19:11:40 10-03-2015	Completed	Distress			Transport vehicle	53706	-	
15 X24	14:56:09 10-03-2015	Obsol	Distress			Transport vehicle	61224	Musselburgh	WEST END Shandwi
16 X24	14:45:37 10-03-2015	Obsol	Distress			Transport vehicle	61224	Musselburgh	HILLSIDE Brunton

Priority Request To Talk

Request To Talk

Covert Emergency Alarm

On the MDT, the green symbol indicates a call is ongoing with dispatch. The blue symbol allows the driver to increase or decrease the volume of the call.



Communications is customizable, e.g., drivers can only hear dispatch while dispatch hears all vehicles and support separate channels for different operations (fixed route vs. paratransit)



#### A.14.1.4 AD-HOC PASSENGER CALL/ANNOUNCEMENTS

The CAD/AVL enables dispatchers to directly make a call to the passengers in active vehicle(s) or to one or more Routes through the call window.

After selecting the vehicle(s), the passenger announcement will be initiated by clicking on the icon if the message should be played inside the vehicle.



#### A.14.1.5 CALL RECORDING

All VOIP calls are logged and recorded in the CAD/AVL system.

At any time, an authorized user can review/listen to all calls and their characteristics:

- Priority
- Date and time
- Duration
- Quality
- Participants
- Context (Service Number, Trip ID)

From this log, an authorized user can play the recording of a specific call and export the call in an open audio file format. The recording will be kept for a duration of 21 business days.

#### A.14.1.6 COVERT EMERGENCY CALL

Bus operators can trigger a Covert Emergency Alarm. The emergency call is highlighted with a sound to grab dispatcher attention. The vehicle icon is highlighted with an emergency color and a listening call is started.

When in covert alarm mode, the MDT provides subtle symbols to the driver, signifying that a dispatcher has accepted the covert alarm and is monitoring the covert microphone.

This way, the ":" character used as time separator between hours and minutes is successively replaced by different characters.

**16:19** (Initial state)



On sending a distress alarm, the hours separator is replaced by the D character, until the vehicle receives the acknowledgement that the call was received by the dispatch.

**16D19** ("D", for Distress)

On receipt of acknowledgement (distress alarm received at the Dispatch), the D character is replaced by R.

**16R19** ("R", for Received)

When the central server establishes the listen-in connection with the vehicle, the R character is replaced by E.

**16E19** ("E", for External Listen-In)

**During the covert listening, the polling rate can be increased up to 1 second to improve location awareness.**

#### **A.14.2 PHYSICAL FARE MEDIA CREATION (OPTION)**

For the Optional Physical Fare Media Creations, EQUANS is partnering with Paragon ID. Paragon ID manufactures smart card and paper pass, which can be distributed by Marin Transit.

While there is no current methods for the EQUANS system to create paper transfers or tickets in real-time onboard, there are options existing for ticket printers to be installed in the vehicles. A ticket printer has not been quoted as part of this proposal, but EQUANS welcomes additional discussion with Marin Transit on this topic.

##### **A.14.2.1 COMPANY OVERVIEW**

Paragon ID is owned by Grenadier Holdings Ltd., an international organization present in over 30 countries. Founded in 1985, Paragon Group has revenues of over \$1 billion, 8,000 employees, and is a reactive, innovative, and dynamic company known for its innovative technology-based solutions. Paragon ID is a leader in Transport & Smart Cities, benefiting from strong growth since

the 2000s. The group has made more than 30 acquisitions including the digital mobility technology provider Paragon ID to expand its Mass Transit technology offering.

Paragon ID has built a strong reputation for the supply of magnetic and RFID identification products for transport authorities and agencies. It is one of the leading manufacturers and suppliers of smart cards and contactless ticketing. The group has multiple U.S. locations including North Carolina and Vermont.

Paragon ID has a strong legacy as a partner in public transport and has a long history of ticketing supply of British trains and the Paris Metro. Paragon ID has supported the transition of customers from traditional paper tickets to modern digital and contactless methods.



### A.14.2.2 PRODUCT AND MANUFACTURING

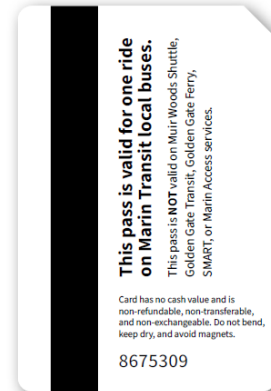
Paragon ID manufactures both Limited Use (LU) and Extended Use (EU) smart cards in our domestic facility. When we come across a product, we do not manufacture, we have the network of partners to outsource the manufacturing. Today, we have the capability to manufacture millions of LU smart cards weekly, giving us a capacity of roughly 150 million on an annual basis. EU Cards have a slightly longer manufacturing process. Our annual capacity would be around 75 million.

Paragon ID's range of products and services include:

- Magnetic Ticketing
- Transfer Ticketing
- LU & EU Smart cards
- Roll Stock & Die-Cut
- RFID products
- Encoding
- Wearables
- Retail cards & Packaging
- Secure services and fulfillment



With EDM Technology being a vital part of the Paragon ID family, Paragon ID is uniquely capable of providing a complete range of ticketing solutions that are customizable to the branding and color scheme of Marin Transit.



### A.14.2.3 OPTIONAL: REVOLUTIONIZING TRANSIT TICKETING

Paragon ID has developed ‘Hex Tags’. These are industrial-grade printed QR codes that can be affixed to the boarding area of a vehicle. Hex tags offer an innovative approach to electronic validation by reversing the traditional model of QR ticket scanning. Rather than require Marin Transit to purchase and maintain costly onboard QR scanning equipment, the Hex tag turns the rider’s phone into the validator.



In this validation model, the smartphone camera scans a QR code when boarding the vehicle. The rider app will then display a confirmation screen and corresponding sound following a successful validation as proof of validity for the driver. To protect against potential fraudulent use such as a rider attempting to spoof a successful scan by playing a sound through their phone or photoshopping a successful scan image, Hex tags, and the rider app use several security mechanisms. The hex tag itself is encrypted and can only be decoded by the embedded keys within the mobile app to prevent any compromised scans.

As a further layer of security, a successful scan will trigger the secure visual validation screen with a symbol of the day and interactive dynamic elements that prevent screen capture or photoshopped images from being used. This combination of features provides a standard of security equivalent to a full electronic QR code validator. Importantly, the rider app is able to scan and validate against a Hex tag without the need for the rider’s phone to have network connectivity at the time. The app will report scans with key data back to the platform when it is next connected to provide the agency with a range of operational data such as scan times, locations, service, etc.

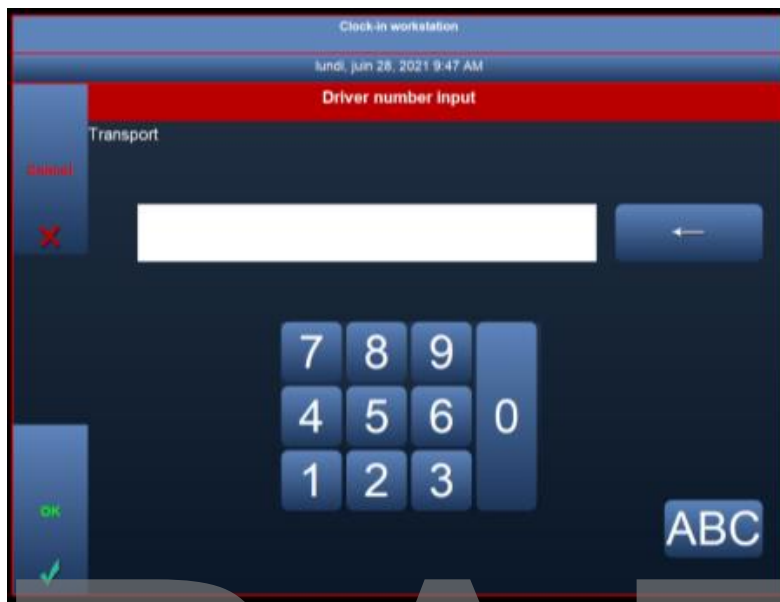
### A.14.3 DRIVER CHECK-IN MODULE

The EQUANS Driver clock-in workstation allows drivers to electronically log-on, consult a run, or log-off as well as print the associated information all via the convenient touch-screen display.

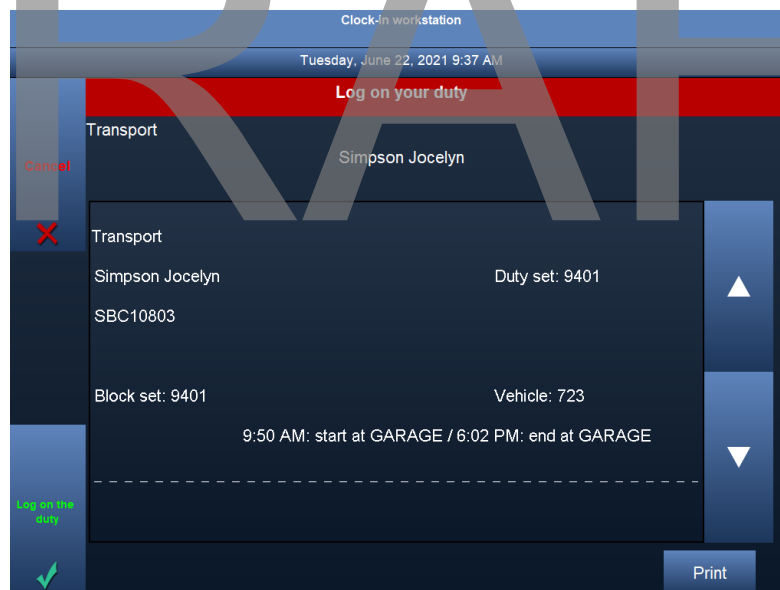
Drivers will enter their ID on the screen and then be shown information including run ID, Block, vehicle ID, vehicle location (if yard management option is included), and any messages from dispatch.



This allows Marin Transit to monitor driver check in accuracy (versus just checking in orally with the dispatcher).



*Bus drivers enter their ID to clock in.*



*The display will provide them with their run ID, Block ID, start time and end time, and which vehicle to use.*

Dispatch can monitor each check in and view when the check in and check out occurred. The log-in will appear on the dispatch software within the block, run, and driver work views.

Each clock-in and clock out occurrence is saved and available for reporting. Marin Transit can check at what time check in and check out occurred for each driver.

### A.14.4 INCIDENT MANAGEMENT

The EQUANS CAD/AVL includes a comprehensive web-based incident management feature that allow for customers service issues to be opened, tracked, and follow a workflow until closed.

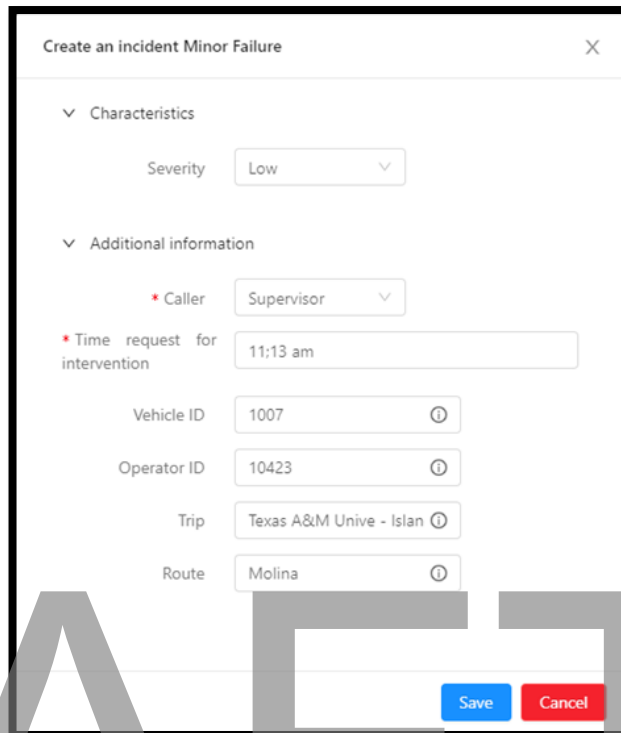
The Incident Reporting allows for the entry and storage of information relevant to a situation using a screen template or “form” associated with each incident type. An example of screen template is provided here.

This allows for customers incident filling and tracking. The Incident management module of the EQUANS CAD/AVL allows to track accidents and/or complaints associated with drivers, vehicles, or customers, and to easily enter, edit, and delete general information, customer involvement, and notes about the incident.

The Incident Management module allows to automate incident processes by automatically generate an incident record when certain configurable CAD incidents (e.g., covert alarms, specific canned messages). Incidents are created automatically based on parameters set-up or created manually and follow an escalation procedures and workflow until it is resolved and closed.

Upon creation of an incident report, the CAD/AVL automatically “pre-populates” information into the configured incident form fields, such as Vehicle ID or driver ID.

The CAD/AVL will force the creation of an incident report for each silent alarm activation.



Create an incident Minor Failure

Characteristics

Severity Low

Additional information

Caller Supervisor

Time request for intervention 11:13 am

Vehicle ID 1007

Operator ID 10423

Trip Texas A&M Unive - Islan

Route Molina

Save Cancel

## B. DELIVERY AND INSTALLATION

EQUANS will prepare a Master Schedule of Work using MS Project to be submitted following Notice to Proceed. The schedule will identify the manufacture, delivery, and installation of equipment, training, test procedures, and delivery of documentation. The schedule will be updated by the EQUANS Project Manager monthly to reflect the progress attained in the previous month and the anticipated changes in the future.

### B.1 PROJECT SCHEDULE

**The District goal date of Q3 for system implementation is feasible. EQUANS can deliver and install a fully functioning, tested and operational CAD/AVL in about 6 months from Notice to Proceed.**

**EQUANS commits to a successful project delivery, on time and on budget. The kick off is planned to take place in January 2025 and the Go-Live of the system will meet Marin Transit's implementation date of July 1<sup>st</sup>.**

**EQUANS has planned for the end of the CAD/AVL installation on all vehicles by the end of June 2025.**

**A detailed project plan is provided on the following page.**

### B.2 SYSTEM ACCEPTANCE

Once all vehicles are installed, the system is live and a 30-day observation and testing period begins.

Upon successful completion of all systems testing and at the end of the 30 days, Marin Transit will confirm System acceptance of the CAD/AVL.

If, during any test, it is discovered that the system does not conform to the requirements, Marin Transit will not accept the system until the issues have been corrected by EQUANS.

EQUANS will work with Marin Transit to tweak the system, resolve any pending issues until the system is satisfactory and fully accepted.

After system acceptance, the start of the warranty is triggered. Post System acceptance, EQUANS will continue to support Marin Transit, with increased monitoring of the system, any additional/remedial training if necessary, and unlimited customer support.

After system acceptance, EQUANS and Marin Transit continue the communication channels established with either bi-weekly or monthly check-in meetings for the duration of the contract.



**EXHIBIT “B”**

**FEES AND PAYMENT SCHEDULE (required)**

DISTRICT shall pay CONTRACTOR as follows:

- (1) CONTRACT RATES. DISTRICT shall pay CONTRACTOR based on the rate table and the Best and Final cost proposal attached.
- (2) MILEAGE. DISTRICT shall not pay CONTRACTOR for travel by private, leased or hired vehicles as required by this Contract.
- (3) AUTHORIZATION REQUIRED. Services performed by CONTRACTOR and not authorized in this Contract shall not be paid for DISTRICT. Payment for additional services shall be made to CONTRACTOR by DISTRICT if, and only if, this Contract is amended by both parties in advance of performing additional services.
- (4) MAXIMUM CONTRACT AMOUNT. The maximum term of this Contract is five years starting on July 1, 2025, or with system acceptance, whichever is later. The maximum amount payable to Contractor under this Contract for this period shall not exceed \$1,194,898.
- (5) INVOICES. Payment shall be remitted as per the schedule below. Invoices shall be sent to AP@marintransit.org and to Marin Transit’s contract manager.

<b>PAYMENT MILESTONES – DESIGN AND INSTALLATION</b>	
Project Kick-Off <i>Completion of kickoff meeting and project launch.</i>	10%
Design Acceptance <i>Acceptance of bus survey report, data flow report, system configuration and diagram, and other relevant design elements.</i>	10%
Acceptance of Training Plan <i>Acceptance of full training plan, including provision of all training materials and course overviews.</i>	10%
Hardware Delivery	5%
Training Session 50% Complete	10%
Training Session 100% Complete	10%
Hardware Installation Complete	20%
Final Acceptance by General Manager <i>Completion of 30 days of continuous system uptime. System acceptance will not be requested by vendor until a continuous 30 days are completed.</i>	25%
<b>ANNUAL MAINTENANCE</b>	
Maintenance Contract Begins	Final System Acceptance or July 1, 2025, whichever is later
Start of Warranty	Final System Acceptance or July 1, 2025, whichever is later
Start of Service Plan	Final System Acceptance or July 1, 2025, whichever is later
Y1 Maintenance Fee Payment	Final System Acceptance or July 1, 2025, whichever is later
Y2+ Maintenance Fee Payment	At Start of Applicable Contract Year



## **EQUANS BEST AND FINAL OFFER (BAFO) COST PROPOSAL :**

EQUANS is pleased to offer its Best and Final Offer (BAFO) to Marin Transit in reference to COMPUTER-AIDED DISPATCH (CAD) and AUTOMATIC VEHICLE LOCATION (AVL) SOLUTIONS for the MARIN COUNTY TRANSIT DISTRICT.

# DRAFT

<b>PAYMENT MILESTONES – DESIGN AND INSTALLATION</b>	
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Y2+ Maintenance Fee Payment	At Start of Applicable Contract Year



## Cost Proposal Form Marin Transit

EQUANS CAD/AVL SYSTEM BASE PRICING DETAILS					
FIXED ROUTE CAD/AVL HARDWARE	Unit	Quantity	Unit Price	Total Price	Comments
Vehicle Logic Unit (VLU)	Per bus	50	\$3,016.16	\$150,808.20	
Mobile Data Terminal (MDT)	Per bus	50	\$1,021.42	\$51,070.99	
Cables, Mounting Brackets, and Accessories	Per bus	50	\$1,792.50	\$89,624.75	
Covert Alarm	Per Bus	23	\$43.83	\$1,008.03	
Spare Kit	Per Spare kit	3	\$4,256.04	\$12,768.12	
Bus In the Box	Per BIB	1	\$11,588.26	\$11,588.26	
<b>CAD/AVL SOFTWARE</b>					
CAD/AVL, AVA, GTFS/GTFS RT, Passenger information	Lump Sum	1	\$148,619.79	\$148,619.79	
Cloud Set Up	Lump Sum	1	\$5,194.70	\$5,194.70	
Workstation Licenses	Per Workstation	15	\$1,118.87	\$16,783.00	
<b>PROFESSIONAL SERVICES</b>					
Project Management	Lump Sum	1	\$121,643.13	\$121,643.13	
Installation	Per Bus	50	\$1,573.66	\$78,682.93	
On-site Training	Lump Sum	1	\$9,498.68	\$9,498.68	
Shipping	Lump Sum	1	\$19,879.05	\$19,879.05	
<b>BASE TOTAL</b>				<b>\$717,169.63</b>	
<b>BASE TOTAL WITH TAX</b>				<b>\$783,507.82</b>	
<b>SUPPORT &amp; MAINTENANCE</b>					
Annual Maintenance, Support, and Warranty - Year 1	Year 1	1	\$52,286.31	\$52,286.31	It covers: - Warranty - Cloud Hosting - Unlimited customer support - Software maintenance - Hardware repairs - 24/7 Web Portal Access - SMS (60,000 texts per year)
<b>BASE TOTAL + 1 Year of Support</b>				<b>\$769,455.95</b>	
<b>BASE TOTAL + 1 Year of Support with Tax</b>				<b>\$840,630.62</b>	
<b>SUPPORT &amp; MAINTENANCE</b>					
Annual Maintenance, Support, and Warranty - Year 2	Year 2	1	\$54,330.10	\$54,330.10	
Annual Maintenance, Support, and Warranty - Year 3	Year 3	1	\$56,453.85	\$56,453.85	
Annual Maintenance, Support, and Warranty - Year 4	Year 4	1	\$58,662.11	\$58,662.11	

Annual Maintenance, Support, and Warranty - Year 5	Year 5	1	\$60,958.14	\$60,958.14	
<b>BASE TOTAL + 5 Years of Support</b>				\$999,860.16	
<b>BASE TOTAL + 5 Years of Support with Tax</b>				<b>\$1,092,347.22</b>	
<b>OPTIONS</b>					
<b>Option 1 - VOIP</b>					
Project Management	Lump Sum	1	\$10,186.73	\$10,186.73	
Installation	Per Bus	50	\$110.57	\$5,528.26	
Operator Handset	Per Bus	50	\$647.83	\$32,391.35	
Operator Speaker / PA Mic	Per Bus	50	\$126.41	\$6,320.26	
Covert Mic	Per Bus	50	\$110.60	\$5,530.23	
First Year Annual Cost	Annual	1	\$4,762.67	\$4,762.67	
<b>First Year TOTAL</b>				\$64,719.50	
<b>First Year TOTAL with Tax</b>				<b>\$70,706.05</b>	
<b>VOIP Annual</b>					
VoIP Year 2	Annual	1	\$4,762.67	\$4,762.67	
VoIP Year 3	Annual	1	\$4,899.17	\$4,899.17	
VoIP Year 4	Annual	1	\$5,035.67	\$5,035.67	
VoIP Year 5	Annual	1	\$5,172.17	\$5,172.17	
<b>5 Year Total</b>				\$19,869.67	
<b>5 Year Total with Tax</b>				<b>\$21,707.61</b>	
<b>VoIP Extended Annual Years</b>					
VoIP Year 6	Annual	1	\$4,905.55	\$4,905.55	
VoIP Year 7	Annual	1	\$5,052.71	\$5,052.71	
VoIP Year 8	Annual	1	\$5,204.30	\$5,204.30	
VoIP Year 9	Annual	1	\$5,360.42	\$5,360.42	
VoIP Year 10	Annual	1	\$5,521.24	\$5,521.24	
<b>Total VoIP Extended Years</b>				\$26,044.22	
<b>Total VoIP Extended Years with Tax</b>				<b>\$28,453.31</b>	
<b>Option 3 - Seon Camera Integration</b>					
Seon Integration	Lump Sum	1	\$8,875.99	\$8,875.99	
<b>TOTAL</b>				\$8,875.99	
<b>TOTAL with Tax</b>				<b>\$9,697.02</b>	
<b>CAD/AVL Extended Years</b>					
Annual Maintenance, Support, and Warranty - Year 6	Year 6	1	\$66,493.05	\$66,493.05	
Annual Maintenance, Support, and Warranty - Year 7	Year 7	1	\$69,414.12	\$69,414.12	
Annual Maintenance, Support, and Warranty - Year 8	Year 8	1	\$72,794.47	\$72,794.47	

Annual Maintenance, Support, and Warranty - Year 9	Year 9	1	\$76,342.05	\$76,342.05	
Annual Maintenance, Support, and Warranty - Year 10	Year 10	1	\$80,063.74	\$80,063.74	
Total CAD/AVL Extended Years				\$365,107.44	
<b>Total CAD/AVL Extended Years with Tax</b>				<b>\$398,879.87</b>	

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**EXHIBIT "C"**

**INSURANCE REDUCTION/WAIVER (if applicable)**

CONTRACTOR: \_\_\_\_\_

CONTRACT TITLE: \_\_\_\_\_

Contractor's professional liability insurance may be provided, in part, by self-insurance or large deductible as long as contractor provides: (1) evidence to the District that contractor has segregated amounts in a special insurance reserve fund meeting the contract's insurance requirements and restricted specifically to this project or (2) contractor's general insurance reserves are adequate to provide the necessary coverage and the Marin County Transit District may conclusively rely thereon.

This statement shall accompany all requests for a reduction/waiver of insurance requirements. Please check the box

if a waiver is requested or fill in the reduced coverage(s) where indicated below:

	<i>Check Where Applicable</i>	<i>Requested Limit Amount</i>	<i>CAO Use Only</i>
<b>General Liability Insurance</b>	<input type="checkbox"/>	\$	
<b>Automobile Liability Insurance</b>	<input type="checkbox"/>	\$	
<b>Workers' Compensation Insurance</b>	<input type="checkbox"/>		
<b>Professional Liability Deductible</b>	<input type="checkbox"/>	\$	

Please set forth the reasons for the requested reductions or waiver.


Contract Manager Signature:

\_\_\_\_\_

Date:

\_\_\_\_\_

\_\_\_\_\_



## EXHIBIT "D"

### FTA GRANT CONTRACT PROVISIONS PROFESSIONAL SERVICES

#### 1. NO FEDERAL GOVERNMENT OBLIGATIONS TO THIRD PARTIES

- a. Marin Transit and the Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to the contract and shall not be subject to any obligations or liabilities to Marin Transit, the Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.
- b. The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified except to identify the subcontractor who will be subject to its provisions.

#### 2. FALSE STATEMENTS OR CLAIMS CIVIL AND CRIMINAL FRAUD

- a. The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this Contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.
- b. The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the Marin Transit of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate.
- c. The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

#### 3. ACCESS TO RECORDS AND REPORTS

Contractor shall provide all authorized representatives of Marin Transit, the FTA Administrator, and the Comptroller General of the United States access to any books, documents, papers and records of the Contractor that are directly pertinent to this Contract for the purposes of making audits, copies, examinations, excerpts and transcriptions. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed. Contractor also agrees to maintain all books, records, accounts and reports required under this Contract for a period of not less than three years after the date of termination or expiration of this Contract, except in the event of litigation or settlement of claims arising from the performance of this Contract, in which case Contractor agrees to maintain the same until Marin Transit, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto.

#### 4. CHANGES TO FEDERAL REQUIREMENTS

Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the [Master Agreement](#) between Marin Transit and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.



## 5. TERMINATION

- a. Termination for Convenience - Marin Transit, by written notice, may terminate this contract, in whole or in part, when it is in the Government's interest. If this contract is terminated, Marin Transit shall be liable only for payment under the payment provisions of this contract for services rendered before the effective date of termination.
- b. Termination for Default [Breach or Cause] - If the Contractor does not deliver supplies in accordance with the contract delivery schedule, or, if the contract is for services, the Contractor fails to perform in the manner called for in the contract, or if the Contractor fails to comply with any other provisions of the contract, Marin Transit may terminate this contract for default. Termination shall be affected by serving a notice of termination on the Contractor setting forth the manner in which the Contractor is in default. The Contractor will only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner of performance set forth in the contract.

If it is later determined by Marin Transit that the Contractor had an excusable reason for not performing, such as a strike, fire, or flood, events which are not the fault of or are beyond the control of the Contractor, Marin Transit, after setting up a new delivery or performance schedule, may allow the Contractor to continue work, or treat the termination as a termination for convenience.

- c. Opportunity to Cure - Marin Transit in its sole discretion may, in the case of a termination for breach or default, allow the Contractor an appropriately short period of time in which to cure the defect. In such case, the notice of termination will state the time period in which cure is permitted and other appropriate conditions.

If Contractor fails to remedy to Marin Transit's satisfaction the breach or default of any of the terms, covenants, or conditions of this Contract within the stated time period after receipt by Contractor of written notice from Marin Transit setting forth the nature of said breach or default, Marin Transit shall have the right to terminate the Contract without any further obligation to Contractor. Any such termination for default shall not in any way operate to preclude Marin Transit from also pursuing all available remedies against Contractor and its sureties for said breach or default.

- d. Waiver of Remedies for any Breach - In the event that Marin Transit elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this Contract, such waiver by Marin Transit shall not limit Marin Transit's remedies for any succeeding breach of that or of any other term, covenant, or condition of this Contract.

## 6. CIVIL RIGHTS

- a. Nondiscrimination - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.
- b. Equal Employment Opportunity - The following equal employment opportunity requirements apply to the underlying contract:
  - (1) Race, Color, Creed, National Origin, Sex - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 et seq ., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment



Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

(2) Age - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § 623 and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

(3) Disabilities - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

c. The Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

d. The contractor will include the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

## 7. EQUAL EMPLOYMENT OPPORTUNITY

a. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

b. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

c. The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other

employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

- d. The contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency
- e. contracting officer, advising the labor union or workers' representative of the contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- f. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- g. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for
- h. purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- i. In the event of the contractor's non-compliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions
- j. may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- k. The contractor will include the provisions of paragraphs (1) through (8) in every subcontract or purchase
- l. order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

**8. INCORPORATION OF FTA TERMS**

The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any of Marin Transit's requests which would cause Marin Transit to be in violation of the FTA terms and conditions.

**9. ENERGY CONSERVATION**

Contractor shall comply with mandatory standards and policies relating to energy efficiency that are contained in the State Energy Conservation Plan issued in compliance with the Energy Policy and Conservation Act, 42 U.S.C. §6321 et seq. and 49 CFR Part 18.

**10. NOTICE TO FTA AND U.S. DOT INSPECTOR GENERAL OF INFORMATION RELATED TO FRAUD, WASTE, ABUSE, OR OTHER LEGAL MATTERS**

If a current or prospective legal matter that may affect the Federal Government emerges, the Contractor must

promptly notify Marin Transit (Recipient). The Contractor must require each Third-Party Participant to include an equivalent provision in its sub agreements at every tier, for any agreement that is a “covered transaction” according to 2 C.F.R. §§ 180.220 and 1200.220.

- a. The types of legal matters that require notification include, but are not limited to, a major dispute, breach, default, litigation, or naming the Federal Government as a party to litigation or a legal disagreement in any forum for any reason.
- b. Matters that may affect the Federal Government include, but are not limited to, the Federal Government’s interests in the Award, the accompanying Underlying Agreement, and any Amendments thereto, or the Federal Government’s administration or enforcement of federal laws, regulations, and requirements.
- c. The Recipient must promptly notify the U.S. DOT Inspector General in addition to the FTA Chief Counsel or Regional Counsel for the Region in which the Recipient is located, if the Recipient has knowledge of potential fraud, waste, or abuse occurring on a Project receiving assistance from FTA. The notification provision applies if a person has or may have submitted a false claim under the False Claims Act, 31 U.S.C. § 3729 et seq., or has or may have committed a criminal or civil violation of law pertaining to such matters as fraud, conflict of interest, bribery, gratuity, or similar misconduct. This responsibility occurs whether the Project is subject to this 18 Agreement or another agreement between the Recipient and FTA, or an agreement involving a principal, officer, employee, agent, or Third-Party Participant of the Recipient. It also applies to subcontractors at any tier. Knowledge, as used in this paragraph, includes, but is not limited to, knowledge of a criminal or civil investigation by a Federal, state, or local law enforcement or other investigative agency, a criminal indictment or civil complaint, or probable cause that could support a criminal indictment, or any other credible information in the possession of the Recipient.

#### **11. SUSPENSION AND DEBARMENT**

The Contractor, including any of its officers or holders of a controlling interest, and its subcontractors are obligated to inform Marin Transit whether or not they are or have been debarred, suspended, ineligible or voluntarily excluded from participation in federally funded contracts and pursuant to Executive Order Nos. 12549 and 12689, "Debarment and Suspension", 31 U.S.C. §6106 note and U.S. DOT regulations 49 CFR Part 29. Should Contractor or a subcontractor be included on such a list or determined ineligible during the performance of this Contract, the Contractor shall so inform Marin Transit. The Contractor is required to include this provision in any lower tiered subcontract where the contract amount is over \$25,000.

#### **12. RESOLUTION OF DISPUTES, BREACHES, OR OTHER LITIGATION**

- a. Disputes - Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by the authorized representative of Marin Transit's General Manager. This decision shall be final and conclusive unless within ten (10) days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the General Manager. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the General Manager shall be binding upon the Contractor and the Contractor shall abide by the decision.
- b. Performance During Dispute - Unless otherwise directed by Marin Transit, Contractor shall continue performance under this Contract while matters in dispute are being resolved.
- c. Claims for Damages - Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefore shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.
- d. Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between Marin Transit and the Contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State

in which Marin Transit is located.

- e. Rights and Remedies - The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the Marin Transit, or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

**13. LOBBYING RESTRICTIONS**

Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352, as amended by the Lobbying Disclosure Act of 1995, P.L. 104-65 [to be codified at 2 U.S.C. § 1601, et seq.] - Contractors who apply or bid for an award of \$100,000 or more shall file the certification required by 49 CFR part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose the name of any registrant

under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures are forwarded from tier to tier up to the recipient.

**14. CLEAN AIR**

- a. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
- b. The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

**15. CLEAN WATER**

- a. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.
- b. The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

**16. DISADVANTAGED BUSINESS ENTERPRISE**

- a. This contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs. The national goal for participation of Disadvantaged Business Enterprises (DBE) is 10%. The agency's overall goal for DBE participation is 1.6 %. A separate contract goal has not been established for this procurement.
- b. The Contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this DOT-assisted contract. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as Marin Transit deems appropriate. Each subcontract the Contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).
- c. The successful Contractor will be required to report its DBE participation obtained through race-neutral means

throughout the period of performance. The Contractor will be required to report its DBE participation obtained through race-neutral means throughout the period of performance.

- d. The contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the contractor's receipt of payment for that work from Marin Transit. In addition, the contractor may not hold retainage from its subcontractors.
- e. The Contractor must promptly notify Marin Transit, whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The Contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of Marin Transit.

**17. PROMPT PAYMENT**

The contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the contractor's receipt of payment for that work. In addition, the contractor is required to return any retainage payments to those subcontractors within 30 days after the subcontractor's work related to this contract is satisfactorily completed.

The contractor must promptly notify the Agency, whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of the Agency.

**18. PRIVACY ACT**

The following requirements apply to the Contractor and its employees that administer any system of records on behalf of the Federal Government under any contract:

- a. The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974, 5 U.S.C. § 552a. Among other things, the Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.
- b. The Contractor also agrees to include these requirements in each subcontract to administer any system of records on behalf of the Federal Government financed in whole or in part with Federal assistance provided by FTA.

**19. FEDERAL TAX LIABILITY AND RECENT FELONY CONVICTIONS**

- a. The contractor certifies that it:
  - (1) Does not have any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and
  - (2) Was not convicted of the felony criminal violation under any Federal law within the preceding 24 months.  
If the contractor cannot so certify, the Recipient will refer the matter to FTA and not enter into any Third-Party Agreement with the Third-Party Participant without FTA's written approval.
- b. Flow-Down. The Recipient agrees to require the contractor to flow this requirement down to participants at all lower tiers, without regard to the value of any sub agreement.

## 20. CONFORMANCE WITH ITS NATIONAL ARCHITECTURE

Intelligent Transportation Systems (ITS) projects shall conform to the National ITS Architecture and standards pursuant to 23 CFR § 940. Conformance with the National ITS Architecture is interpreted to mean the use of the National ITS Architecture to develop a regional ITS architecture in support of integration and the subsequent adherence of all ITS projects to that regional ITS architecture. Development of the regional ITS architecture should be consistent with the transportation planning process for Statewide and Metropolitan Transportation Planning (49 CFR Part 613 and 621).

## 21. SEVERABILITY

The Contractor agrees that if any provision of this agreement or any amendment thereto is determined to be invalid, then the remaining provisions thereof that conform to federal laws, regulations, requirements, and guidance will continue in effect.

## 22. TRAFFICKING IN PERSONS

The contractor agrees that it and its employees that participate in the Recipient's Award, may not:

- a. Engage in severe forms of trafficking in persons during the period of time that the Recipient's Award is in effect;
- b. Procure a commercial sex act during the period of time that the Recipient's Award is in effect; or
- c. Use forced labor in the performance of the Recipient's Award or sub agreements thereunder.

## 23. PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT.

- a. Recipients and subrecipients are prohibited from obligating or expending loan or grant funds to:
  - (1) Procure or obtain;
  - (2) Extend or renew a contract to procure or obtain; or
  - (3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
    - (a) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
    - (b) (ii) Telecommunications or video surveillance services provided by such entities or using such equipment.
    - (c) (iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.
- b. In implementing the prohibition under Public Law 115-232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is



sustained.

- c. See Public Law 115-232, section 889 for additional information.
- d. See also § 200.471.

## 24. FLY AMERICA

- a. Definitions. As used in this clause—
  - (1) “International air transportation” means transportation by air between a place in the United States and a place outside the United States or between two places both of which are outside the United States.
  - (2) “United States” means the 50 States, the District of Columbia, and outlying areas.
  - (3) “U.S.-flag air carrier” means an air carrier holding a certificate under 49 U.S.C. Chapter 411.
- b. When Federal funds are used to fund travel, Section 5 of the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. 40118) (Fly America Act) requires contractors, Agencies, and others use U.S.-flag air carriers for U.S. Government-financed international air transportation of personnel (and their personal effects) or property, to the extent that service by those carriers is available. It requires the Comptroller General of the United States, in the absence of satisfactory proof of the necessity for foreign-flag air transportation, to disallow expenditures from funds, appropriated or otherwise established for the account of the United States, for international air transportation secured aboard a foreign-flag air carrier if a U.S.-flag air carrier is available to provide such services.
- c. If available, the Contractor, in performing work under this contract, shall use U.S.-flag carriers for international air transportation of personnel (and their personal effects) or property.
- d. In the event that the Contractor selects a carrier other than a U.S.-flag air carrier for international air transportation, the Contractor shall include a statement on vouchers involving such transportation essentially as follows: Statement of Unavailability of U.S.-Flag Air Carriers International air transportation of persons (and their personal effects) or property by U.S.-flag air carrier was not available or it was necessary to use foreign-flag air carrier service for the following reasons. See FAR § 47.403. [State reasons]:
- e. Contractor shall include the substance of this clause, including this paragraph (e), in each subcontract or purchase under this contract that may involve international air transportation.

## 25. SAFE OPERATIONS OF MOTOR VEHICLES

### Seat Belt Use

The Contractor is encouraged to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company-owned vehicles, company rented vehicles, or personally operated vehicles. The terms “company-owned” and “company-leased” refer to vehicles owned or leased either by the Contractor or Agency.

### Distracted Driving

The Contractor agrees to adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while using an electronic device supplied by an employer, and driving a vehicle the driver owns or rents, a vehicle Contractor owns, leases, or rents, or a privately-owned vehicle when on official business in connection with the work performed under this Contract.

## 26. SIMPLIFIED ACQUISITION THRESHOLD

Contracts for more than the simplified acquisition threshold, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. § 1908, or otherwise set by law, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms and provide for

such sanctions and penalties as appropriate. (Note that the simplified acquisition threshold determines the procurement procedures that must be employed pursuant to 2 C.F.R. §§ 200.317–200.327. The simplified acquisition threshold does not exempt a procurement from other eligibility or processes requirements that may apply. For example, Buy America’s eligibility and process requirements apply to any procurement in excess of \$150,000. 49 U.S.C. § 5323(j)(13).

## 27. PATENT RIGHTS AND RIGHTS IN DATA

### Intellectual Property Rights

This Project is funded through a Federal award with FTA for experimental, developmental, or research work purposes. As such, certain Patent Rights and Data Rights apply to all subject data first produced in the performance of this Contract. The Contractor shall grant the Agency intellectual property access and licenses deemed necessary for the work performed under this Contract and in accordance with the requirements of 37 C.F.R. part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by FTA or U.S. DOT.

The terms of an intellectual property agreement and software license rights will be finalized prior to execution of this Contract and shall, at a minimum, include the following restrictions:

Except for its own internal use, the Contractor may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may the Contractor authorize others to do so, without the written consent of FTA, until such time as FTA may have either released or approved the release of such data to the public. This restriction on publication, however, does not apply to any contract with an academic institution.

For purposes of this Contract, the term “subject data” means recorded information whether or not copyrighted, and that is delivered or specified to be delivered as required by the Contract. Examples of “subject data” include, but are not limited to computer software, standards, specifications, engineering drawings and associated lists, process sheets, manuals, technical reports, catalog item identifications, and related information, but do not include financial reports, cost analyses, or other similar information used for performance or administration of the Contract.

1. The Federal Government reserves a royalty free, non-exclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use for “Federal Government Purposes,” any subject data or copyright described below. For “Federal Government Purposes,” means use only for the direct purposes of the Federal Government. Without the copyright owner’s consent, the Federal Government may not extend its Federal license to any other party.
  - a. Any subject data developed under the Contract, whether or not a copyright has been obtained; and
  - b. Any rights of copyright purchased by the Contractor using Federal assistance in whole or in part by the FTA.
2. Unless FTA determines otherwise, the Contractor performing experimental, developmental, or research work required as part of this Contract agrees to permit FTA to make available to the public, either FTA’s license in the copyright to any subject data developed in the course of the Contract, or a copy of the subject data first produced under the Contract for which a copyright has not been obtained. If the experimental, developmental, or research work, which is the subject of this Contract, is not completed for any reason whatsoever, all data developed under the Contract shall become subject data as defined herein and shall be delivered as the Federal Government may direct.
3. Unless prohibited by state law, upon request by the Federal Government, the Contractor agrees to indemnify, save, and hold harmless the Federal Government, its officers, agents, and employees acting within

the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by the Contractor of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under that contract. The Contractor shall not be required to indemnify the Federal Government for any such liability arising out of the wrongful act of any employee, official, or agents of the Federal Government.

4. Nothing contained in this clause on rights in data shall imply a license to the Federal Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Federal Government under any patent.

5. Data developed by the Contractor and financed entirely without using Federal assistance provided by the Federal Government that has been incorporated into work required by the underlying Contract is exempt from the requirements herein, provided that the Contractor identifies those data in writing at the time of delivery of the Contract work.

6. The Contractor agrees to include these requirements in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance.

DRAFT



# **Award Contract for Computer-Aided Dispatch and Automatic Vehicle Location (CAD/AVL) System**

**MARIN TRANSIT BOARD OF DIRECTORS**

# What is CAD/AVL?

- Computer-Aided Dispatch
  - Dispatching, assignment, and administrative workforce tools for public transit.
  - District and administrative staff have a single view to see what a bus is doing, including route information, on time performance, location, speed, and history.
  - Operators have ‘one stop’ for all needs while in service – automatically programs farebox, headsign, automatic vehicle announcements. Shows when riders request stop, navigation assistance, and dispatch communication.
- Automatic Vehicle Location
  - Feeds all ‘downstream’ programs – Clipper 2.0, real time apps, and website updates.
  - Pushes data back to scheduling software and automatic passenger counter.

# Overview of Procurement

Service Requested:	Computer-Aided Dispatch / Automatic Vehicle Location
Duration:	Five (5) year base term and five (5) single year options
Date Issued:	September 3, 2024
Deadline for Questions Regarding this RFP:	September 27, 2024
Answers to Questions Posted to Website:	October 4, 2024
RFP Responses Due:	November 1, 2024
Interviews:	Week of November 18, 2024
Contract Award:	January 13, 2025
Implementation Goal:	July, 2025



# Vendor Responses

- # of RFP Downloads: **49 Vendors**
- # of Pre-Bid Attendees: **10 Vendors**
- # of Responses: **10 Vendors**

*Six vendors were determined to have full and complete submissions.*

*Staff completed preliminary scoring and chose to advance proposals from the top five vendors to interviews.*

*After interviews and reference checks were completed, best and final offers were requested from the top three vendors.*

# Recommendation

- **Award a five-year contract to Ineo Systrans U.S.A., an Equans company, for the installation and maintenance of a CAD/AVL System**
  - Worldwide company with over 250 public transit clients in Europe, North and South America, and Australia
  - Local office in Irvine, CA, to serve Marin Transit as their first customer in the Bay Area
  - 100+ years of operations as a company, 45+ years of providing dedicated CAD/AVL service
  - Wide client base of agencies similar in size and scope to Marin Transit
  - Ability to expand within the contract to meet future needs of the District



# Current System

- Tablets installed onboard vehicles act as the ‘brain’ of the device, communicate through dock to the rest of the systems onboard vehicle
- Issues regarding hardware communications, dock connection, cable misalignments, etc.
- Separate hardware required for voice communication between operators and dispatch
- No integration or communication with security systems
- Mismatched hardware maintenance / warranties
- Until recently, tablets were responsible for the full data communication to vehicle



# Proposed Replacement System

- ‘Brain’ of system is an onboard computer dedicated to the CAD/AVL system
- System is installed in the equipment cabinet instead of dashboard – more secure
- Hardwired driver display – no loss of connection due to faulty connections
- Full integration with security systems (camera, audio, headsign, silent alarm, etc.)
- Digital communication with Dispatch
- Hardware designed and built by Equans – no conflicting warranties or responsibilities
- Equans has migrated multiple agencies of similar size and scope from our current vendor



# Additional Offerings

- Voice over Internet Protocol (VoIP) Communication
  - Enhanced communication between vehicles and Administrative staff
  - One-touch access for drivers to reach dispatch
- Security System Upgrades
  - Silent Alarm switches will be installed or integrated on all vehicles
  - Silent Alarm triggers an external headsign change and allows Dispatch to view audio and video feed from inside the vehicle in real time

# Equans-Ineo Contract Rates

Year	FY 25/26 – CY1	FY 26/27 – CY2	FY 27/28 – CY3	FY 28/29 – CY4	FY 29/30 – CY5
<b>Integration and Startup</b>	\$ 859,148				
<b>Annual Maintenance</b>	\$ 62,326	\$ 64,559	\$ 67,028	\$ 69,589	\$ 72,248
<b>Total Annual Cost</b>	\$ 921,474	\$ 64,559	\$ 67,028	\$ 69,589	\$ 72,248
<b>Total Contract Cost</b>				\$ 1,194,898	
<b>Contingency Amount</b>				\$ 150,000	
<b>Maximum Authorized Amount</b>				\$ 1,344,898	



# Thank you

## CONTACT

**Kyle French**

**Operations Manager**





711 Grand Ave, #110  
San Rafael, CA 94901  
ph: 415.226.0855  
[marintransit.org](http://marintransit.org)

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Director  
Supervisor District 4

**Maribeth Bushey**

Director  
City of San Rafael

**Fred Casissa**

Alternate  
Town of Corte Madera

January 13, 2025

Honorable Board of Directors  
Marin County Transit District  
3501 Civic Center Drive  
San Rafael, CA 94903

**Subject: Approve Update to Public Hearing Policy**

Dear Board Members:

### Recommendation

Adopt an updated Public Hearing Policy.

### Summary

Marin Transit will update its Public Hearing Policy to require hearings for fare increases rather than all fare changes and allow public hearings to be held at locations and times other than Marin Transit Board meetings to allow for more public participation.

### Background

Marin Transit last updated our Public Hearing Policy in April of 2023.

Public hearings require notable resources due to the need to have translation resources and extensive public notification. Yet the public hearings held at Marin Transit Board meetings in the last 2 years have not generated significant public comments. Other outreach activities designed to reach riders in more accessible ways and at more convenient times have been far more successful in soliciting valuable input from our riders and the public.

Staff believe this is due to two main reasons: 1) the subject matter has not been impactful enough to warrant public comment, and/or 2) the location/time of Board meetings is not accessible.

FTA guidance for effective public engagement efforts suggests that what sets a public hearing apart from other activities is its formality and public record: “Public hearings are meetings that allow members of the community to be formally heard and have their comments recorded.”<sup>1</sup> The FTA guidance does not specify when or where public hearings need to be held. See Attachment B for FTA guidance on public hearings.

<sup>1</sup> Promising Practices for Meaningful Public Involvement in Transportation Decision-Making, Updated November 2023, P. B-38, <https://www.transportation.gov/priorities/equity/promising-practices-meaningful-public-involvement-transportation-decision-making>



## Discussion

Based on lessons learned and FTA guidance, staff has made updates to our Public Hearing Policy to better target our outreach resources to maximize the effectiveness of activities and ensure we are providing meaningful opportunities for our riders and the public to provide input. This update targets public hearing resources so they are more effective in reaching the public on topics that are impactful to them. The update to this policy does not impact any other outreach activities; staff will continue to engage riders and the public on all topics relevant to them via a range of activities and strategies, as reported to your Board in periodic outreach updates and quarterly outreach reports.

Changes include:

- Holding hearings only on fare increases, not on all fare changes.
- Allow hearings to be held at times/locations other than Marin Transit Board meetings. If not held at a Board meeting, Board members will be invited to attend but a quorum of Board members is not required.
- Minor wording clarification.

All other public hearing requirements, noticing, and topics that require hearings remain unchanged. All comments and testimony will continue to be officially recorded during public hearings and shared with the Board alongside the item under consideration.

## Fiscal/Staffing Impact

No fiscal impact. This will focus agency outreach resources on the most effective activities to educate and engage our riders on issues pertinent to them.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Cathleen Sullivan".

Cathleen Sullivan  
Director of Planning

**Attachment A:** Updated Public Hearing Policy

**Attachment B:** FTA Promising Practices for Meaningful Public Involvement Excerpt



**MARIN TRANSIT**  
**PUBLIC HEARING POLICY**

Policy #:	AD-02
Subject:	Public Hearings
Effective Date:	May 21, 2007
Revision Dates:	<a href="#">January 13, 2025</a> April 3, 2023 July 27, 2015



## Public Hearing Policy

### 1. PURPOSE

The public hearing process is one method that Marin County Transit District (Marin Transit) Board of Directors uses to solicit and receive public comments about decisions affecting the community and Marin Transit riders. In adopting this policy, it is the intent of the Board to encourage the receipt of public comments so that information may be considered as part of the decision-making process. The provisions of this policy shall be in addition to procedures established specific to Marin County Transit District in Sections 70000-80019 of the California Public Utilities Code, the “Marin County Transit District Act of 1964.”

Every Marin Transit Board meeting includes procedures to ensure public access and participation in the process. A public hearing is warranted when the matter under consideration is significant enough that it warrants extra effort to ensure public awareness of the matter and solicit public input.

### 2. PUBLIC HEARINGS

The Board of Directors shall schedule public hearings to consider the matters listed below. The Board may, as it deems appropriate, schedule additional public hearings for the consideration of subjects not listed below. When authorized by the Board President, the General Manager may call a public hearing that is required by law or by District policy when doing so would move a process forward in a timely manner.

#### a. **FARE CHANGES/INCREASES**

Fare ~~changes-increases~~ require a public hearing prior to adoption by the Board. This includes any ~~changes-increases~~ in the charges and fees assessed for use of District public transit services including cash fares, ticket fares, pass fares, transfer fares, or amendments to eligibility criteria for fare categories, or major changes to fare media or types of fare products ~~that has the potential to negatively impact riders~~. Promotional fares shall not be subject to public hearings. “Promotional fares” shall include modifications to fare structures that are established on a short-term basis for the specific purpose of promoting service, encouraging increased ridership, and/or addressing equity.<sup>1</sup>

#### b. **MAJOR SERVICE CHANGES**

Major changes to service require a public hearing before adoption by the Board. The definition of what constitutes a major service change is included in the *Major Service Change Policy* which is part of the District’s federal Title VI Program.<sup>1</sup>

<sup>1</sup> **Equity Analysis:** For any fare change or major service change, Marin Transit shall also conduct an equity analysis to determine if the proposed change may have unequal impact. The District’s federal Title VI Program includes a *Policy for Establishing Disparate Impact or Disproportionate Burden* (CR-02) which sets thresholds for determining when the impact of a proposed change constitutes a disparate impact on minority populations or a disproportionate burden on low-income populations. Marin Transit must present the findings of the equity analysis prior to Board adoption of the changes.



**c. ENVIRONMENTAL IMPACT REVIEWS**

Public hearings shall be conducted as required by the California Environmental Quality Act, State Implementing Guidelines (CEQA) and the National Environmental Policy Act (NEPA).

**d. OTHER PUBLIC HEARINGS**

Other public hearings shall be conducted as may be required by federal or state laws or regulations. District public hearings are not required for grant applications when said grants are part of a regional grant application process and public hearings are coordinated and conducted by the Metropolitan Transportation Commission or other regional agency or operator.

**3. ESTABLISHMENT AND NOTICE OF PUBLIC HEARINGS**

**a. BOARD AUTHORITY TO SET PUBLIC HEARING**

To provide sufficient notice of upcoming hearings, the Board of Directors shall designate the time and place for public hearings at least 21 calendar days in advance of the proposed hearing date, unless more notice is required by law.

Unless otherwise required by law, the Board may provide for minor modifications to the 21-day advance notice requirements in those situations when a finding can be made that such modification will not diminish fulfilling the public notice procedures outlined below.

**b. PUBLICATION OF NOTICE**

Once the Board has decided to hold a public hearing, notice of the public hearing shall be prepared to include a general, brief explanation of the matter to be considered and the date, time, and location of the public hearing.

Notice of the time and place of the meeting shall be distributed via media and other channels to maximize the breadth of awareness of the public hearing among the affected populations. As a general rule, information shall be distributed as quickly as possible following the setting of the public hearing and shall be repeated as possible to maximize awareness of the hearing.

Marin Transit will advertise information about the public hearing in as many ways as deemed appropriate and effective. Channels may include, but are not limited to:

- Posting meeting notices on transit vehicles and at transit stops that are used by affected riders;
- Notification through the District's email distribution list;
- Publication of the hearing on the District's website and social media feeds;
- Publication in newspaper of general circulation as required by law<sup>2</sup>;

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<sup>2</sup> Marin Transit is required to publish in a newspaper of general circulation based on CA Government Codes 65090-65096, Title 7. Planning and Land Use, Division 1. Planning and Zoning, Chapter 2.7. Public Hearings.





- Publication in neighborhood papers, Spanish language newspapers, and/or online news sources;
- Issuing a press release;
- Sending notice of the public hearing to City Councils, Transportation Authority of Marin, Boards of Supervisors, School Districts, and/or other public agencies that oversee areas affected by the subject of the public hearing;
- Sending meeting notices to identifiable affected groups;
- Inclusion in newsletters of partner agencies, organizations, and/or elected officials;
- Sending letters to names on contact lists created at previous public meetings and hearings; and/or
- Using public service announcements for radio and public access TV (when circumstances dictate and resources allow).

### c. COMMENT PERIOD

~~Setting a public comment period is not required, but it~~ is good practice to publicize a comment period during which public comments pertaining to the topic of the hearing will be accepted. This ensures that staff have clear guidance on comments that must be considered before bringing an item for final decision to the Board.

~~Setting a public comment period is not required, however. Also, although~~ setting a comment period includes specifying a date after which comments are no longer accepted as part of the official record of the hearing, public comments on matters pertinent to Marin Transit will always be accepted and, if requested, shared with the Board.

### d. SPECIAL PROVISIONS REGARDING ENVIRONMENTAL MATTERS

In the case of public hearings relating to environmental review required by the California Environmental Quality Act or the National Environmental Policy Act, expanded legal notice or public review and comment periods may apply. In such situations, the District's Counsel shall review and determine additional public comment and notification periods that may be required by State or Federal law or regulation.

### e. OTHER NOTICES

In addition to the above legal notices, the General Manager or the Board may direct distribution of additional notices to enhance public awareness of the proposed public hearing.

## 4. CONDUCT OF PUBLIC HEARINGS

### a. HEARING PROCEDURES

Public hearings will be conducted at ~~a regular or special~~ a meeting of the Board of Directors or at a time and location that is deemed more suitable to solicit public input on the topic under consideration. If not held at a Board meeting, Board members will be invited to



attend but a quorum of Board members is not required. All comments and testimony will be officially recorded during the public hearing and shared with the Board alongside the item under consideration. Language assistance at ~~Board of Director's meetings~~public hearings, such as oral interpreters, shall be provided if 72 hours advance notice is given. Minutes from the meeting will be made available to the public on Marin Transit's website according to standard Board of Directors procedures.

Proceedings shall generally include, but are not limited to:

- Announcement of the purpose of the hearing.
- At the discretion of the Board President, introduction of the Directors and Staff of the District who are present.
- An introduction by the Board President, the General Manager, or the General Manager's designee of the subject matter being considered at the public hearing.
- Receipt of public comments. (See 4b for details on public comments.)
- Following receipt of oral and/or written comments, the Board President will close the public hearing.
- The Marin Transit Board may respond to comments made by the public and take other actions, such as amending the item or delaying a decision, as it deems appropriate. If the Board chooses not to take action immediately following the close of the public hearing, the President shall announce the time and date at which the Board will next consider the decision. How soon the Board makes its decision after the close of the public hearing is within the Board's discretion, unless a State or Federal law or regulation or Board policy requires a decision within a specific period of time.
- Prior to the initiation of a public hearing or prior to the close of a public hearing, the Board of Directors may, by motion, continue any public hearing to a specific time, date and place. As soon as practical after the Board's action to continue the item, notice of the agenda of such committee or Board meeting shall be provided in accordance with regular District procedures.

## b. PUBLIC COMMENTS

- Written comments received prior to hearing: Comments from the public received in advance of the publication of the packet for the hearing shall be provided as an attachment to the staff report for the Board of Directors. Comments received between Board packet publication and the hearing shall be distributed to the Board members at the hearing and shall be posted to the District's website.
- Verbal comments received at hearing: Members of the public are permitted to speak for up to two minutes on each item considered although the Board has the discretion to limit public comment to less than two minutes or allow more time if

**Commented [CS1]:** Technically we always default to having interpreters on hand regardless of whether we get a request. I would like to leave this as is and not make it required, even though this technically deviates from our standard practice.

**Commented [NW2R1]:** I think this is fine.



**Public Hearing Policy (AD-02)**

circumstances warrant. At its discretion, the Board may limit the time allocated for speaker comments, pursuant to the Brown Act.<sup>3</sup>

- Written comments received during hearing: Copies of all written comments shall be provided to all Board members prior to their decision on the matter, including any Board member(s) who were absent when the public hearing occurred.

**c. RECORD OF HEARING**

Per the Brown Act,<sup>3</sup> the minutes of the Board of Director's meeting shall constitute the record of the public hearing. Audio/video recordings of said public hearings shall be maintained in accordance with current Board Policy.

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<sup>3</sup> Ralph M. Brown Act, Chapter 9 (commencing with Section 54950), Part 1, Division 2, Title 5 of the CA Government Code.



## Public Hearings and Open Forum Hearings

Public hearings are meetings that allow members of the community to be formally heard and have their comments recorded. They are structured events that typically occur near the end of data-gathering activities. An open forum hearing is a public hearing with elements of an open house. After reviewing exhibits and other information, participants can provide comments that will be included in the hearing transcript. Both types of hearings can be conducted in person or online.

Public hearings may be required as part of NEPA or project planning process, including those that are part of the transportation system and intended to gather community input for public record.

Public hearings:

- Can fulfill statutory and regulatory requirements.
- Require reasonable notice of the event be given to the community.
- May require transcripts and public comments to be submitted to Federal, State or local agencies.
- Are led by a trained public hearing officer who is typically an organizational representative.
- Are often a one-sided interaction where the public provides comments, but the organization does not typically respond or enter into a dialogue with attendees.
- Are sometimes preceded by an open house, providing time for participants to review information.

An open forum hearing is a less formal event and can be useful in identifying project issues, goals, objectives, values and concerns. The format focuses on project details rather than conflicting positions. It is often used when a planning process requires it as part of the NEPA process, such as an environmental impact study.

In addition to having the features of an open house, an open forum hearing:

- Must publish formal notice of the time and date.
- Ensures comments are officially recorded and transcripts are made public.
- Allows participants to clarify comments by reviewing transcripts before putting their opinions on the record.

### Equity

Formal hearings may intimidate people who are not used to providing public comments, causing them to be hesitant, especially as part of a public record. The following should be considered to

### Promising Practice

The Maryland Department of Transportation State Highway Administration (MDOT SHA) leads the Op Lanes Maryland P3 (I-495 and I-270 Public-Private Partnership) and Managed Lanes Study. In 2021 MDOT SHA led a Supplemental Draft Environmental Impact Statement (SDEIS) public comment period and public hearing to seek public feedback on the SDEIS. To encourage participation, the team produced emails, press releases, public meeting notices, social media posts, 20+ display boards, flyers, radio spots (English and Spanish), print and online media ads. Staff developed a 20-page SDEIS executive summary and flyers in Spanish, French, Korean, simplified Chinese and Amharic. The team planned the public hearing, provided notetaking and interpretation services and received more than 2,000 comments during the 45-day comment period.



ensure this technique is used and implemented equitably:

- Allow written comments and provide the opportunity for a private session that includes a transcriber for recording purposes.
- Provide qualified interpreters for people who use languages other than spoken English, including ASL or other sign language.
- Prioritize outreach to underserved communities by advertising in local media outlets that are culture and/or ethnicity specific. Include both print and online media.
- Consider using a postcard mailer to advertise a public hearing to hard-to-reach and rural communities.
- Prioritize intentional outreach to communities who have not participated in the organization's public participation processes in the past.
- Provide multilingual staff or interpreters to interact with community members who use languages other than English.
- Use multiple formats in print, online, and electronic communications for event announcements, including using media to advertise for audiences that use languages other than English, and ethnic or cultural media.
- For online open houses, consider technology limitations including mobile phone data limits, access to broadband and internet, and access to personal computers.
- Ensure presentations and online materials are 508 compliant, and that print materials are accessible to those with a range of disabilities or who speak languages other than English.
- Provide more than one engagement tool for people who may have alternative access needs.
- Be aware of weather and health advisories and have a plan for cancellation or rescheduling of in-person events.

### **Why use this technique?**

Public hearings are sometimes the focal point of a public involvement process, especially when required for Federal processes. Comments received at public hearings and open forum hearings are used by organizations for guidance in planning or project development. Formal comments made on the record help organizations understand the community perspective and assess community agreement or disagreement with a project, shape and modify plans, and record reactions of individuals and stakeholder groups most affected by the project or program.

### **When to use this tool**

Public hearings are used during key stages of the NEPA process and in conjunction with less formal outreach methods including public meetings and open houses.