

VTA's BART Silicon Valley Phase II Extension Project



San Jose
Downtown Association

August 24, 2017

THANK YOU!

San Jose Downtown Association
for inviting us

&

San Jose First United Methodist Church
for hosting us

Agenda

- Background & Schedule
- Environmental Process
- Tunnel Options
- Station Options
- Public Engagement & Key Decision Dates
- Q & A

Background & Schedule



VTA's BART Silicon Valley

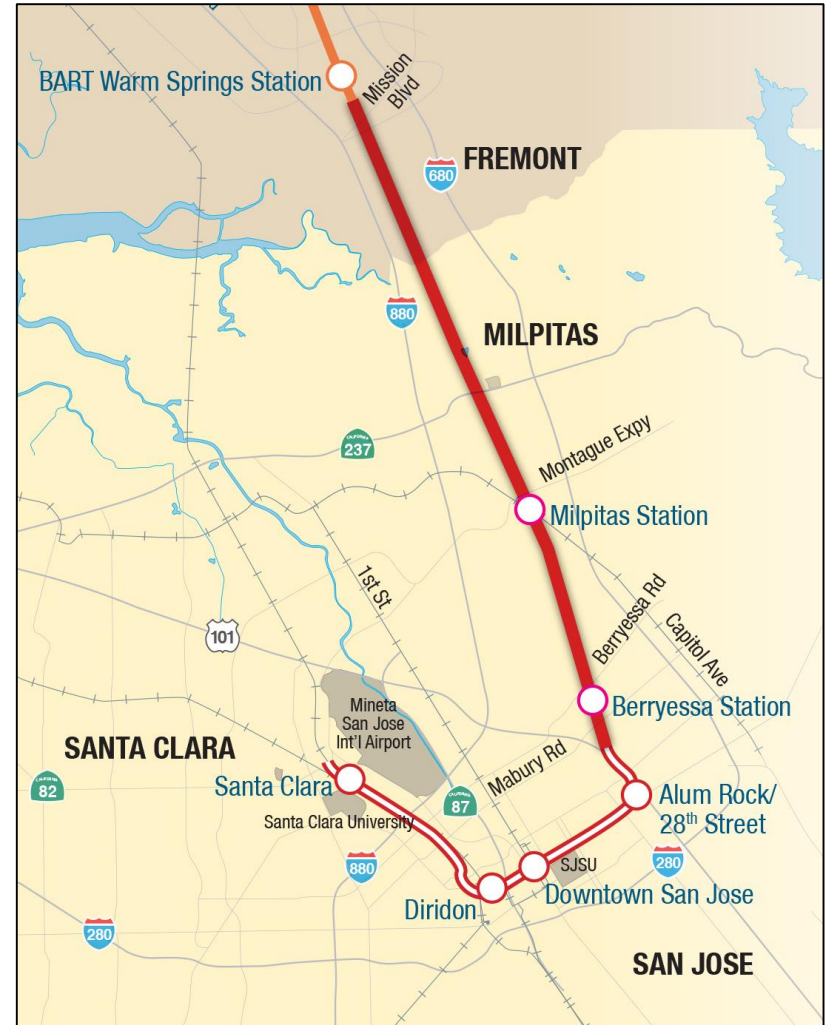
Phase I Extension

- 10-mile extension under construction
- 2 stations: Milpitas & San Jose Berryessa
- Anticipated opening year ridership: 23,000 per average weekday
- \$2.4 billion

Phase II Extension

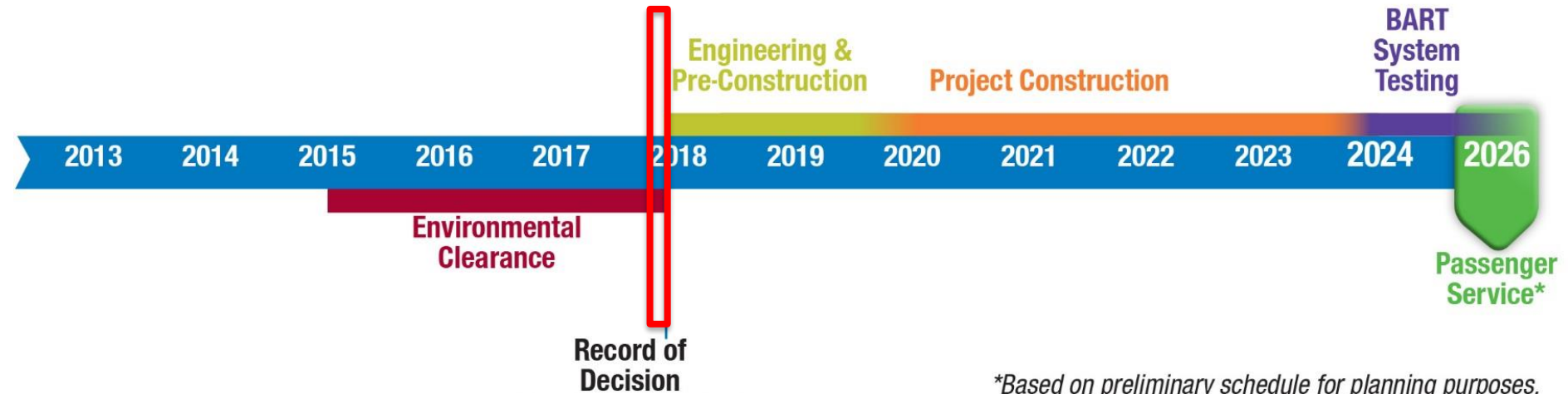
- 6-mile extension (5-mile tunnel)
- 4 stations (Alum Rock/28th Street, Downtown San Jose, Diridon, Santa Clara)
- Newhall Yard Maintenance Facility
- Anticipated opening year ridership: 33,000 per average weekday
- \$4.7 billion*

*Pre-Risk Assessed \$, excludes finance costs



Phase II Extension Project Schedule

Phase II Extension



**Based on preliminary schedule for planning purposes.*

Phase II Extension Project Funding Strategy

Project Cost:

\$4.69 Billion¹

○ Expended Funds:

\$160 Million

- ☒ Measure A Sales Tax & TCRP

○ Projected Local & State Funds:

\$3.25 Billion

- ☒ Existing Measure A Sales Tax
- ☒ 2016 Sales Tax Measure B
- ☐ State Transit & Intercity Rail Capital Program²

○ Projected Federal Funds:

\$1.5 Billion

- ☐ FTA New Starts

Projected Funding:

\$4.91 Billion³

¹ As part of the Federal New Starts review process, FTA will conduct a risk evaluation and establish with VTA the contingency levels for the project.

² VTA is targeting the maximum State Transit & Intercity Rail Capital Program amount of \$750 million. The current program is competitive and any allocation awarded to VTA could be less than the target amount.

³ The amount included in the funding strategy assumes pre-risk assessed cost and excludes finance costs.



VTA/BART Partnership

Santa Clara Valley Transportation Authority (VTA) Responsibilities

- Pay all costs associated with the extension
- Contracting/Procurement
- Construct to BART standards
- Retain ownership of infrastructure

Bay Area Rapid Transit (BART) Responsibilities

- Technical assistance
- Operations
- Maintenance
- Fare policy



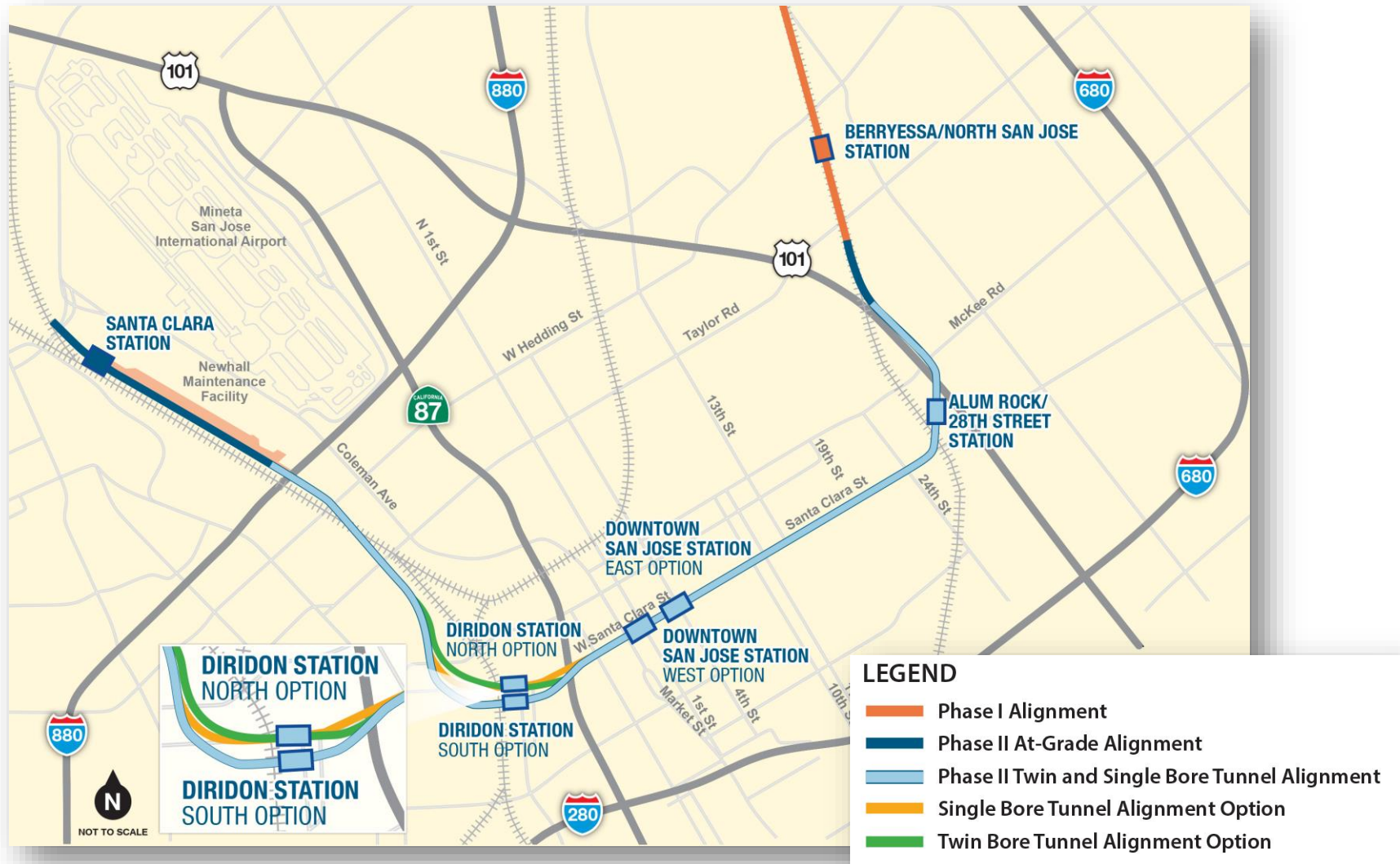
Santa Clara County is not part of the BART districts.

A Comprehensive Agreement provides a framework for the partnership.



Solutions that move you

Phase II Extension Project

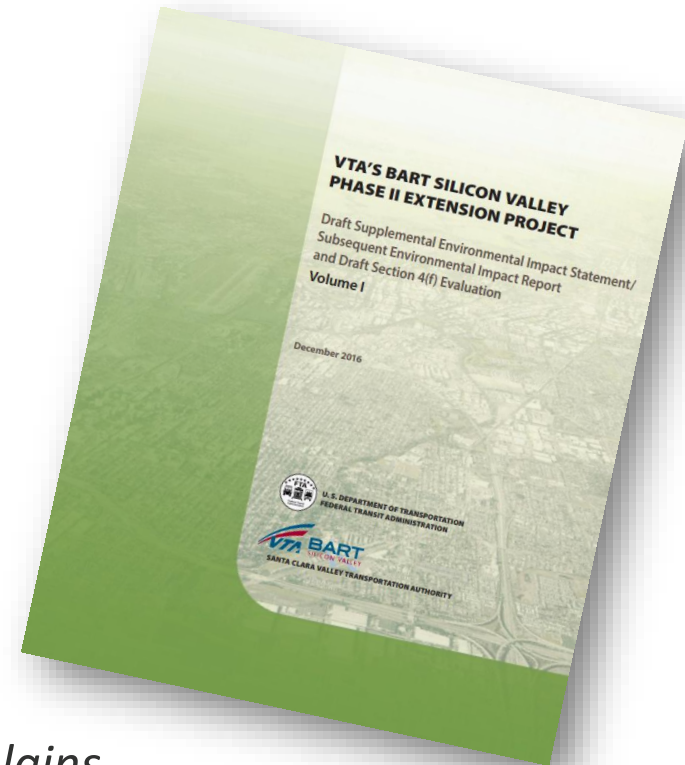


Environmental Process



State & Federal Environmental Topics Analyzed ...

- ... *Transportation*
- ... *Air Quality*
- ... *Biological Resources & Wetlands*
- ... *Community Facilities & Public Services*
- ... *Cultural Resources*
- ... *Geology, Soils, and Seismicity*
- ... *Hazards and Hazardous Materials*
- ... *Land Use*
- ... *Noise & Vibration*
- ... *Socioeconomics*
- ... *Visual Quality & Aesthetics*
- ... *Water Resources, Water Quality, and Floodplains*



Previous Environmental Documents

- 2016 Draft Supplemental EIS/Subsequent EIR: 6-mile project
- 2011 Final 2nd Supplemental EIR: 10-mile project
- 2010 Draft 2nd Supplemental EIR: 10-mile project
- 2010 Record of Decision: 10-mile project
- 2010 Final EIS: 10- and 16-mile projects
- 2009 Draft EIS: 10- and 16-mile projects
- 2007 Final Supplemental EIR: 16-mile project
- 2007 Draft Supplemental EIR: 16-mile project
- 2004 Final EIR: 16-mile project
- 2004 Draft EIS/EIR: 16-mile project



Draft SEIS/SEIR Comments Received

Summary of Comments Received

- Support for the project or support for various options
- Comments on the Project Description
 - Alternatives – alignments in the vicinity of US-101 & TOJD
 - Station locations – Downtown San Jose, Diridon & Santa Clara
 - Ventilation structure locations
- Comments on Project Impacts
 - Traffic and circulation impacts during construction
 - Parking loss during and after construction in the Diridon Station area
 - Noise and vibration impacts during construction and operation
 - Tunneling under properties
 - Twin-Bore and Single-Bore tunneling methodologies



Environmental Process Next Steps

- Responses to all comments received are being prepared
- Comments and responses will be included in Final SEIS/SEIR
- Final SEIS/SEIR will identify options that will be included in the recommended project description
- Final SEIS/SEIR targeted to be released in late 2017



Mitigation Plans/Measures

Mitigation Monitoring and Reporting Program (MMRP)

- Identifies specific mitigation measures, requirements, and reporting procedures
 - More coordination and plan development with city partners

Construction Outreach Management Program (COMP)

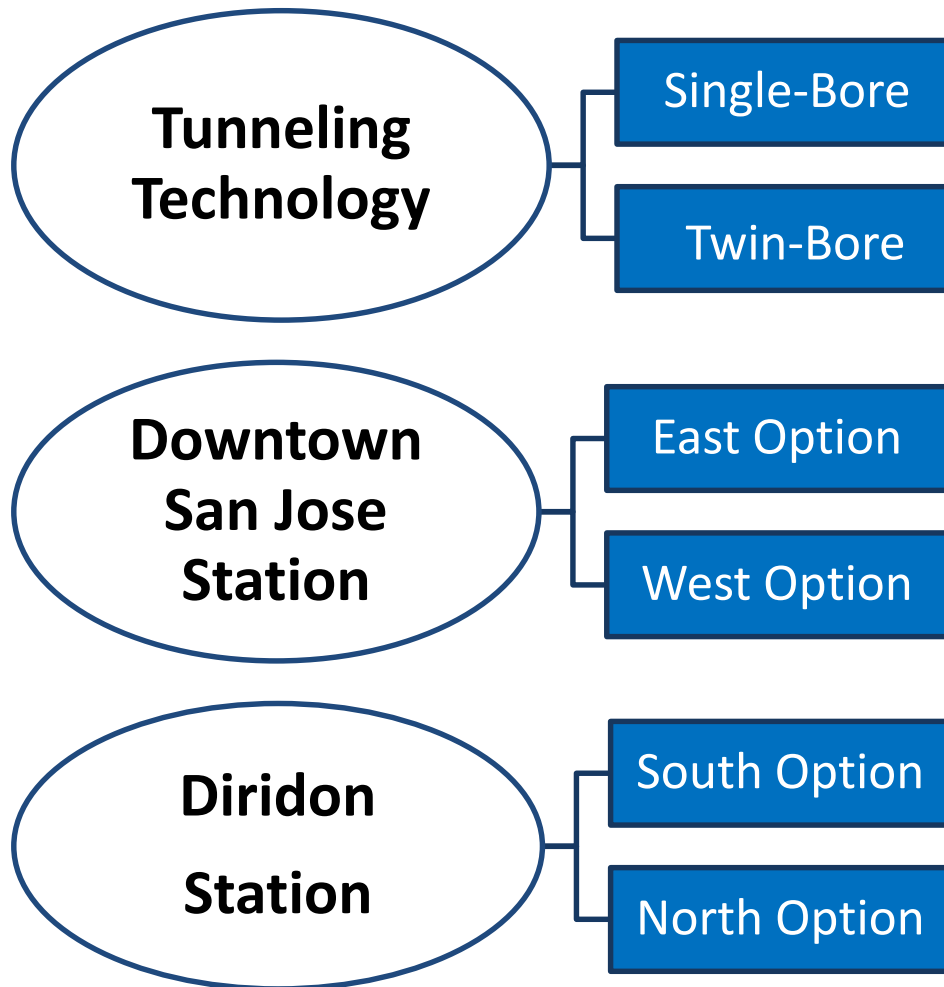
- Pre-construction and construction plans to be developed in coordination with city partners
 - Construction Education & Outreach Plan
 - Construction Transportation Management Plan
 - Emergency Services Coordination Plan



Options Under Consideration



Options Under Consideration



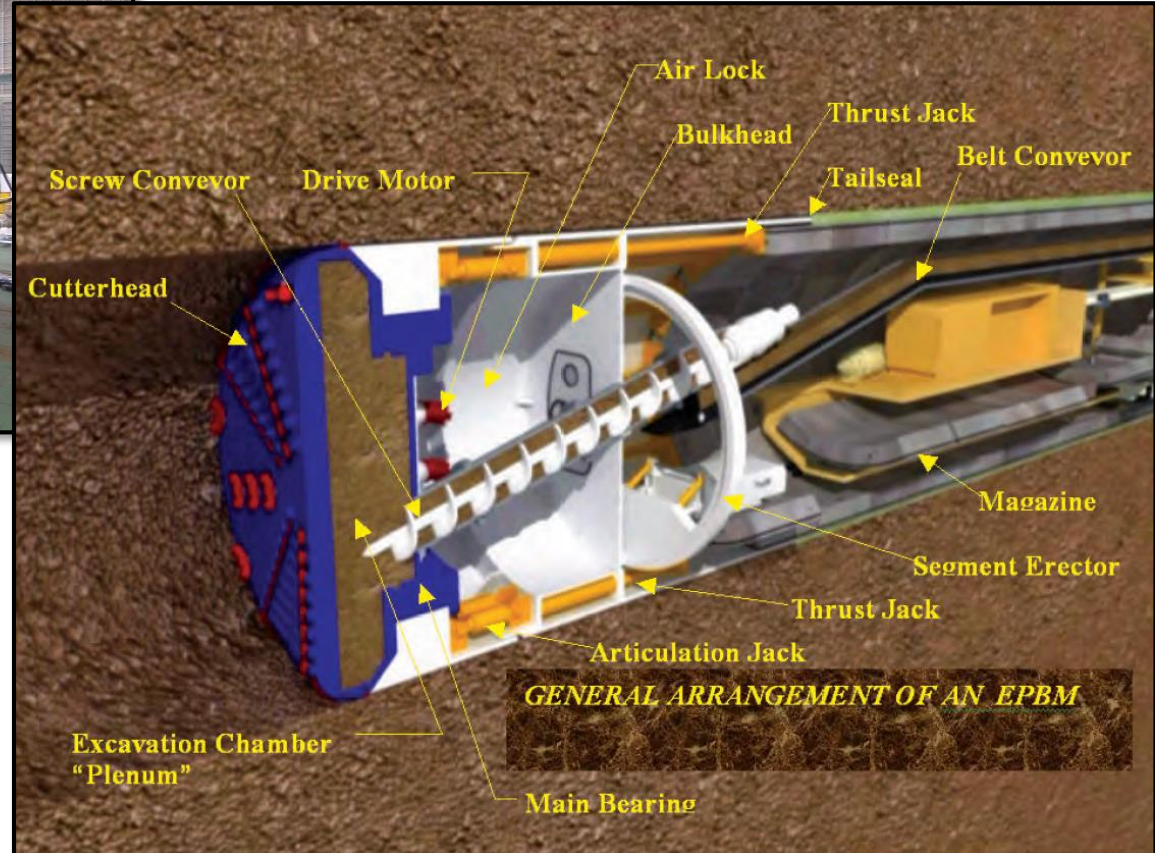
Tunnel Boring Options



Tunnel Boring Machine (TBM)



- Excavates ground material
- Creates tunnel structure
- Removes excavated material



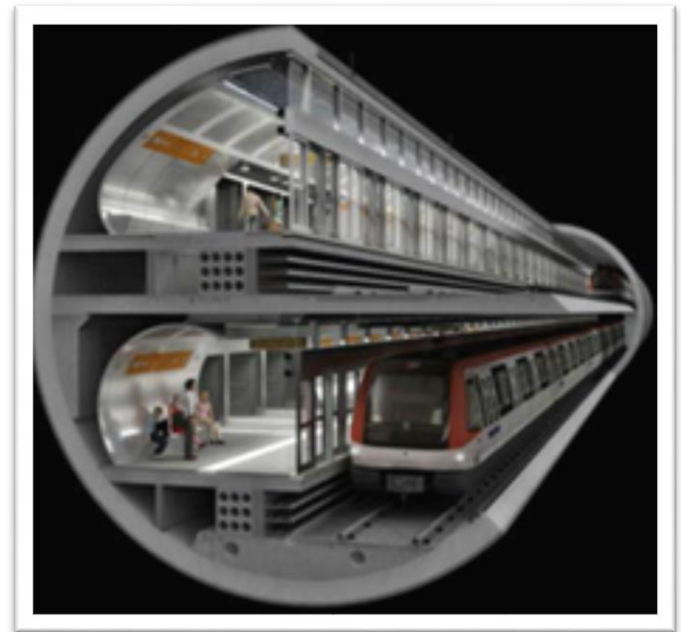
TBM Arrangement

Types of Tunnels

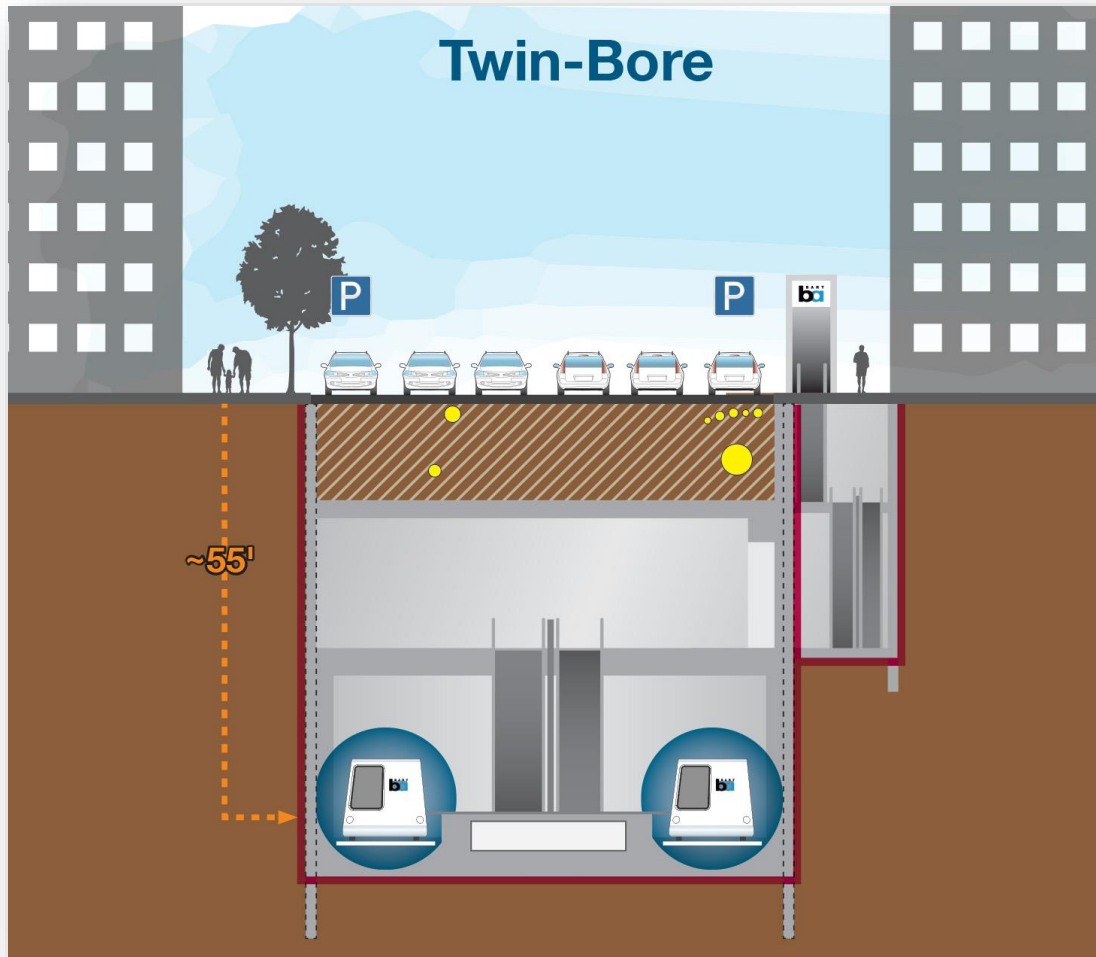
Twin-Bore



Single-Bore



Downtown San Jose Station Configuration



Twin-Bore Configuration

- ~55 ft. from ground to platform
- 28 ft. wide center platform (serving both directions of travel)
- 9'3" unobstructed width per side of platform
- Built via cut-and-cover construction

Twin-Bore Cut-and-Cover Construction Areas



Twin-Bore Configuration

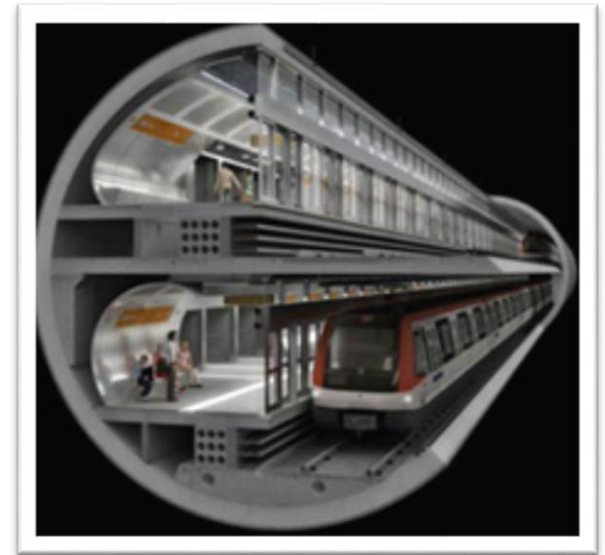
Summary

- Two approximately 20 ft. diameter tunnels with independent trackways
- Cut-and-Cover Construction to build:
 - Three underground stations
 - Two Mid-Tunnel Ventilation Structures
 - One crossover
- 33 Cross Passages (Emergency connections between tunnels): localized mining between tunnels, often requiring ground improvements
- Extensive utility relocations at cut-and-cover at five locations within the public right-of-way



Single-Bore Configuration

- Large tunnel with two independent trackways separated by wall or slab
- No cut-and-cover for platform construction
- Platforms, crossovers and cross-passages within tunnel
- Construction avoids extensive relocation of utilities
- Less disruptions to the neighborhood

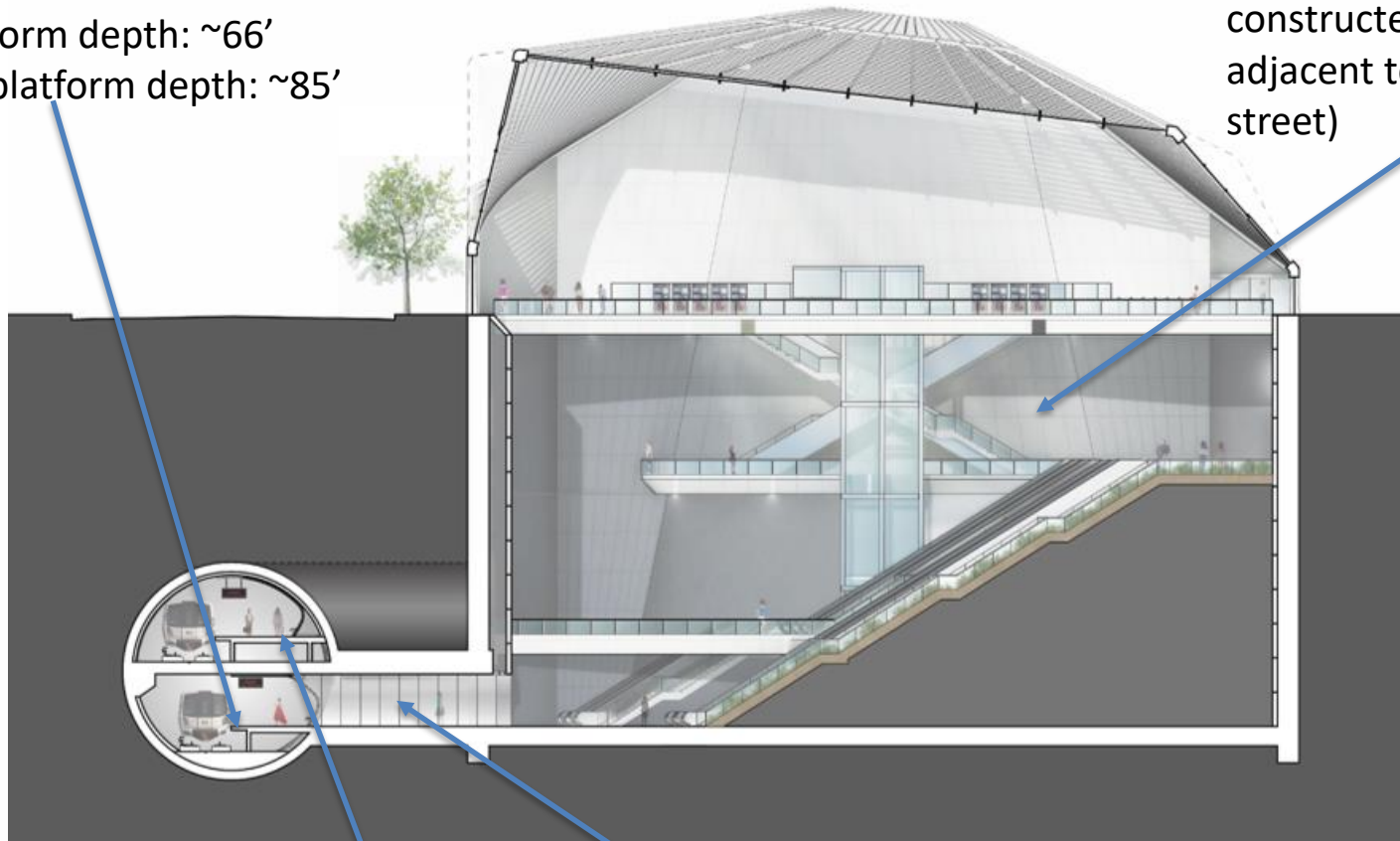


Single-Bore Configuration

Downtown San Jose Station Configuration

Top platform depth: ~66'
Bottom platform depth: ~85'

Station facilities, stairwells, escalators, elevators, etc. constructed via cut & cover adjacent to tunnel (off street)



15'-6" wide
unobstructed
platforms

Underground
connection to platform

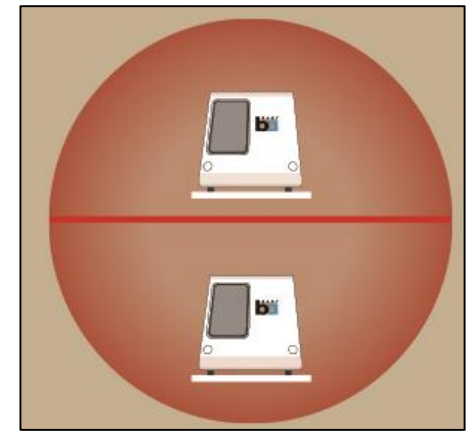
Solutions that move you



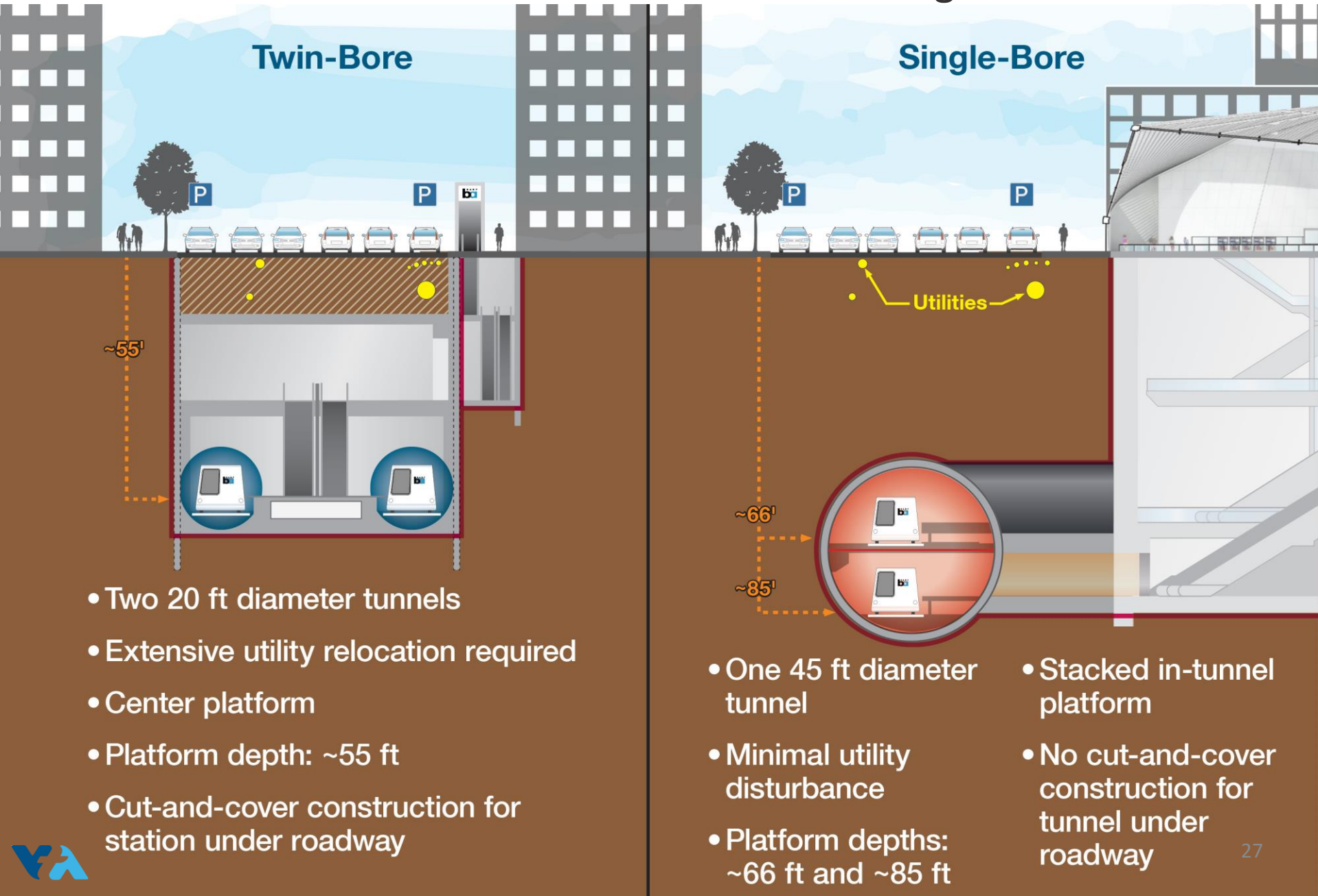
Single-Bore Configuration

Summary

- One 45 foot diameter tunnel with both trackways within tunnel
- Cut-and-Cover Construction to build:
 - Minimum of two off-street entrances per station
 - Two mid-tunnel ventilation structures
- Three stations with stacked platforms within tunnel
- Crossover within tunnel
- 76 cross passages within tunnel
- Utility relocation work at entrance locations



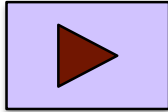
Twin-Bore and Single-Bore Stations



Station Options



Site Plan Elements



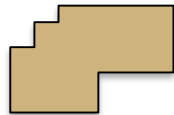
STATION ENTRANCE OPTIONS



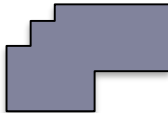
UNDERGROUND STATION, SYSTEM FACILITIES,
STATION CONCOURSE (SINGLE-BORE ONLY)



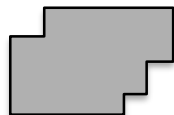
SYSTEM FACILITIES
(ABOVE AND BELOW GROUND)



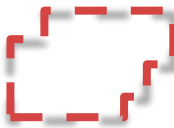
PARKING/PUBLIC FACILITY/
VTA'S TRANSIT-ORIENTED JOINT DEVELOPMENT



ROADWAY MODIFICATIONS



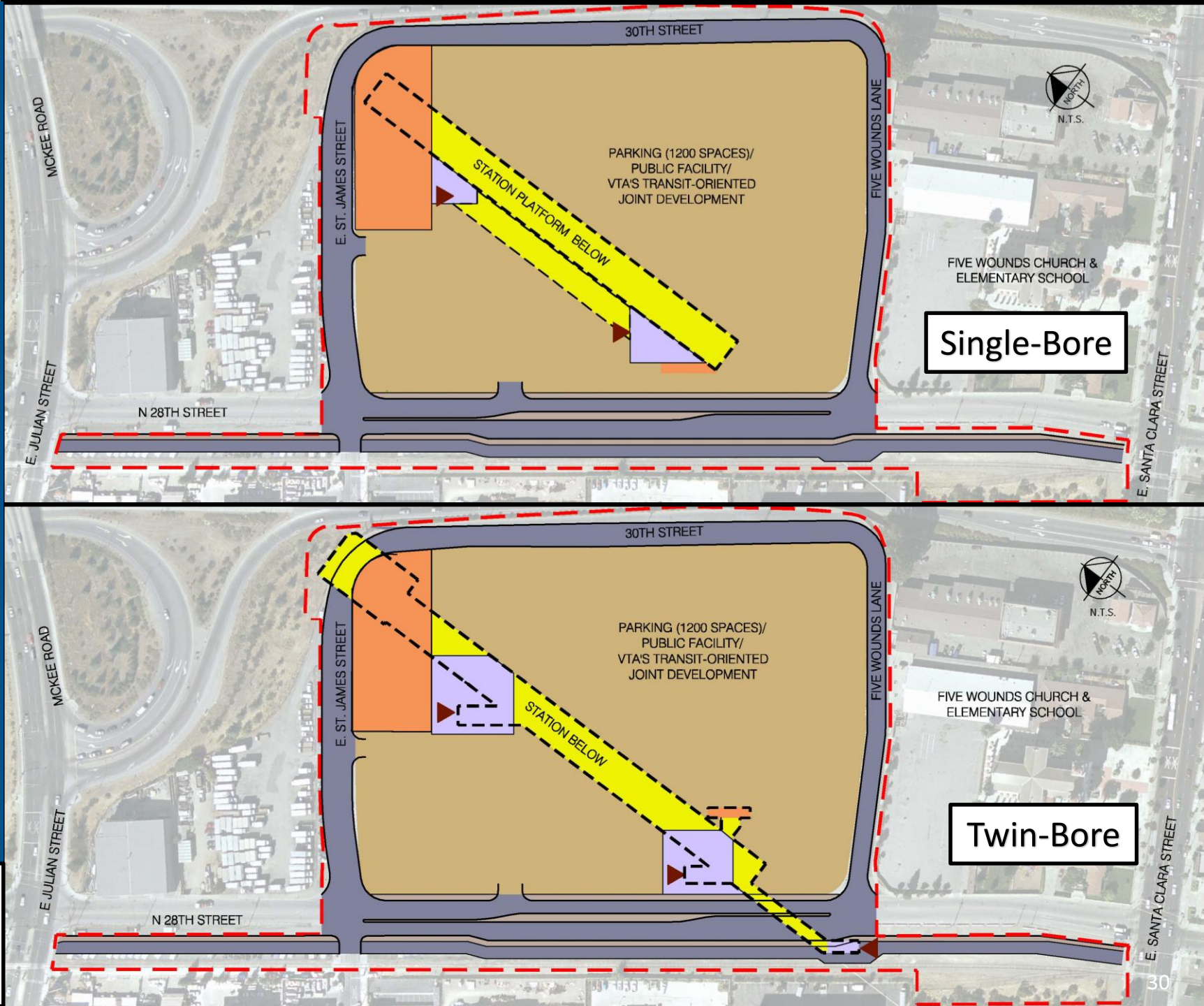
VEHICLE MAINTENANCE AND STORAGE FACILITY/
TAIL TRACKS (SANTA CLARA STATION)



CONSTRUCTION STAGING AREA

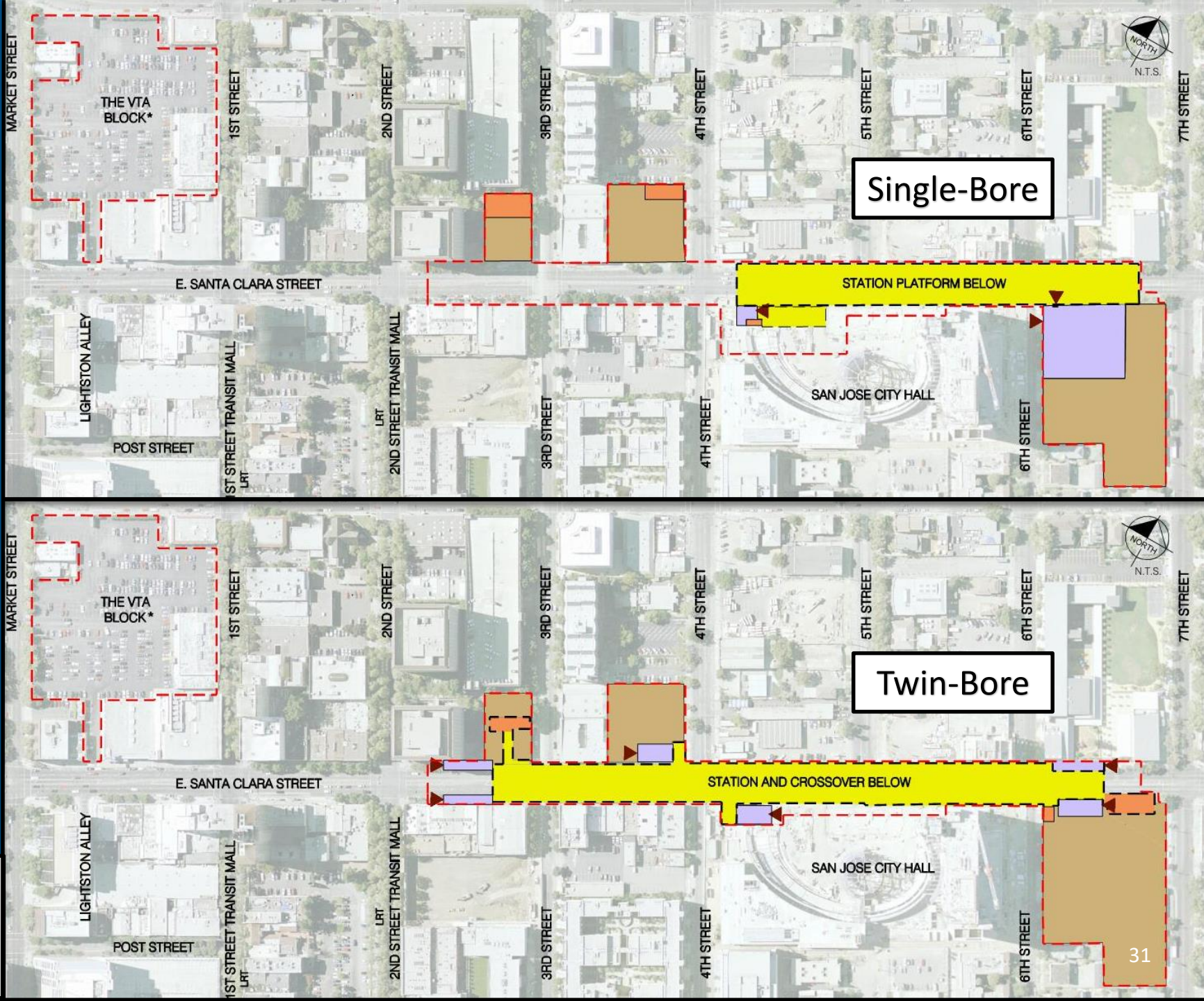
Alum Rock/28th Street Station

Draft Conceptual Exhibit



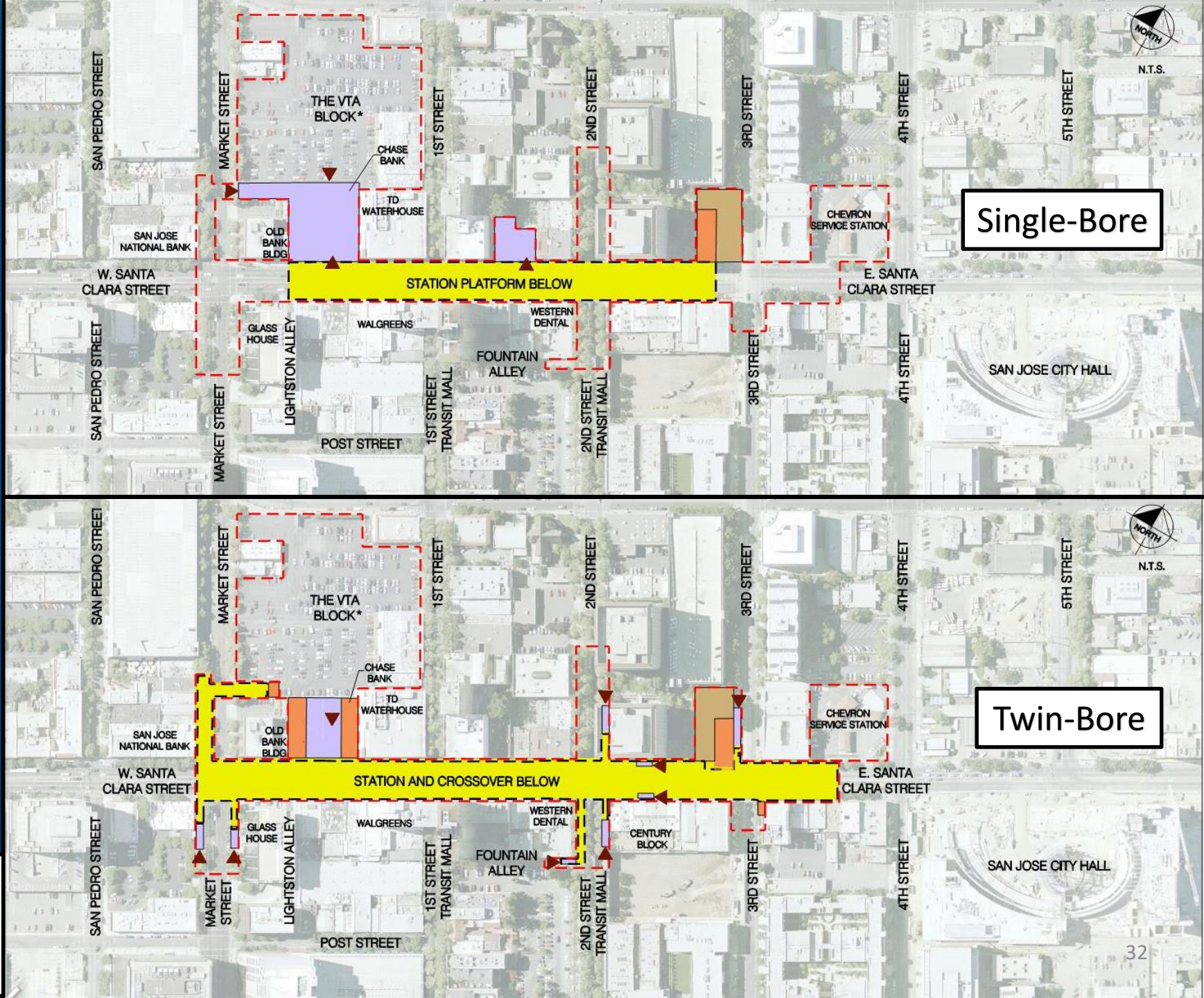
Downtown Station East Option

Draft Conceptual Exhibit



Downtown Station West Option

Draft Conceptual Exhibit

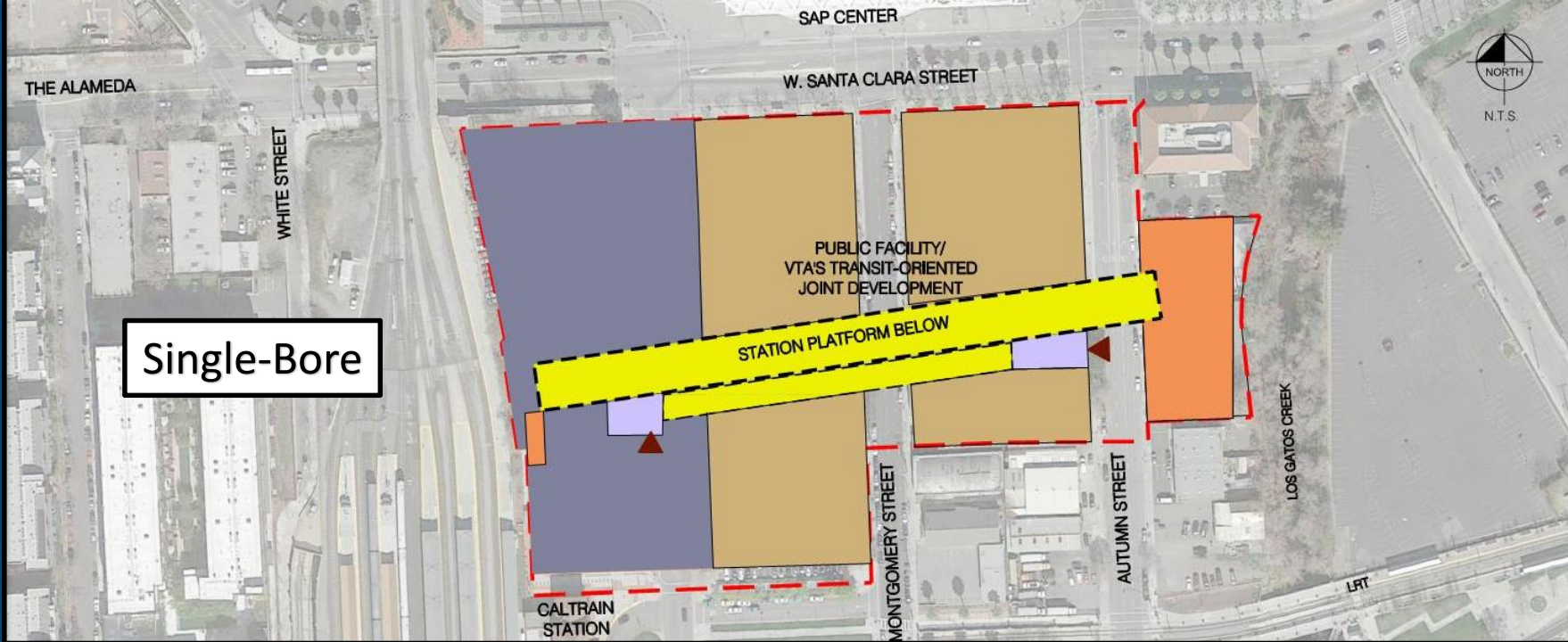


Diridon Station South Option

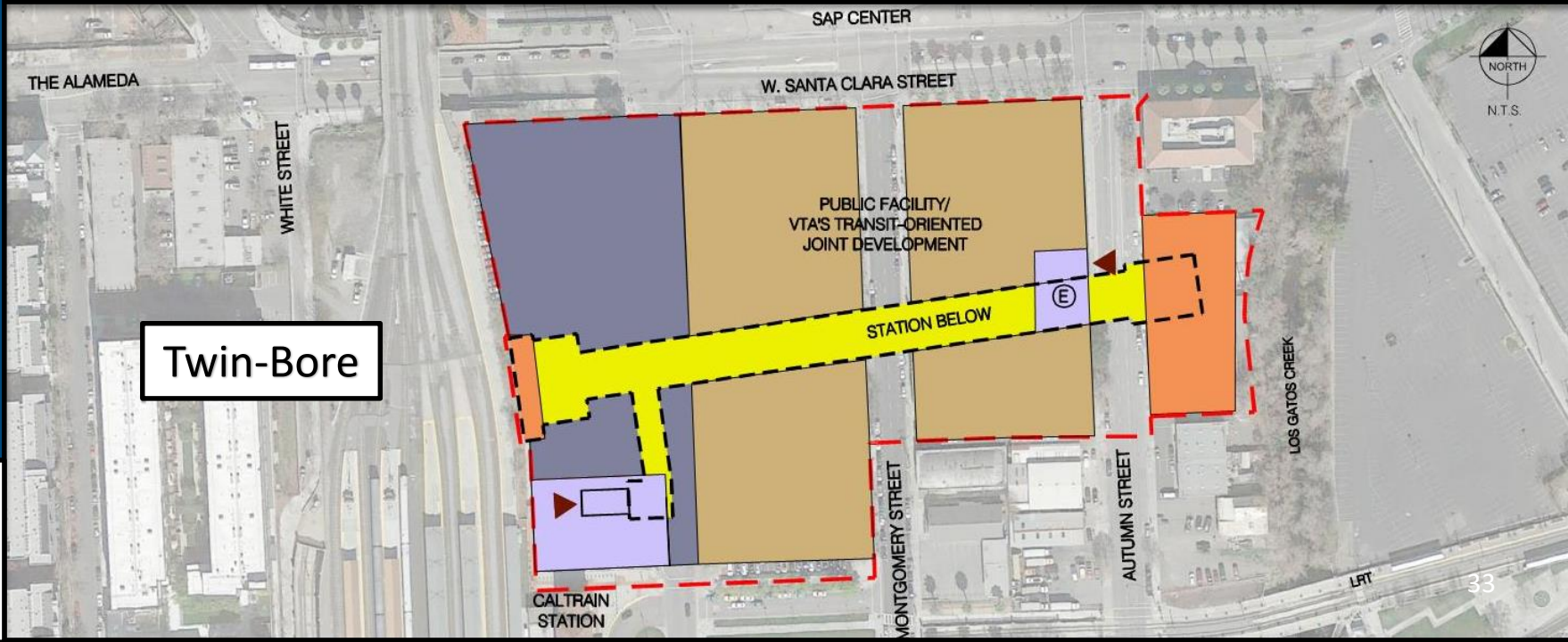
Draft Conceptual Exhibit



Single-Bore



Twin-Bore

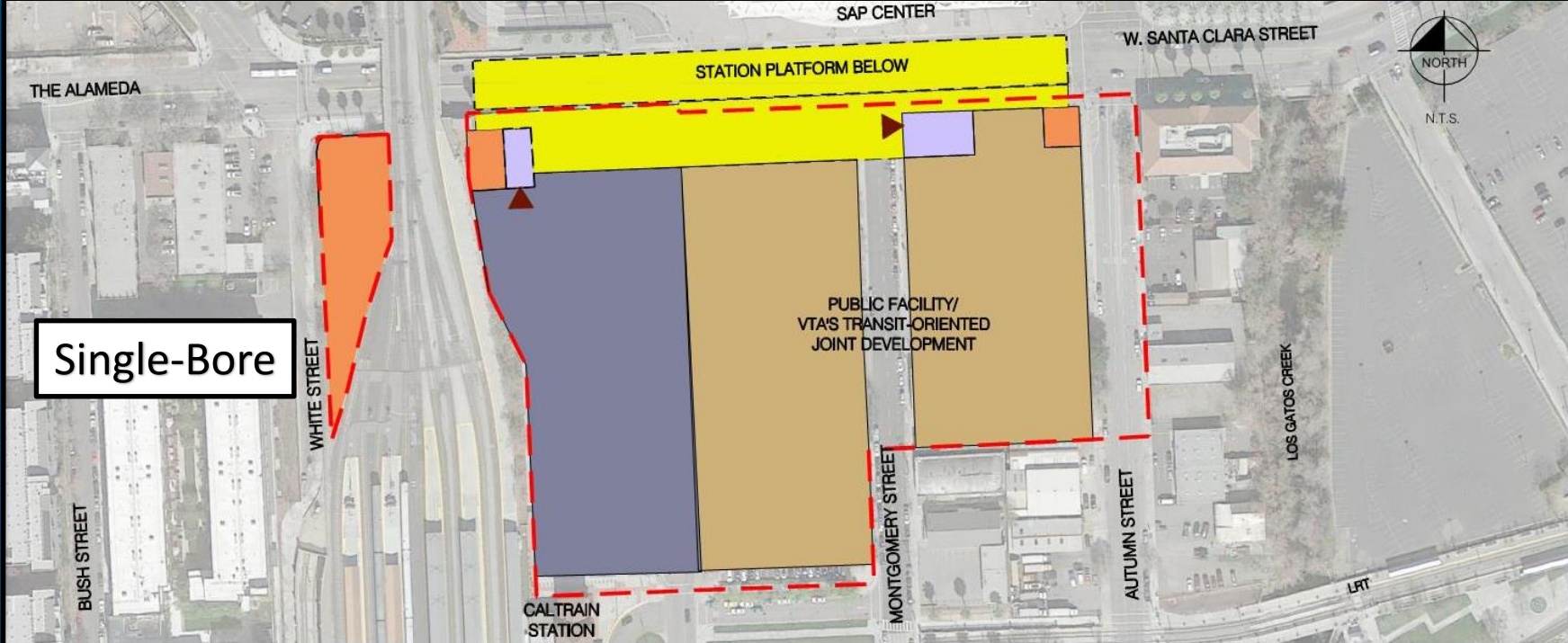


Diridon Station North Option

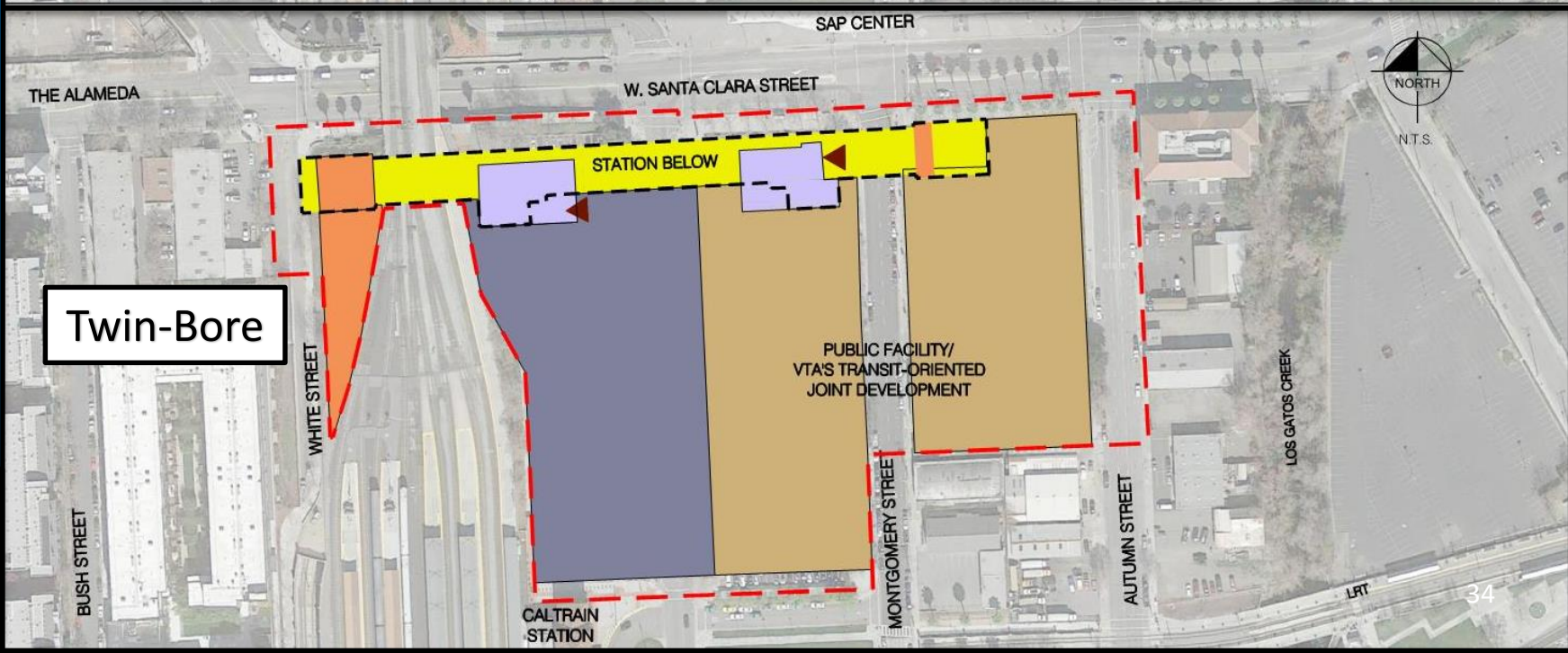
Draft Conceptual Exhibit



Single-Bore

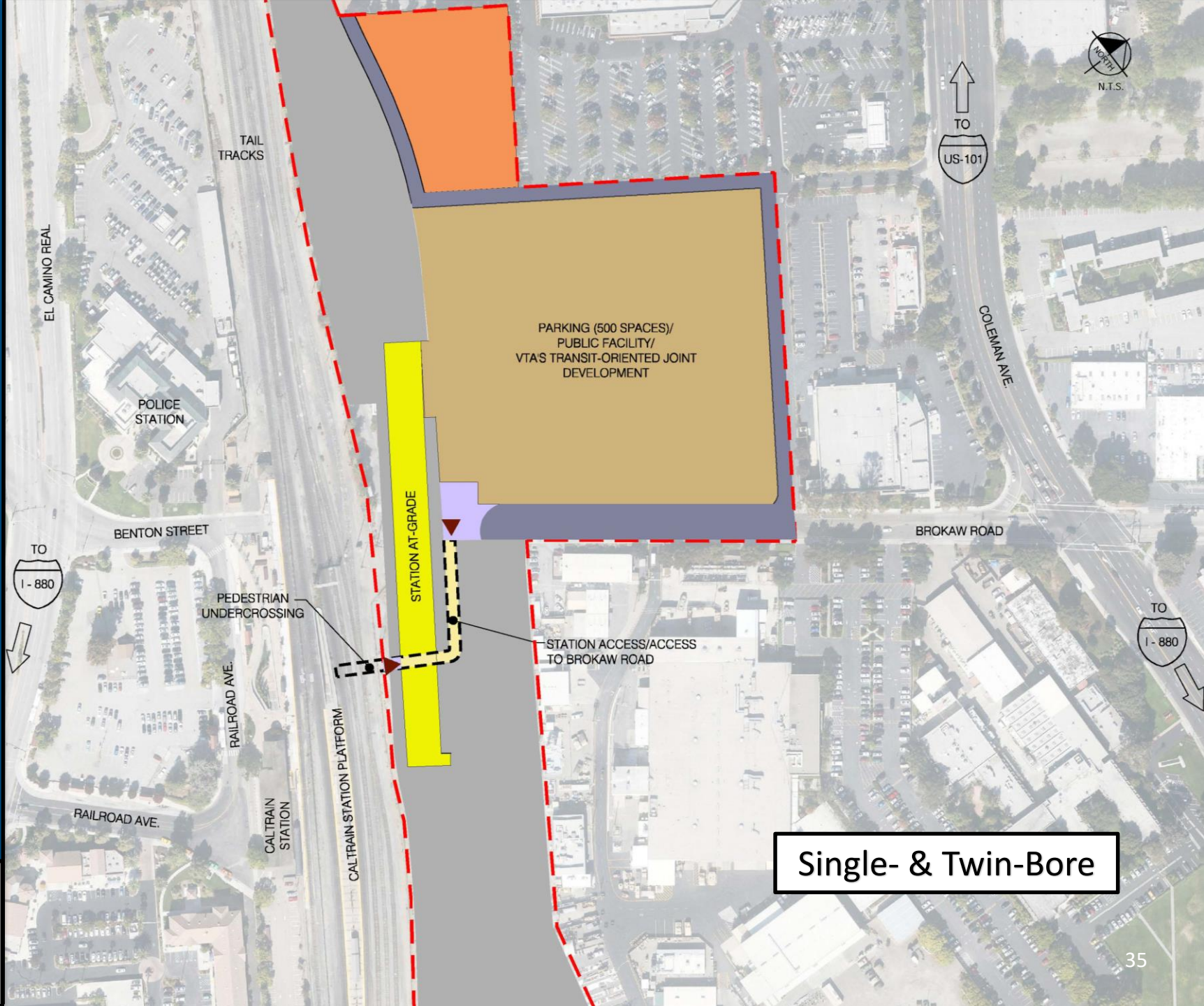


Twin-Bore



Santa Clara Station

Draft Conceptual Exhibit



Single- & Twin-Bore

Public Engagement & Key Decision Dates

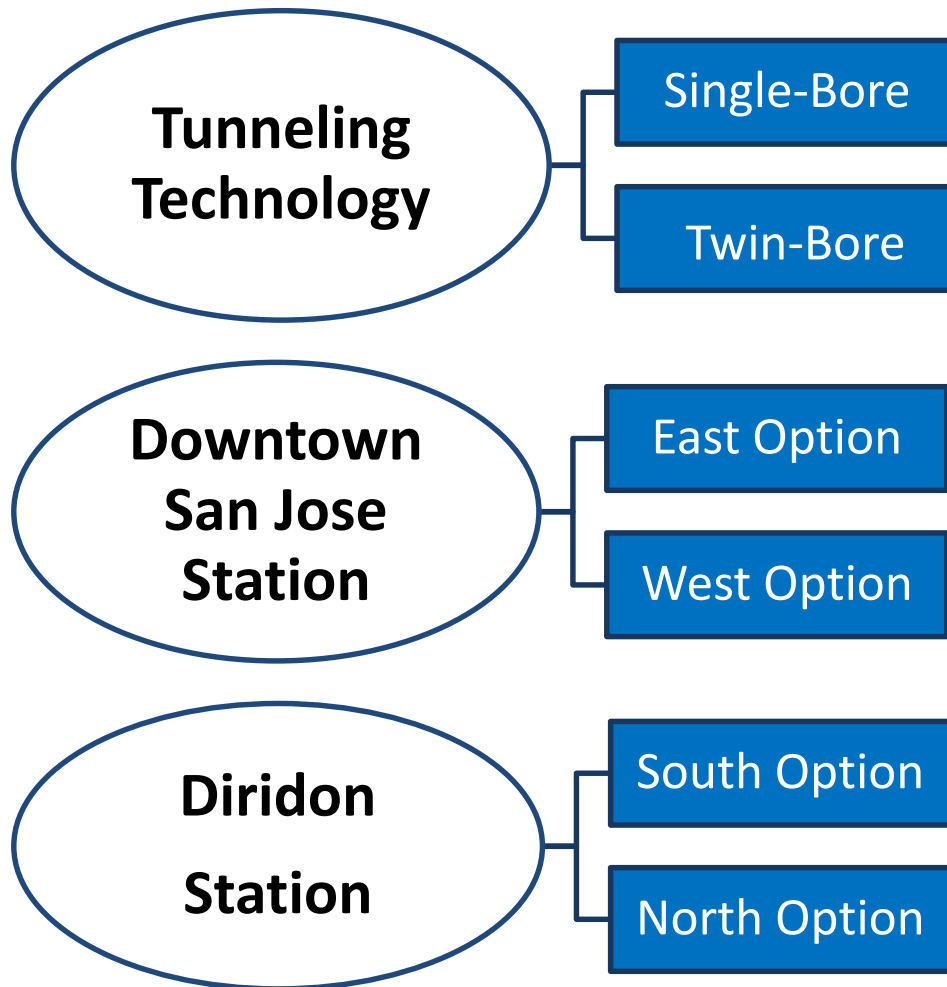


VTA's BART Phase II - Project Schedule 2017-2018

Activity	Schedule
Environmental Public Hearings Jan. 25, 26, and 30	Jan. 25-30, 2017
End of CEQA/NEPA Public Review Period	Mar. 6, 2017
VTA Conducts Single-Bore Tunneling Technical Study	Oct. 2016 - Mar. 2017
VTA Conducts Tunneling Options Comparative Analysis	April - June 2017
VTA Board Workshop - Project Overview, Environmental Process & Tunneling Methodology Decision Process	August 25, 2017
VTA Board Workshop - Final Comparative Analysis & Draft Final Project Description	September 22, 2017
San Jose City Council Meeting (anticipated)	September 19, 2017
Joint BART/VTA Board Meeting	September 28, 2017
<u>VTA Board Meeting - Select Final Project Description</u>	<u>October 5, 2017</u>
VTA Board Meeting - Certify Final SEIR/Approve Project	January 4, 2018
Record of Decision Anticipated to be Signed by FTA	March 2018



Selections for Final Project Description



Construction Education and Outreach Program

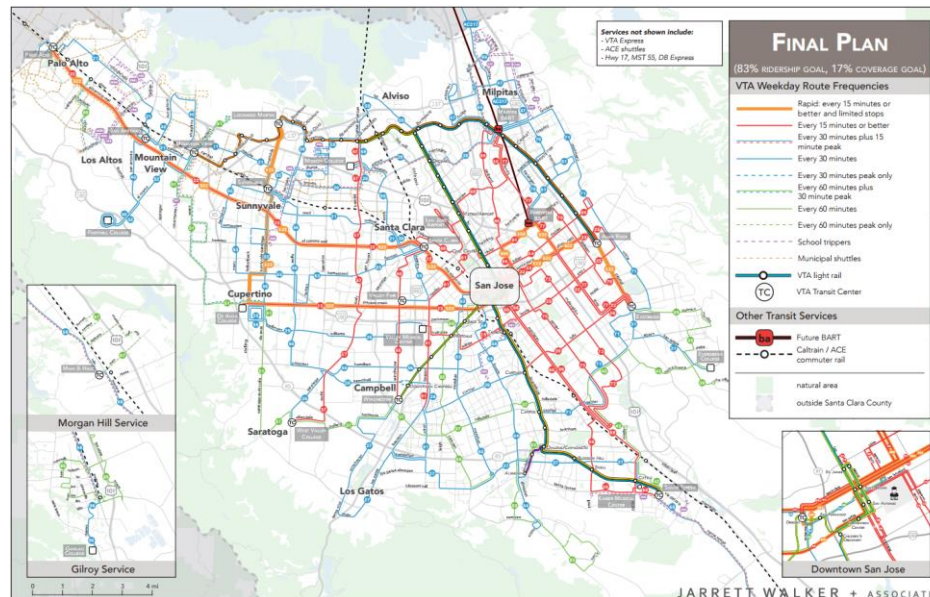
VTA will develop a **Construction Education and Outreach Plan** that includes best practices from BART Phase I that will establish:

- Stakeholder priorities during initial engagement through construction;
- Construction contract requirements to minimize disruption to businesses, residents, and commuters;
- Continued investment in the Community Working Groups;
- Multilingual and multichannel communication strategies to engage early and often, continuous feedback loop;
- On-site Community Outreach Liaisons for each construction area to partner with city and other project points of contact.



Related Planning Efforts

- Diridon Facilities Master Plan
- Transit Oriented Joint Development and Station Access Planning Study
- Next Network (Transit Service Plan)



Questions?

Want to talk more about BART Silicon Valley?

Contact VTA's Community Engagement Staff

Phone: (408) 934-2662

Email: VTAbart@vta.org



Solutions that move you