



West Contra Costa High-Capacity Transit Study

WCCTAC Board Meeting

February 26, 2016

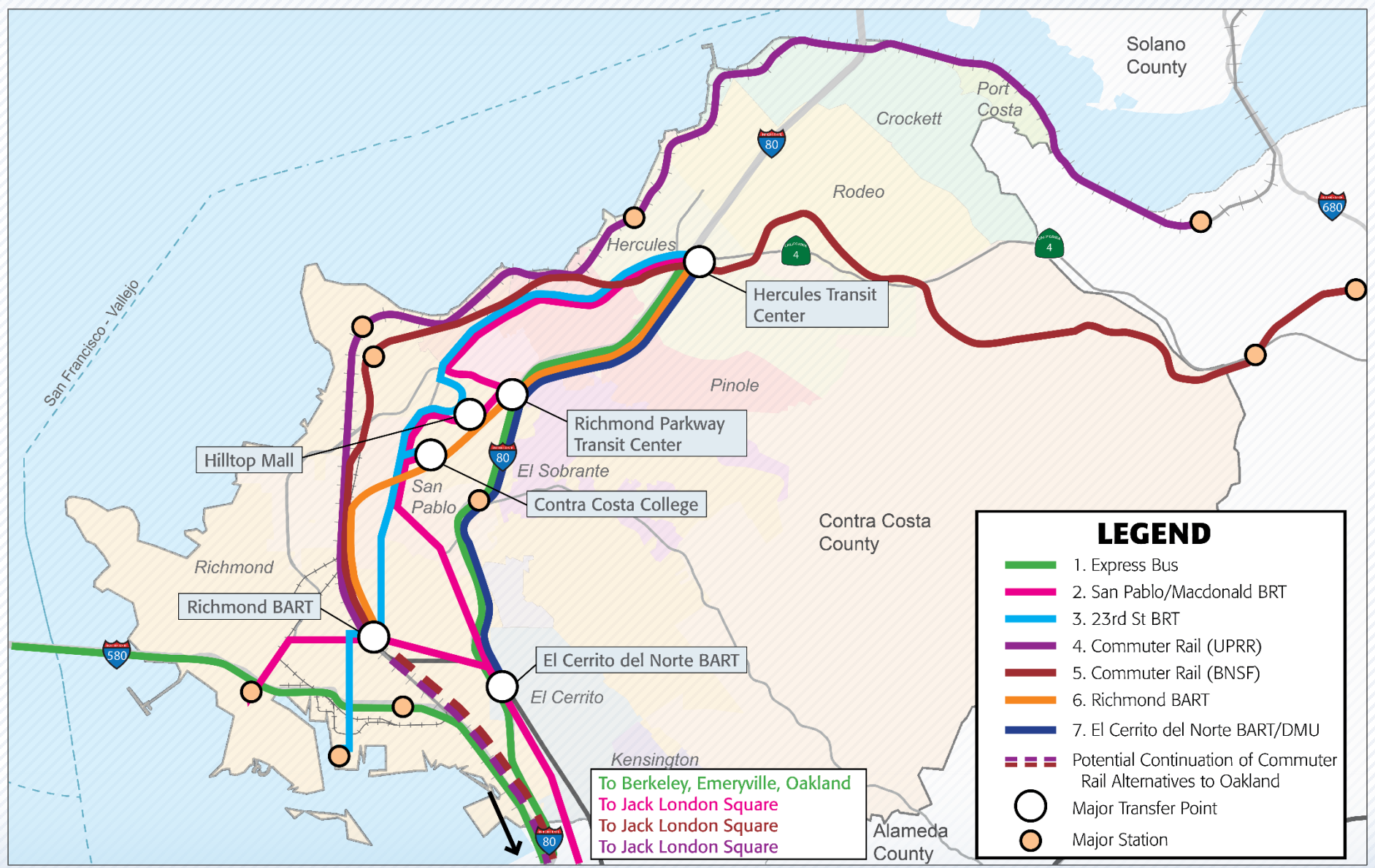


Eight Preliminary Alternatives

High-Capacity Transit Alternatives

<i>ID No.</i>	<i>Description</i>
1	I-80 Express Bus Service
2	San Pablo Avenue/Macdonald Avenue BRT
3	23rd Street BRT
4	UPRR Corridor Commuter Rail
5	UPRR-BNSF Corridor Commuter Rail
6	BART Extension from Richmond Station to Hercules
7.1	BART Extension from El Cerrito del Norte Station to Hercules
7.2	BART/DMU Extension from El Cerrito del Norte Station to Hercules

Eight Preliminary Alternatives



Why these 8 alternatives?

Alternatives Development

- **Previous Studies** – Identify most promising alignments and technologies, as well as constraints
- **New Information** – New and planned investments:
 - I-80 corridor – Growing congestion and demand for Express Bus
- **Markets** – Most promising transit markets
 - Existing and future high demand areas
 - Focus on PDA's
 - Potential for intercepting trips
- **Existing Plans**
 - Reduce bus congestion at El Cerrito del Norte
 - Serve anticipated growth areas
 - New ferry terminal

Development of Bus Alternatives

- Express Bus
 - Linked to freeway and effective use of HOV lanes
 - Travel market analysis shows demand in Berkeley, Emeryville, and Oakland
- Bus Rapid Transit
 - BRT serves the heart of the West County transit market
 - San Pablo/Macdonald Corridor - extension of proposed AC Transit BRT project
 - 23rd Avenue serves core of Richmond and ferry terminal
 - BRT service affords flexibility in implementation



BRT Spectrum

BRT Light

\$1-4m per mile



Line 72R, AC Transit

- A. More frequent service
- B. Transit signal priority
- C. Queue-jumps
- D. Branding

Hybrid BRT

\$4-12m per mile



EmX, Eugene, OR

- A-C plus*
- D. Some dedicated bus lanes
- E. More station amenities
- F. Specialized vehicles

Full BRT

\$12-28m per mile



Health Line, Cleveland, OH

- A-F plus*
- G. Dedicated bus lanes for majority of corridor
- H. Off-board fare collection

BRT is customizable. Specific features will depend on each specific system's needs.

Development of Commuter Rail Alternatives

- Uses existing rail ROW – UPRR or BNSF
- UPRR Option:
 - Logical expansion of existing rail service
 - Builds on planned investment at Hercules Transit Center
 - Affords opportunity for short-term investment
- BNSF Option:
 - Greater potential capacity in corridor
 - Connects to Hercules Transit Center
 - High intercept potential



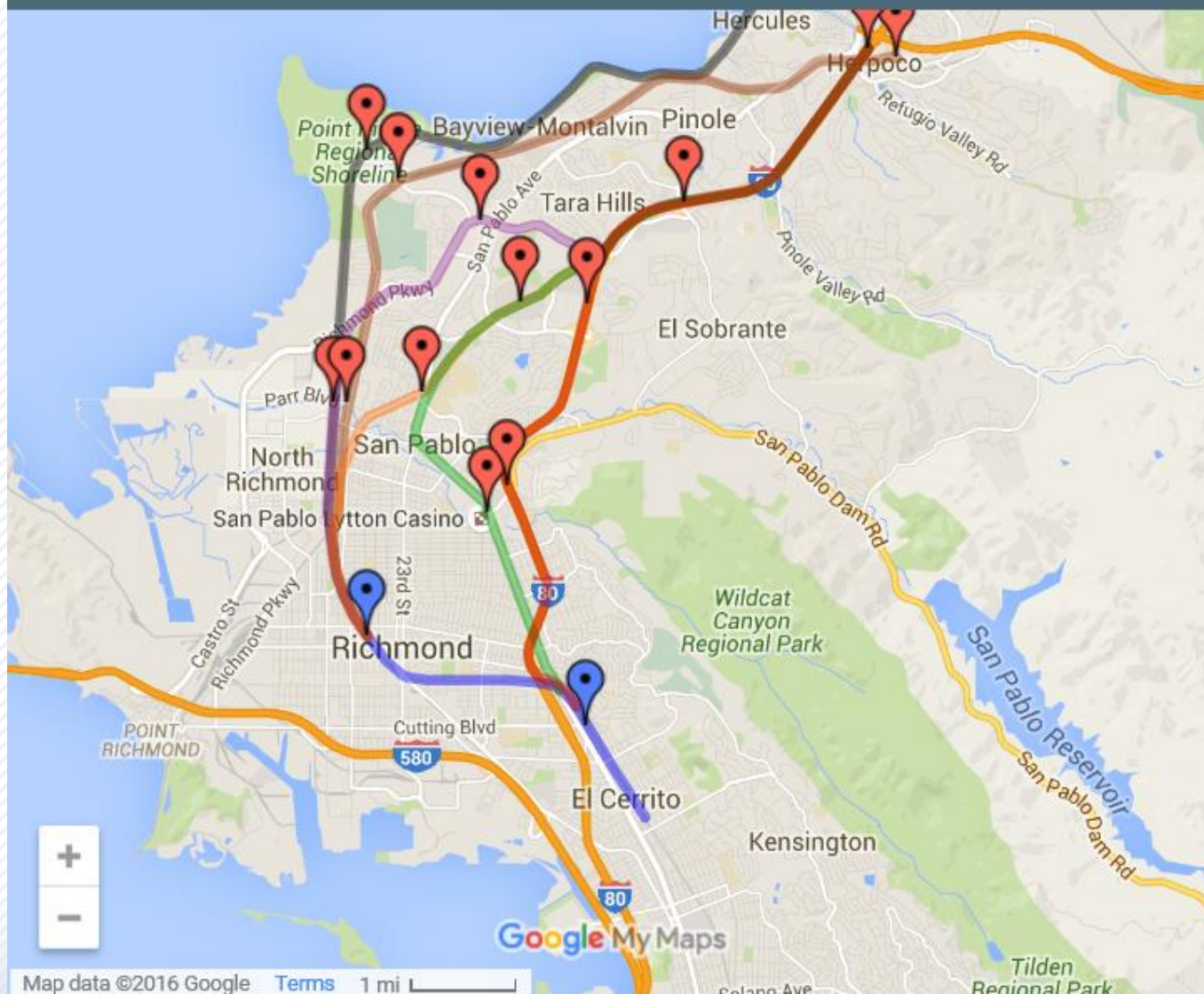
Development of BART Alternatives

- Multiple alignments studied - UPPR, BNSF, I-80, and surface streets
- I-80 alignment from El Cerrito del Norte:
 - Provides most direct access to Hercules
 - Minimizes community impacts
- San Pablo/Rumrill alignment from Richmond:
 - Greater connectivity to major activity centers
 - Takes advantage of proximity to Richmond maintenance yard
 - Less impacts than other approaches to Hilltop Mall





wBART Alignment Alternatives



Map data ©2016 Google [Terms](#) 1 mi



Questions and Answers





Back-up Slides



Project and Schedule Overview

Public Outreach & Participation

Assessment

- ✓ Goals & Objectives
- ✓ Relevant Prior Studies
- ✓ Existing & Future Transportation & Land Use
- ✓ Market Analysis

Alternatives Development & Analysis

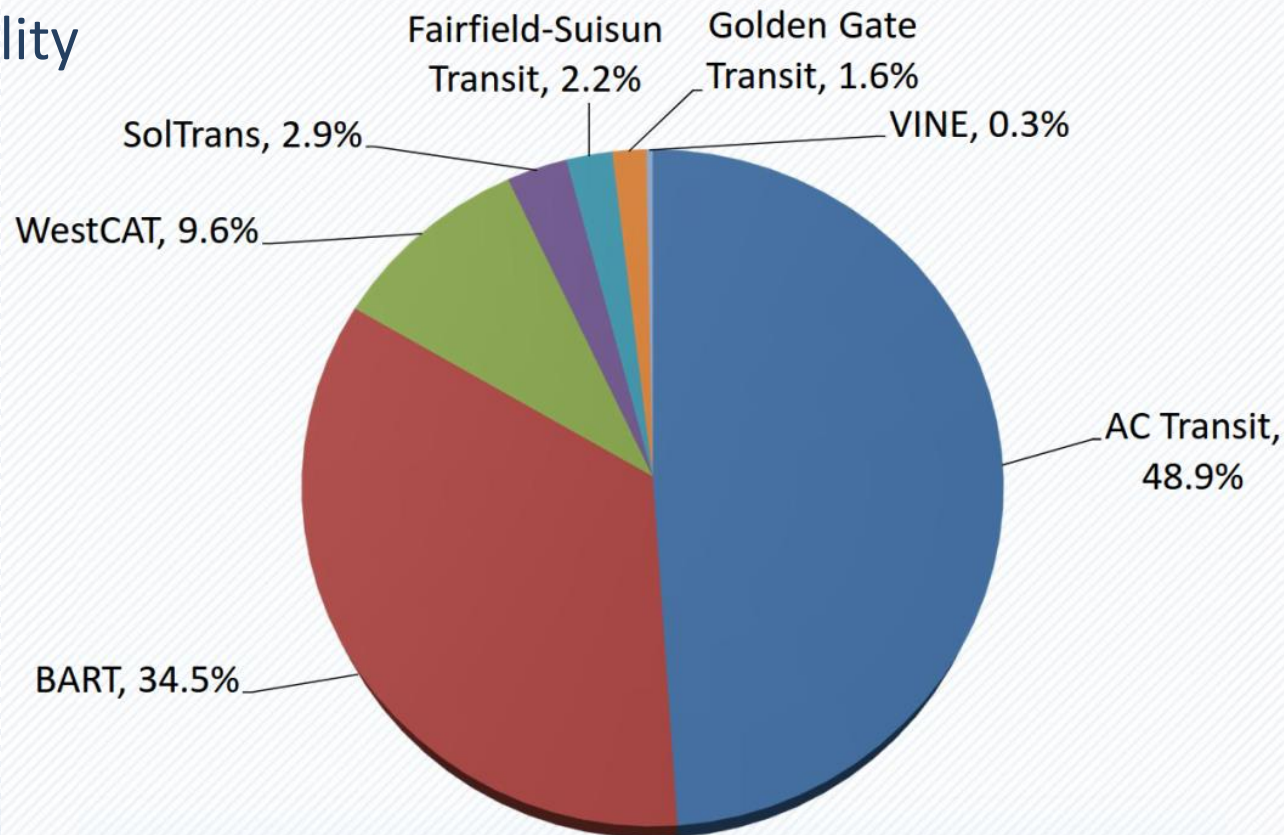
- ✓ Conceptual Alternatives
 - ✓ Evaluation Criteria
 - ✓ Preliminary Evaluation
 - Alternatives Refinement
 - Ridership Modeling
 - Cost Estimates
 - Funding Options
- We are here*

Final Alternatives

- Final Alternatives Evaluation

Why Expanded Bus Service?

- Buses carry 65% of transit users in West County – both local and express bus
- Anticipated increase in commuter bus service demand
- Improve bus reliability
- Implementation flexible, scalable, and fast



Source: Transit Operators, 2014 Ridership Data

Why Expanded Commuter Rail Service?

- Uses existing rail ROW
- Intercepts more through trips
- Provides connections to travel markets to the north and south

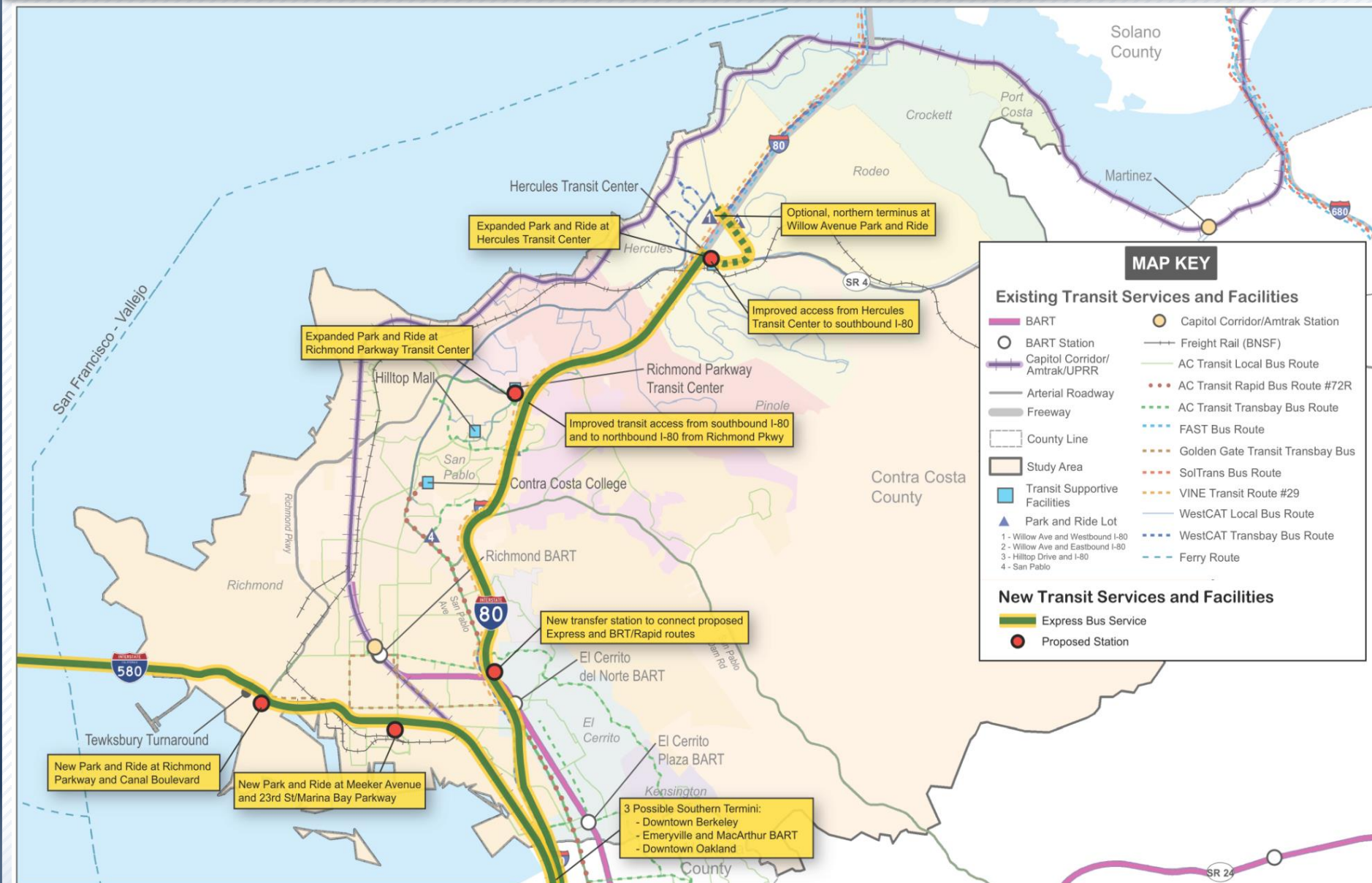


Why Expanded BART Service?

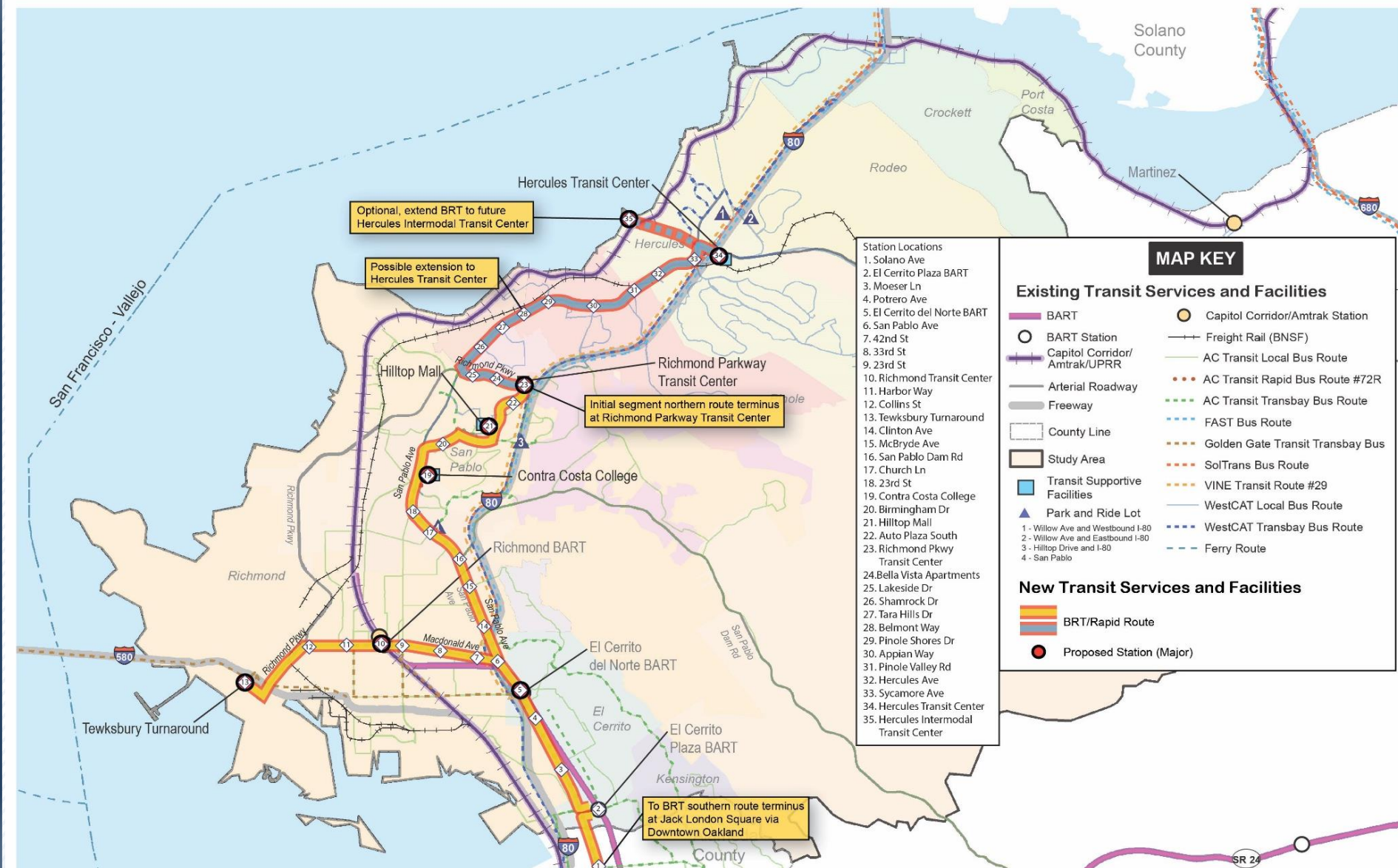
- BART carries 35% of transit ridership in West County on an average weekday
- El Cerrito del Norte BART station is reaching capacity
- Provides greatest connectivity to major destinations in Bay Area
- Captures transit riders closer to their trip origin
- Provides most reliable transit service



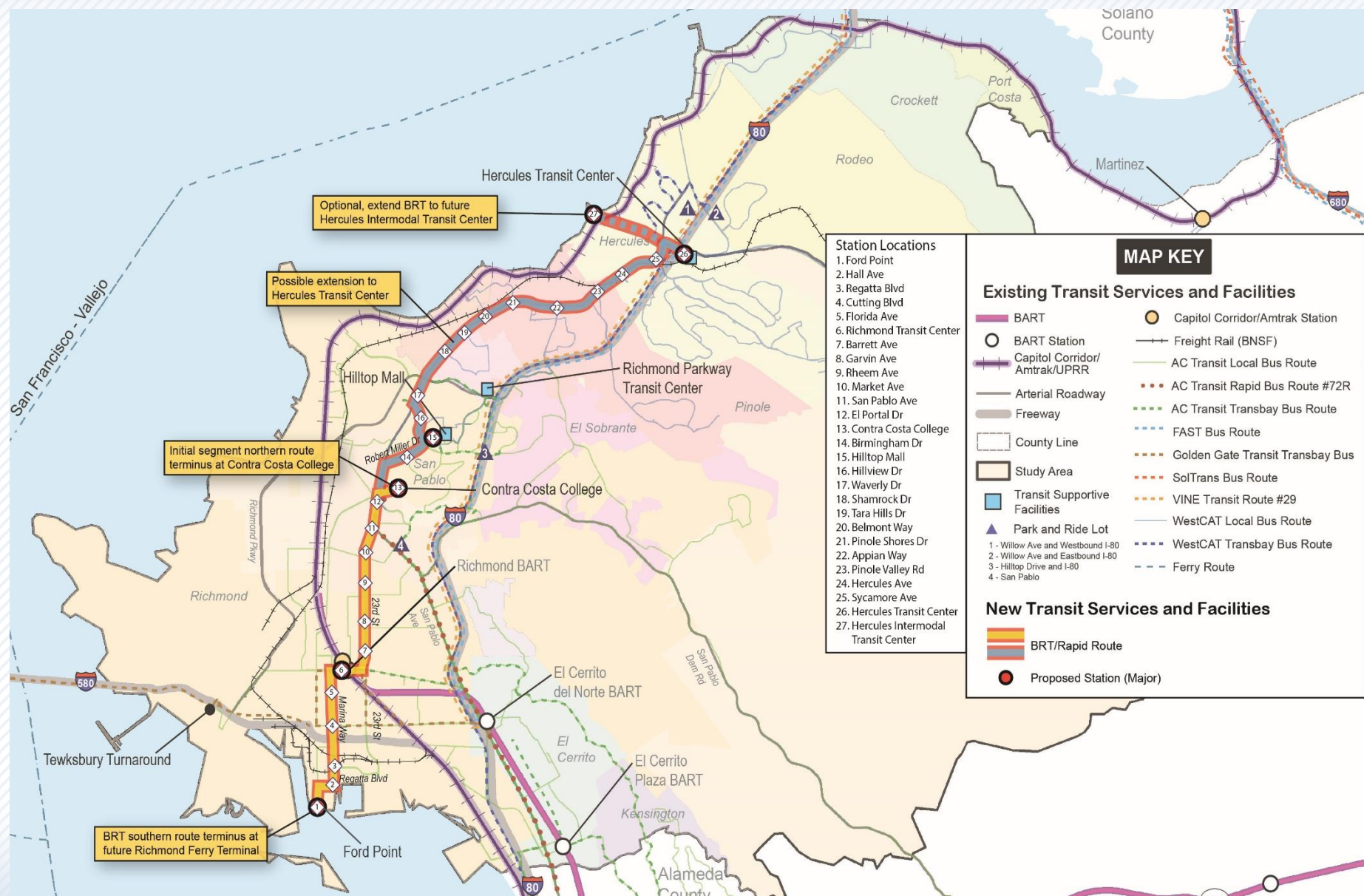
Alternative 1 – I-80 Express Bus Service



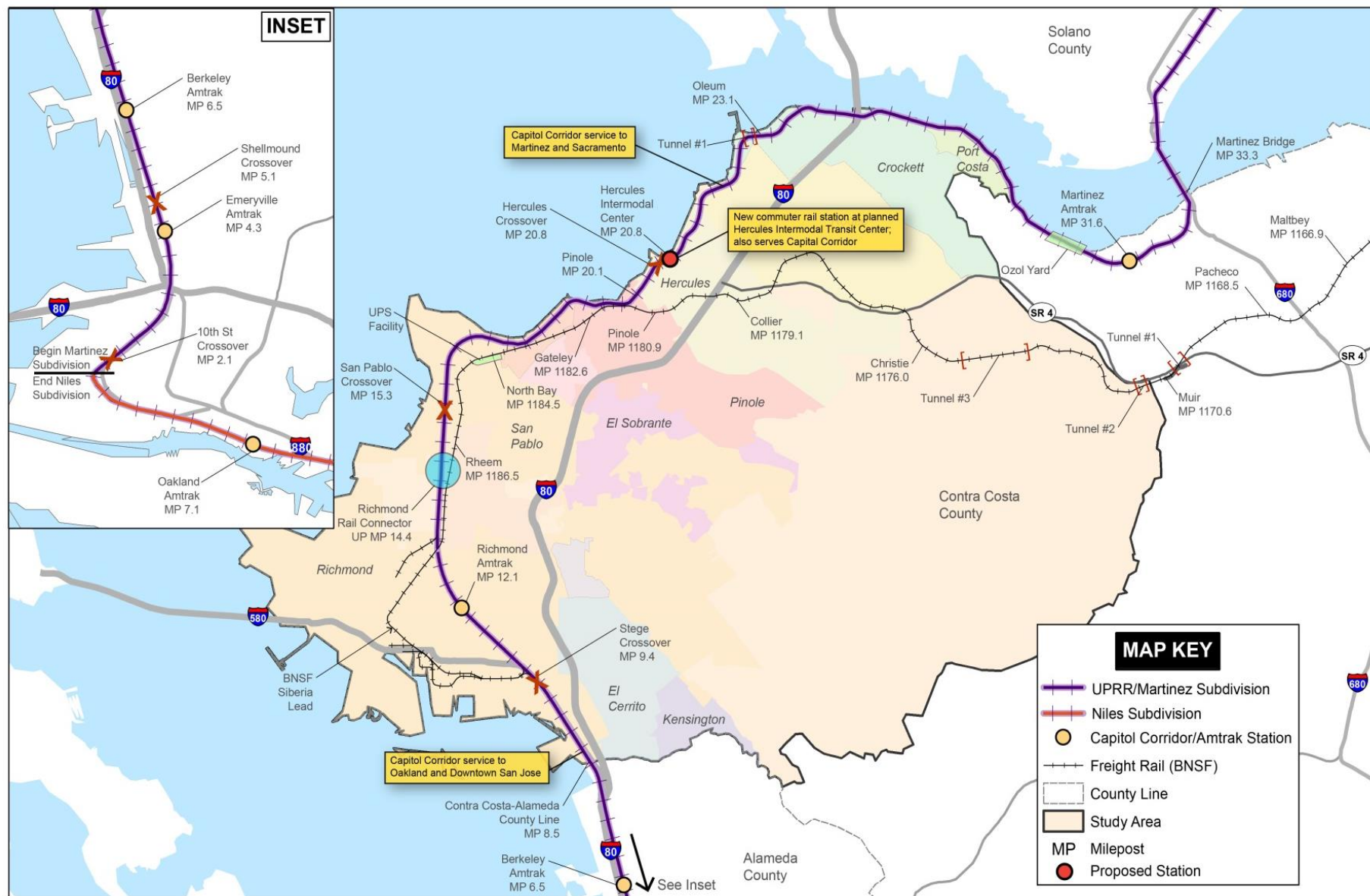
Alternative 2 – San Pablo Avenue/Macdonald Avenue BRT



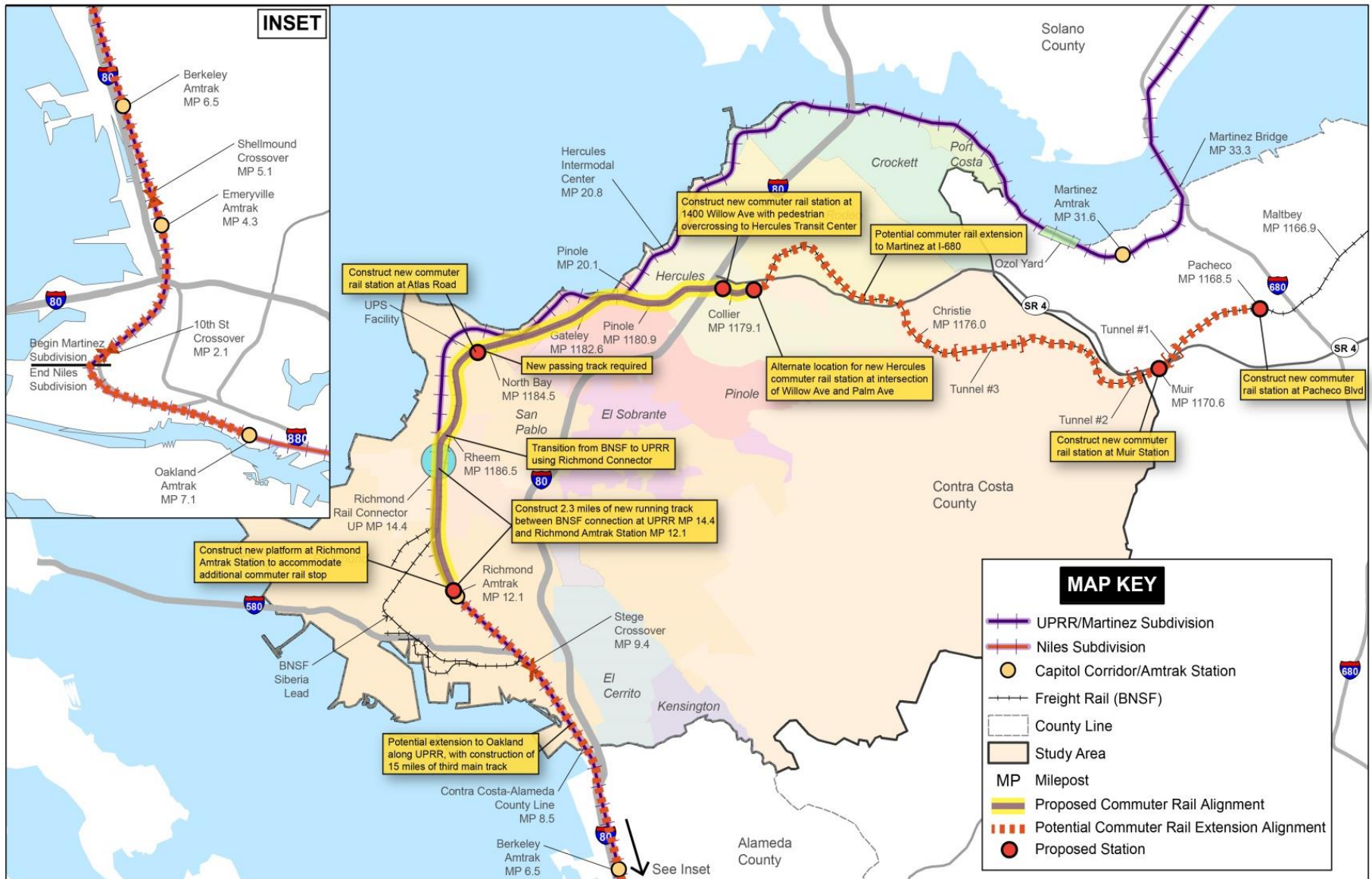
Alternative 3 – 23rd Street BRT



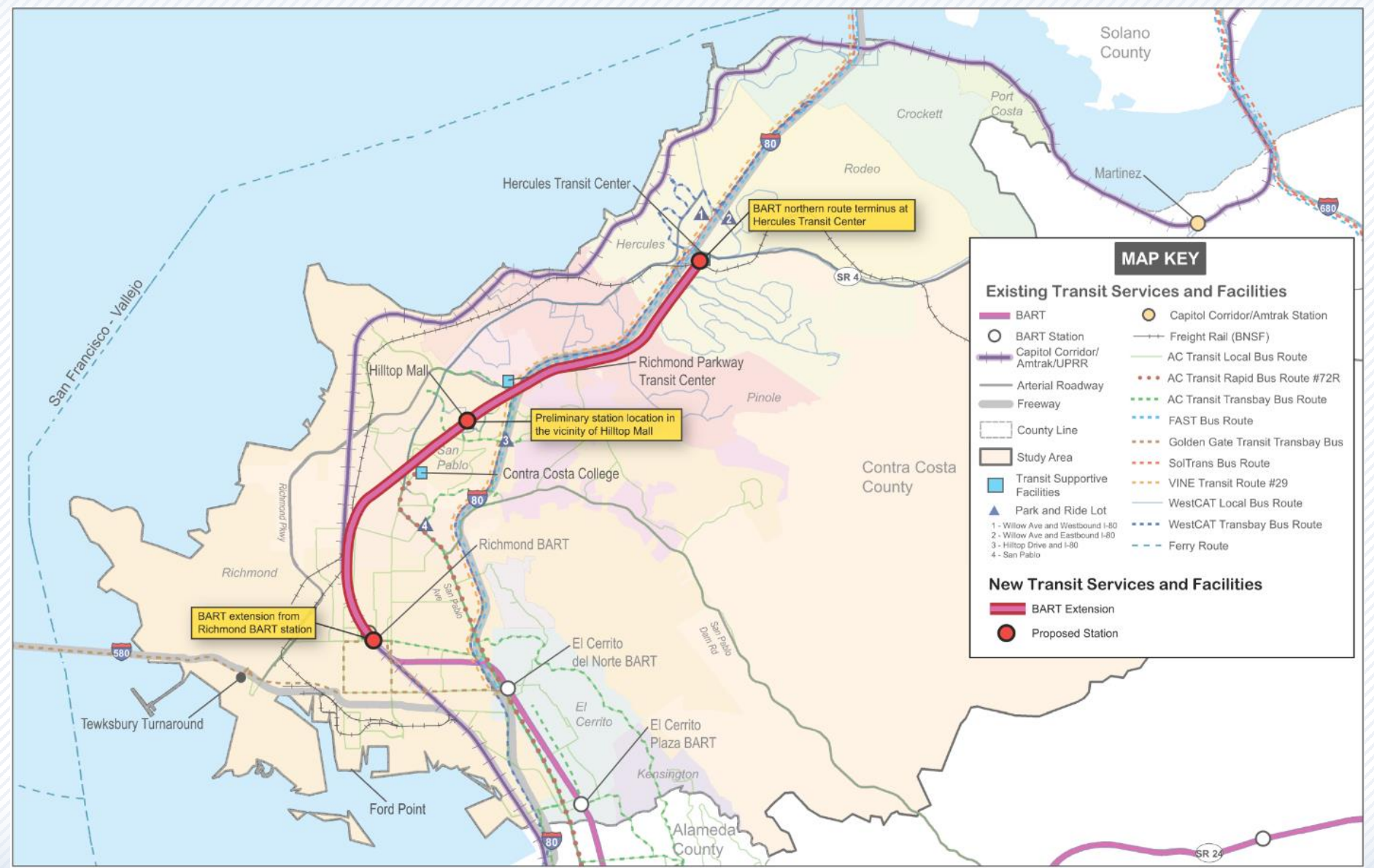
Alternative 4 – UPRR Corridor Commuter Rail



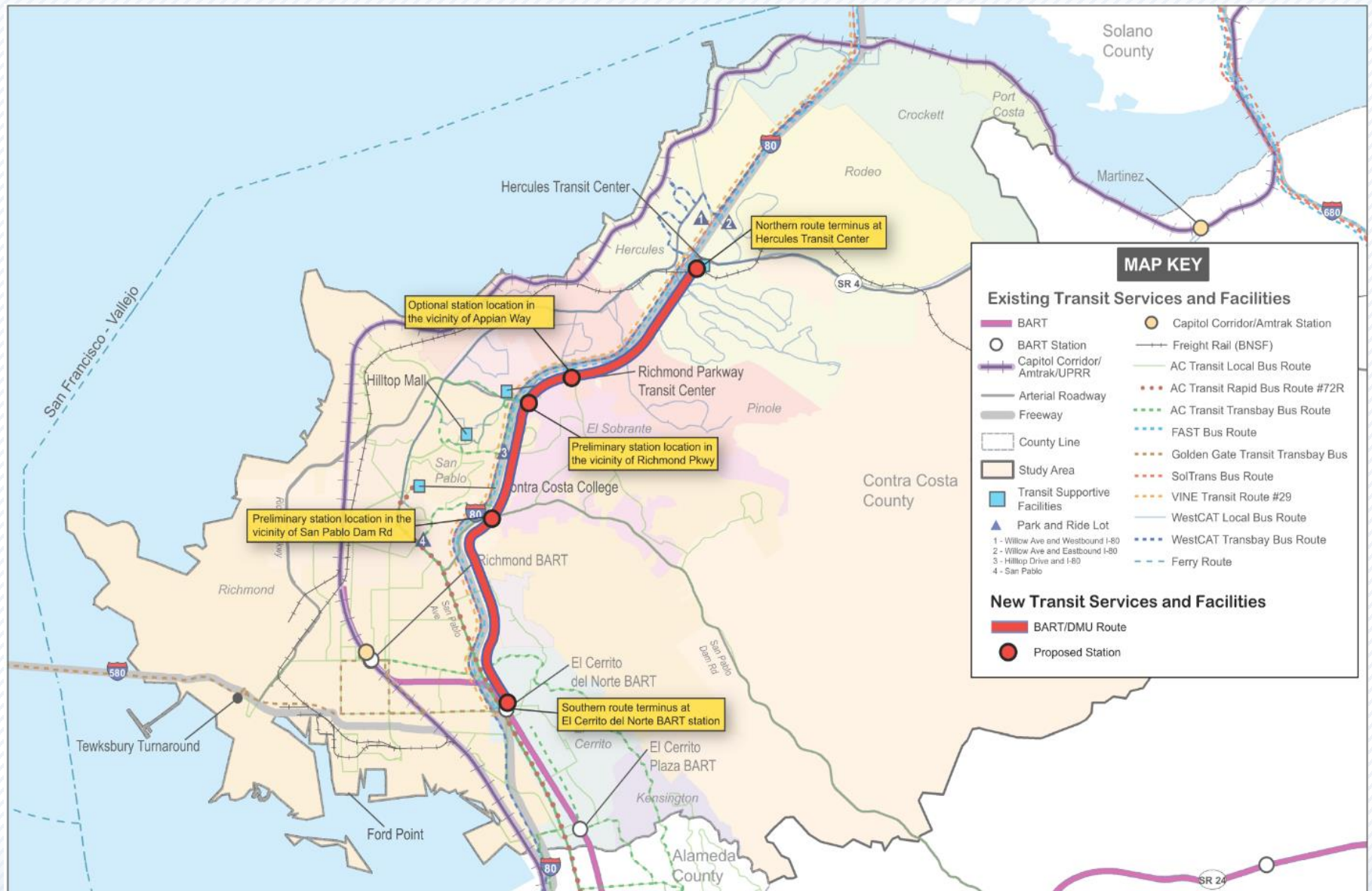
Alternative 5 – UPRR-BNSF Corridor Commuter Rail



Alternative 6 – BART Extension from Richmond Station to Hercules



Alternative 7 – BART /DMU Extension El Cerrito del Norte to Hercules



Two-Step Evaluation Process

Step 1

- Rate initial alternatives
- Select 4 alternatives for further study



Step 2

- Refine attributes of the 4 alternatives (e.g., costs, ridership)
- Identify preferred alternative(s) for possible implementation

Subject to public review and approval by WCCTAC Board

Must proceed through environmental review and design

Evaluation Criteria

Study Goals	Evaluation Criteria
1. Increase transit ridership	<ul style="list-style-type: none">• Improvements to travel time & reliability• Transit market potential
2. Improve transit connections	<ul style="list-style-type: none">• Regional centers served• Quality of connections to transit systems/facilities
3. Expand transit to new and under-served markets	<ul style="list-style-type: none">• Service to low-income areas• Service to markets without major transit connections
4. Protect and enhance the environment and maintain a high quality of life	<ul style="list-style-type: none">• Environmental Impacts• Air Quality Pollutants & GHG emissions• Energy use• Risk associated with sea level rise• Consistency with local plans and local policies

Evaluation Criteria

Study Goals	Evaluation Criteria
5. Support sustainable urban growth	<ul style="list-style-type: none">• West County PDAs served• Developable land served by transit
6. Provide equitable access for residents and businesses	<ul style="list-style-type: none">• Ease of access to/from transit stations• Congestion relief (reduction in VMT)
7. Make efficient use of public funds	<ul style="list-style-type: none">• Capital costs• O & M costs• Costs per rider• Support for proposed alternative