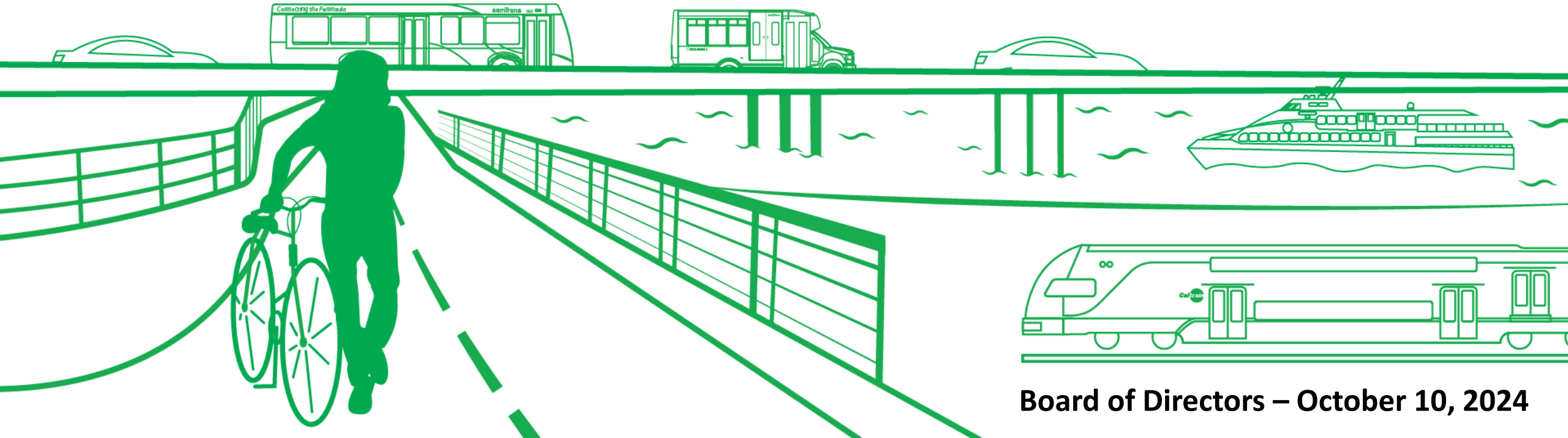
SAN MATEO COUNTY Transportation Authority

C/CAG City/County Association of Governments of San Mateo County

Countywide Automated Vehicles (AV) Strategic Plan



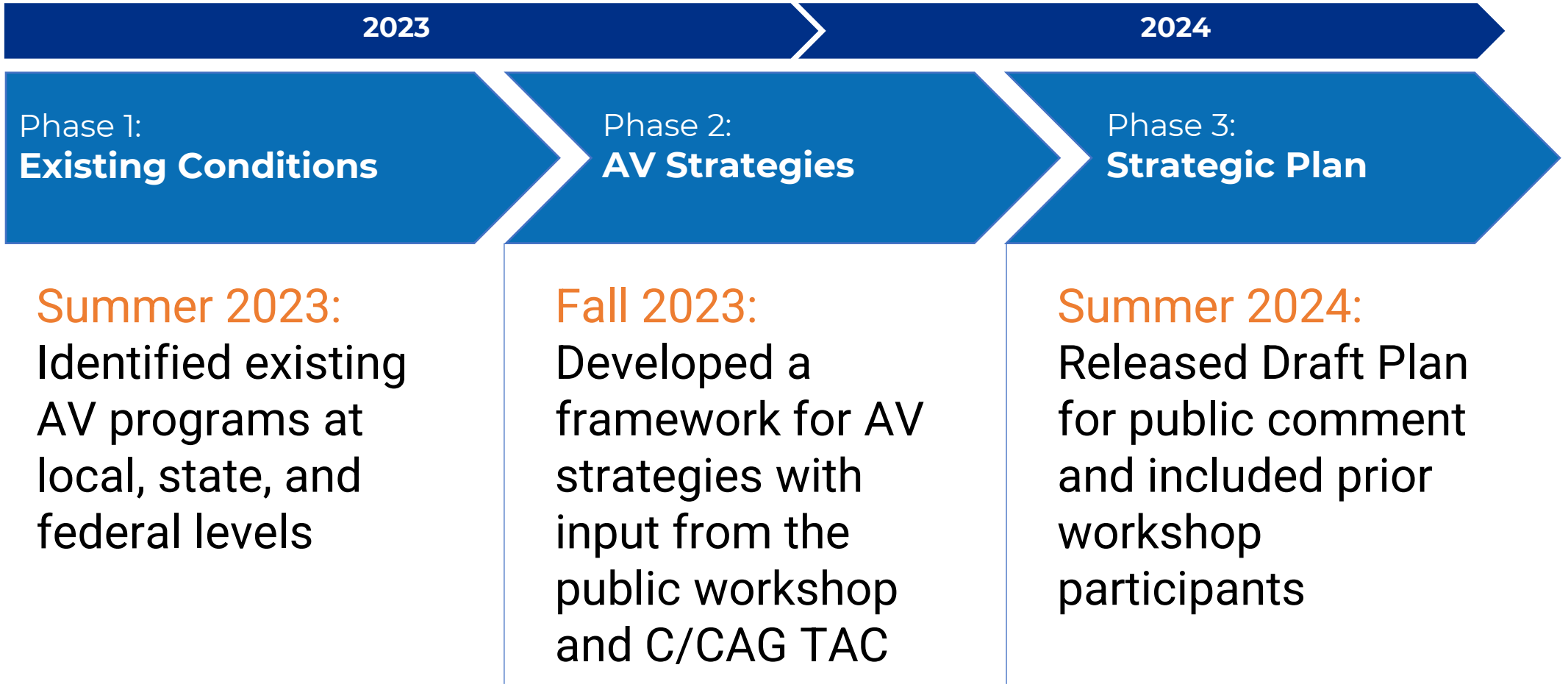
Board of Directors – October 10, 2024

PROJECT BACKGROUND

Why an AV Strategic Plan?

- To identify current policy and regulatory framework for AVs at the federal, state and local levels
- To prepare the county and cities for AV deployments that are already happening throughout the county and the region.
- To conduct community and stakeholder outreach to understand what types of AV strategies to prioritize.
- To ensure the TA & C/CAG's policies and funding programs are prepared to support future locally-driven AV strategies.
- To understand opportunities and best practices for AV pilots and programs.

PROJECT TIMELINE



ABOUT THE AV STRATEGIC PLAN

Contents:

- Purpose & Background
- Vision & Guiding Principles
- State of AVs in San Mateo County
- Stakeholder & Public Engagement
- AV Strategies
- Roadmap for the Future
- Funding Opportunities

AV STRATEGIC PLAN GUIDING ELEMENTS

Vision Statement

SMCTA and C/CAG will support strategic measures toward implementing automated vehicle technologies that promote equitable levels of access, safety, reliability, and sustainability in San Mateo County.

Guiding Principles

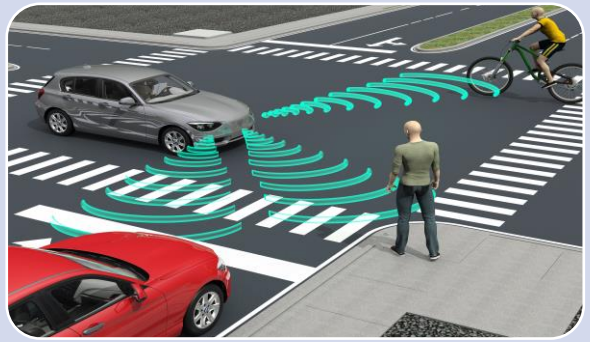
- Accessibility & Equity
- Engagement
- Connectivity
- Workforce Development
- Safety
- Support Local Agencies
- Sustainability

EXISTING CONDITIONS

Key Findings:

- AV testing and services are happening in San Mateo County
- Varying roles and responsibilities at different levels of government and public sector
- We are the first county-level strategic plan in the state
- AVs are not just robotaxis but also include shared shuttles, transit, freight, deliveries, connected personal vehicles, etc.

ABOUT THE TECHNOLOGY: OVERVIEW

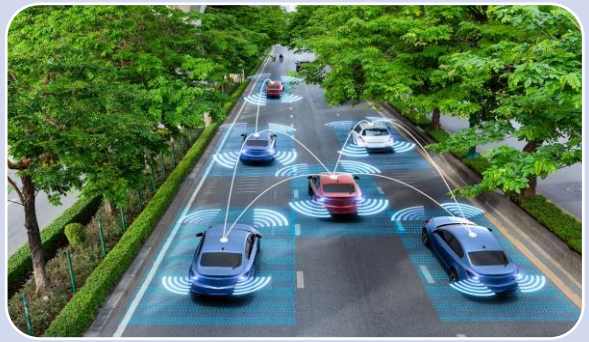


Automated Vehicles:

- Use internal sensors to interpret the environment
- Range from assistance to full automation

Connected Vehicles:

- Use information received from external systems
- Information can come from other vehicles or infrastructure like traffic signals



Connected Automated Vehicles:

- Use both sensors and external communication technology

LEVELS OF AUTOMATION






0	1	2	3	4	5
No Automation Zero autonomy, the driver performs all driving tasks.	**Driver Assistance** Vehicle is controlled by the driver, but some driving assist features may be included in the vehicle design.	**Partial Automation** Vehicle has combined automated functions, like acceleration and steering, but the driver must remain engaged with the driving task and monitor the environment at all times.	**Conditional Automation** Driver is necessity, but is not required to monitor the environment. The driver must be ready to take control of the vehicle at all times with notice.	**High Automation** The vehicle is capable of performing all driving functions under certain conditions. The driver may have the option to control the vehicle.	**Full Automation** The vehicle is capable of performing all driving functions under all conditions. The driver may have the option to control the vehicle.

Society of Automotive Engineers (SAE) Automation Levels Full Automation

ENGAGEMENT & PUBLIC OUTREACH

Engagement Method	Participants	
Advisory Committee	• C/CAG Technical Advisory Committee (TAC)	
One-on-One Interviews	• California DMV • CPUC • Caltrans • MTC • Commute.org	• City of Burlingame • City of Hillsborough • May Mobility • Beep • Undisclosed ridesharing provider
Peer Exchange	• SFCTA & SFMTA	
Roundtable	• SamTrans	
Public Meetings	• Virtual Public Workshop w/ Focus Groups • C/CAG Board • SMCTA Board & CAC	

FEEDBACK FROM PUBLIC ENGAGEMENT

- Safety and accessibility is a top priority
- Partnership with the private sector should be mutually beneficial (e.g., data sharing)
- First-last mile solutions should be prioritized to schools, medical facilities and business parks. Also, serve non-commute activities.
- Automated shuttle services are the preferred type of AV pilot or application by most participants

ROLES & RESPONSIBILITIES

Regulations & Permitting	Infrastructure Readiness	Planning & Engagement	Operations	Enforcement & EMS Response
Federal	Federal	State	State	Local Agencies
State	State	Local Agencies	Local Agencies	Private Sector
	Local Agencies	Private Sector	Private Sector	





WHAT CAN LOCAL AGENCIES INFLUENCE?

Infrastructure Readiness	• Road maintenance, traffic signals • Upgrades to curbs, striping, bus stops, etc.
Planning & Engagement	• Community engagement and stakeholder outreach • Coordination with local and regional planning
Operations	• Curbside access & traffic management • Shared automated shuttles for first-last mile connections
Enforcement & EMS	• Emergency response operations • Traffic enforcement

STRATEGIES IN THE AV STRATEGIC PLAN

Menu of options including 22 strategies to support local agencies

Agency Readiness

Infrastructure Readiness

Public Outreach and Partnerships

Policy

Pilots and Testing

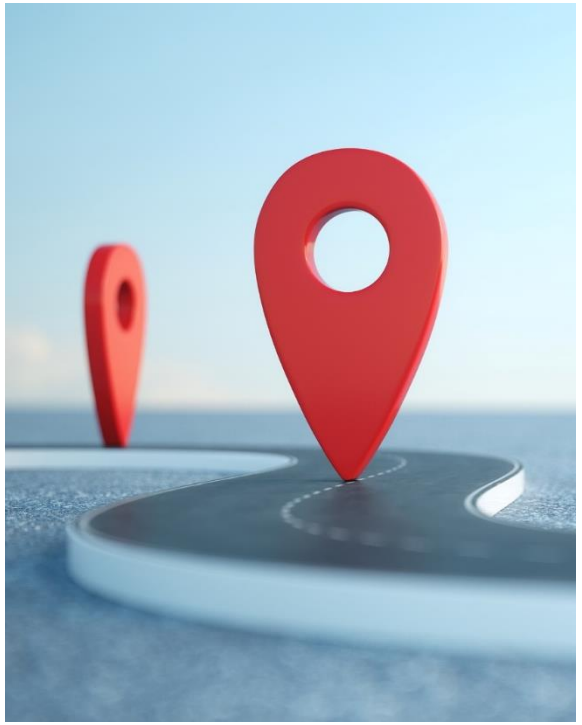
COMMUNITY FEEDBACK: PREFERRED STRATEGIES

- AV Pilot Planning
- Shared AV Shuttle Pilot
- Transit Advanced Driver Assistance Systems (ADAS) Pilot
- AV Data Sharing Pilot

ROADMAP FOR THE FUTURE

Short Term Actions for SMCTA & C/CAG

- Ensure TA Strategic Plan and C/CAG Countywide Transportation Plan address AVs
- Assess the feasibility of AV shuttle pilots in equity priority communities with a focus on more community outreach



NEXT STEPS

- TA and C/CAG Board adoption in November
- The Final Plan will be posted on the project website at: https://www.smcta.com/planning-projects/SMCAVPlan

THANK YOU