

VTA's BART Silicon Valley Phase II Extension Project

Early Construction Activities Public Meeting

March 16, 2023



CURRENT as of March 2023 – FOR DISCUSSION ONLY

Agenda



1. Project Overview
2. Early Construction Activities at West Portal
3. Environmental Considerations
4. Engagement
5. Report Out on Questions and Comments



Project Overview

Phase II Project



6-Mile Extension of BART Service

Single-Bore Tunnel

- 5-mile subway tunnel
- 1-mile at ground level

4 New BART Stations

- 3 underground platforms with above-ground station entrance buildings
- 1 ground level platform

2 Mid-Tunnel Facilities

Newhall Yard & Maintenance Facility



Five Year Look Ahead



Based on preliminary schedule for planning purposes.

FTA New Starts Funding Plan



Federal

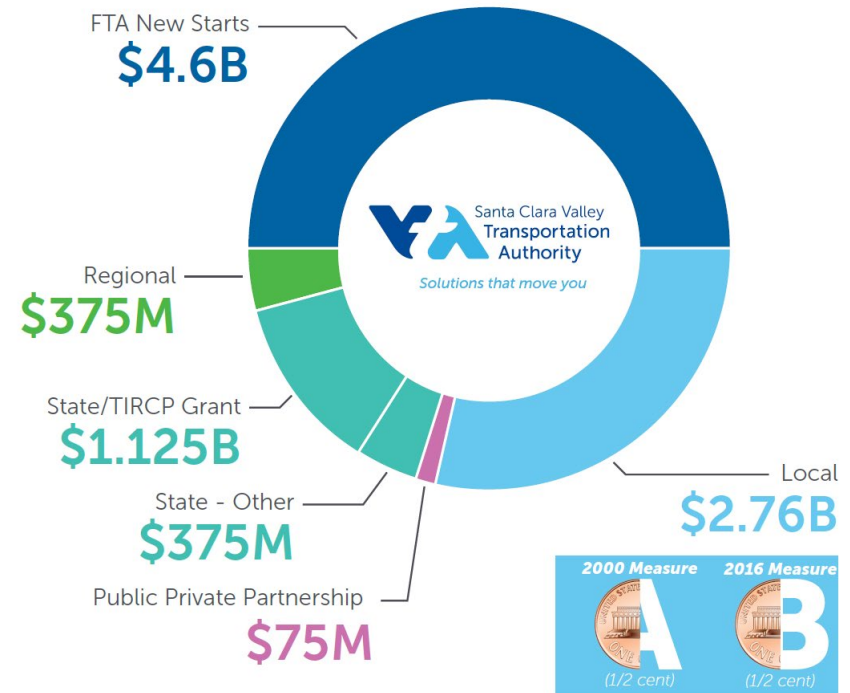
- Federal Transit Administration (FTA) New Starts Program
- Letter of No Prejudice (LONP) up to \$9.318 billion

Local

- 2000 Measure A
- 2016 Measure B
- Public Private Partnership

State/Region

- Transit and Intercity Rail Capital Program (TIRCP)
- Regional Measure 3



28th Street/Little Portugal BART Station



6,700
Riders
by 2040



1,200
Onsite
Parking



Bicycle
Parking



Close to
Future
Rapid Bus
Service



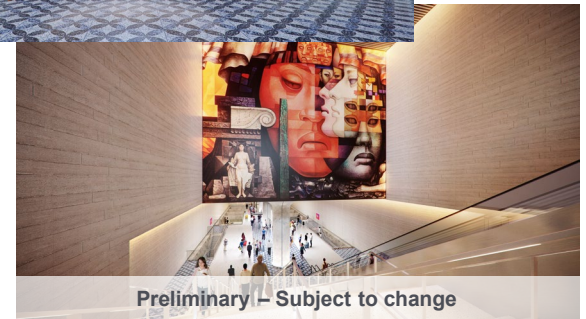
Potential
Transit-
Oriented
Development



Connected
to Future
Five Wounds
Trail



Station
Plaza



Preliminary – Subject to change

Downtown San José BART Station



27,900
Riders
by 2040



Two
Entrances
on Santa
Clara Street



Bicycle
Parking



Ticketing
Gates at
Street Level



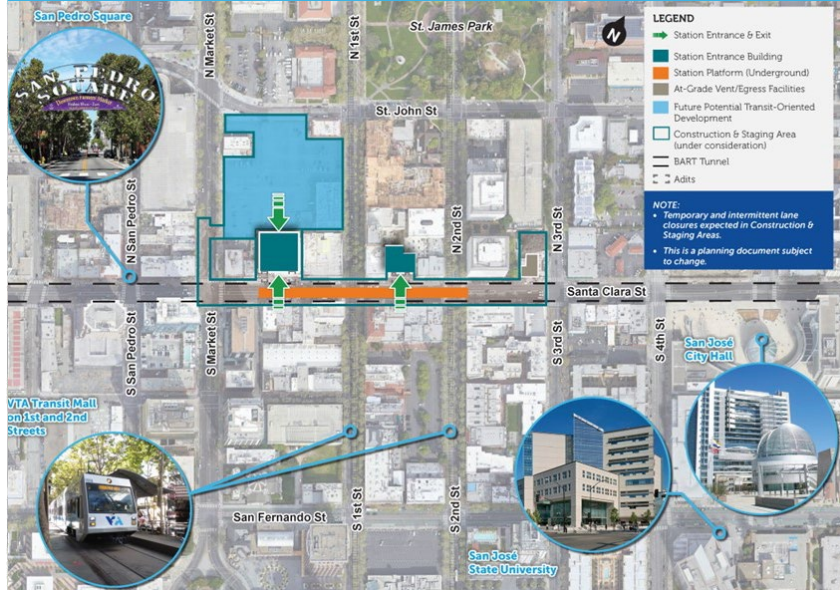
Potential to
Integrate
with TOD



Connects to
VTA Bus/
Light Rail



Walking
Distance to
Numerous
Landmarks &
Amenities



Diridon BART Station



9,900 Riders
by 2040



Bicycle
Parking



Entrances on
Cahill and
Montgomery
Streets



Ground Level
Connection to
Diridon Caltrain
Station and
Transit Center



Across from SAP Center,
Downtown West,
and Future Diridon
Intermodal Station



Preliminary – Subject to change

CURRENT as of March 2023 – FOR DISCUSSION ONLY – Early Construction Activities at West Portal

Santa Clara BART Station



10,100 Riders
by 2040



500 Parking
Space Garage
above Yard
Storage &
Transfer Tracks



Bicycle
Parking



Elevated
two-track
concourse



Connection
to Gateway
Crossings, Santa
Clara Caltrain
Station, VTA
buses, and rail



Walking
distance to
Santa Clara
University &
PayPal Park

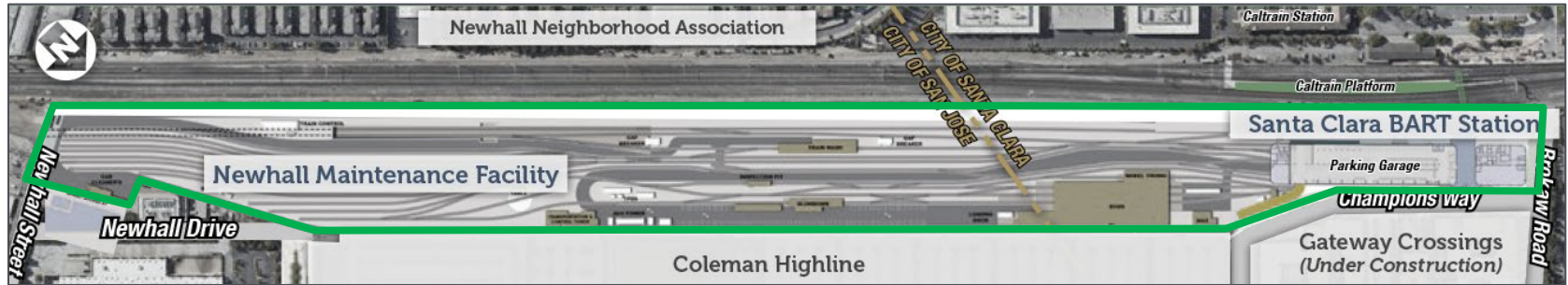


Preliminary – Subject to change



CURRENT as of March 2023 – FOR DISCUSSION ONLY – Early Construction Activities at West Portal

Newhall Yard and Maintenance Facility



- End-of-line BART general maintenance, running repairs, and storage of BART vehicles and service vehicles
- Constructed on former Union Pacific Newhall Yard, purchased by VTA in 2004 and cleared of all structures
- Includes maintenance and engineering offices, a yard and control tower, maintenance shop, train car washer, and other support facilities
- Most maintenance activities will occur inside enclosed buildings, resulting in minimal noise from trains
- 24-hour operation



Construction Outreach Management Program



Construction Education and Outreach Plan (CEOP): communication during construction between VTA, cities of San José and Santa Clara, and the public



Construction Transportation Management Plan (CTMP): coordinate circulation and access needs within and around the construction areas for all transportation options



Emergency Services Coordination Plan (ESCP): coordinate with local emergency services to minimize impact to emergency service routes and response times due to construction activities

Why Early Construction?



Early Construction sets the stage for the next phase: Major Construction



Early Construction

- Construction of site roads
- Preparing on-site offices for tunneling operations
- Construction of precast tunnel liner plant
- Production of tunnel lining segments
- Excavation of Muck Bin
- Preparing TBM Launch Site
- Assembling TBM
- Construction of Grout Plant



Early Construction Activities at West Portal

Early Construction Outcome



Prepare the site for Tunneling Operations



Construct on-site access points, parking, and offices



Construct & operate facilities to produce tunnel lining



Excavate tunnel portal and excavated materials bin

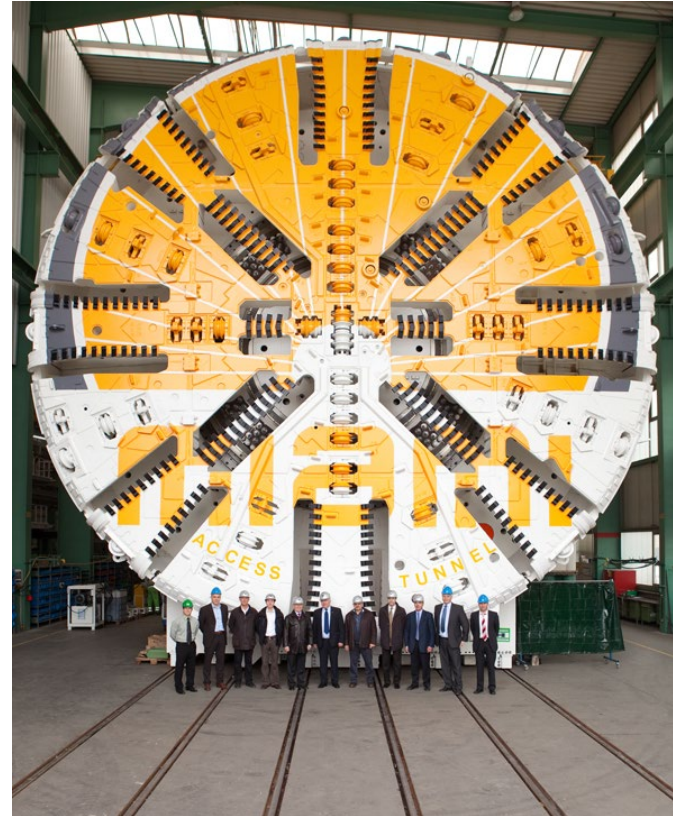


Assemble the tunnel boring machine (TBM)

Pressurized Tunnel Boring Machine

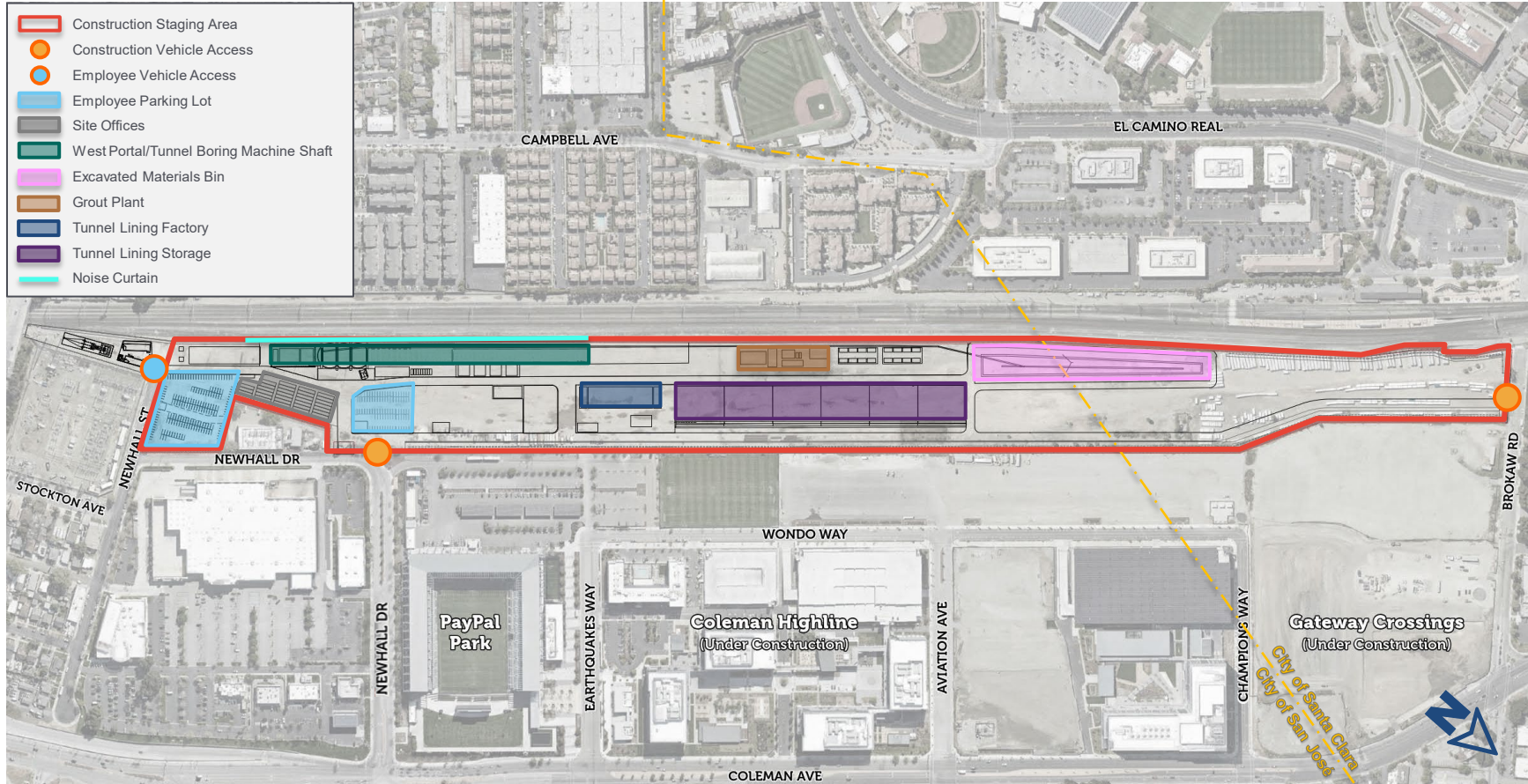


- Tunnel Boring Machine (TBM) methods must match ground conditions
 - Phase II alignment has soft soil conditions
- Electric powered
- TBM creates tunnel as it removes soil, rocks, and debris and progresses through the alignment



Example TBM




Overview of What to Expect

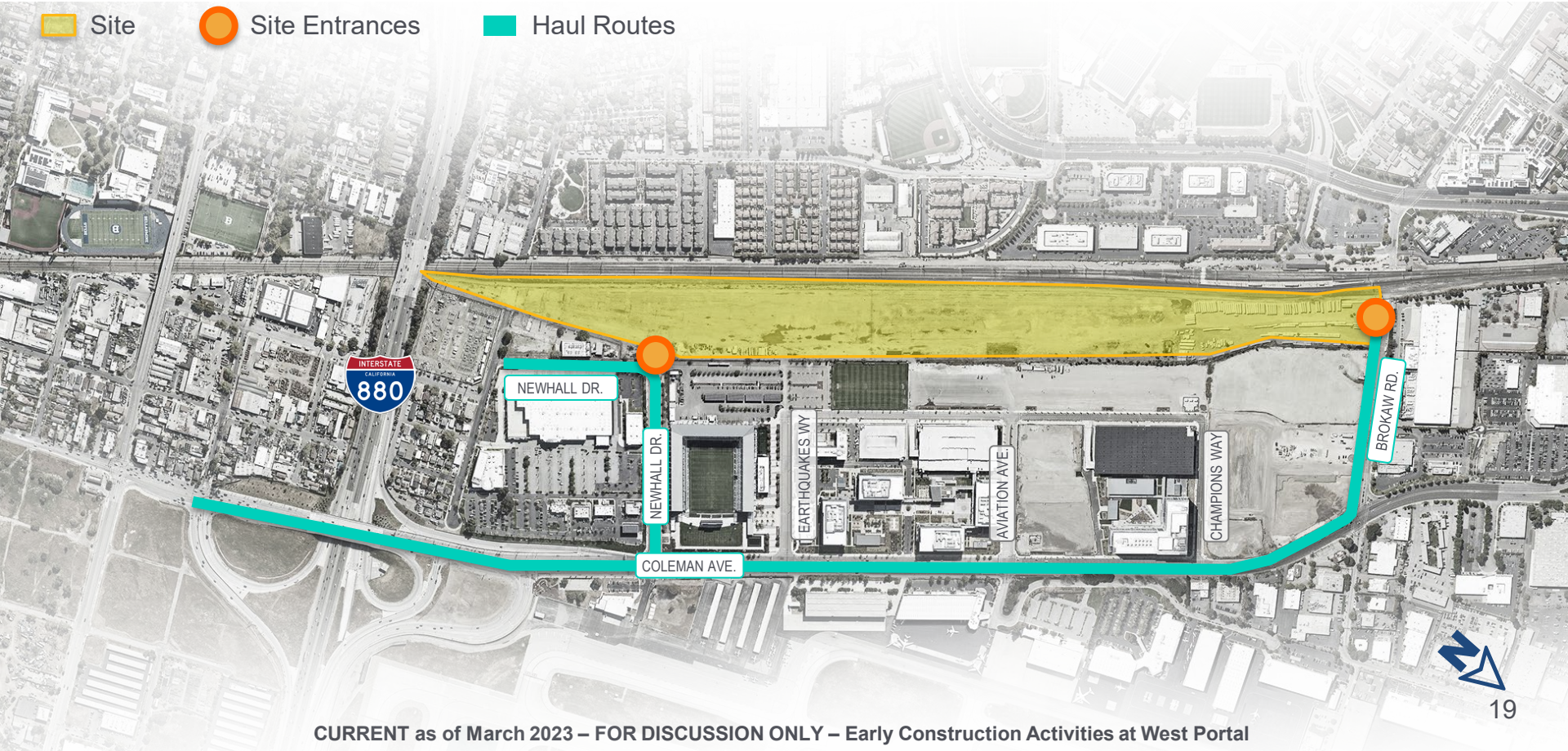


CURRENT as of March 2023 – FOR DISCUSSION ONLY – Early Construction Activities at West Portal

Approved Haul Routes



-  Site
-  Site Entrances
-  Haul Routes



Noise and Vibration Mitigations



The Project has established federal noise & vibration limits and protocols to mitigate levels beyond those limits.

Monitoring Systems

- Devices to track noise & vibration automatically and continuously
- Manual tests during peak noise & vibration-generating activities



Mitigations

- Limiting select activities during nighttime and Saturdays



- Noise curtain to protect local residences from noise



- And more related to construction equipment & operations

Site Access

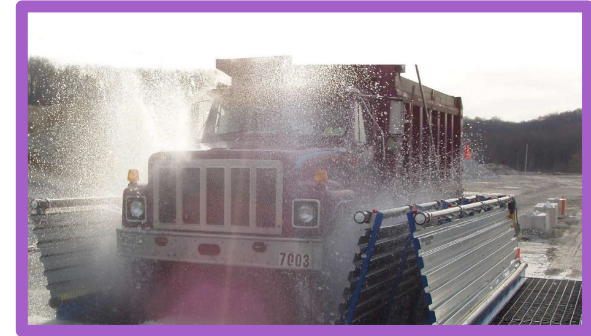


Construction Vehicle Access

- via Newhall Drive and Brokaw Road

Worker Vehicle Access

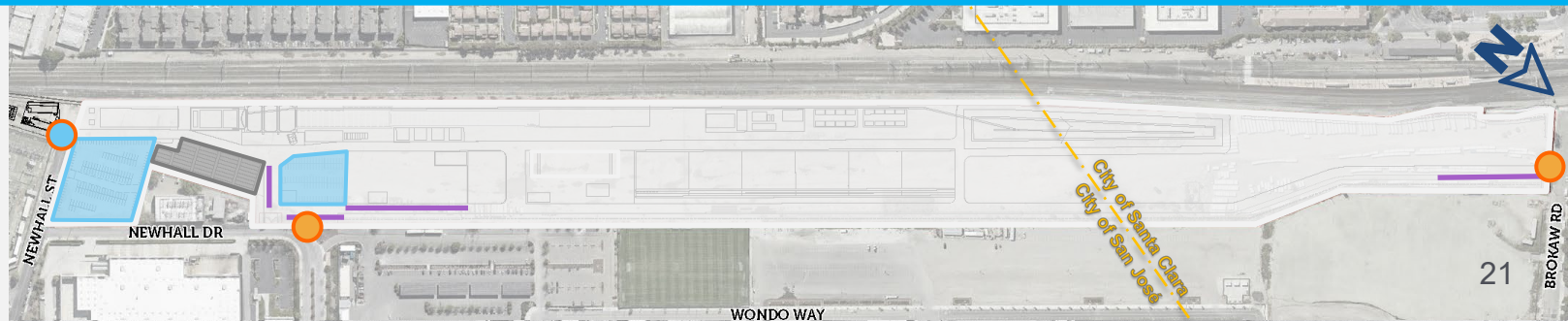
- **300** parking spaces between the two lots



Worker Facilities

- On-site offices

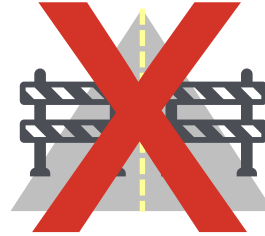
- Construction Vehicle Access
- Employee Vehicle Access
- Employee Parking Lot
- Site Offices
- Truck Queuing Areas



Maintaining Access During Early Construction



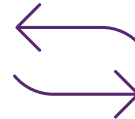
- ✓ No detour routes, lane or sidewalk closures, or loss of parking



- ✓ All pedestrian, bicycle, and vehicular facilities maintained throughout construction



- ✓ All trucks will access the site from I-880 via Coleman Ave



Planned Work Schedule for Early Construction



2023			2024					
Q2	Q3	Q4	Q1	Q2	Q3	Q4		
<ul style="list-style-type: none"> ➤ Single Shift Work Hours ➤ Single Shift Hauling 				<ul style="list-style-type: none"> ➤ Double Shift Work Hours ➤ Double Shift Hauling ➤ Saturday Work 				<ul style="list-style-type: none"> ➤ Double Shift Work Hours ➤ Single Shift Hauling ➤ Saturday Work

What to Expect: Tunnel Lining Factory Construction



Tunnel Lining Factory

- Construction of factory to produce concrete tunnel lining segments

🕒 Single Shifted Work

✓ Mitigation measures will keep noise and vibration levels in compliance

Tunnel Lining Storage

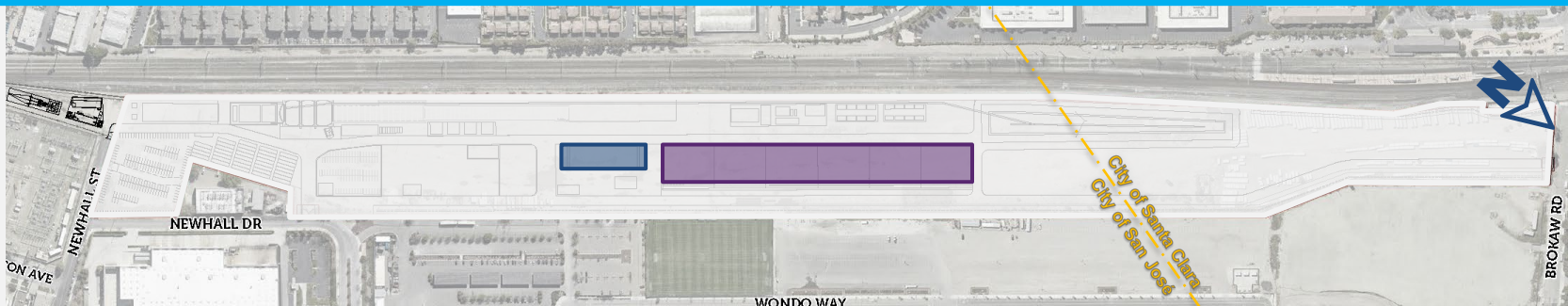
- Construction of storage area for concrete tunnel lining segments

Construction

- Work hours to construct factory: **6 AM – 6 PM**
- Anticipated construction: **Mid to Late 2023 – Mid 2024**



■ Tunnel Lining Factory
■ Tunnel Lining Storage



What to Expect: Tunnel Lining Factory Operations



Tunnel Lining Factory

- Factory for producing concrete tunnel lining segments
- Operations contained in buildings and enclosures to significantly limit noise produced
- Double shifted work to reduce duration of activities and not impact overall schedule as tunnel lining segments are crucial to tunneling operations

Tunnel Lining Storage

- Storage of concrete tunnel lining segments

Operations



- Factory operations: **6 AM – 11 PM**
- Anticipated operations: **Mid 2024 through Major Construction**



Double Shifted Work

✓ Mitigation measures will keep noise and vibration levels in compliance



-  Tunnel Lining Factory
-  Tunnel Lining Storage



Overview of TBM Preparation



TBM Preparation

- Excavation and lining of west portal, TBM launch shaft, and excavated material bin
- Assembly of the TBM on site
- Work hours: **Double-Shift, 6 AM – 4 AM**
- Approximate Duration: **14 Months**
- Anticipated Start: **Mid to Late 2023**

🕒 **Double Shifted Work and Hauling**

✓ **Mitigation measures will keep noise and vibration levels in compliance**



- West Portal/Tunnel
- Boring Machine Shaft
- Noise Curtain



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TBM Prep: SOE Construction of TBM Shaft & Portal



Support of Excavation (SOE) Construction

- SOE creates concrete slurry walls below ground which aid excavation and creates the space for TBM assembly
- *SOE work must be double shifted work and hauling* due to the complex sequences of work required to build slurry walls
- Includes: Excavation equipment, trucks hauling concrete and excavated materials, other heavy equipment



Double Shifted Work and Hauling

✓ Mitigation measures will keep noise and vibration levels in compliance

Noise Mitigations

- Select activities completed during weekdays as feasible
- Noise curtain – works to absorb noise, not reflect it
 - Reduces noise associated with SOE work
 - Minimum height of 16 ft and 750 ft long



- West Portal/Tunnel
- Boring Machine Shaft
- Noise Curtain





TBM Prep: Excavated Materials Bin Construction



Excavated Materials Bin Preparation

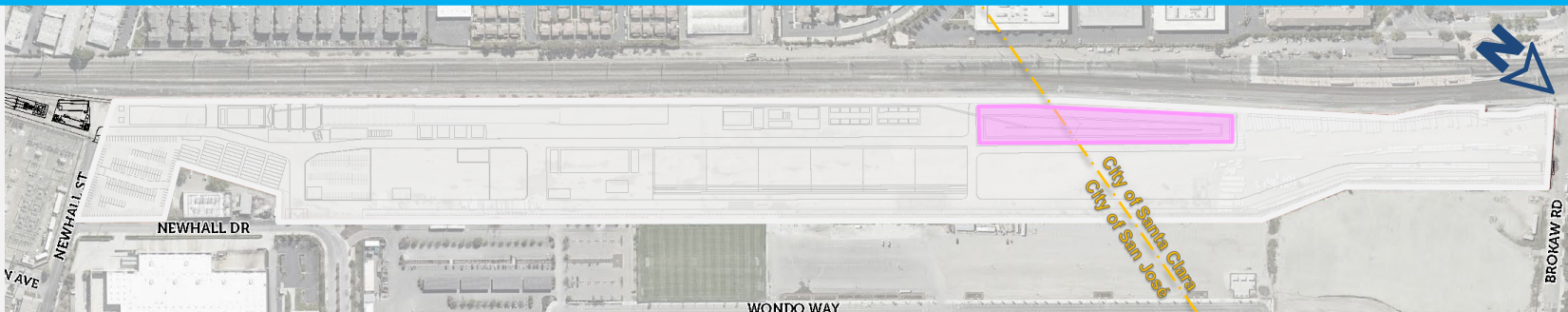
- Construct excavated materials bin by excavating soil and installing retaining walls to create the bin
- Excavated materials bin will store soil before being hauled away
- Construction of bin is crucial to begin TBM tunneling operations
- Work hours: **Monday-Saturday, 6 AM – 6 PM**
- Anticipated Start: **Mid to Late 2024**

🕒 Single Shifted Work

✓ Mitigation measures will keep noise and vibration levels in compliance



Excavated Materials Bin





Tunnel Boring Machine (TBM) Assembly & Launch Preparation

🕒 Double Shifted Work

✓ Mitigation measures will keep noise and vibration levels in compliance

- Create Launch Structure for TBM assembly and to push off from when tunneling begins
- Assembling TBM on site to prepare for tunneling
 - TBM assembly required for start of tunneling
- Double shifts required to maintain planned schedule for integration with other contracts on project



West Portal/Tunnel Boring Machine Shaft





Environmental Considerations

Construction Activities



- ✓ Majority of construction work will be contained to the Project site limits



Project truck hauling



Construction signage



Day, nighttime, and Saturday work activities

Dust Controls

- Covering or moistening trucks carrying loose materials
- Removing all visible mud/dirt on adjacent public roads
- Suspending dust-intensive activities in high winds
- Installing screening around the site



Potential screening on fences at Newhall Yard and Santa Clara station – Subject to Change

Reducing Artificial Light



Strategies to Reduce Light

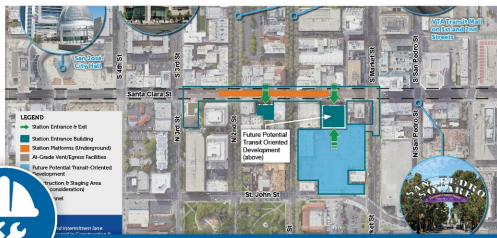
- ✓ All light will be screened/shielded and directed downward toward work activities
- ✓ Number of nighttime lights will be minimized to the extent construction safety allows
- ✓ Site lighting plan in development to implement strategies





Engagement

On-Going Construction Outreach



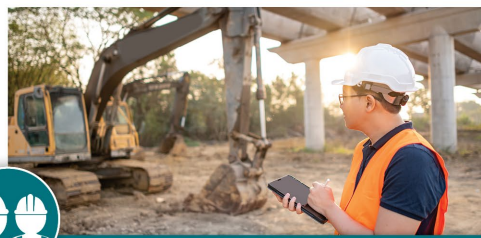
Coordinate with cities and developers on ongoing and upcoming adjacent construction projects



Coordinate with Cities on wayfinding, messaging, street closures, and detours



Monitor that all construction parking is within the construction staging areas

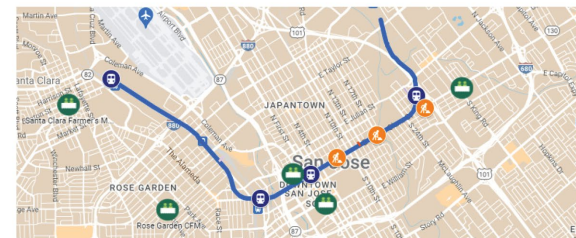


Communicate information from Engineering and Environmental Teams on upcoming construction



Construction Notices

- Physical door knocking & flyers
- Online alerts & website updates



Resources

- Interactive Live Construction Map
- Sign up for construction activity notices at www.vta.org/bsv2updates

Upcoming Events



- Community Working Group Meetings (CWGs)
 - Tuesday May 16th – Downtown-Diridon CWG Meeting
 - Wednesday May 17th – 28th Street Little Portugal CWG Meeting
 - Thursday May 18th – Santa Clara CWG Meeting
- Tabling Events
 - *Planning for two tabling events per month at the surrounding station areas*

How do I learn more about the project?



Interactive Efforts



Tabling events throughout the year around the station areas



Community Working Group Meetings



Public Meetings



Community Group Meeting Outreach

- Reach out to have us present updates at your local Community Group/Neighborhood Association/etc. www.vta.org/about/subscribe

Resources



VTA's hotline number: **408-321-2345**

- Call to learn more about specific project efforts and provide your feedback



VTA's website: **vta.org/bart**

Sign up to get alerted on nearby construction and find Informational Factsheets, Newsletters and Blog Posts



Email questions to: **vtabart@vtabsv.com**



Social Media: **[@bartsv](#)**

- Facebook & Twitter

Thank You

Q&A Session



Report out on Questions and Comments