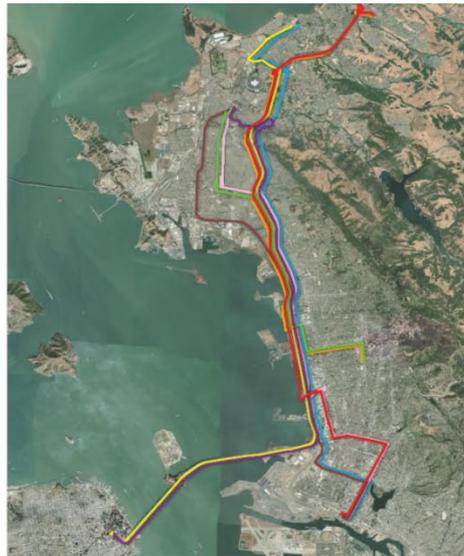


EXPRESS BUS IMPLEMENTATION PLAN

Board Meeting, January 24, 2020



Background

- Follow-up to High Capacity Transit (HCT) Study (2017)
 - Recommended freeway-based express bus service on I-80
 - New service to Berkeley, Emeryville and Oakland
 - Expanded service to San Francisco
 - Parking upgrades and freeway ramp improvements at Hercules Transit Center and Richmond Parkway Transit Center
- Partial funding included in RM3
- Received Caltrans Grant with Project Partners



Project Benefits

- Implementation relatively quick, low cost, and adaptable
- Provides single-seat bus ride for thousands of commuters
- Fast, easy, and low-stress alternative to driving
- Improves access to job markets
- Provides new transit options in Communities of Concern



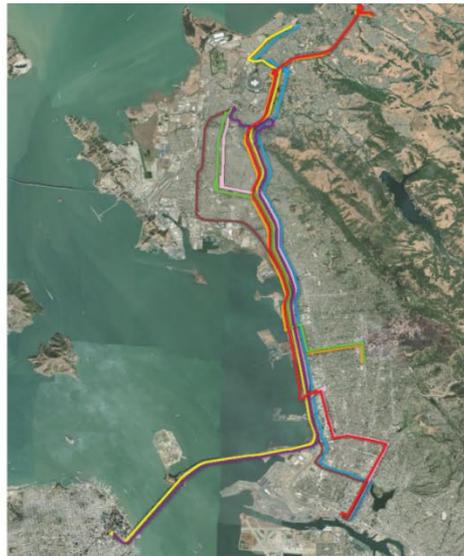
Project Process



Caltrans grant requires project completion by February 28, 2020

EXPRESS BUS IMPLEMENTATION PLAN

Proposed Routes and Prioritization

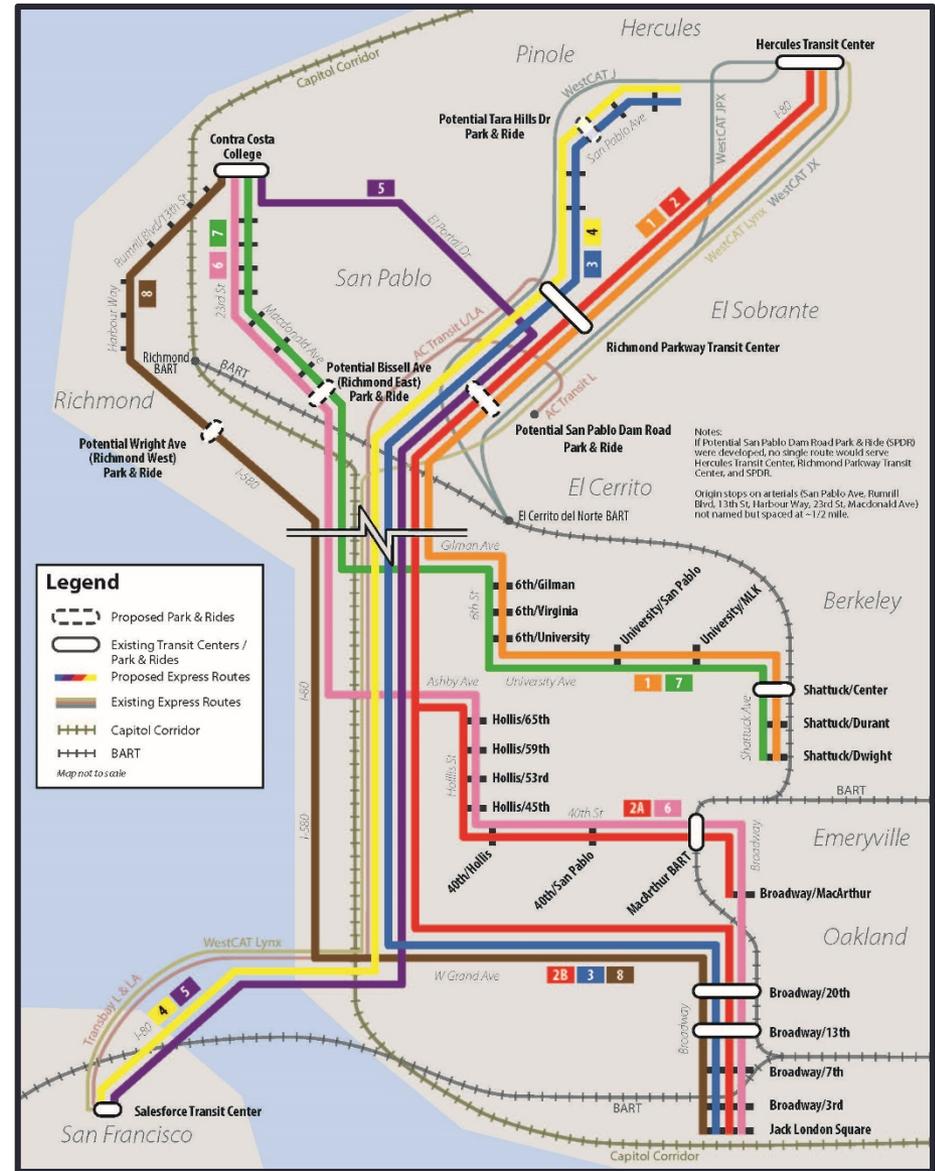


Full System Map

	Origin	Destination
1	Hercules Transit Center	West & Downtown Berkeley
2	Hercules Transit Center	Emeryville, Oakland
3	Pinole	Oakland
4	Pinole	San Francisco
5	Contra Costa College	San Francisco
6	Contra Costa College	Emeryville, Oakland
7	Contra Costa College	West & Downtown Berkeley
8	Contra Costa College	Oakland

Operated by WestCAT

Operated by AC Transit



Define Prioritization Methodology

Routes were prioritized by three metrics: **1) Market Size**; **2) Travel Time Improvement**; **3) An additional factor was applied for routes to San Francisco** to reflect relatively higher transit demand for those services.

Market Size

People who currently commute between route origin and destination

Travel Time Improvement

Difference between transit trip times between existing services and proposed new services

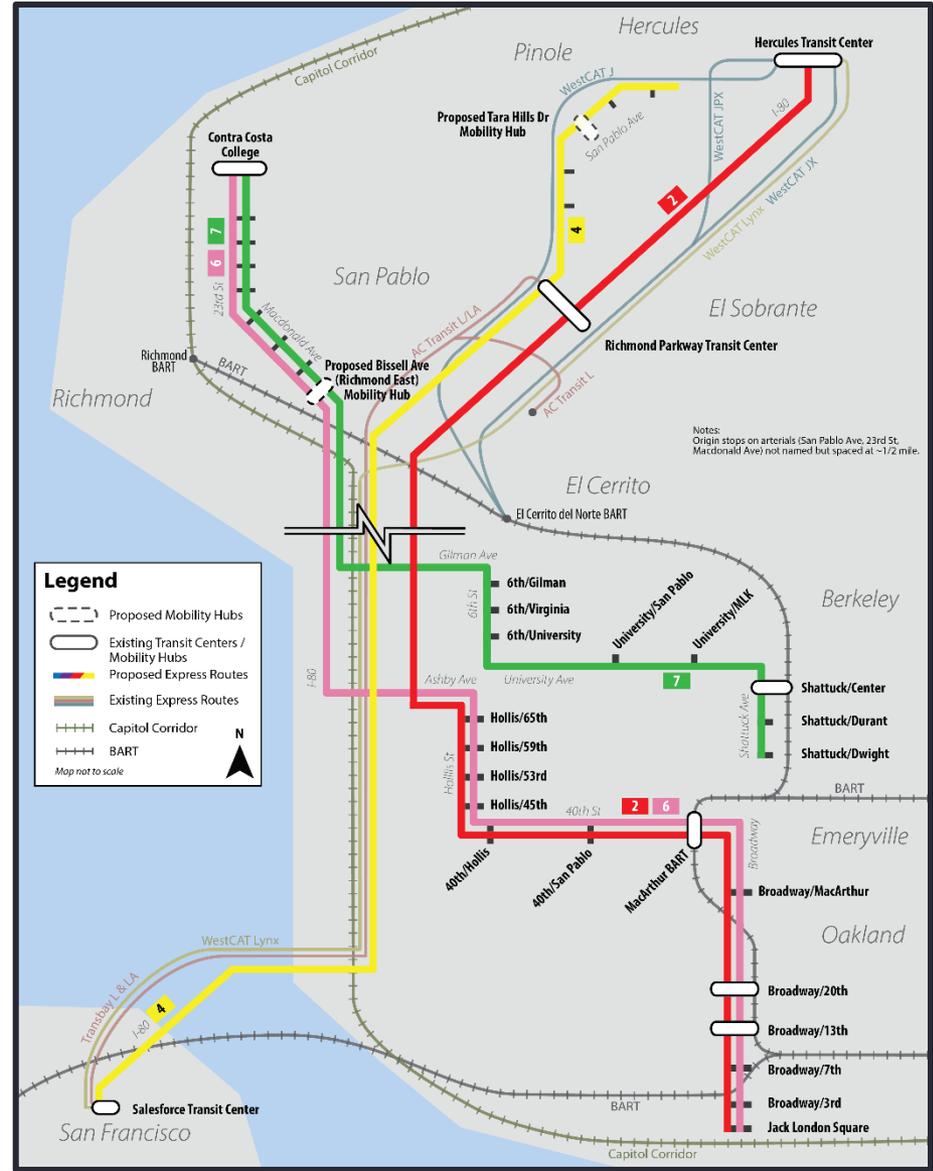
San Francisco Factor

Additional positive factor applied to reflect transit competitiveness for trips to SF, such as cost of parking/tolls

Near-Term Routes

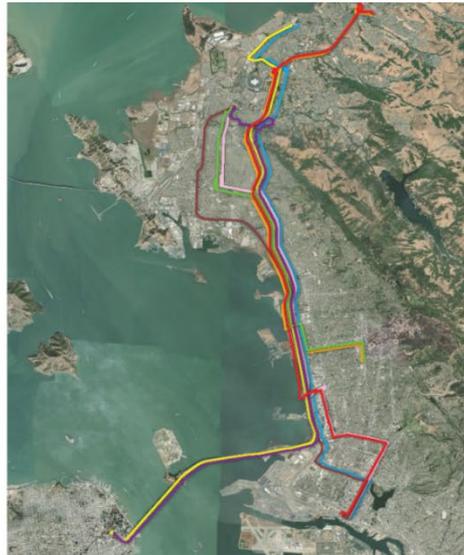
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Operated by WestCAT Operated by AC Transit



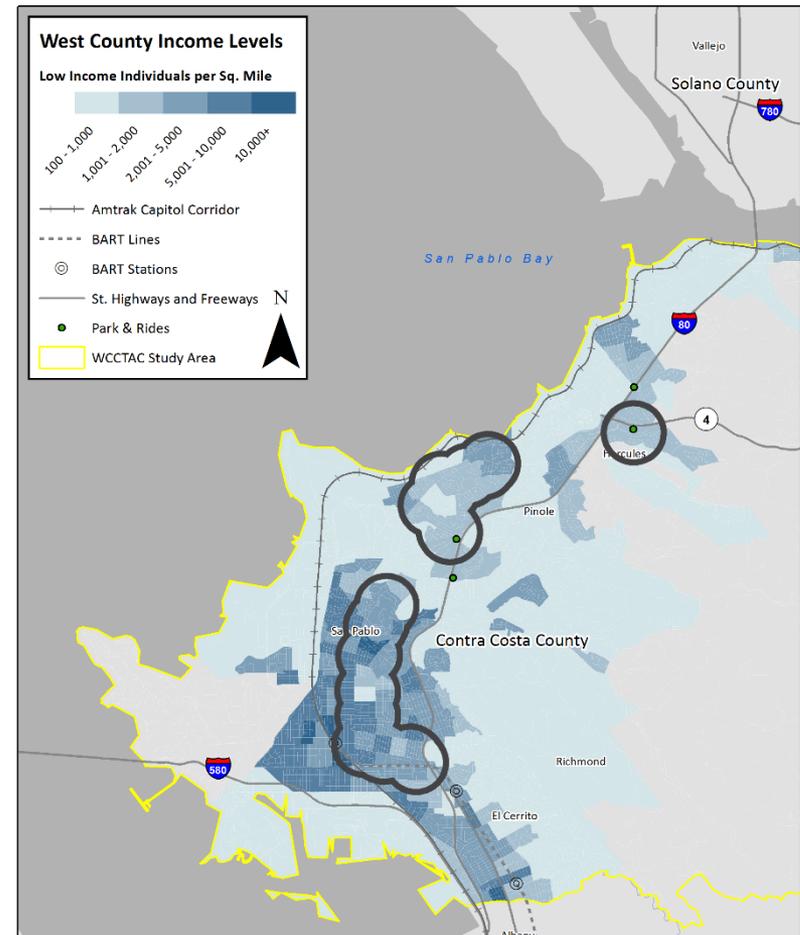
EXPRESS BUS IMPLEMENTATION PLAN

Equity Analysis



Equity Analysis - Methodology

- Assessed both near-term and medium/long-term routes in West County
- Analyzed population close to stops based on:
 - Income
 - Race/ethnicity
 - Auto ownership
- Catchment area assumed to be walkshed for purpose of analysis



Outline reflects assumed catchment area of near-term routes for equity analysis

Equity Analysis – Results

Composition of West County, Near-term routes and All routes

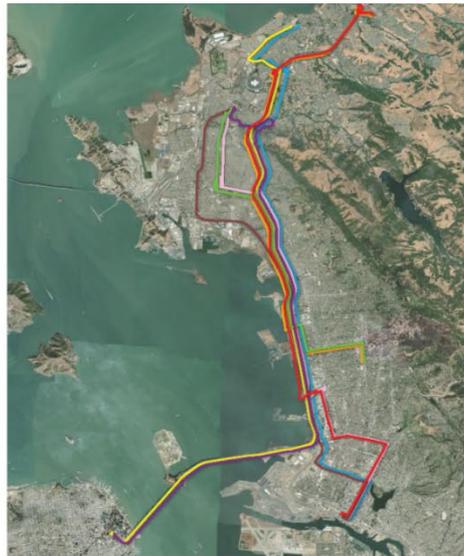
Proportion of	all West County Residents are...	those covered by 4 near-term routes are...	those covered by all 8 routes are...
...Low or Moderate Income Population	42%	54%	54%
...Minority Population	75%	86%	87%
...0-Car Households	8%	10%	11%

Equity Analysis – Results cont.

Population Segment	Residents	Percent of Total in West County
Total West County population	262,000	100%
Within 0.5 miles of a proposed express bus stop		
All residents	68,000	26%
Workers	31,000	25%
Low or moderate income individuals	37,000	34%
Hispanic or non-white	59,000	30%
0-vehicle households	2,300	32%

EXPRESS BUS IMPLEMENTATION PLAN

Proposed Capital Improvements



Capital Improvements

Improvement	Benefits	Cost
Improvements Required for Effective Service		
Bus Acquisition	<ul style="list-style-type: none"> • Needed to run service • Planning for high-capacity double decker buses • High-quality amenities to increase transit desirability 	\$\$\$
Bus Stop Improvements	<ul style="list-style-type: none"> • Needed to improve waiting experience • Will improve comfort and sense of security at stops 	\$
Mobility Hubs	<ul style="list-style-type: none"> • Provide area to access transit via car, by foot, by bus, by scooter, by bicycle, or by rideshare 	\$\$(\$)
Additional Recommended Improvements		
Transit Signal Priority	<ul style="list-style-type: none"> • Reduce delay on surface streets 	\$
I-80 Bus on Shoulder	<ul style="list-style-type: none"> • Reduce transit delay on I-80 by allowing bus to use aux lanes/shoulder during congested conditions • Benefits existing and proposed services 	\$\$
Freeway Access Improvements	<ul style="list-style-type: none"> • Reduce delay and improves reliability for transit accessing freeway • Benefits existing and proposed services 	\$((\$)
Transit Center Capacity Enhancements	<ul style="list-style-type: none"> • Provide additional mobility and access capacity (including parking) at existing transit centers • Benefits existing and proposed services 	\$\$\$\$

Mobility Hubs

- Centers of connectivity for different modes
 - Walking, biking, rideshare, auto, and transit
- Provides customer amenities for “first and last miles” between the hub and origin/destination
- Examples include:



Scootershare



Bikeshare stations



EV charging

Mobility Hubs – cont.



Secure bicycle parking



Smart parking/Parking reservations



Bicycle repair stations



Rideshare pickup/drop-off areas

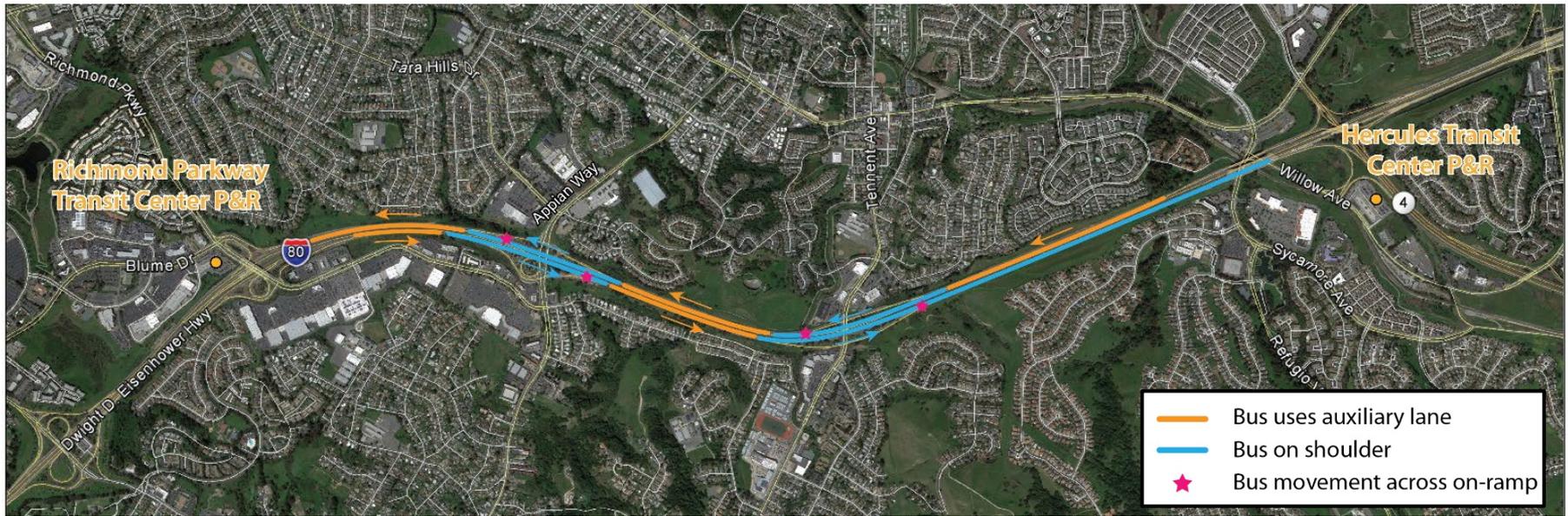


Shared delivery areas



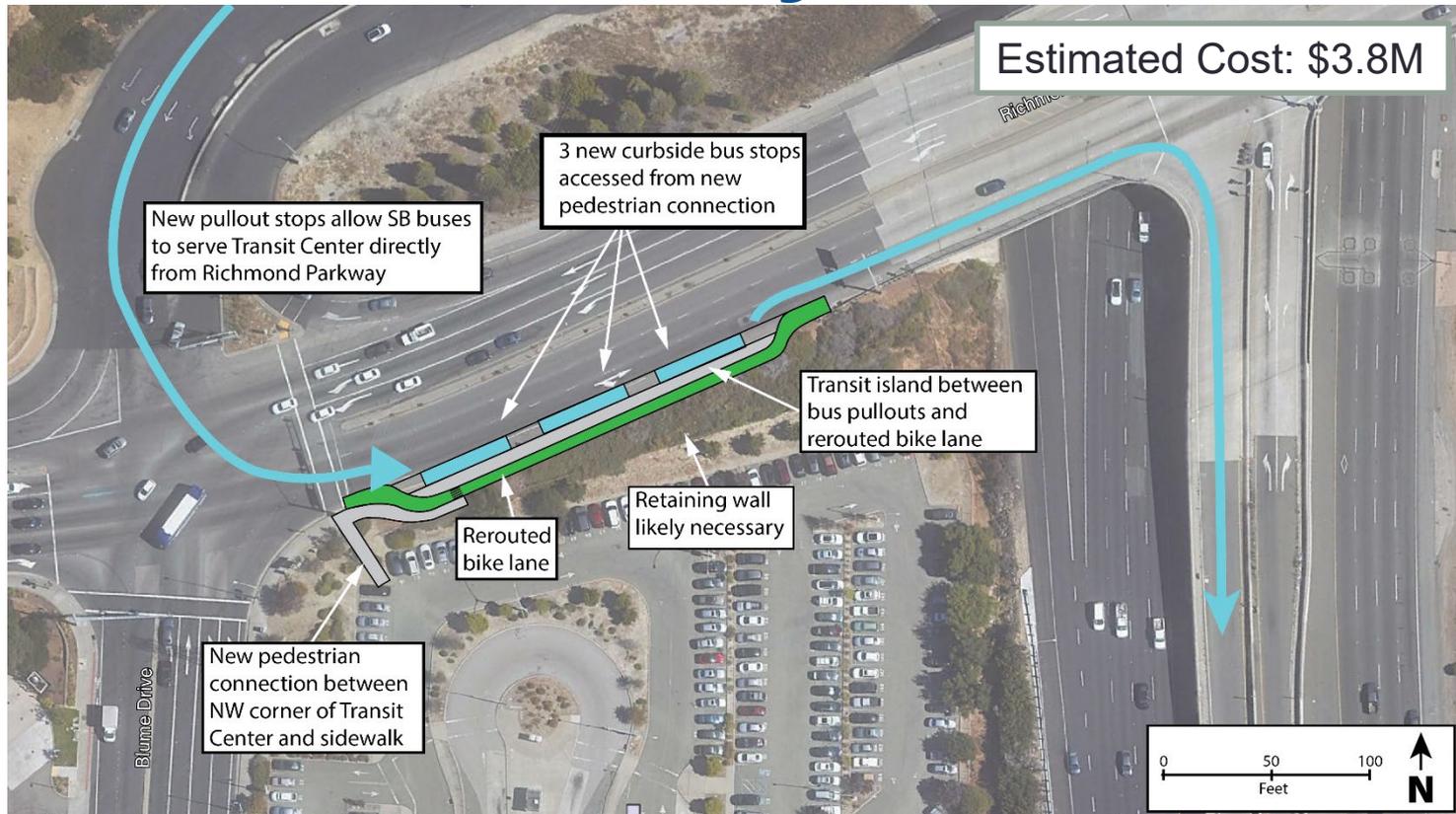
Neighborhood electric vehicles

I-80 Bus on Shoulder Lanes



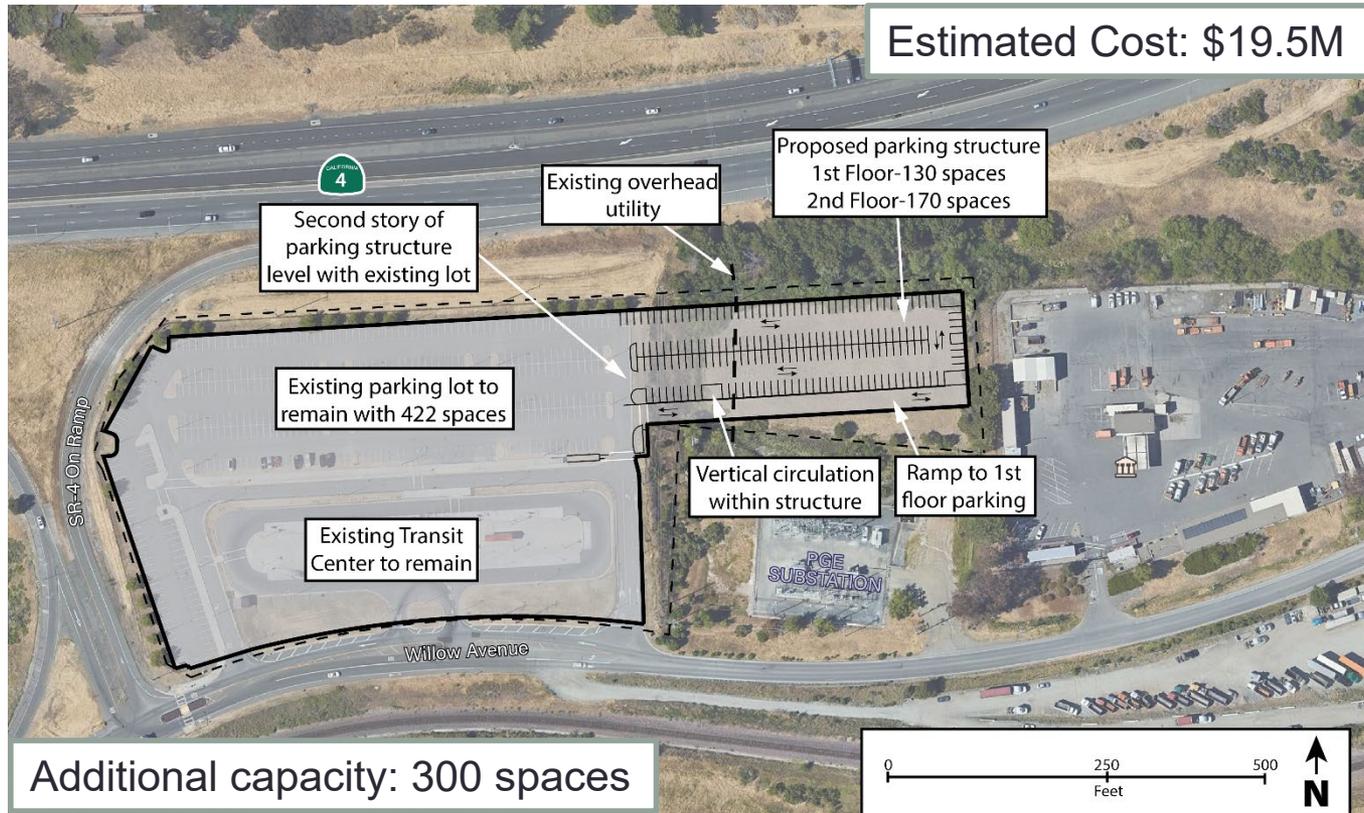
- Between SR-4/I-80 and Richmond Parkway/I-80 (~3 miles)
- Bus uses auxiliary lanes and freeway shoulder
- Requires approval from Caltrans and CHP, coordination with CCTA
- Useful for both existing and proposed bus service
- Leverages improvements proposed at Richmond Parkway and SR-4/John Muir Parkway

Richmond Parkway TC - Interim



- 3-space bus pullout and transit island on Richmond Parkway
- Would allow buses to serve transit center directly from Richmond Parkway
- Explore opportunity for leveraging nearby underused parking lots

Hercules Transit Center



- Requires coordination with BART, WestCAT, Hercules, and PG&E
- May be constructed with minimal impact to existing parking
- Potential overhead utility conflict would need to be resolved
- Even w/o new service, additional parking could serve existing routes

Capital Improvement Summary

Improvement	Duration to Implement	Near Term Cost	Medium-/Long-Term Cost
Bus Acquisition	18-24 months	\$36M	\$43M
Bus Stop Improvements	3-12 months	\$2.6M	\$0.7M
Mobility Hubs	9-42 months	\$20.2M	\$22.7M
Transit Signal Priority	6-12 months	\$1.1M	\$0.5M
I-80 Bus on Shoulder	27-36 months	\$6M	N/A
Freeway Access Improvements	27-54 months	\$4.5M	\$4.6M
Transit Center Capacity Enhancement	34-46 months	N/A (3.5M*)	\$66M

*Estimated cost of interim improvement at Richmond Parkway Transit Center

- Near-Term cost includes cost of all improvements associated with near-term routes, except for ultimate improvements to Richmond Parkway Transit Center and Hercules Transit Center (included in medium-/long-term)

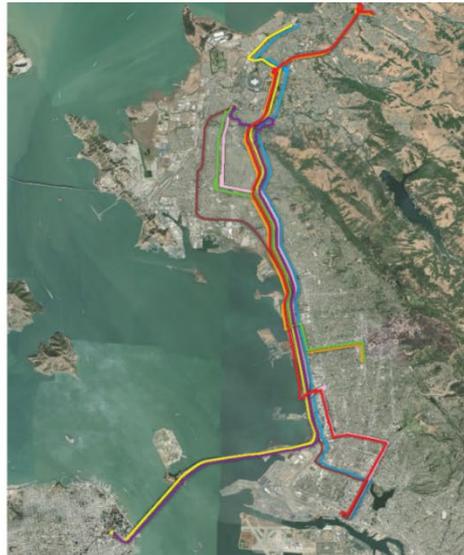
Few Risks with Capital Projects

- Primary investment (buses) can always be repurposed
- Mobility hubs would still be useful part of network
- Traffic signal and freeway/interchange improvements benefit existing service
- Cost-effective compared to rail-based alternative
- WestCAT Lynx and many AC Transit Transbay services are well utilized



EXPRESS BUS IMPLEMENTATION PLAN

Financial Analysis



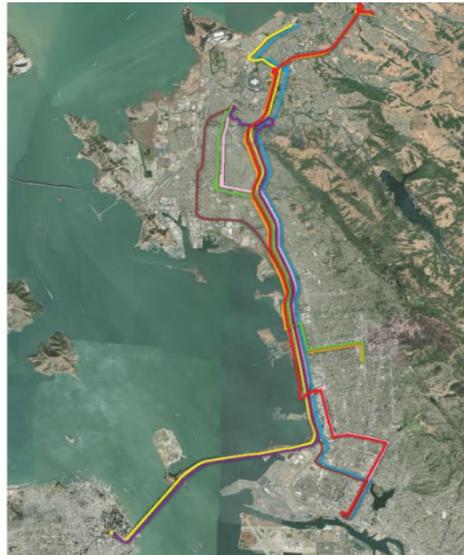
Funding Scenarios

Near-term implementation of this Plan centers on funds from RM3 and the CCTA 2020 TEP. Without both, additional funding is needed.

Funding Scenario	RM3	TEP	Projected Outcome
1	X	X	Project not viable without additional funding
2	✓	X	Operating funds available but insufficient capital to acquire bus fleet or implement supporting capital improvements
3	✓	✓	Operating and capital funding to operate up to four routes and most required capital improvements

EXPRESS BUS IMPLEMENTATION PLAN

Implementation Considerations



Timeline to Implementation

- Funding available in FY 2021-2022*
- Bus orders take 18-24 months
- Earliest date of service: 2024

In meantime, capital projects should be advanced to coincide with start of operations. Initial steps include:

- Bus stop relocations and upgrades
- Resolving bus storage and maintenance capacity constraints
- Advancing mobility hubs

* *Dependent on outcome of RM3 and TEP*

Keeping Momentum with Partners

- Coordinate projects with local agencies and transit operators
- Form Express Bus Working Group
- Incorporate Plan's recommendations into future planning and policy documents
- Coordinate with Alameda County entities for projects there
- Advocate for project at regional and state level

Advancing Capital Projects

Mobility Hubs

- Ownership and maintenance unresolved
 - Local jurisdictions, transit operators, MTC
 - Develop MOUs for ownership, operations, and maintenance
- Coordinate with jurisdictions to ensure planning updates allow proposed mobility hubs



Advancing Capital Projects

I-80 Bus on Shoulder Lanes

- Monitor success of pilots elsewhere
- Obtain permission from Caltrans, CHP, and Federal Highway Administration in coordination with CCTA and MTC

Freeway Access Improvements

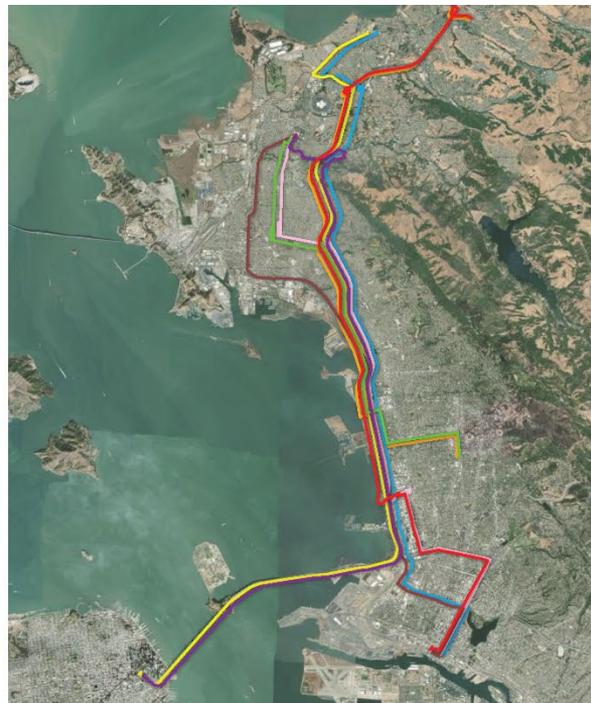
- Engage local jurisdictions
- Coordinate with Caltrans and CCTA and determine process
- Where reconfigurations are already planned, advocate for transit priority

Next Steps

- Board feedback on draft plan
- Presentations to partner agency boards on February 12th (AC Transit) and February 13th (WestCAT)
- Will report back comments received at next Board meeting, on February 28th
- After feedback is addressed, Board acceptance requested at that meeting
- Grant work completed on 2/28



EXPRESS BUS IMPLEMENTATION PLAN



Additional Backup Slides

Service Characteristics

- Peak-period service initially
 - Potential to expand to all-day
- 15-minute frequency during peak-periods
- Proposed fares align with existing service depending on alignment
 - Transbay, Rapid, Local or a blend
- Use commuter coaches
 - Double-decker, WiFi, and other comfort features currently on Transbay services



Photo credit: AC Transit

Performance Monitoring

- Plan includes monitoring recommendations to ensure that service is effective and efficient use of resources
- Performance monitoring assumed to be consistent with existing transit operator processes
- Adjust service as needed to maximize benefits

Outreach Round 3

- Publicize Public Review Draft Plan
 - Update project webpage
 - Send e-blast to mailing list
 - Project partners helping spread the word (via email, Facebook, and Nextdoor)
 - Purchase paid Facebook advertising

Review the Draft Plan!

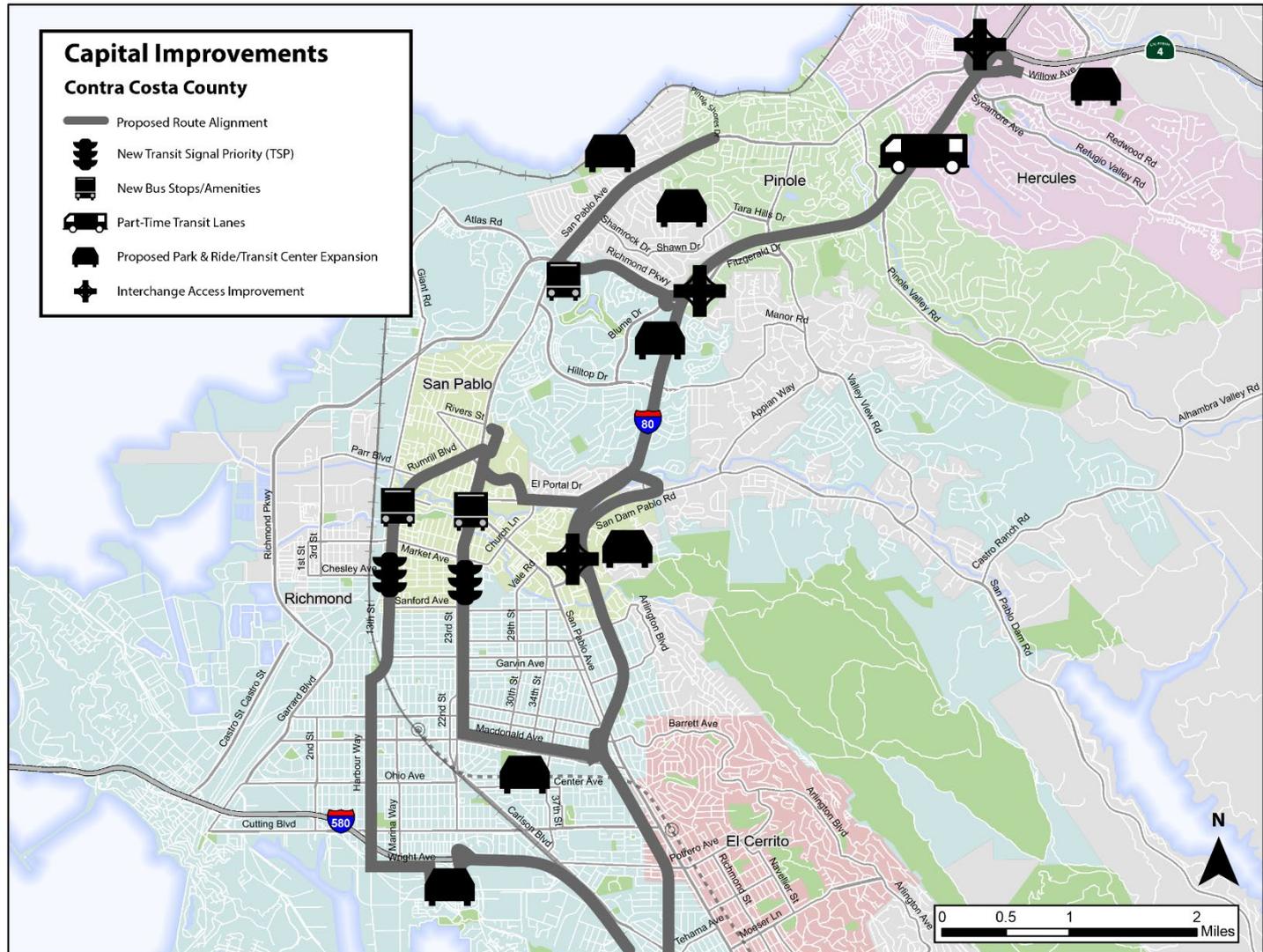
The [Draft West Contra Costa County Express Bus Implementation Plan](#) is available for public review. The Draft Plan provides a framework to expand express bus service from West Contra Costa County to job centers in Berkeley, Emeryville, Oakland, and San Francisco.

[Click here](#) to provide your input online. Using this link, you can share general comments.

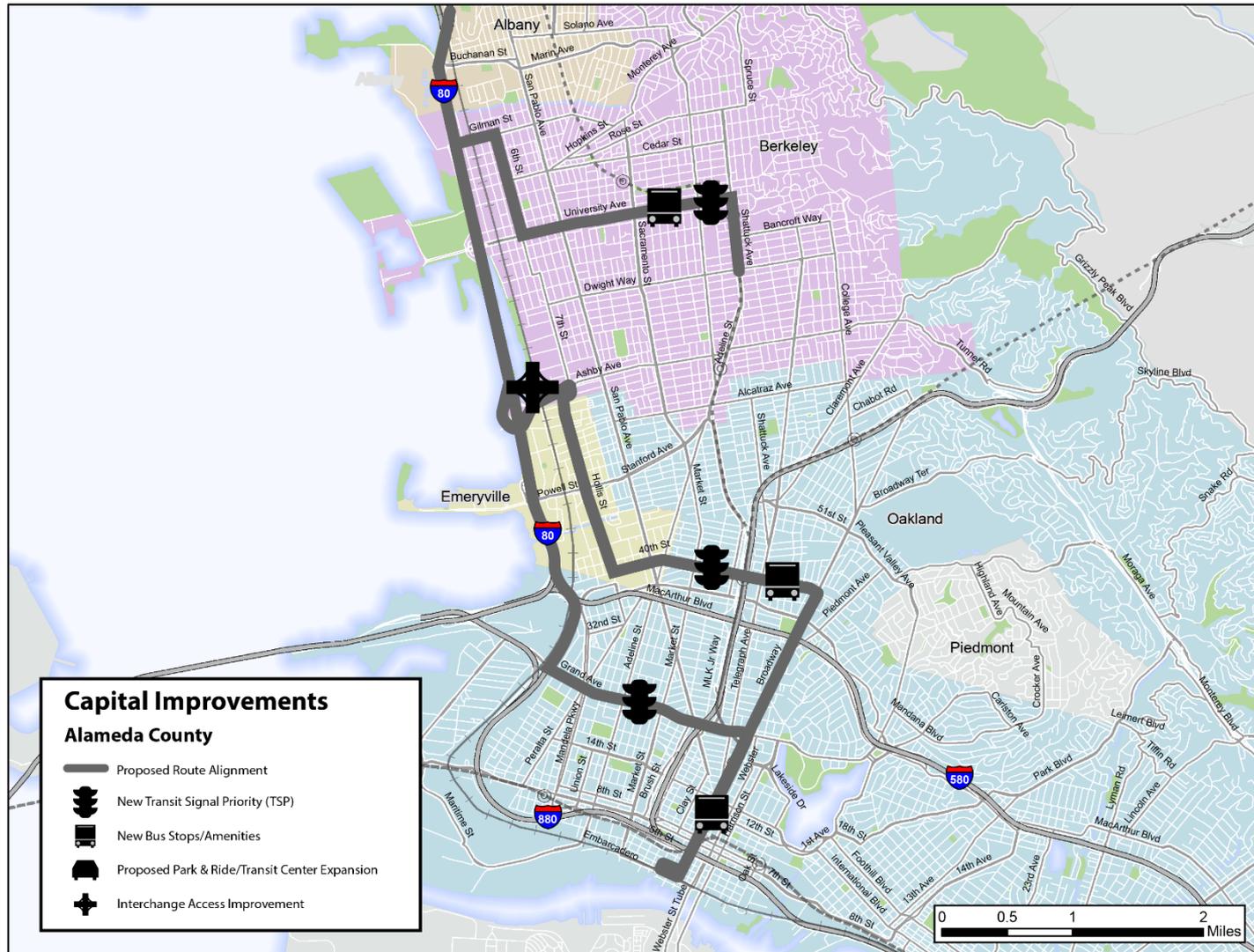
The screenshot shows a Facebook post from the West Contra Costa Transportation Advisory Committee (WCCTAC). The post text reads: "Tired of sitting in traffic on I-80? WCCTAC released the Draft West Contra Costa County Express Bus Implementation Plan to outline a strategy for expanded express bus service from West Contra Costa County to Berkeley, Emeryville, Oakland and San Francisco. The expanded express bus service could provide West Contra Costa County residents an alternative commute option along Interstate 80 between Hercules and the Bay Bridge, one of the most congested freeway segments in the Bay Area. The WCCTAC Board will review the Draft Plan on Friday, January 24, 2020. Once the Plan is approved, implementation of the expanded express bus system will be dependent upon whether Regional Measure 3 is upheld in ongoing legal challenges and if Contra Costa County voters pass a transportation sales tax measure on the March 2020 ballot. To learn more, visit: bit.ly/wcctacbus".

Below the text is a map of the proposed bus routes. The map shows various transit centers and mobility hubs, including Hercules, Pinole, San Pablo, El Sobrante, El Cerrito, Berkeley, Emeryville, Oakland, and San Francisco. A legend identifies symbols for Proposed Mobility Hubs, Existing Transit Centers, Proposed Express Routes, Existing Express Routes, Capital Corridor, BART, and Improvements. The map also shows the proposed routes connecting these areas along Interstate 80.

Distribution of Capital Improvements



Distribution of Capital Improvements



Route Prioritization

Route #	Market Size		Travel Time Improvement		San Francisco?
1	~1,200	Medium	43%	High	N
2	~2,700	High	36%	Medium	N
3	~1,300	Medium	43%	High	N
4	~1,500	High	14%	Low	Y
5	~500	Low	36%	Medium	Y
6	~2,500	High	32%	Medium	N
7	~1,700	High	46%	High	N
8	~1,200	Medium	28%	Medium	N

Green arrow indicates selected near-term route

Route 1

Origins:

Hercules Transit Center
Richmond Pkwy Transit Center

Destination(s):

West Berkeley
Downtown Berkeley

Proposed Operator:

WestCAT

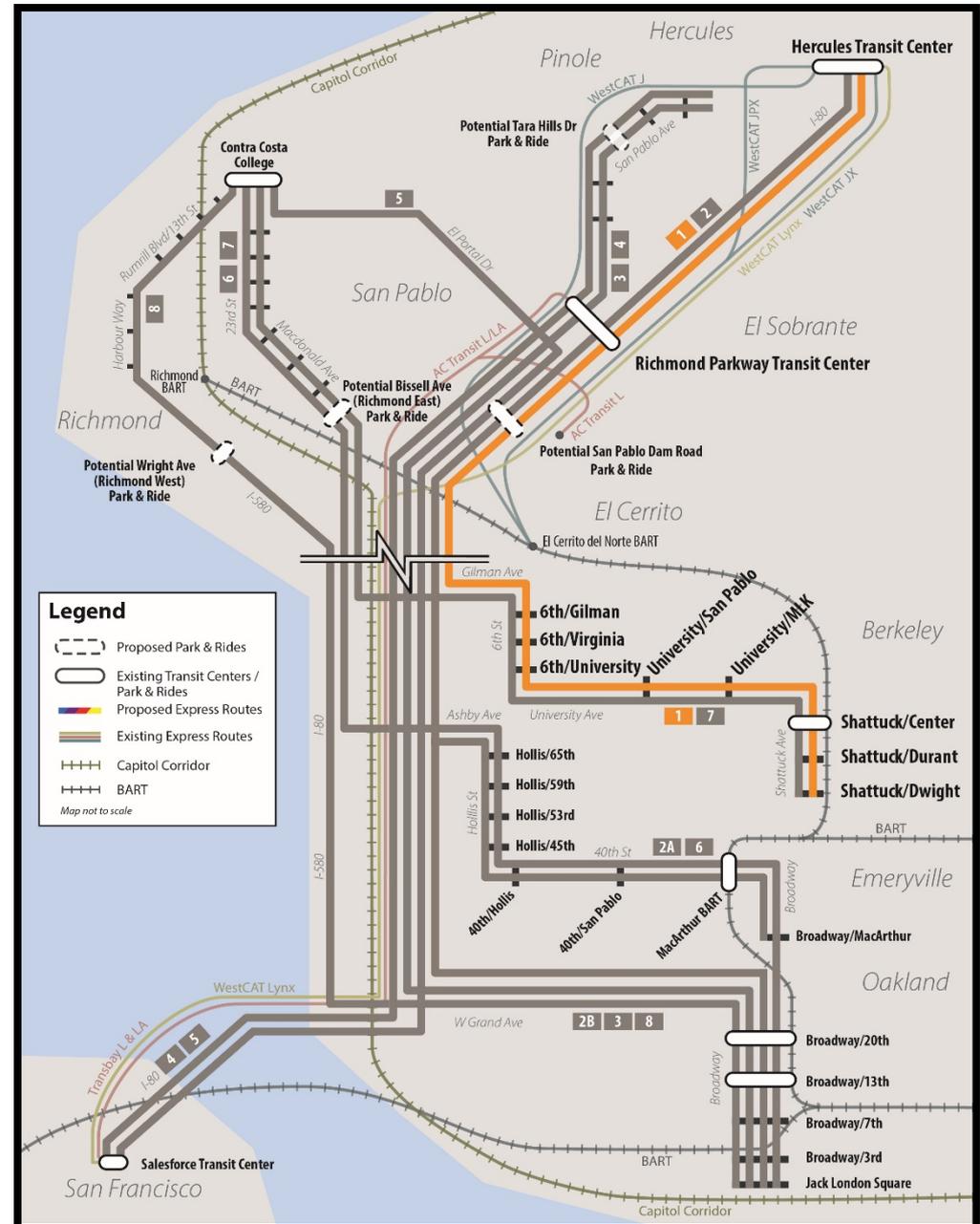
Market Size:

~1200

Transit Travel Time

Improvement:

43%



Route 2

Origins:

Hercules Transit Center
Richmond Pkwy Transit Center

Destination(s):

Emeryville
Kaiser Permanente Oakland
Uptown Oakland
Downtown Oakland

Proposed Operator:

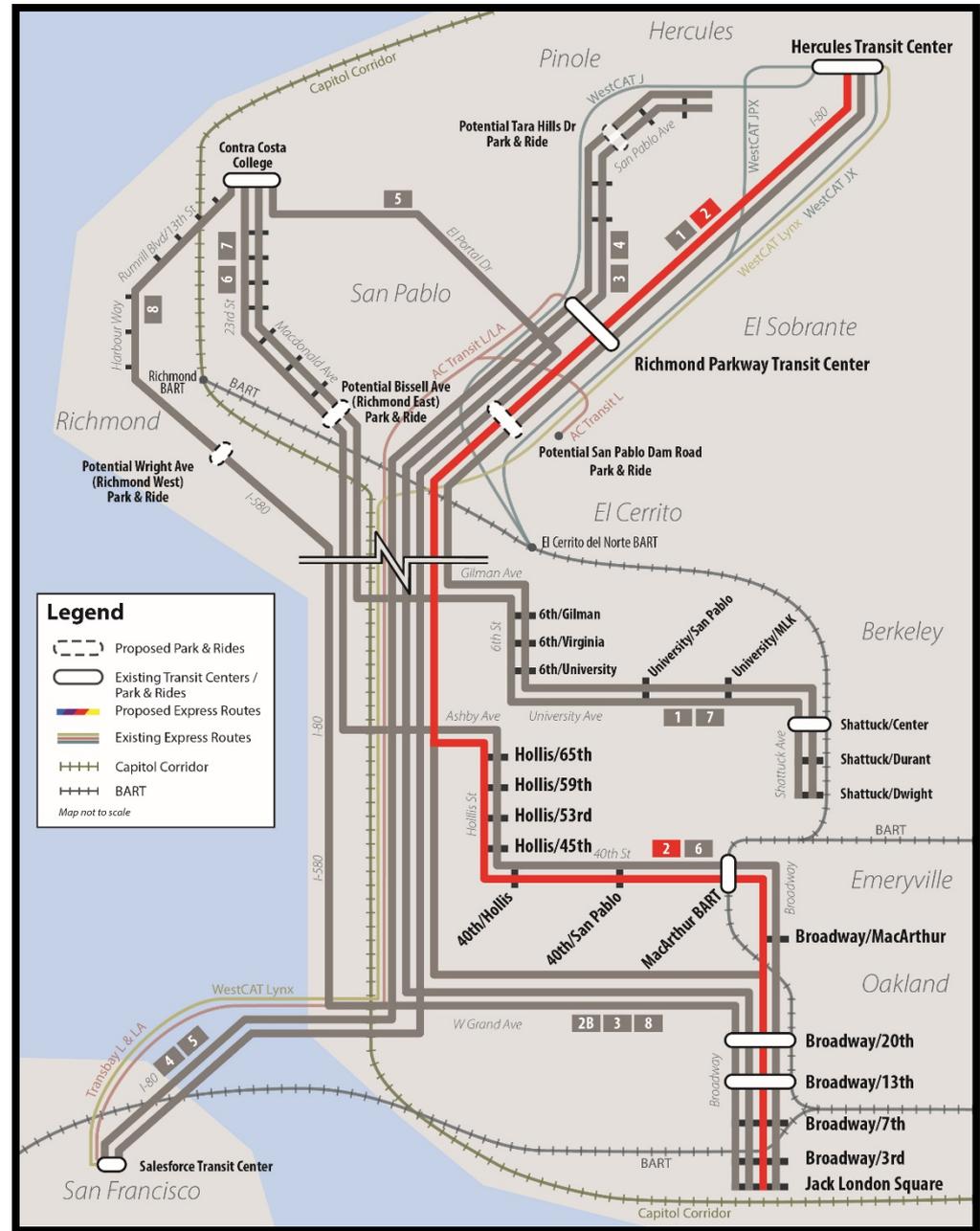
WestCAT

Market Size:

~2700

Transit Travel Time Improvement:

36%



Route 5

Origins:

San Pablo
El Sobrante

Destination(s):

Salesforce Transit Center

Proposed Operator:

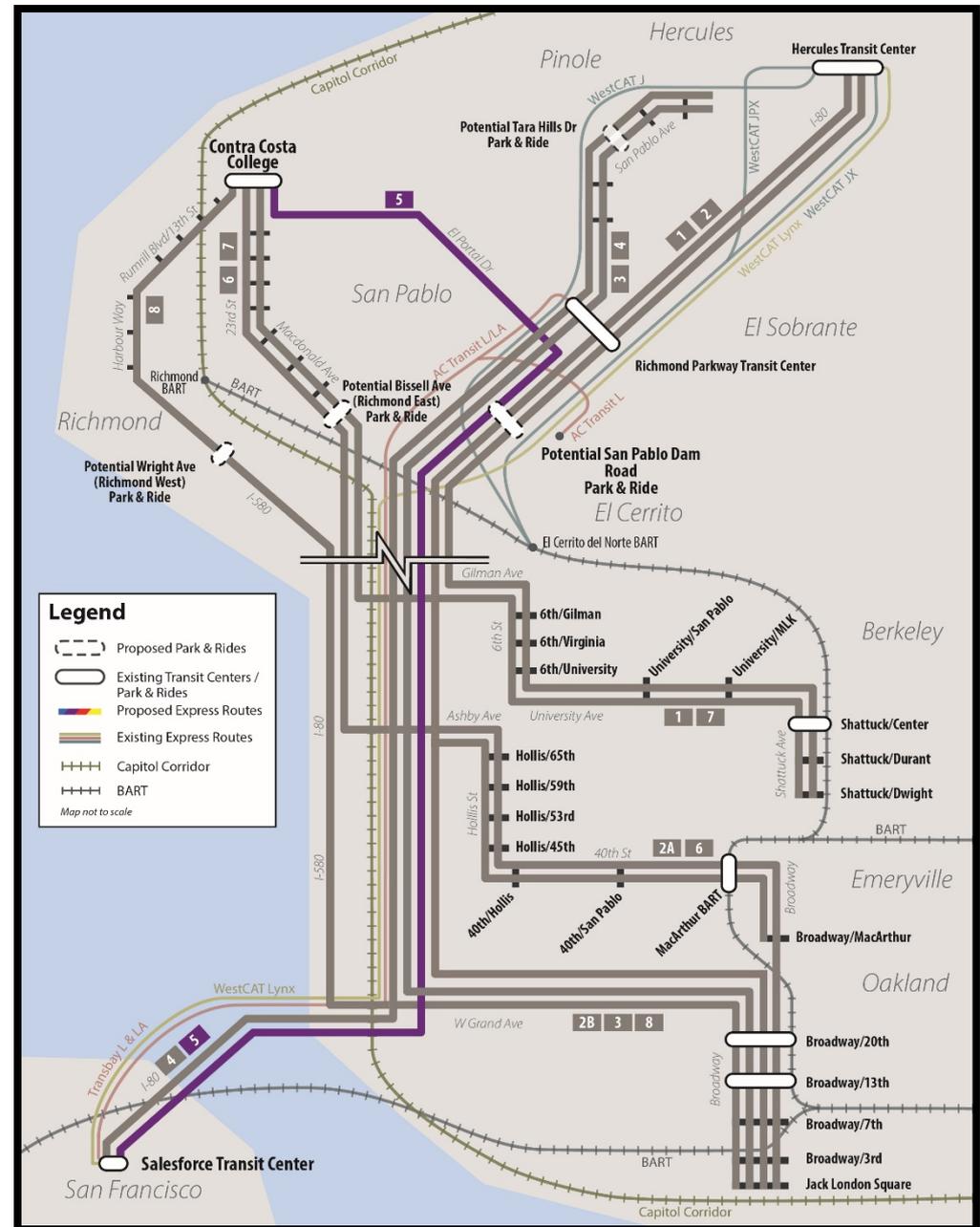
AC Transit

Market Size:

~500

Transit Travel Time Improvement:

36%



Route 6

Origins:

San Pablo
Richmond

Destination(s):

Emeryville
Kaiser Permanente Oakland
Uptown Oakland
Downtown Oakland

Proposed Operator:

AC Transit

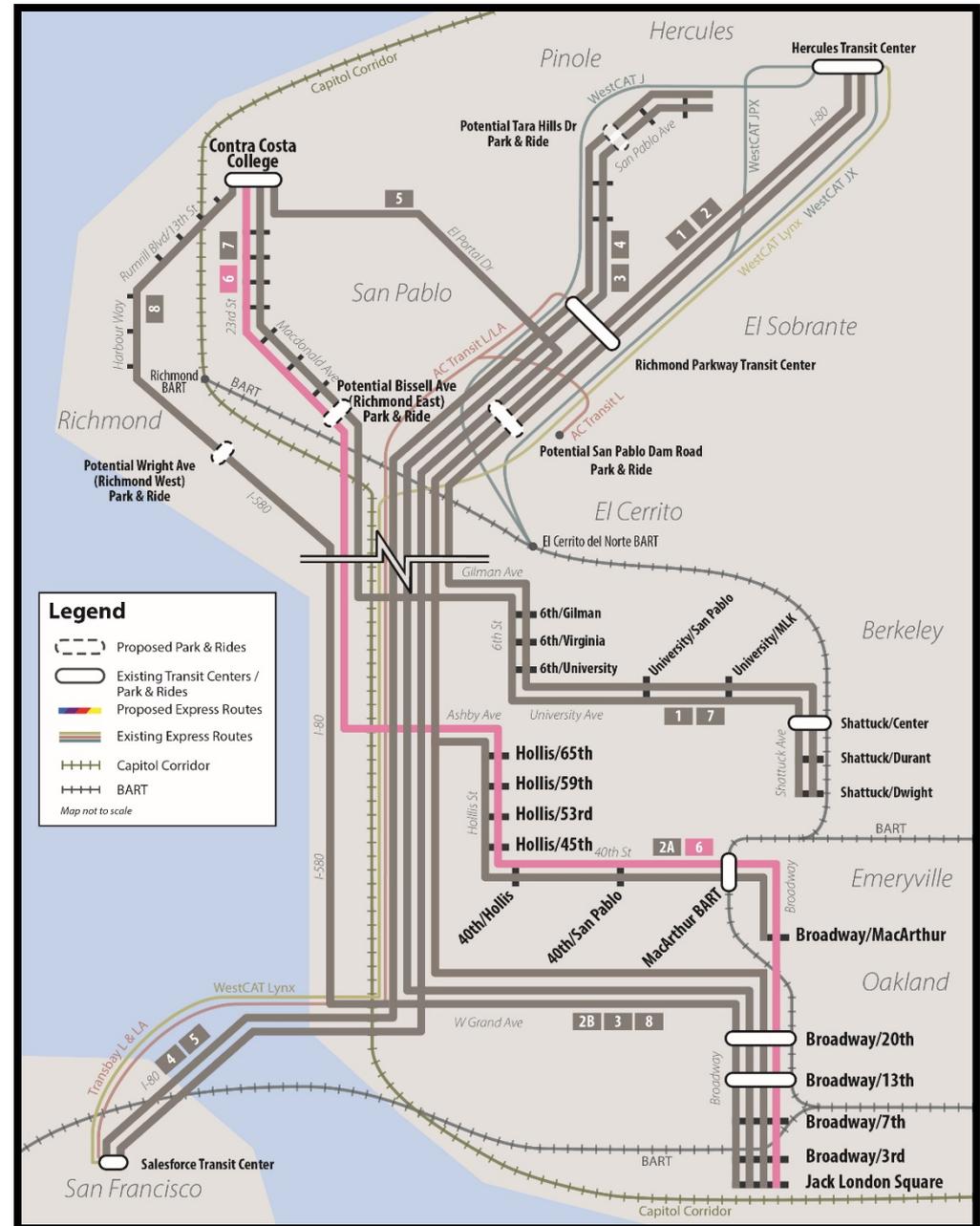
Market Size:

~2500

Transit Travel Time

Improvement:

32%



Route 7

Origins:

San Pablo
Richmond

Destination(s):

West Berkeley
Downtown Berkeley

Proposed Operator:

AC Transit

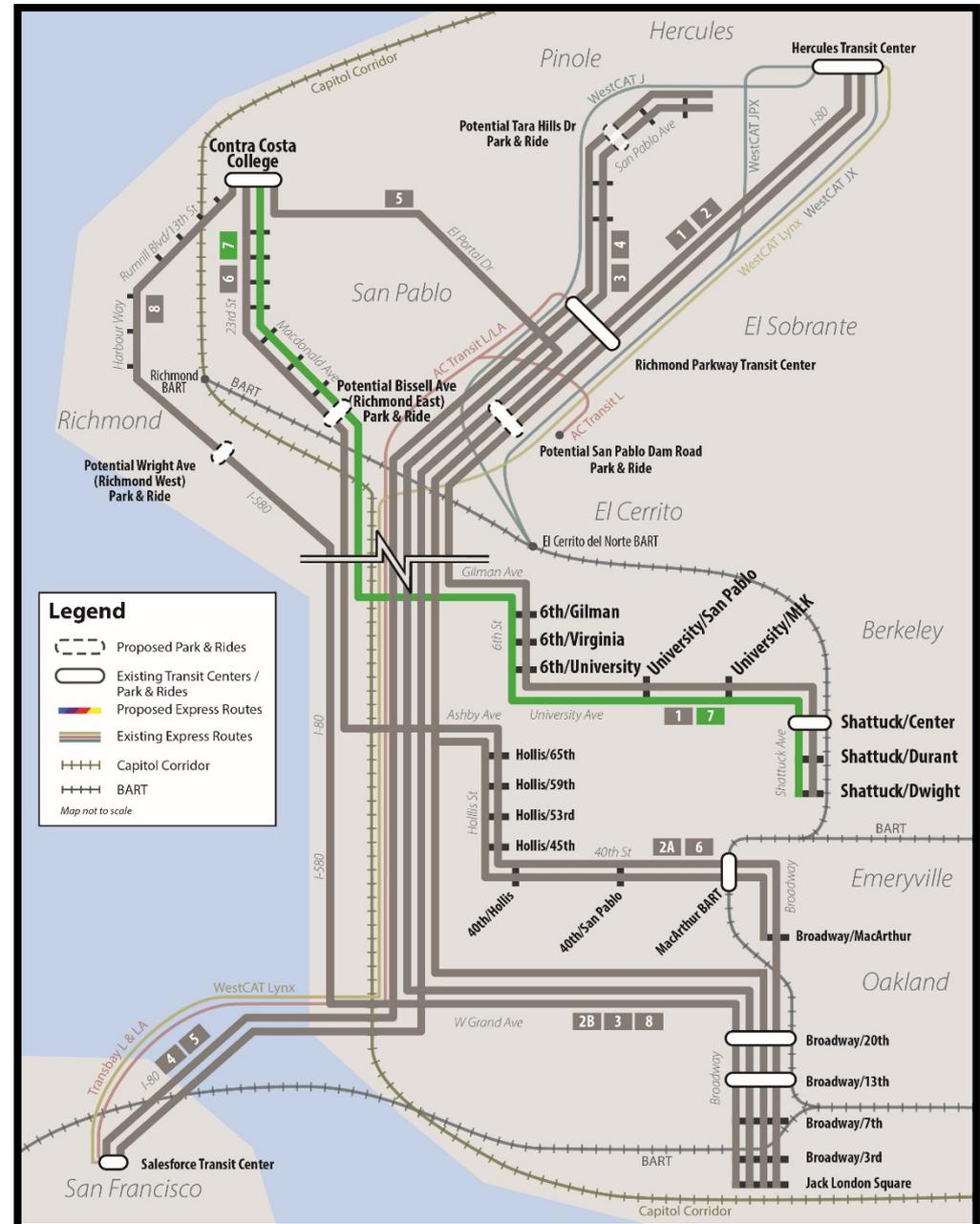
Market Size:

~1700

Transit Travel Time

Improvement:

46%



Route 8

Origins:

San Pablo
Richmond

Destination(s):

Uptown Oakland
Downtown Oakland

Proposed Operator:

AC Transit

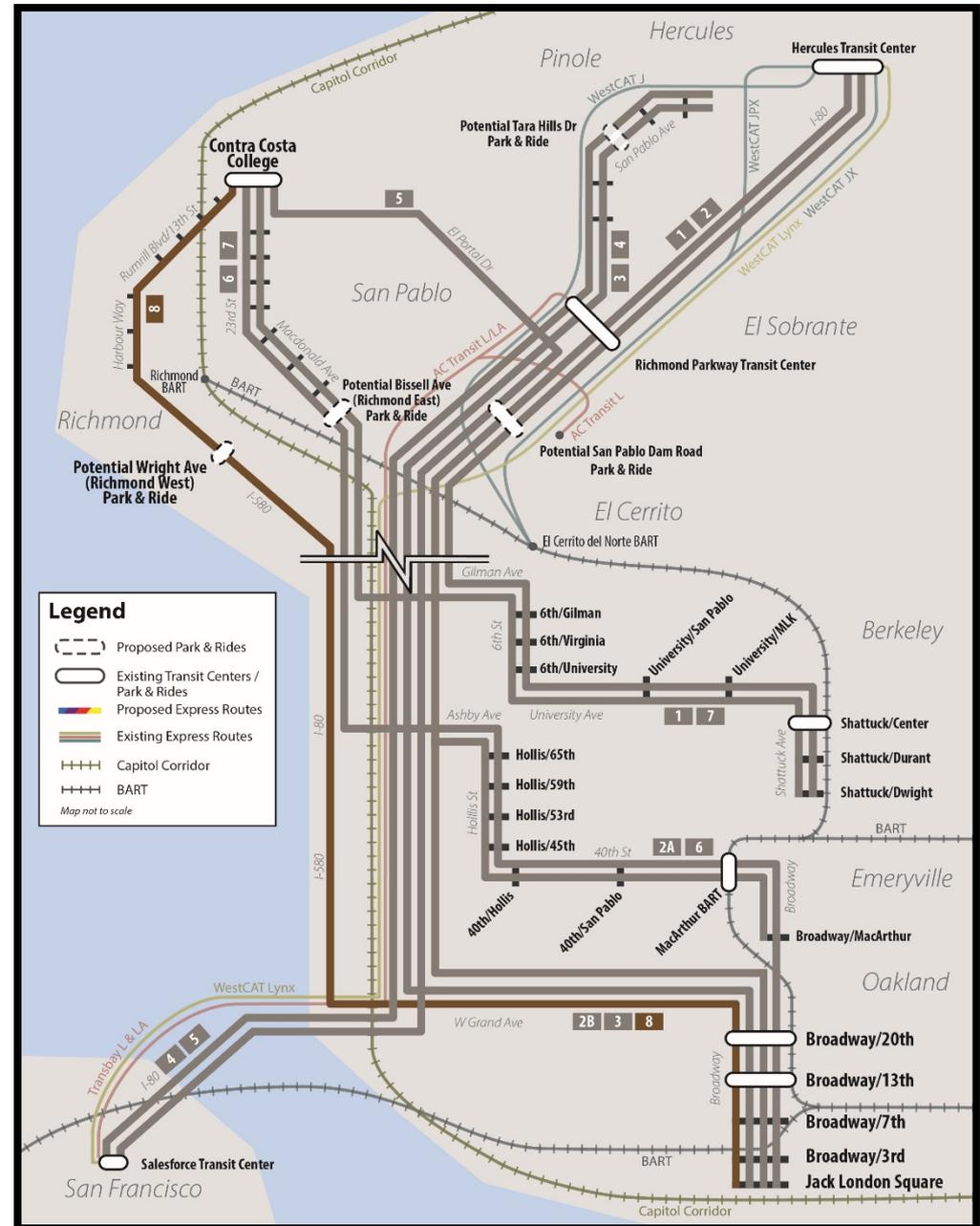
Market Size:

~1200

Transit Travel Time

Improvement:

28%



Route 2A

Origins:

Hercules Transit Center
Richmond Pkwy Transit Center

Destination(s):

Emeryville
Kaiser Permanente Oakland

Proposed Operator:

WestCAT

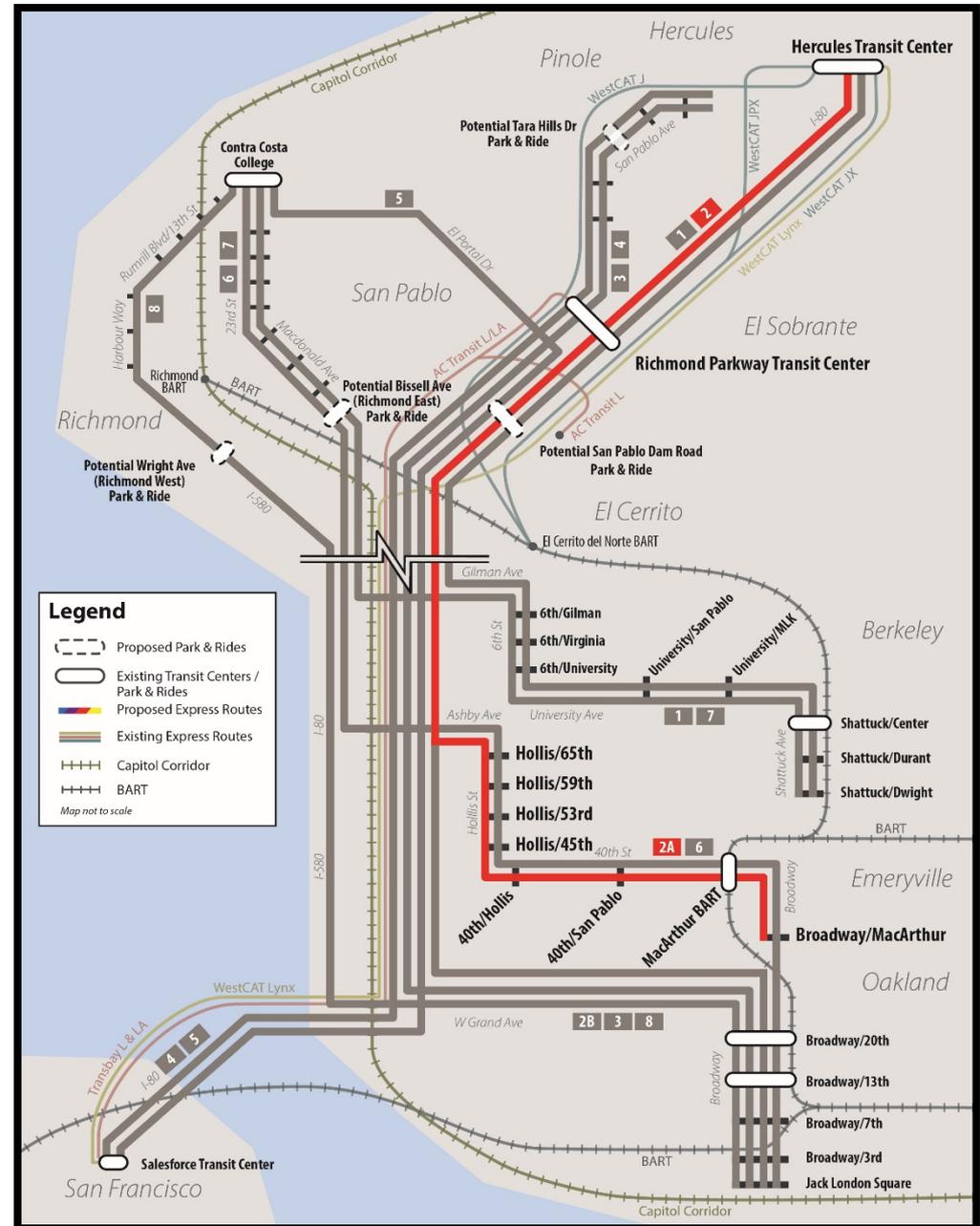
Market Size:

~900

Transit Travel Time

Improvement:

61%



Route 2B

Origins:

Hercules Transit Center
Richmond Pkwy Transit Center

Destination(s):

Uptown Oakland
Downtown Oakland

Proposed Operator:

WestCAT

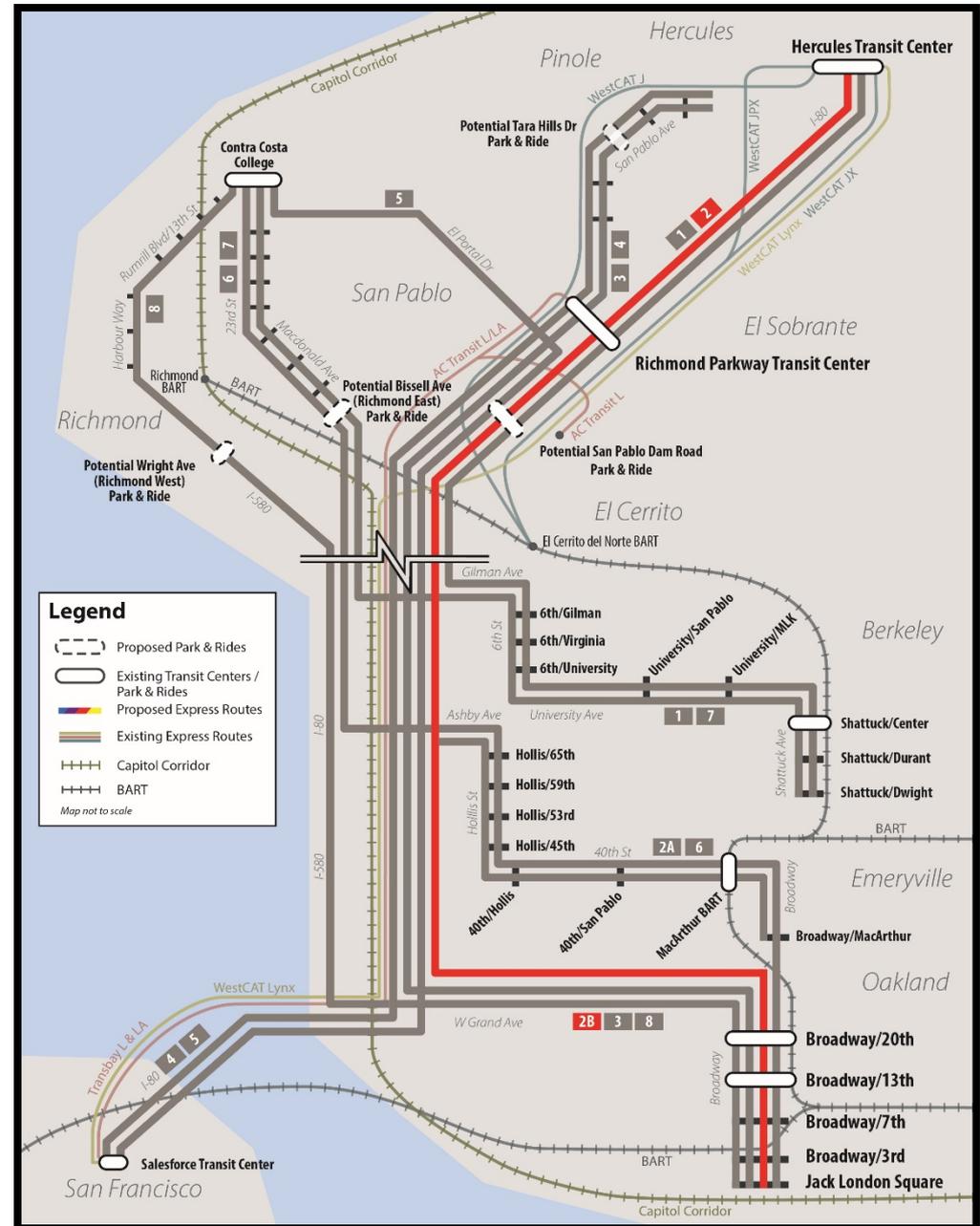
Market Size:

~1800

Transit Travel Time

Improvement:

42%



Bus Acquisition

- Double-decker coach buses for each route
- No current available fleet from either operator
- Acquisition includes spares

Phase	Routes	Buses Required	Est. Cost
Near-Term	2, 4, 6, 7	36	\$36M
Medium/ Long-Term	1, 3, 5, 8, Route 2 split to become 2A and 2B	43	\$43M
Full System	1-8	79	\$79M



Photo credit: WestCAT

Bus Stop Amenity Improvements

- Shelters
- Benches
- Pedestrian-scale lighting
- Trash receptacles
- Bicycle parking
- System and route Information
- Total Est. Cost: \$3.3M



Required capital improvement for all routes to upgrade bus stop amenities. Limited number of new or relocated stops required for each route. Actual deployment of some amenities to be based on actual ridership by stop.

Tara Hills Drive Mobility Hubs

Site #2

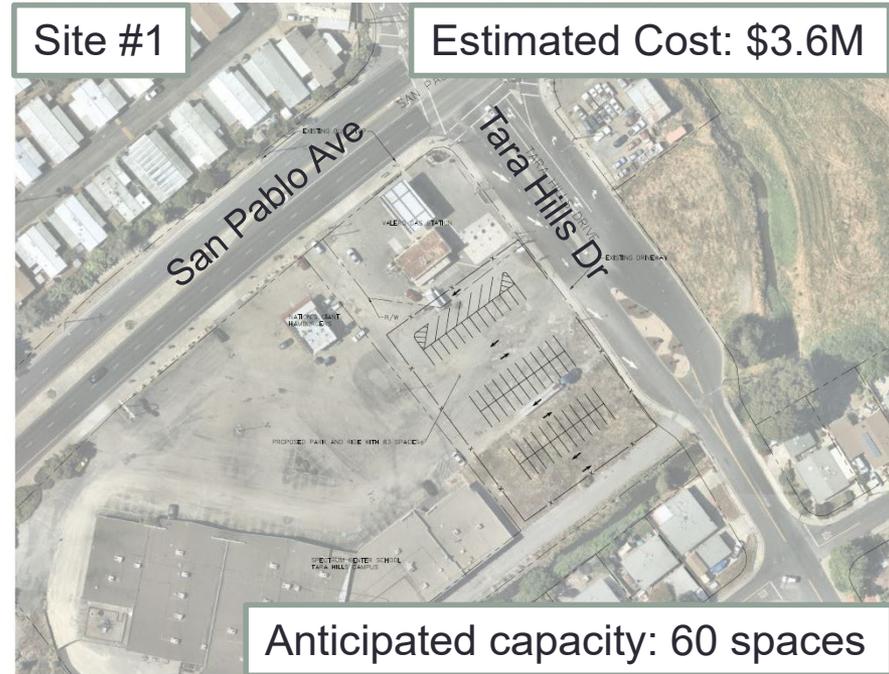
Estimated Cost: \$13.3M



Anticipated capacity: 210 spaces

Site #1

Estimated Cost: \$3.6M



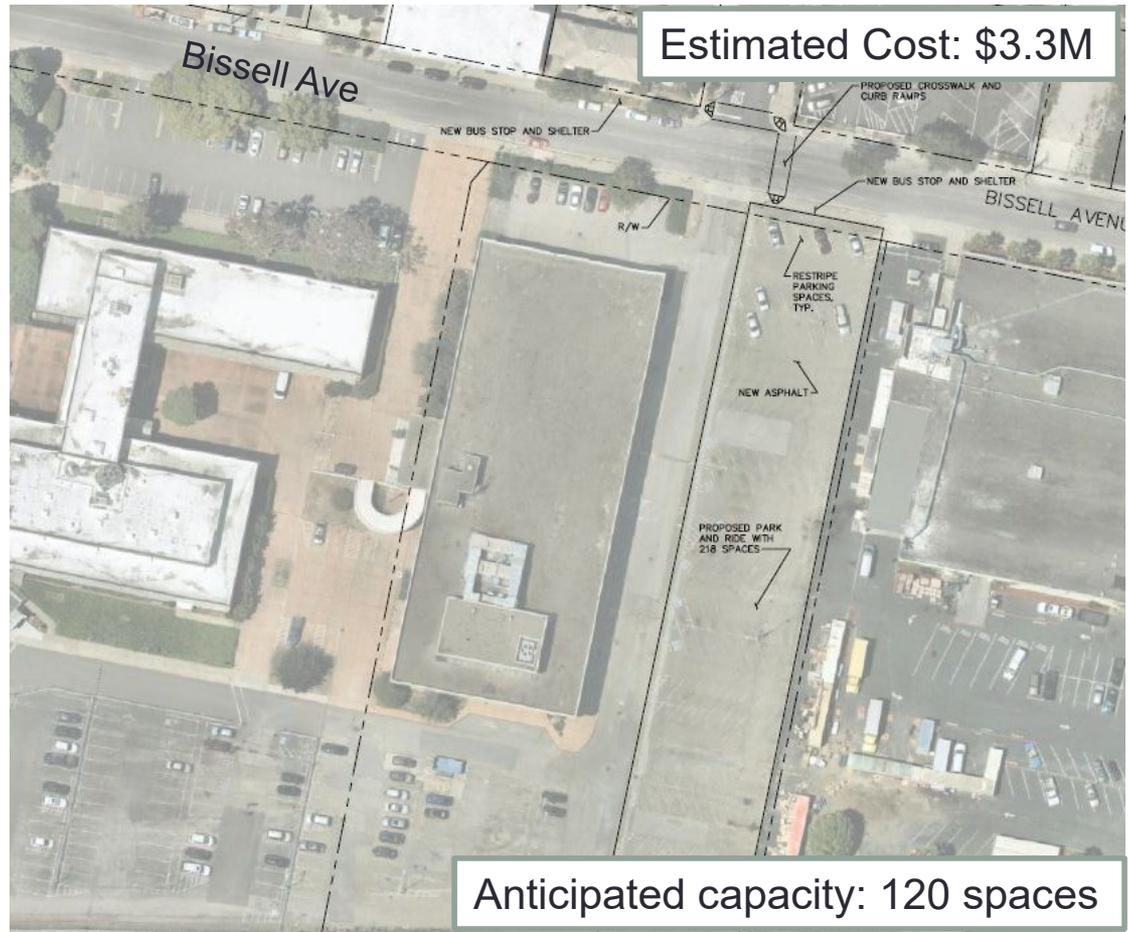
Anticipated capacity: 60 spaces

- Two sites at San Pablo Ave/Tara Hills Drive (unincorporated County)
- Serves Pinole and unincorporated County
- Richmond Parkway Transit Center at capacity and Hercules Transit Center requires backtracking

Required for effective deployment of Routes 3 and 4 (near-term)

Bissell Avenue Mobility Hub

- Serves central/eastern Richmond (located south of Macdonald Ave west of Target)
- Would require minimal improvement over existing conditions
- County-owned, currently pursuing redevelopment opportunities



Required for effective deployment of Routes 6 and 7 (both near-term)

San Pablo Dam Rd Mobility Hub



- Serves El Sobrante community
- Currently owned by Caltrans
- Next Step: Request that Caltrans include with planned interchange project

Required for effective deployment of Route 5. Opportunity for future variants of Routes 1 and 2.

Wright Avenue Mobility Hub



- Site on Caltrans ROW between Wright Ave & I-580 east of Harbour Way
- Serves central/western Richmond, Point Richmond, bridge traffic
- Could be integrated into MTC's Richmond San Rafael Forward program
- Could be built in phases as warranted by demand

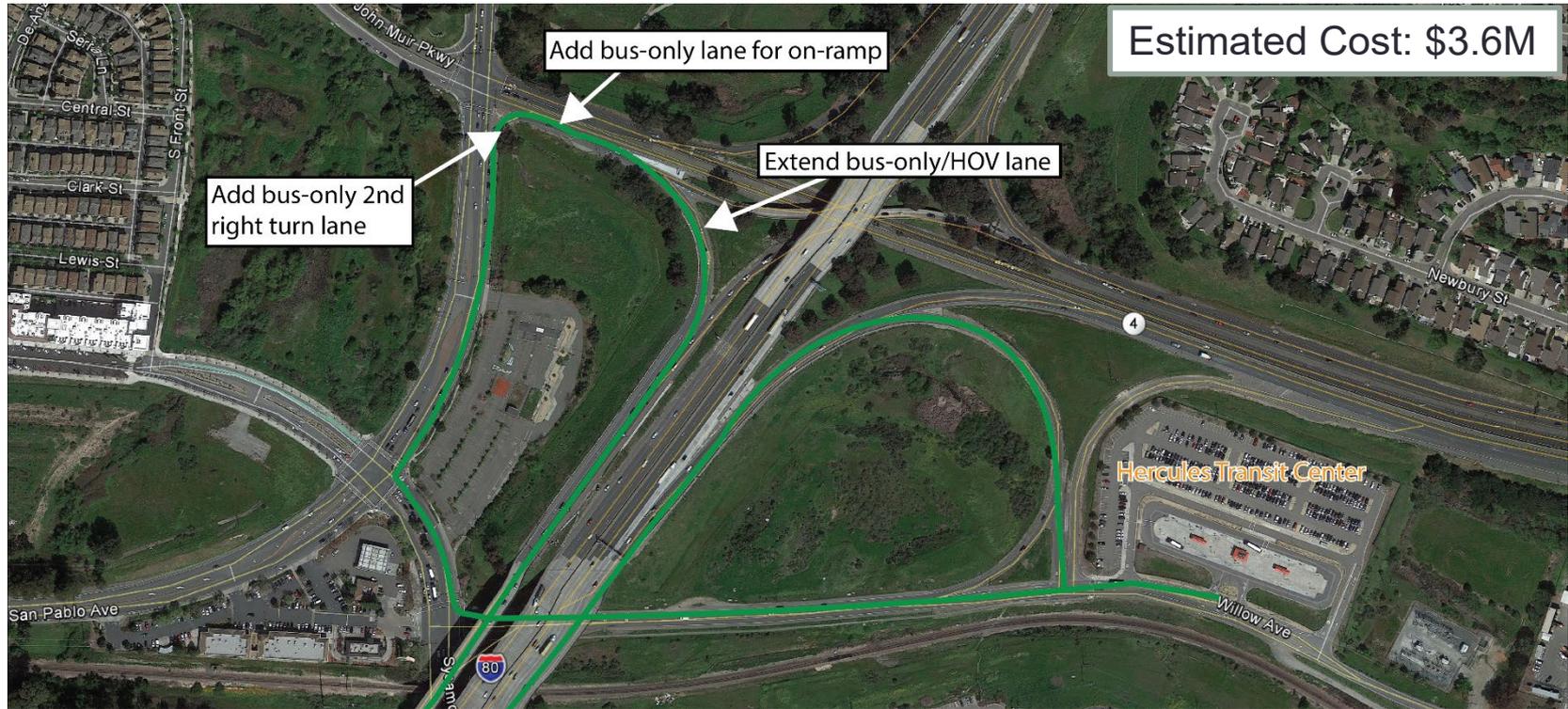
Required for effective deployment of Route 8. Could also be utilized by existing I-580 transit services

Transit Signal Priority (TSP)

- Technology to hold green lights or provide shortened red light for approaching buses
- Recommend on the following corridors:
 - 23rd St in San Pablo, Richmond
 - Macdonald Ave in Richmond
 - 6th St, Shattuck Ave in Berkeley
 - Hollis St, 40th St in Emeryville
 - 40th St, Grand Ave in Oakland
- Total Estimated Cost: \$1.4M



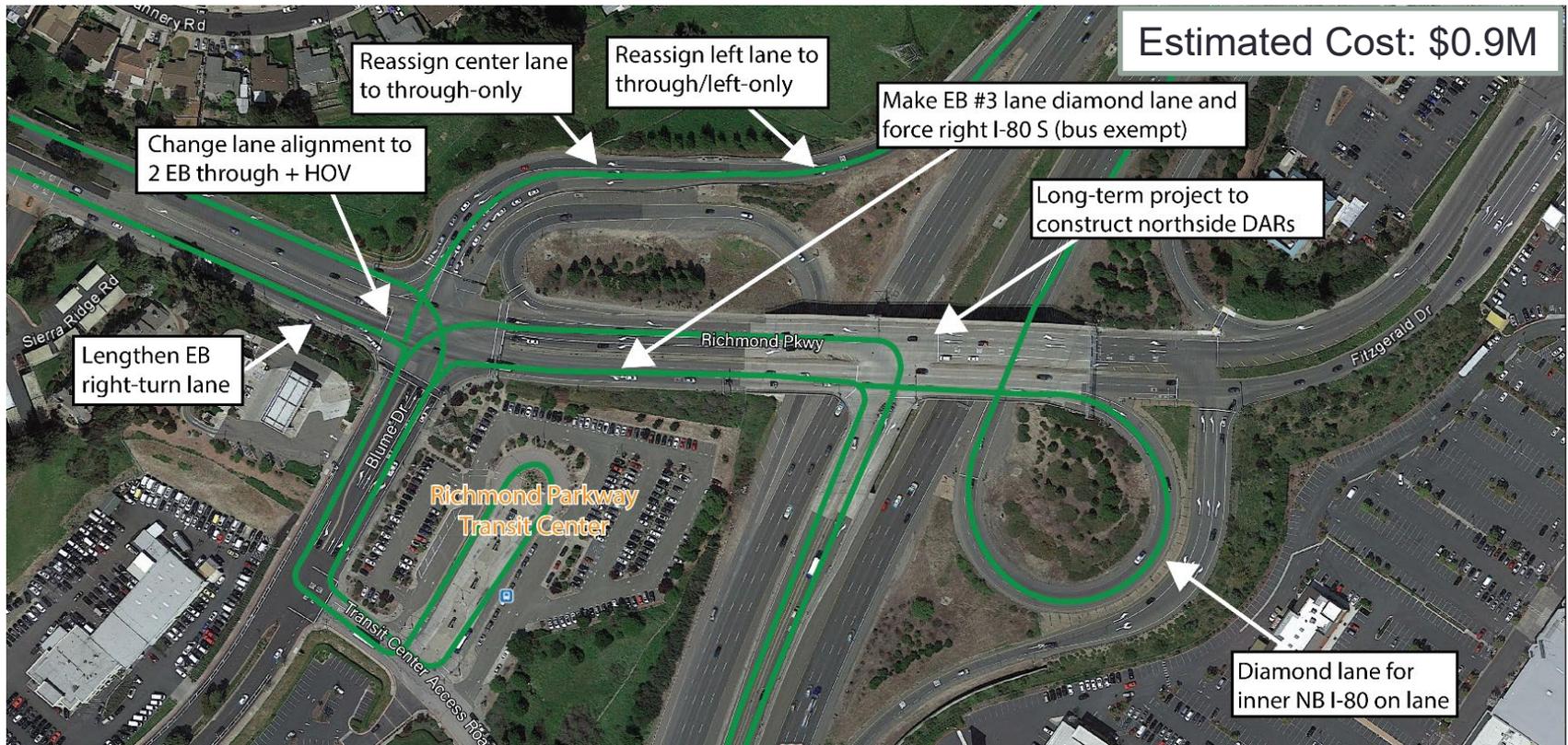
SR-4/John Muir Pkwy/I-80 Interchange



- Related to similar project contained within Hercules Traffic Impact Fee Program
- Requires Caltrans and Hercules coordination

*Would significantly benefit Routes 1 and 2 (near-term)
and existing WestCAT routes*

Richmond Parkway/I-80 Interchange

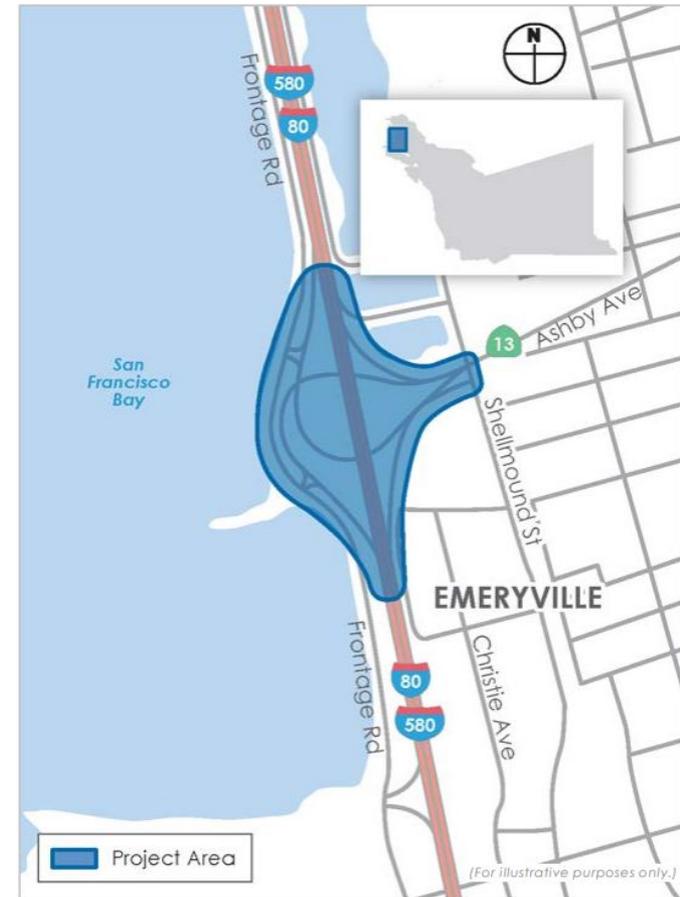


- Requires coordination with Caltrans and Richmond

Would significantly benefit Routes 1, 2 (near-term), 3, and 4 (near-term) and existing WestCAT and AC Transit routes

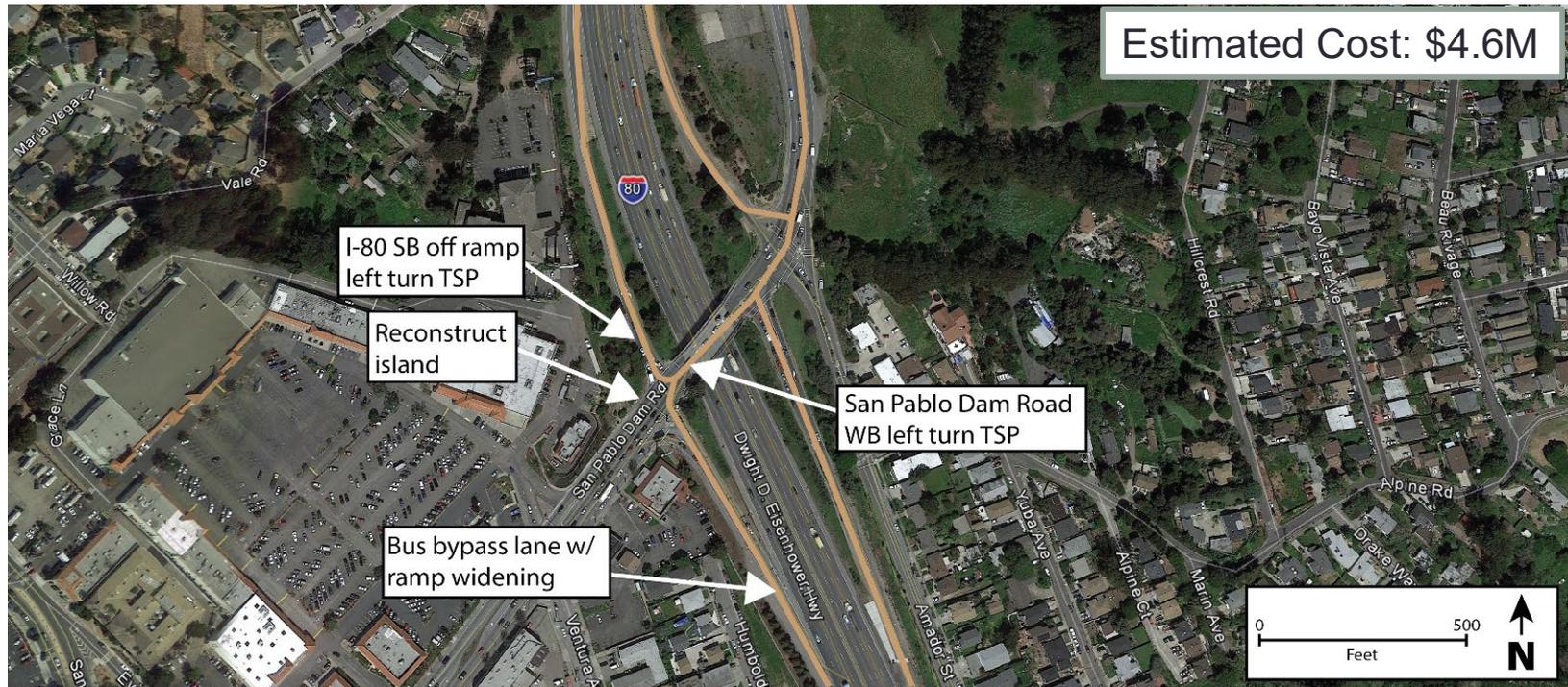
Ashby Ave/I-80 Interchange

- ACTC currently leading a project with Caltrans, Emeryville, and Berkeley to reconfigure Ashby/I-80 interchange
- Construction planned for 2022-2025
- Recommend bus-only lane for EB I-80 on-ramp
- Requires coordination with ACTC and other project partners



Would significantly benefit Routes 2 (near-term) and 6 (near-term)

San Pablo Dam Road/I-80 Interchange



- For consideration if interchange project does not advance or as elements to incorporate into interchange project
- Next step: Communicate request to Caltrans

*Would significantly benefit Route 5
and existing AC Transit routes*

Funding Sources

- Primary Sources
 - Regional Measure 3 (RM3)
 - \$25M for Contra Costa County
 - \$10M for WestCAT Facility and buses
 - \$15M for AC Transit, split between I-80 Express Bus Capital Improvements and San Pablo Avenue Rapid/BRT Service Capital Improvements
 - \$20M/year regionwide operating funds for express bus
 - CCTA 2020 Transportation Expenditure Plan (TEP)
 - \$90M to “Improve transit reliability along the I-80 corridor”
 - Additional categories for freeway access (\$57M) and major roads (\$38M)
- Other Sources
 - State, Federal, Farebox