Safe Trips to BART: An Action Plan for Safer Roadways

August 4, 2025

BART Bicycle Advisory Task Force

TWO TIMES MORE

LIFE-ALTERING

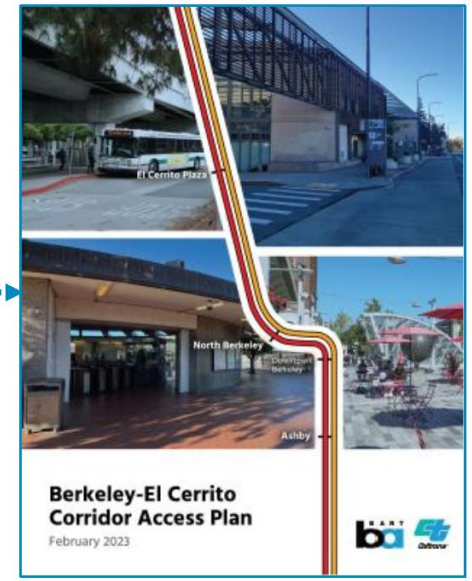
ROADWAY CRASHES

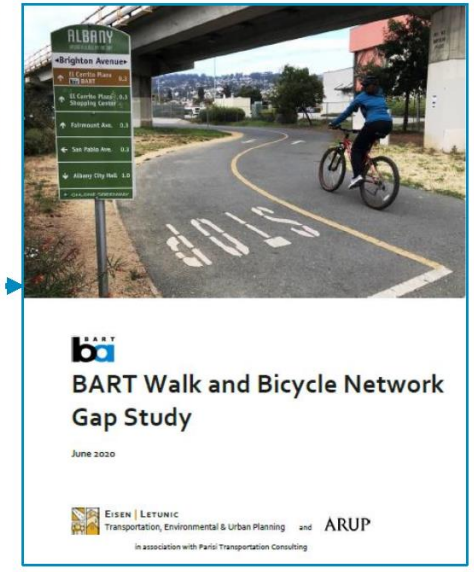
BART Rider Access

- BART cares deeply about safe rider access
  - Capital Projects
    - Ashby bicycle access project (2024)
    - MacArthur 40$_{th}$ Street underpass (in progress)
  - Programs
    - Safe Routes to BART grant program (Since 2020)
  - Plans and Guidance
    - Berkeley-El Cerrito Corridor Access Plan (2023)
    - Walk and Bicycle Network Gap Study (2020)
    - North Concord to Antioch Access Study (2018)
    - Multimodal Access Design Guidelines (2017)

BART Measure RR

FUNDS AT WORK





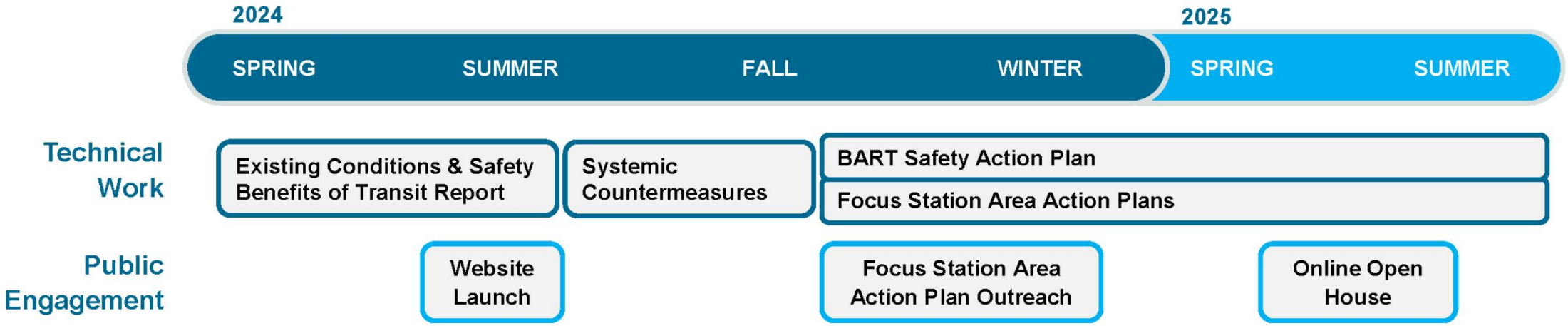
Project Overview

- Funded by USDOT's Safe Streets and Roads for All (SS4A) Planning Grant
- Guided by BART Station Access Policy
  - Safer, healthier, greener
    - Ensure safe access for all users of the BART system…
  - Better experience
    - Collaborate with local jurisdictions to improve station access…
- Focus on improving traffic safety using Safe System Approach

Source: FHWA.

Project Overview

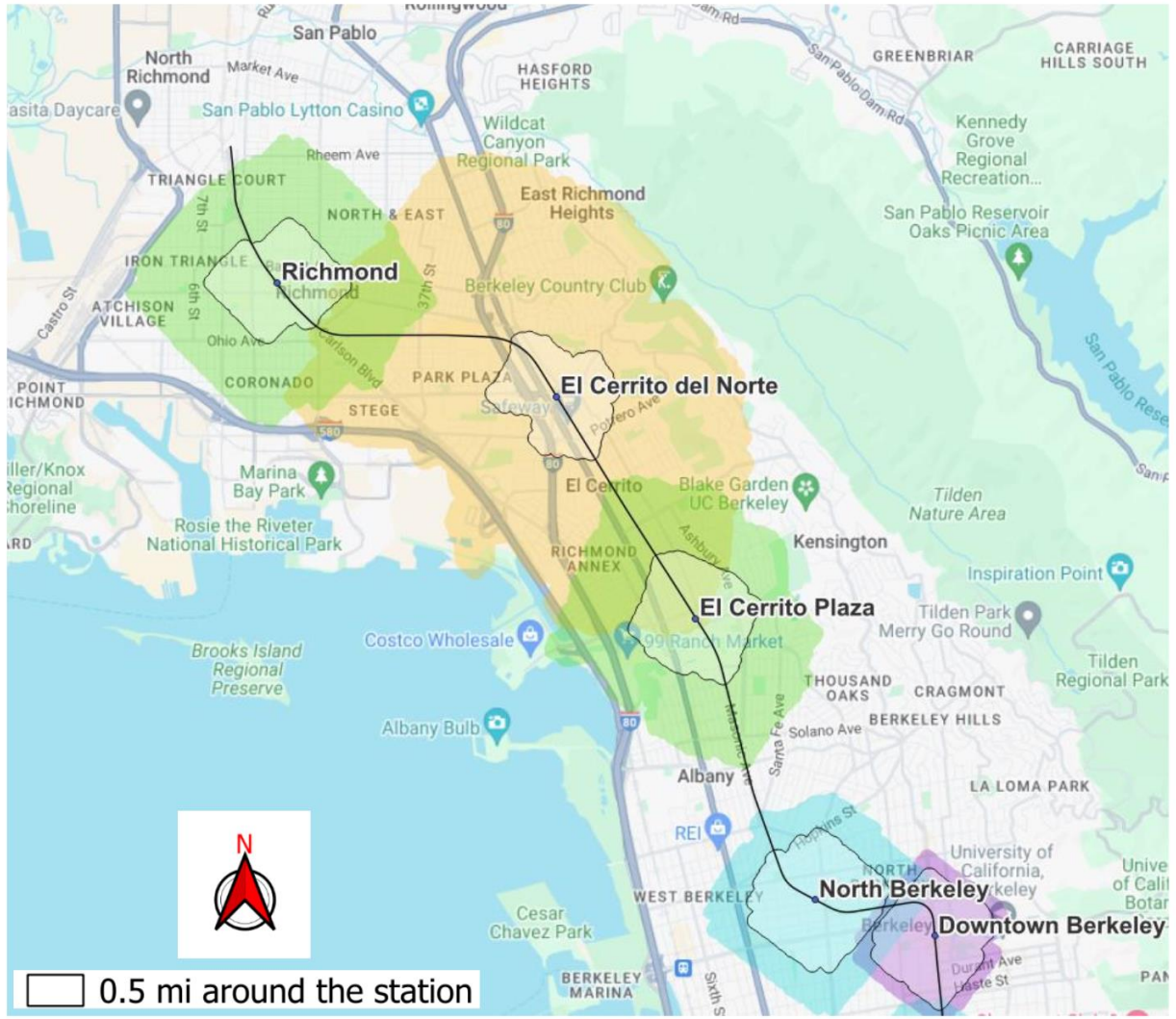
- Where are fatal and serious injury roadway crashes concentrated and why?
- What are our partner agencies doing to improve roadway safety on public streets and what other measures could they consider?
- Could improving BART service levels lead to better roadway safety?



Existing Conditions Analysis

- Define Station Study Areas
  - Non-airport stations
  - Access to BART on local public streets
    - Average travel distance for walking and driving by station access type

BART's Station Access Type	Auto Mode Share	Average Travel Distance (miles)
Urban	Less	0.66
Urban with parking		0.81
Balanced intermodal		1.16
Intermodal - Auto reliant		1.96
Auto dependent	More	1.96



Existing Conditions Analysis

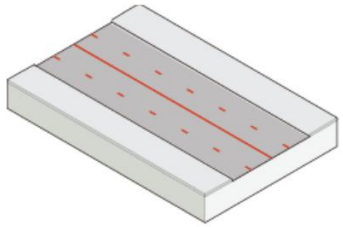
*A **KSI crash** is a collision that resulted in at least one person being **killed** or **seriously injured***

KSI Crashes on Public Streets in BART-served Counties

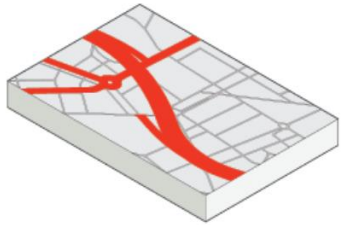
	BART Station Study Areas	
	In	**Out**
Public Roadway Miles	**14%** (2,801)	**86%** (17,928)
KSI Crashes	**24%** (1,873)	**76%** (5,929)
KSI Crashes Per 100 miles Of roadway	**67**	**33**

BART-served counties are Alameda, Contra Costa, San Francisco, San Mateo, and Santa Clara
Crash data for years 2019 to 2023 from the Transportation Injury Mapping System (TIMS), *Safe Transportation Research and Education Center, University of California, Berkeley*.

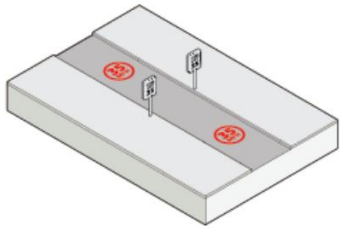
Roadway Characteristics



4+ Lanes



Arterial Roadways



Speed > 35mph

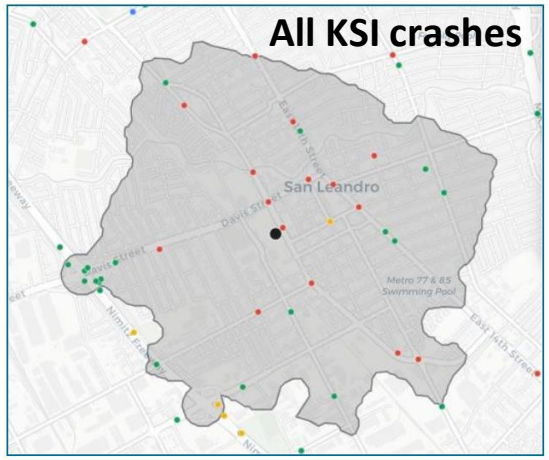
Existing Conditions Analysis

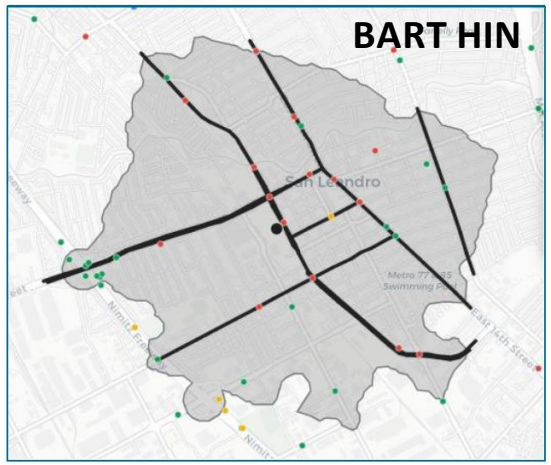
*A **High Injury Network** (HIN) is a tool to identify the most collisions on the least amount of roadway miles*

Crashes on Public Streets in BART Station Study Area

	BART High Injury Network	
	In	**Out**
Public Roadway Miles	**18%** (508)	**82%** (2,293)
KSI Crashes	**76%** (1,416)	**24%** (457)
KSI Crashes Per 100 miles Of roadway	**279**	**20**

Example





Crash data for years 2019 to 2023 from the Transportation Injury Mapping System (TIMS), *Safe Transportation Research and Education Center, University of California, Berkeley*.

Toolbox of Roadway Safety Measures

High impact

Tier 1:
Remove Severe Conflicts

Tier 2:
Reduce Vehicle Speeds

Tier 3:
Manage Conflicts in Time

Tier 4:
Increase Attentiveness and Awareness

Low impact

EXAMPLES

Protected Intersections

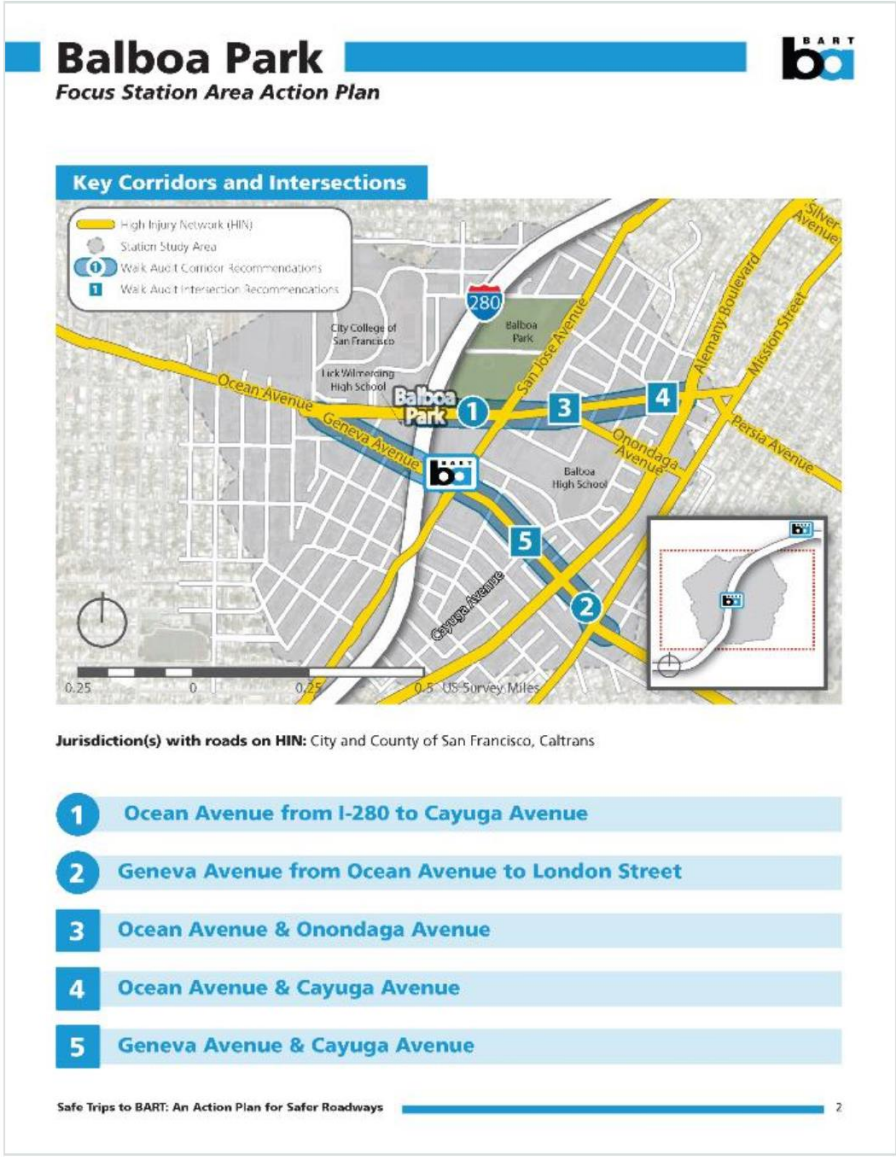
Curb Extensions

Pedestrian Hybrid Beacons

Rectangular Rapid Flashing Beacons

Focus Station Area Action Plans

- Seven FSAAPs completed
  - Balboa Park
  - Coliseum
  - Colma
  - Concord
  - Hayward
  - Milpitas
  - Richmond
- Demonstrates using the Plan
  - Chapter 3 & Appendix D: Safety analysis
  - Chapter 4: Roadway Safety Toolbox
- FSAAP elements
  - Identifies safety measures, implementing agency(ies)
  - Calculates planning-level cost estimates
  - Specifies safety benefits
  - Captures key information, planned projects



Balboa Park

Focus Station Area Action Plan

Key Corridors and Intersections

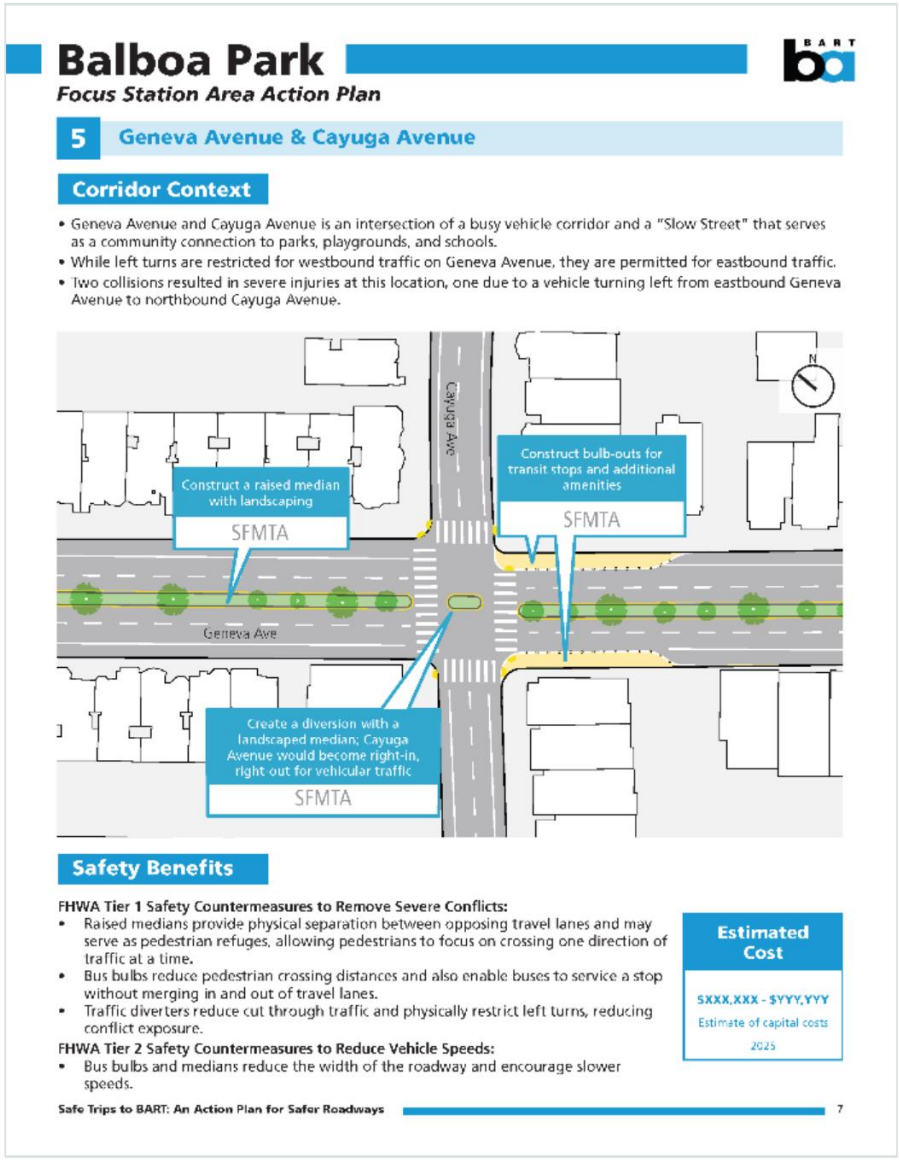
Jurisdiction(s) with roads on HIN: City and County of San Francisco, Caltrans

1. Ocean Avenue from I-280 to Cayuga Avenue
2. Geneva Avenue from Ocean Avenue to London Street
3. Ocean Avenue & Onondaga Avenue
4. Ocean Avenue & Cayuga Avenue
5. Geneva Avenue & Cayuga Avenue

Safe Trips to BART: An Action Plan for Safer Roadways 2

Focus Station Area Action Plans

- Seven FSAAPs completed
  - Balboa Park
  - Coliseum
  - Colma
  - Concord
  - Hayward
  - Milpitas
  - Richmond
- Demonstrates using the Plan
  - Chapter 3 & Appendix D: Safety analysis
  - Chapter 4: Roadway Safety Toolbox
- FSAAP elements
  - Identifies safety measures, implementing agency(ies)
  - Calculates planning-level cost estimates
  - Specifies safety benefits
  - Captures key information, planned projects



Balboa Park

Focus Station Area Action Plan

5 Geneva Avenue & Cayuga Avenue

Corridor Context

- Geneva Avenue and Cayuga Avenue is an intersection of a busy vehicle corridor and a "Slow Street" that serves as a community connection to parks, playgrounds, and schools.
- While left turns are restricted for westbound traffic on Geneva Avenue, they are permitted for eastbound traffic.
- Two collisions resulted in severe injuries at this location, one due to a vehicle turning left from eastbound Geneva Avenue to northbound Cayuga Avenue.

Safety Benefits

FHWA Tier 1 Safety Countermeasures to Remove Severe Conflicts:

- Raised medians provide physical separation between opposing travel lanes and may serve as pedestrian refuges, allowing pedestrians to focus on crossing one direction of traffic at a time.
- Bus bulbs reduce pedestrian crossing distances and also enable buses to service a stop without merging in and out of travel lanes.
- Traffic diverters reduce cut through traffic and physically restrict left turns, reducing conflict exposure.

FHWA Tier 2 Safety Countermeasures to Reduce Vehicle Speeds:

- Bus bulbs and medians reduce the width of the roadway and encourage slower speeds.

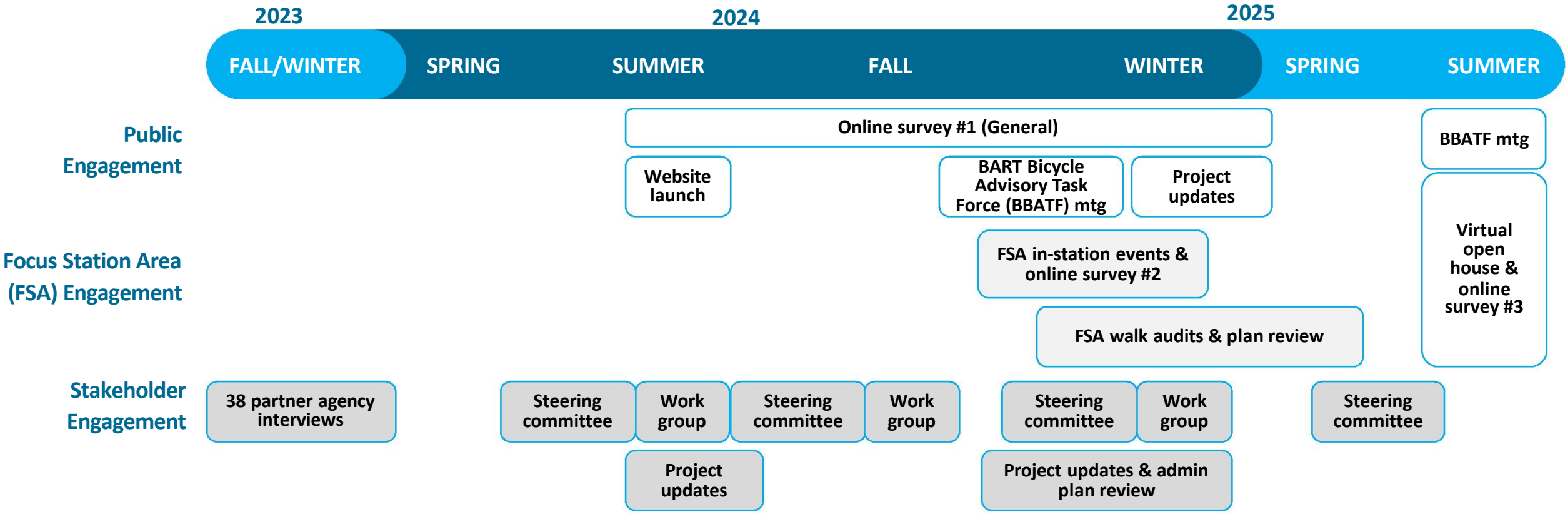
Estimated Cost

$XXX,XXX - $YYY,YYY

Estimate of capital costs 2025

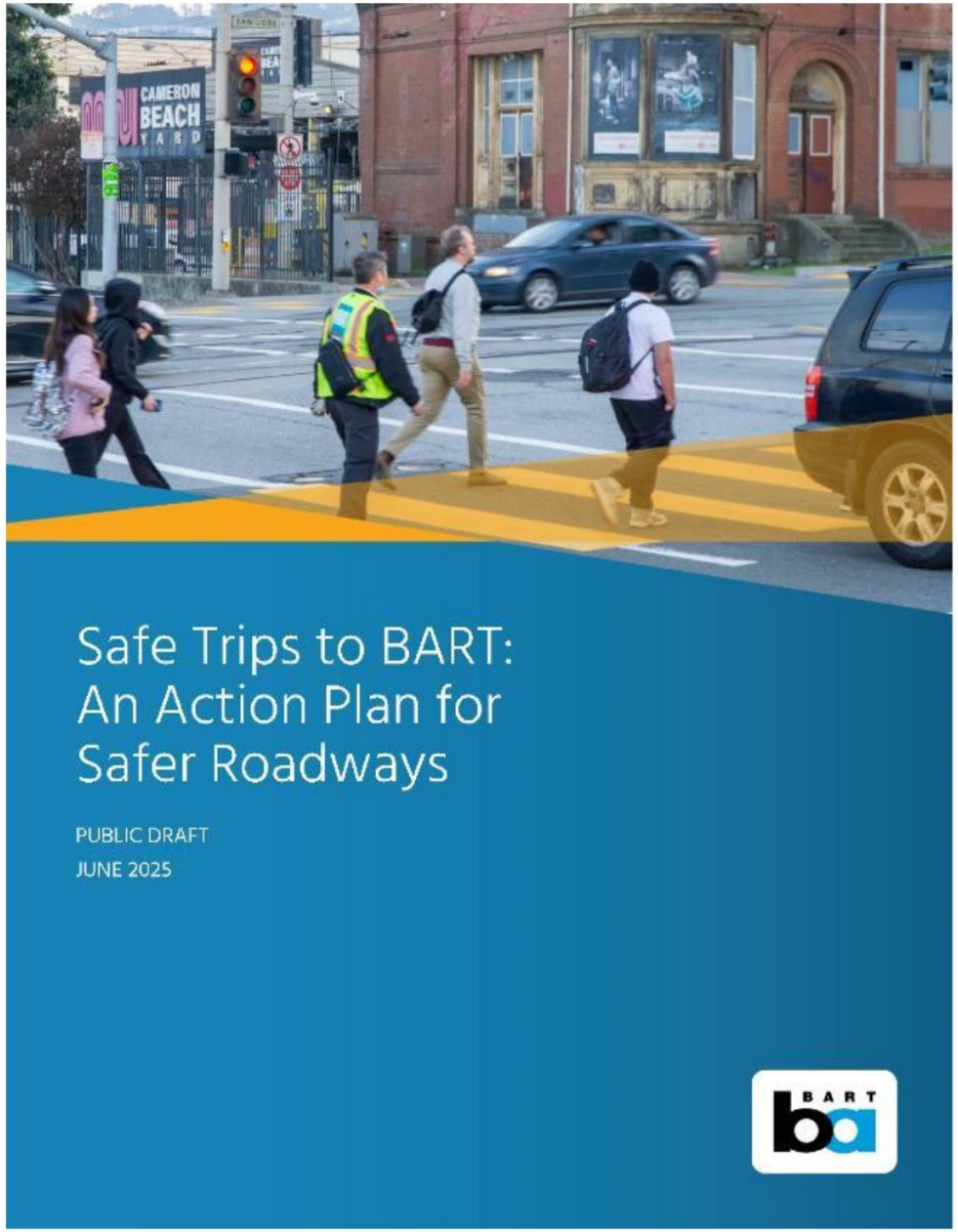
Safe Trips to BART: An Action Plan for Safer Roadways 7

Engagement


2023
2024
2025
FALL/WINTER
SPRING
SUMMER
FALL
WINTER
SPRING
SUMMER
Public Engagement
Online survey #1 (General)
Website launch
BART Bicycle Advisory Task Force (BBATF) mtg
Project updates
BBATF mtg
Focus Station Area (FSA) Engagement
FSA in-station events & online survey #2
Virtual open house & online survey #3
FSA walk audits & plan review
Stakeholder Engagement
38 partner agency interviews
Steering committee
Work group
Steering committee
Work group
Steering committee
Work group
Steering committee
Project updates
Project updates & admin plan review

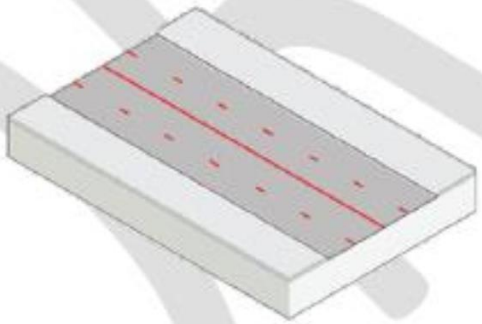
Community Engagement

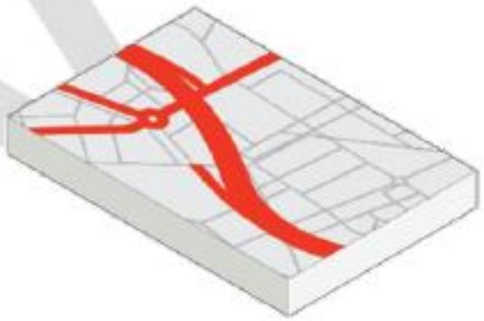
- ~600 responses to #1 and #2 online surveys
  - Pedestrian safety, speeding concerns around BART stations
  - Specific locations with safety concerns within seven Focus Station Areas
- Virtual Open House (bart.gov/trafficsurvey)
  - Draft Safety Action Plan
  - Draft Focus Station Area Action Plans
  - Survey (June 25 through August 6)
  - Informational video
  - English, Spanish, and Chinese

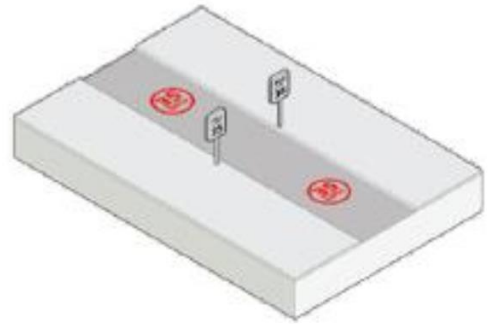


BART Service Levels and Roadway Safety

- Could improving BART service levels lead to better roadway safety?
  - Not on its own
  - Would need to be accompanied by dramatic design changes, like road diets
    - Wide streets encourage car speeding, particularly during uncongested times
    - Speeding is the most common cause of KSI crashes







Information and Questions

- Questions?
- Website: www.bart.gov/safetrips
  - Main page
  - Get involved (Comments, surveys, and project sign up)
  - HIN map/dashboard (coming soon)
  - Open house (early 2025)
- Kamala Parks, Project Manager: kparks2@bart.gov
- Seung-Yen Hong, Deputy Project Manager: seung-yen.hong@bart.gov