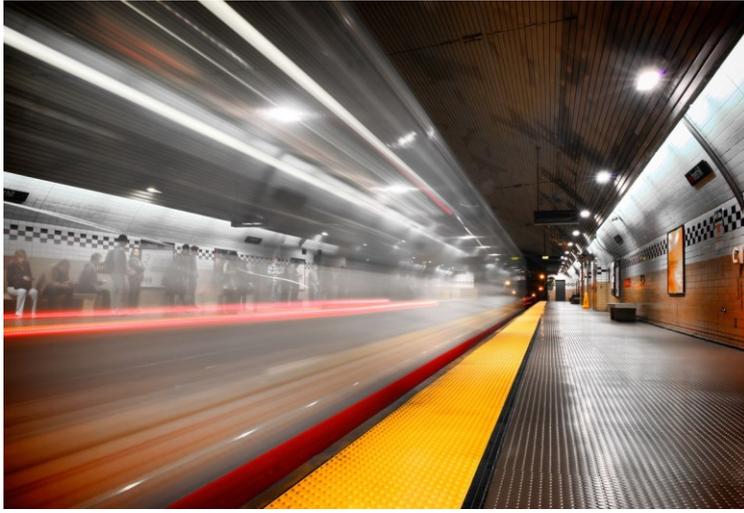


# Twin Peaks Tunnel Trackway Improvements



## What Are We Doing?

- Replacing all track and track holdings between West Portal and Castro stations
- Seismic improvements to abandoned station
- Repairs to tunnel walls and ceilings

## Project Benefits

- New tracks will lift the speed restriction for trains moving through the tunnel
- Improves safety and reliability for Muni customers
- Seismic improvements and repairs improve safety of the tunnel and the neighborhoods around it



# What We Heard



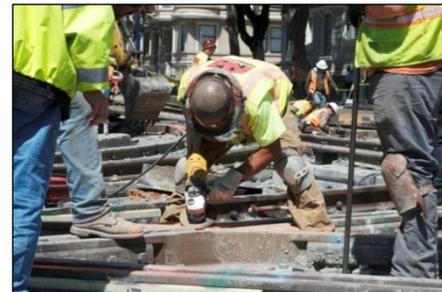
- *Don't take away parking in West Portal*
  - Staging area on Junipero Serra to avoid using areas near/on West Portal Ave
  - Not using West Portal Ave parking lot will have other impacts to neighborhood

- *This will disrupt my morning commute*
  - Construction for Twin Peaks Tunnel will be during the weekends. Tunnel will close late on Friday night and reopen before regular AM service begins



- *My customers and employees will have trouble getting to and from my business*
  - Bus shuttles will replace trains during shutdowns
  - Shuttles will run for each of the lines (K, L and M) from Castro outbound to the ends of the lines

- *Construction noise will be bothersome*
  - Applying the same noise reducing measures as Sunset Tunnel



# Minimizing the Impacts

- Construction measures being taken:
  - Lower frequency back-up beepers will be used on construction vehicles and flaggers will be on site
  - Liners will be put in trucks for quieter loading of materials
  - Mufflers will be installed on loud machinery
  - No loud construction/demo 10:00PM-6:00AM

# West Portal Staging Areas

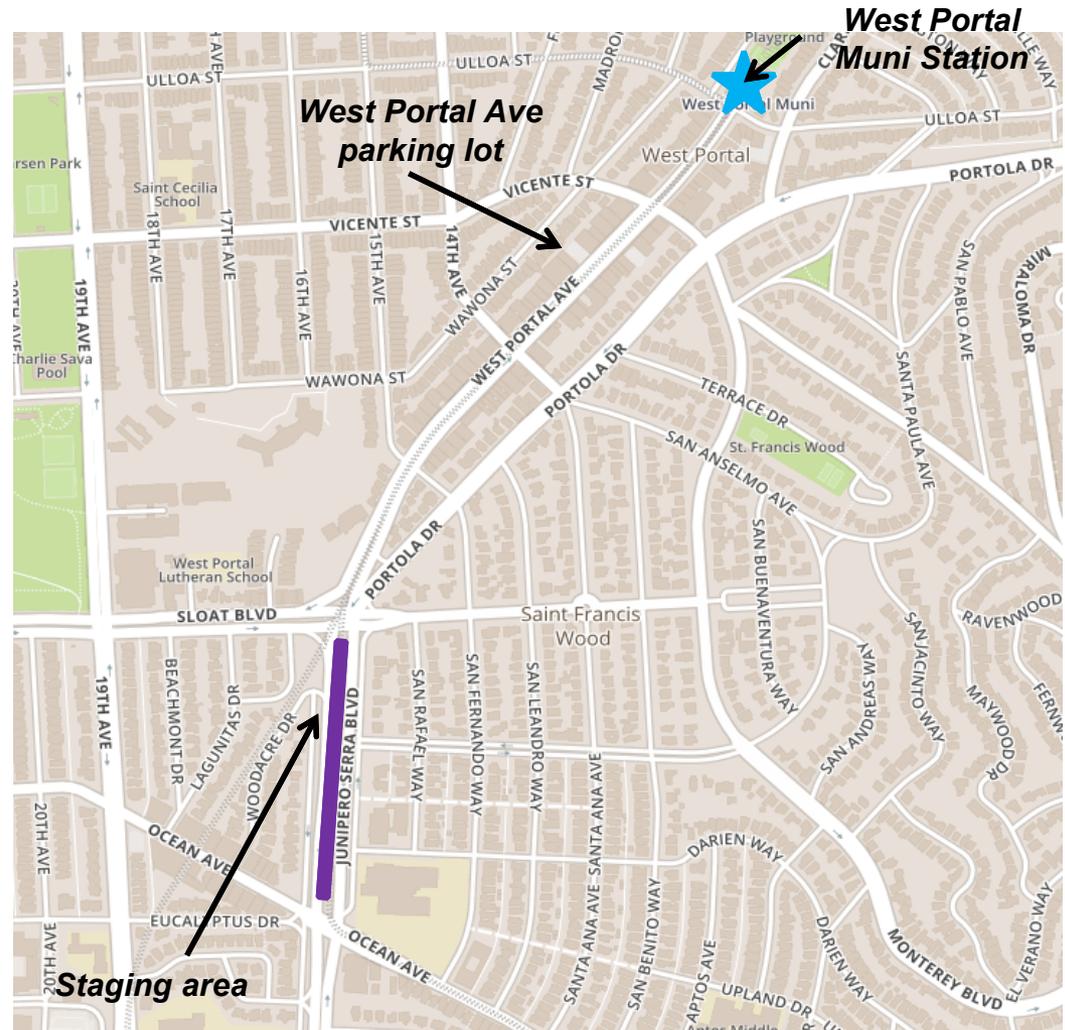
There will be two staging areas needed for the Twin Peaks Tunnel project. The area on Junipero Serra will be used to hold all the new rail and gravel to go into the tunnel. The second staging area will hold the old materials until it can be discarded.

## Not Using the Parking Lot

- West Portal Ave parking lot will not be used as second staging area
- More trucks will be used to carry debris from the tunnel to the staging area
- More costly and will extend the completion date of the project

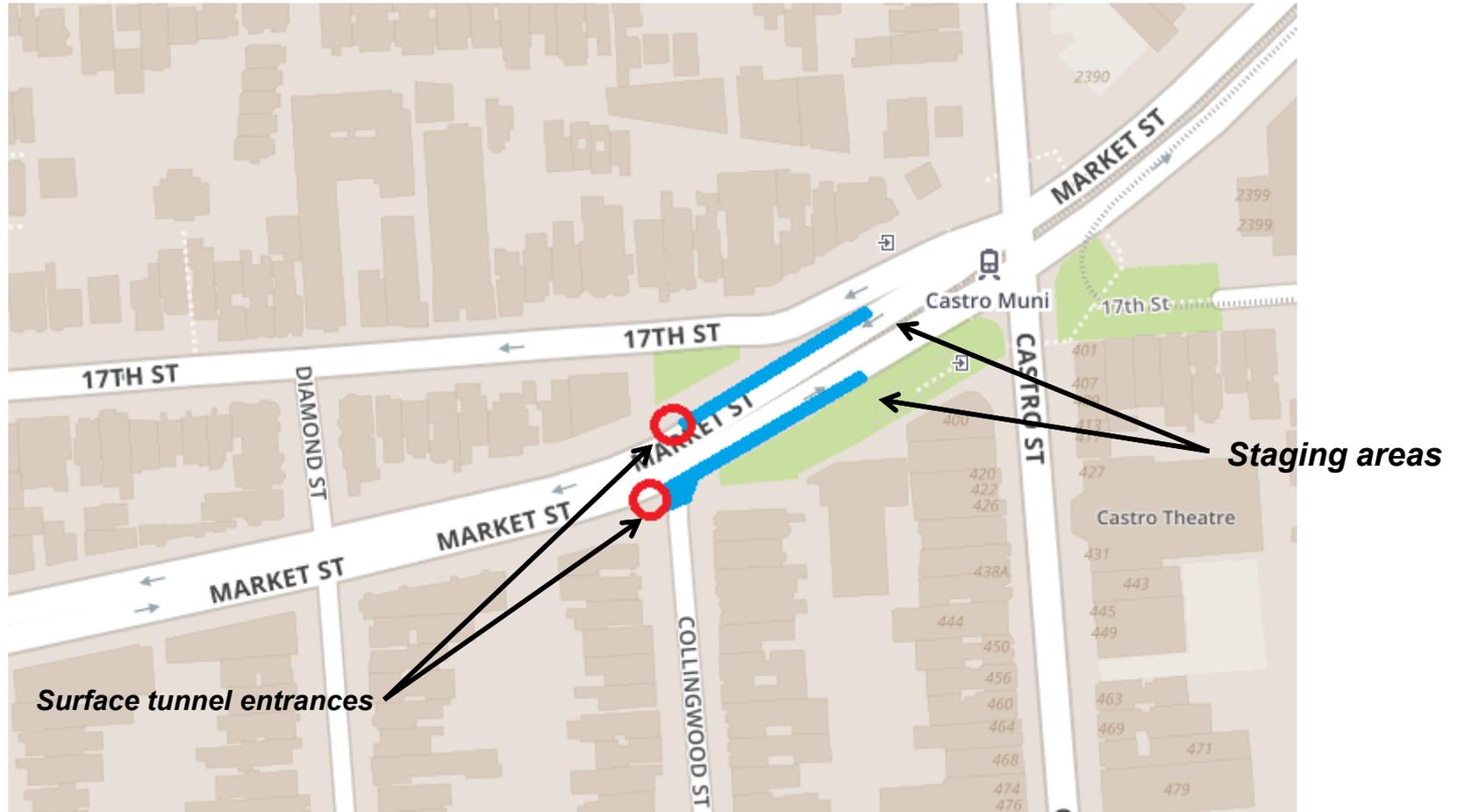
## Using the Parking Lot

- West Portal Ave parking lot is used as second staging area
- Fewer trucks needed to carry debris from tunnel to lot-- shorter distance



# Castro Staging Area

There will be two staging areas to hold the rail and gravel that will go into the Twin Peaks Tunnel, one in West Portal and one in Castro. Below shows the Castro staging area.



# Muni Subway Systems Improvements

In an effort to minimize impacts to the neighborhood and avoid future tunnel shutdowns, we've combined three service improvements into one construction project. By incorporating these projects, we can better minimize impacts to Muni customers and the neighborhoods.

## Muni Subway System Improvements

Blue Light Emergency Telephone Replacement



Twin Peaks Tunnel Trackway Improvements



Radio Replacement



# Radio Replacement

## What Are We Doing?

- Upgrading the radio communication system in the Muni subway between West Portal and Embarcadero stations
- Installing Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) and integrated incident management/reporting
- Installing American Disabilities Act (ADA) compliant traveler information— onboard digital “next stop” announcements that provide visual and audio announcements on light-rail vehicles
- Installing Data and Reporting to assist with delivery performance analysis and vehicle incident management

## Project Benefits

- Modernized radio system will improve fleet dispatch and management
- New technology will improve communications system-wide
- Provide ADA-compliant traveler information on light rail vehicles
- Expands the number of available channels for use between Muni Operations Center, Muni drivers, maintenance workers and stations



New Vehicle Data Terminal



New Radio Units

# Blue Light Emergency Telephone Replacement

## What Are We Doing?

- Replacing 90 existing Blue Light Emergency Telephones with 181 new ones:
  - Inside the Muni subway and on station platforms
- Adding phones per code and San Francisco Fire Department requirements:
  - End of platforms
  - In between tunnels
  - Emergency exits
  - High voltage power substation entrances
- Constructing answering stations and head end equipment:
  - Central Control Center
  - The new Transportation Management Center

*Existing ET Phone Cabinet*



## Project Benefits

- Replace blue light emergency phones in the subway that were initially installed in the 1970s.
- SFMTA can better serve Muni customers in emergency situations, such as during a natural disaster.

*New Blue Light ET Phone*



# Project Schedule

Summer 2015	Fall	Winter	Spring 2016	Summer
Blue Light Emergency Telephones				
Radio Replacement Project				
			Twin Peaks Tunnel Track Replacement	

## Blue Light Emergency Telephones and Radio System Replacement:

- *From West Portal Station to Embarcadero Station*
- Nighttime shutdowns (from late PM to start of regular train service), Monday through Sunday (7 days/week)
- Start July 2015; complete in winter 15/16

## Twin Peaks Tunnel Track Replacement

- *From West Portal Station to Castro Station*
- *Tentative schedule:* weekend shutdowns (from late PM Friday night to start of regular train service Monday morning)
- Start January 2016; complete in late spring or summer

# Project Areas

