

RAILYARD ALTERNATIVES & I-280 BOULEVARD (RAB) FEASIBILITY STUDY

PHASE I: PRELIMINARY OPTIONS ANALYSIS

San Francisco Planning Department
Public Meeting #1, February 23, 2016
Potrero Hill Recreation Center 6-8pm

San Francisco
Planning

An aerial, black-and-white photograph of a dense urban area. A multi-lane highway with a complex interchange runs diagonally across the center. To the right, a river flows through the city, with a bridge crossing it. The surrounding area is filled with various buildings, including residential houses, commercial structures, and a large stadium-like building on the right. The overall scene depicts a bustling city environment.

ABOUT THE STUDY

WHAT IS THIS STUDY ABOUT?

CONSOLIDATE MULTIPLE STUDIES

COORDINATE PARTNER EFFORTS

PREPARE FOR UPCOMING PROJECTS

WHY IS IT IMPORTANT?

REGIONAL GROWTH

NEW INFRASTRUCTURE PLANNED

IMPROVE REGIONAL CONNECTIONS

BACKGROUND: WHY THIS STUDY NOW



- **Comprehensive** approach.
- **Coordinated** projects.
- Accommodate **growth**.
- **Improve** the urban environment.



BACKGROUND: WHY THIS STUDY NOW - MAJOR PIECES OF NEW INFRASTRUCTURE PLANNED

CALTRAIN ELECTRIFICATION



HIGH-SPEED RAIL (HSR)



DOWNTOWN RAIL EXTENSION (DTX)



Transbay Transit Center (under construction Jan 2016)



Potential Grade-Separation of 16th Street

Potential Grade-Separation of Mission Bay Drive



CHALLENGES THAT FACE SAN FRANCISCO

COORDINATE PARTNER EFFORTS

KNIT TOGETHER CITY FABRIC

IMPROVE LOCAL AND REGIONAL CONNECTIONS

CONSIDERATION OF BENEFITS/IMPACTS

OPPORTUNITIES FOR HOUSING, OPEN SPACE, AND JOBS

STUDY GOALS

- Better **understand** the effects of projects **holistically**.
- Coordinate efforts to **shape** the **urban environment**.

An aerial, black and white photograph of San Francisco, California. The image captures the city's dense urban landscape, including numerous skyscrapers and residential buildings. In the background, the San Francisco Bay is visible, with the Golden Gate Bridge spanning across it. The city extends to the hills in the distance under a cloudy sky.

STUDY COMPONENTS

RAB STUDY COMPONENTS

1. DOWNTOWN RAIL EXTENSION (DTX) ALIGNMENT

2. TRANSBAY TRANSIT CENTER LOOP

3. RAILYARD RECONFIGURATION/RELOCATION

4. BOULEVARD I-280

5. OPPORTUNITIES FOR THE PUBLIC'S BENEFIT

STUDY AREA

EACH COMPONENT HAS ITS OWN STUDY AREA

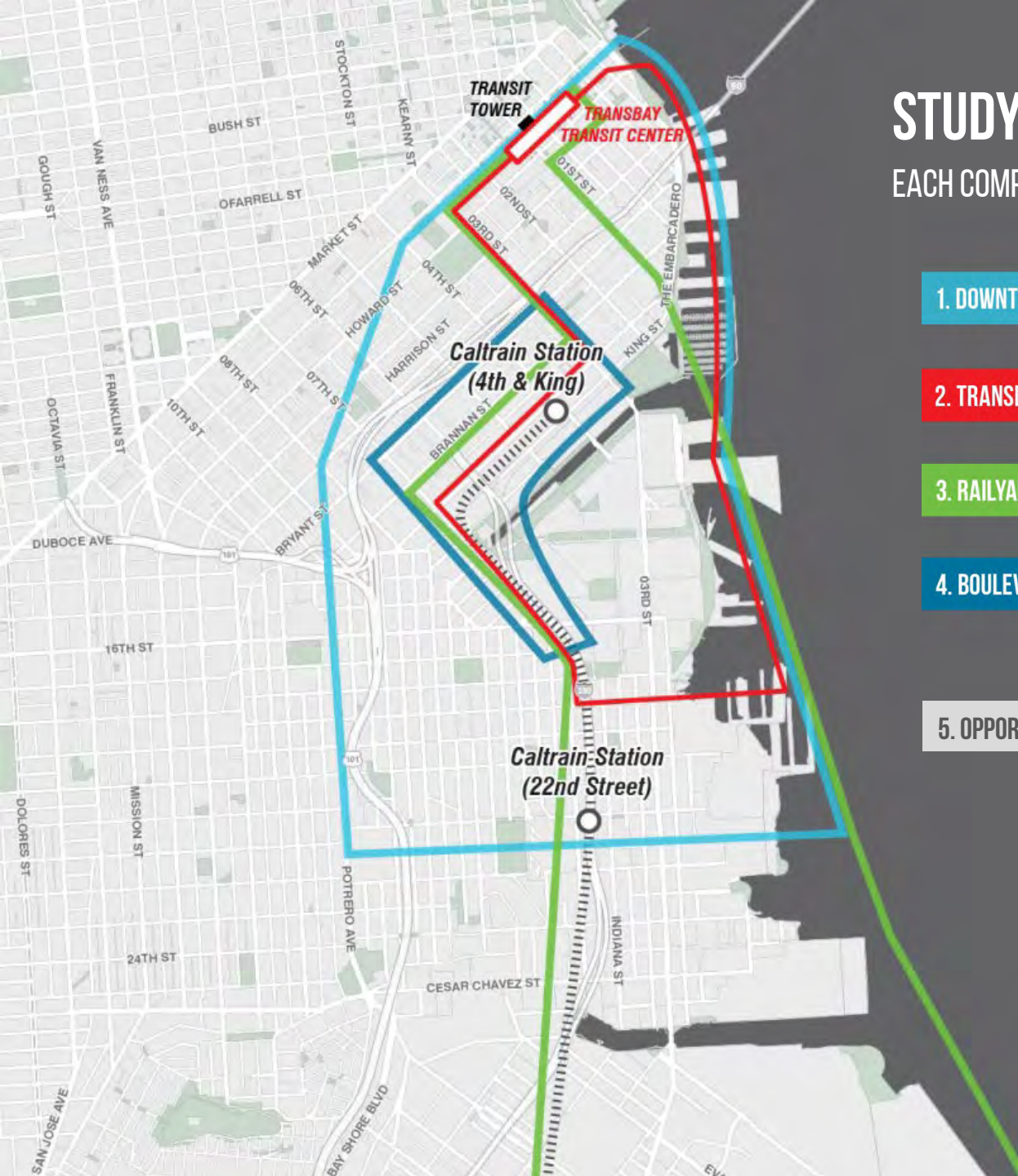
1. DOWNTOWN RAIL EXTENSION (DTX) ALIGNMENT

2. TRANSBAY TRANSIT CENTER LOOP

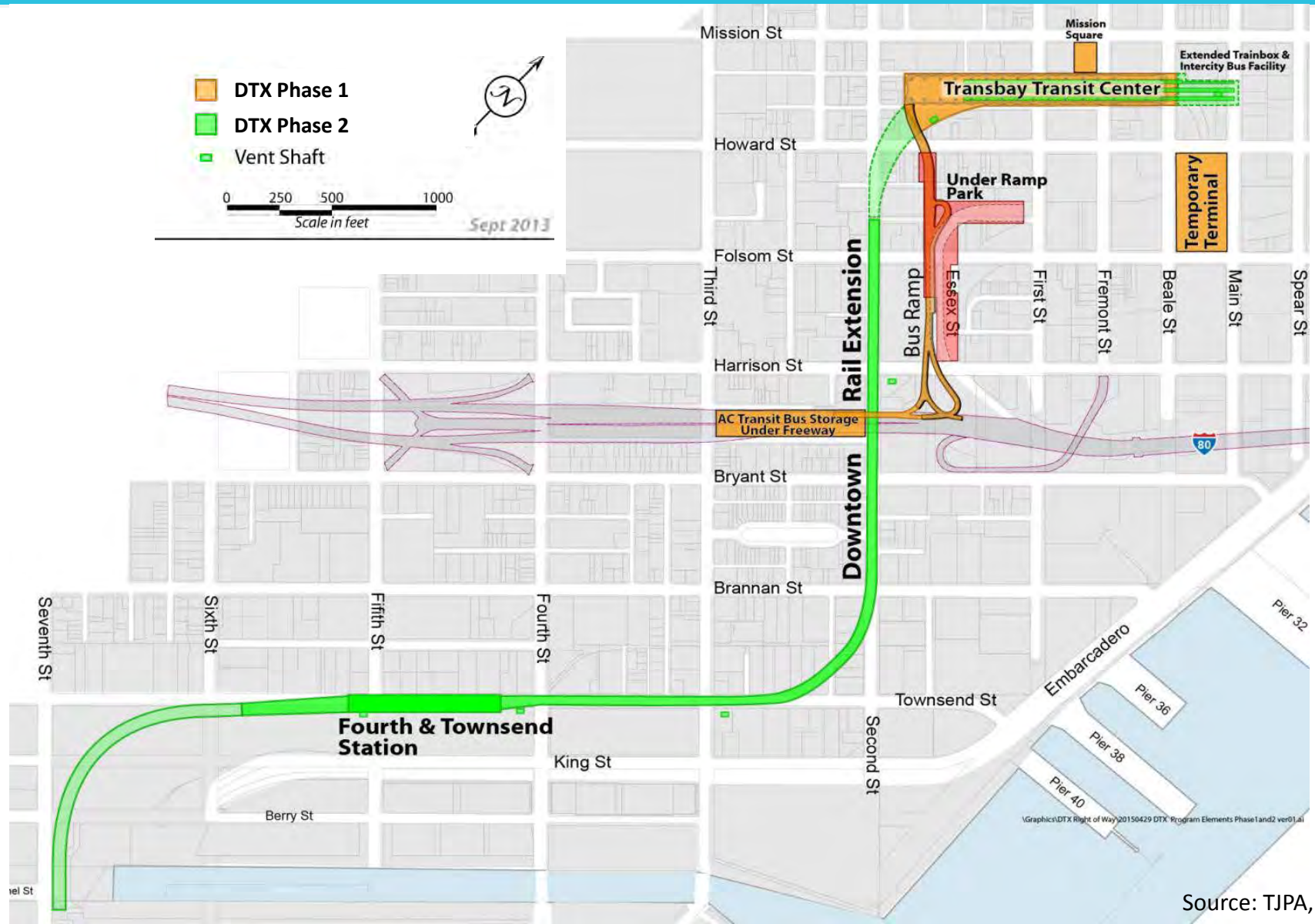
3. RAILYARD RECONFIGURATION/RELOCATION

4. BOULEVARD I-280

5. OPPORTUNITIES FOR THE PUBLIC'S BENEFIT



DOWNTOWN RAIL EXTENSION (DTX) VALUE ENGINEERING



DOWNTOWN RAIL EXTENSION (DTX) VALUE ENGINEERING

OPTIONS FOR ALIGNMENT

- A. Baseline: Existing Alignment Plus Environmentally Cleared DTX**
A.2 SubOption: Reduced 4th/King footprint

- B. Tunnel Under Existing Alignment**

- C. Pennsylvania Avenue**

- D. Mission Bay (Third Street)**

DOWNTOWN RAIL EXTENSION (DTX) VALUE ENGINEERING

OPTIONS FOR ALIGNMENT

A. Baseline: Existing Alignment Plus Environmentally Cleared DTX

A.2 SubOption: Reduced 4th/King footprint

B. Tunnel Under Existing Alignment

C. Pennsylvania Avenue

D. Mission Bay (Third Street)

Baseline: Existing Alignment Plus Environmentally Cleared DTX Option

Transbay
Transit
Center (TTC)

**BASILINE:
EXISTING ALIGNMENT PLUS
ENVIRONMENTALLY CLEARED DTX**

WHY ARE WE STUDYING?

Provide baseline to compare other options with

Understand functions and needs at 4th/King railyard

Understand if 4th/King railyard could operate on smaller footprint.

Understand impacts of potential grade-separated Mission Bay Drive and 16th Street with depressed streets

BENEFITS AND CONSTRAINTS:

1. Uses Downtown Rail Extension (DTX) as designed and environmentally cleared.
2. Uses existing surface electrified Caltrain tracks under I-280 south of 18th St.
3. Allows for grade-separated Mission Bay Drive and 16th St. with lowered streets in future.
4. Suboption: reduced use of 4th/King Railyard for operations/storage/maintenance.



DOWNTOWN RAIL EXTENSION (DTX) VALUE ENGINEERING

OPTIONS FOR ALIGNMENT

A. Baseline: Existing Alignment Plus Environmentally Cleared DTX

B. Tunnel Under Existing Alignment

C. Pennsylvania Avenue

D. Mission Bay (Third Street)

Tunnel Under Existing Alignment Option

Transbay
Transit
Center (TTC)

WHY ARE WE STUDYING?

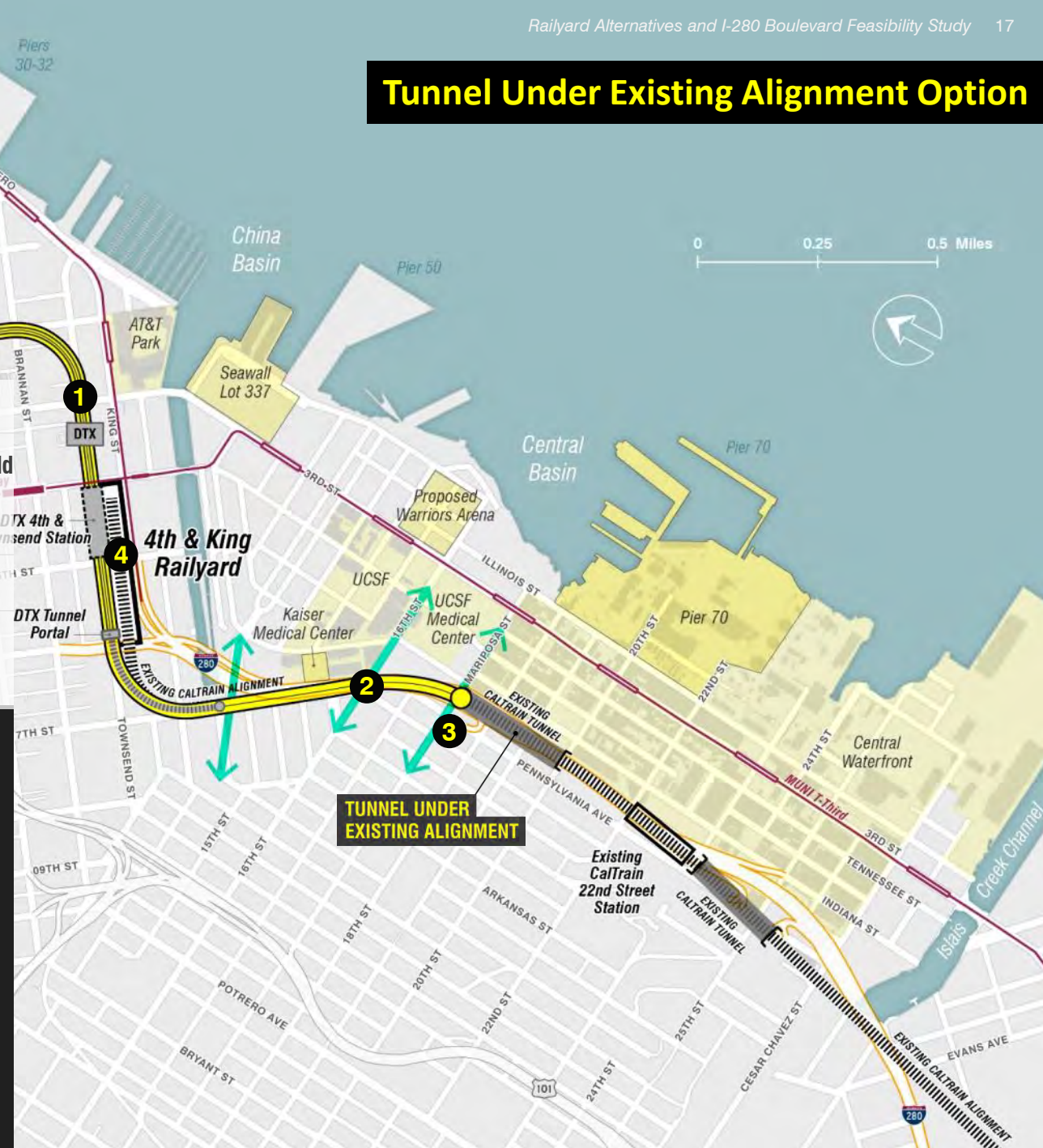
Understand whether or not Caltrain/HSR tracks could be depressed under 16th Street using existing Caltrain alignment and DTX alignment, as planned.

Understand initial construction impacts to I-280.

Moves Caltrain/HSR tracks to tunnel allowing for more connection points to/from Mission Bay.

BENEFITS AND CONSTRAINTS:

1. Uses Downtown Rail Extension (DTX) as designed and environmentally cleared.
2. Grade separated Caltrain/HSR under Mission Bay Dr. and 16th St.
3. Ability to reconnect grid under I-280.
4. Reduce/Relocate 4th/King Railyard .
5. Requires major structural work of I-280 pillars before tunnel can be built.
6. Requires Caltrain to be out of service for 6+ months.



DOWNTOWN RAIL EXTENSION (DTX) VALUE ENGINEERING

OPTIONS FOR ALIGNMENT

A. Baseline: Existing Alignment Plus Environmentally Cleared DTX

B. Tunnel Under Existing Alignment

C. Pennsylvania Avenue

D. Mission Bay (Third Street)

Pennsylvania Avenue Alignment Option

Transbay
Transit
Center (TTC)

WHY ARE WE STUDYING?

Understand how moving Caltrain/HSR tracks to tunnel could affect reconnection of street grid for more connection points to/from Mission Bay.

Avoids impacts to I-280 structures.

Can construct off-line of Caltrain operations.

BENEFITS AND CONSTRAINTS:

1. Uses Downtown Rail Extension (DTX) as designed and environmentally cleared.
2. Allows for reconstruction 22nd St Caltrain station (or leave as is and begin tunnel after)
3. Ability to reconnect grid under I-280.
4. Reduce/Relocate 4th/King Railyard.
5. Construct offline of Caltrain operations
6. Potential impact to city utilities.



DOWNTOWN RAIL EXTENSION (DTX) VALUE ENGINEERING

OPTIONS FOR ALIGNMENT

A. Baseline: Existing Alignment Plus Environmentally Cleared DTX

B. Tunnel Under Existing Alignment

C. Pennsylvania Avenue

D. Mission Bay (Third Street)

Mission Bay (Third Street) Alignment Option

Transbay
Transit
Center (TTC)

MISSION BAY (3RD ST)

WHY ARE WE STUDYING?

Understand potential improvements to MUNI and other alternative mode connections

Understand how moving Caltrain/HSR tracks to tunnel could affect reconnection of street grid for more connection points to/from Mission Bay.

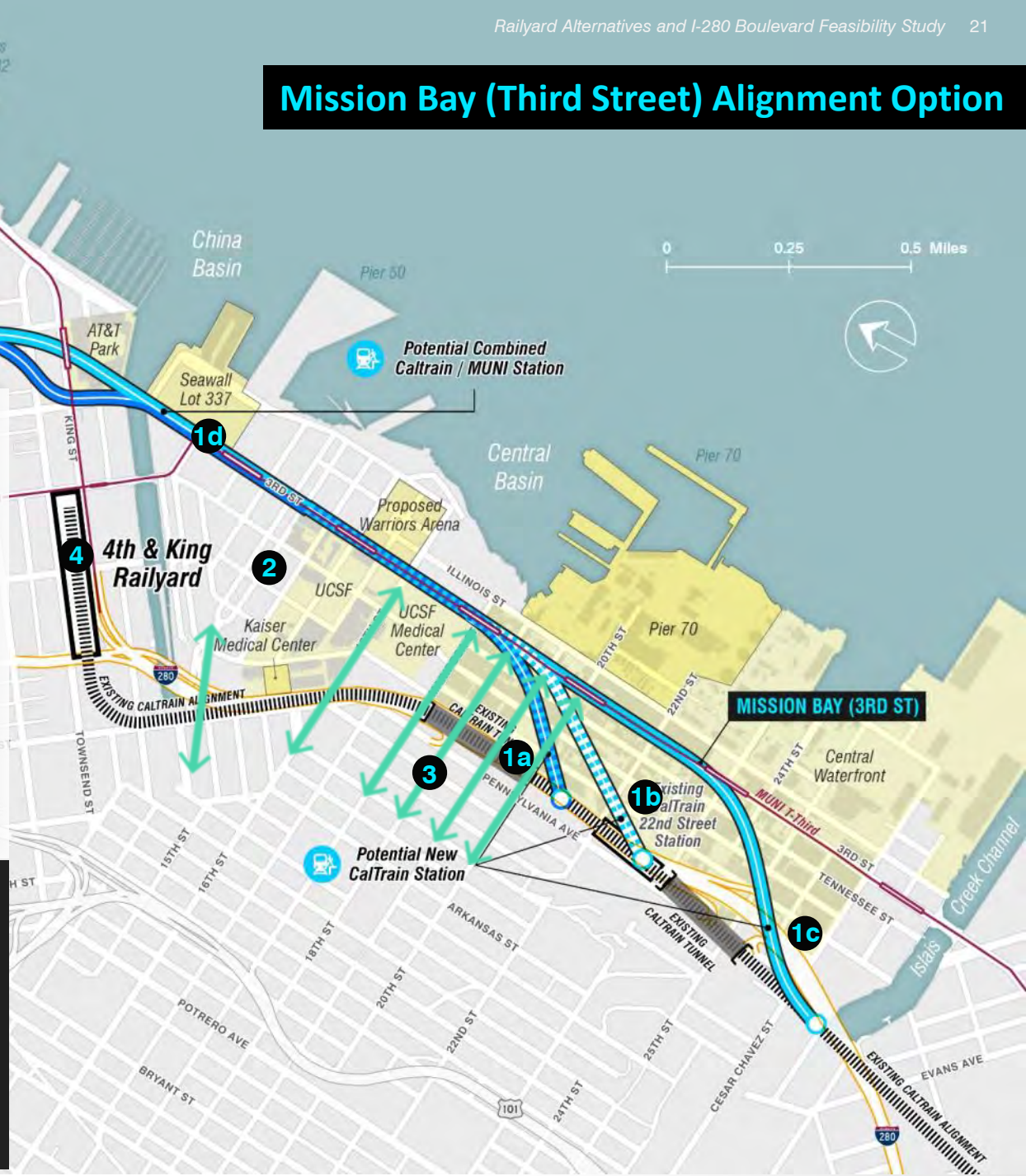
Serves new development in Mission Bay and Central Waterfront.

Can construct off-line of Caltrain operations.

Potential station locations/alignments are subject to further study. Station locations are shown for representation only and could be located anywhere along the line meeting design criteria (including tangent track lengths)

BENEFITS AND CONSTRAINTS:

1. New station(s) south of Mission Creek.
2. Access to Mission Bay.
3. Ability to reconnect grid under I-280.
4. Reduce/Relocate 4th/King Railyard.
5. Construct offline of Caltrain operations



DOWNTOWN RAIL EXTENSION (DTX) VALUE ENGINEERING

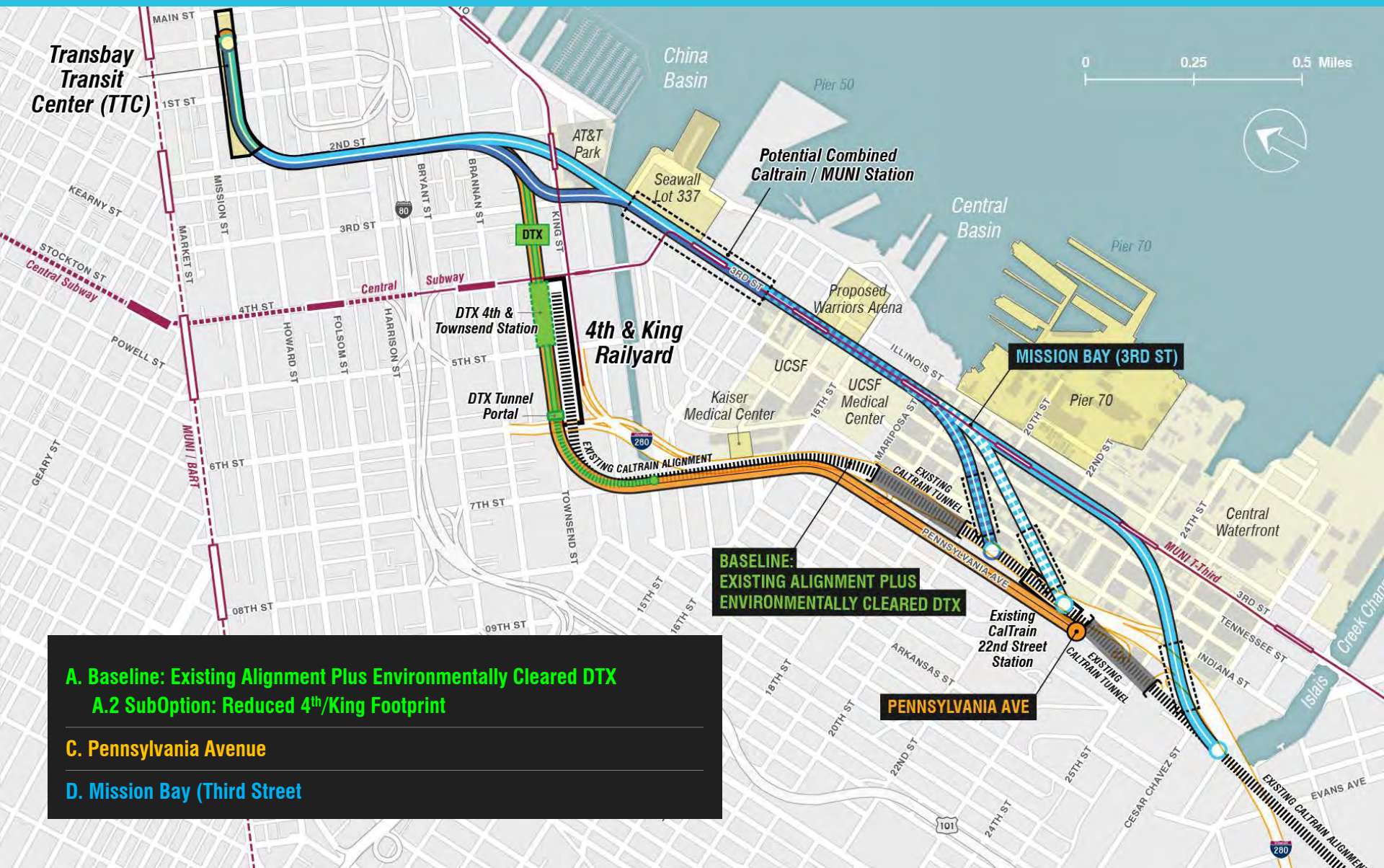
SUMMARY: OPTIONS FOR ALIGNMENT MOVING FORWARD TO PHASE II

A. Baseline: Existing Alignment Plus Environmentally Cleared DTX

A.2 SubOption: Reduced 4th/King footprint

C. Pennsylvania Avenue

D. Mission Bay (Third Street)



TRANSBAY TRANSIT CENTER LOOP

OPTIONS

1. **Main Street** *Caltrain only*

2. **Spear Street** *Caltrain only*

3. **Steuart Street** *Caltrain & HSR*

4. **In the Bay** *Caltrain & HSR*



TRANSBAY TRANSIT CENTER LOOP

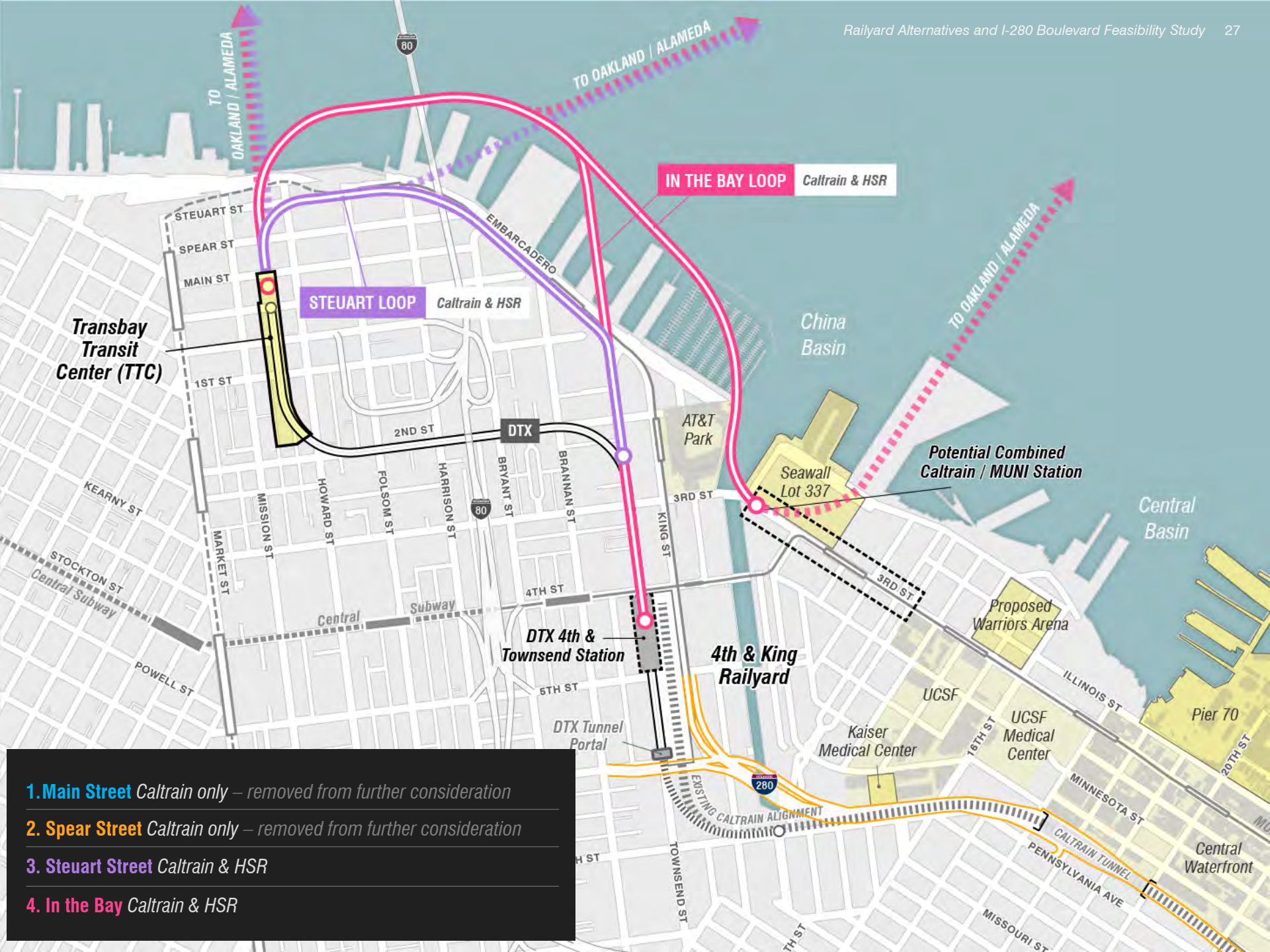
SUMMARY: OPTIONS MOVING FORWARD TO PHASE II

1. **Main Street** *Caltrain only – removed from further consideration*

2. **Spear Street** *Caltrain only – removed from further consideration*

3. **Steuart Street** *Caltrain & HSR*

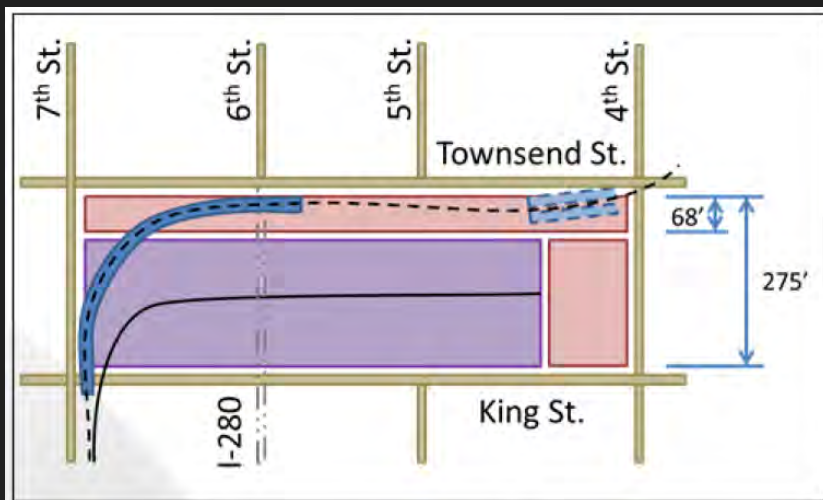
4. **In the Bay** *Caltrain & HSR*



RAILYARD RECONFIGURATION/RELOCATION

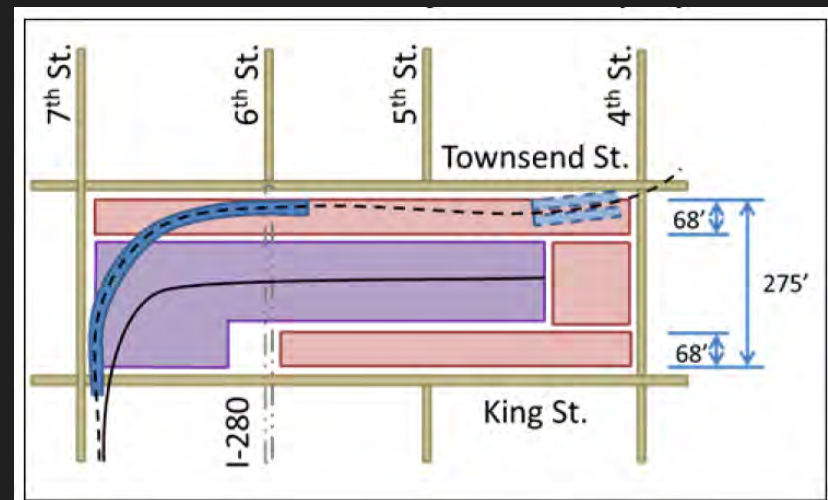
PRELIMINARY OPTIONS

1. If maintenance, storage, and operations remained at 4th/King after electrification



Source: Caltrain, 2013

2. If maintenance and storage were relocated, but operations remained at 4th/King after electrification



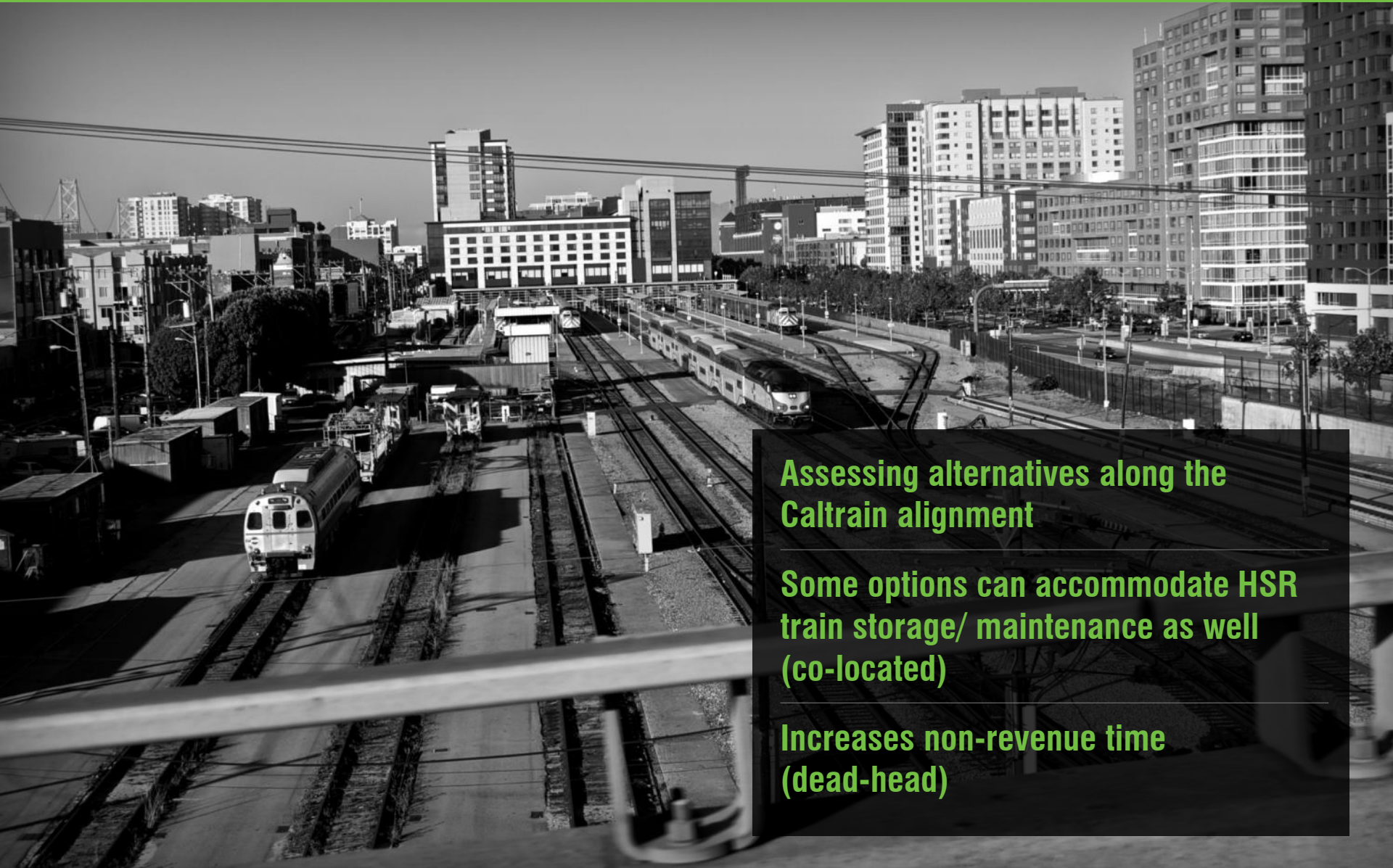
Source: Caltrain, 2013

DTX alignment (in 2013)

Minimum area needed for Caltrain use

Available area for repurpose or other use

RAILYARD RECONFIGURATION/RELOCATION

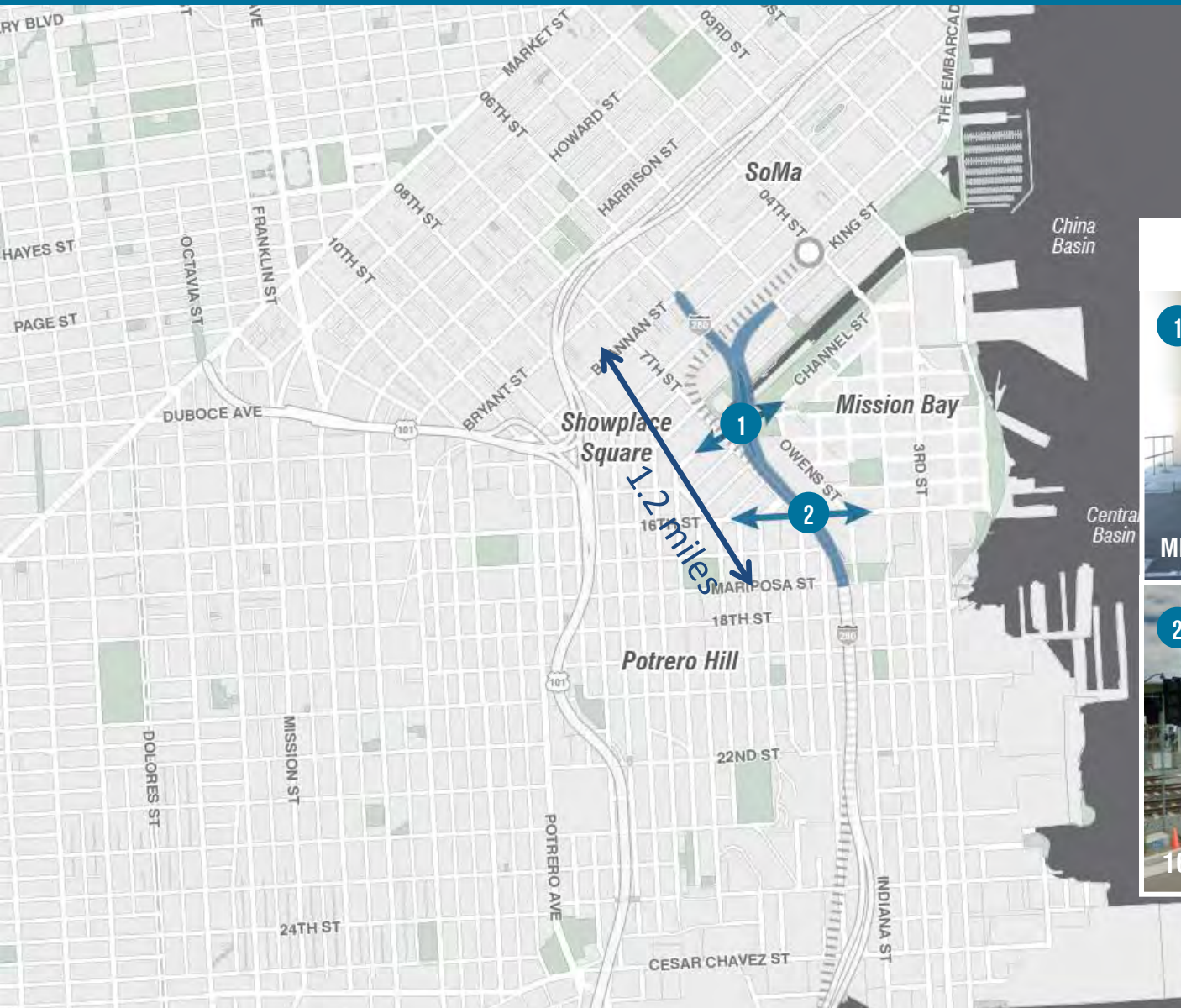


Assessing alternatives along the Caltrain alignment

Some options can accommodate HSR train storage/ maintenance as well (co-located)

Increases non-revenue time (dead-head)

BOULEVARD I-280: EXISTING CONDITIONS



ONLY TWO CROSSINGS

1



2



4. BOULEVARD I-280: WHY WOULD WE TAKE DOWN A FREEWAY

THE EMBARCADERO



OCTAVIA BLVD



4. BOULEVARD I-280: SUMMARY



Continue to work with Caltrans, SFMTA, SFCTA on potential configurations

Configurations differ depending on other component elements

ONLY TWO CROSSINGS



SUMMARY OF OPTIONS TO BE STUDIED IN PHASE II

1. DOWNTOWN RAIL EXTENSION (DTX) ALIGNMENT

- Three of the four alignments options moving forward
- Removed the “Tunnel under Existing Alignment” option

2. TRANSBAY TRANSIT CENTER LOOP

- Two of the four loop track options moving forward
- Removed the Main Street and Spear Street options

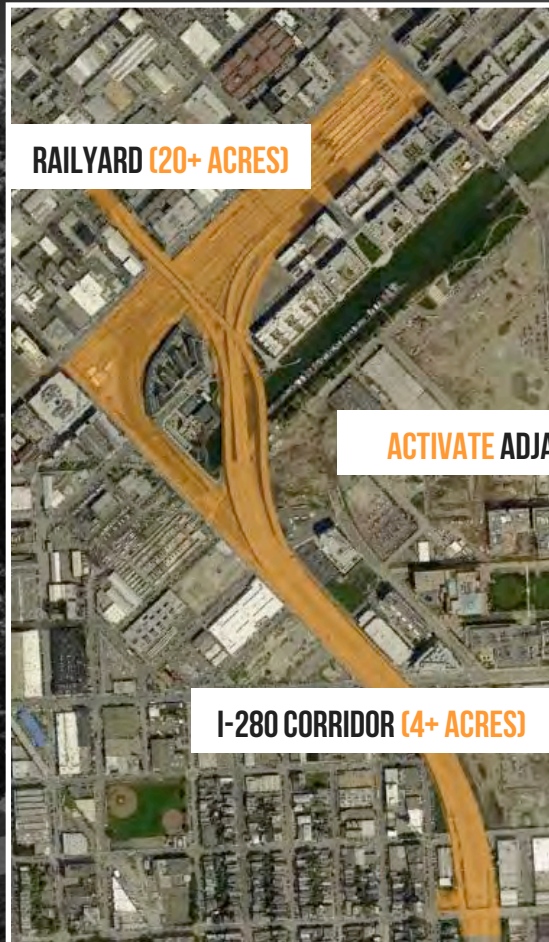
3. RAILYARD RECONFIGURATION/RELOCATION

- Continue to work with Caltrain and California High Speed Rail Authority (CHSRA) on possible reconfiguration/ relocation options

4. BOULEVARD I-280

- Continue to work with Caltrans, San Francisco Municipal Transportation Agency (SFMTA), San Francisco County Transportation Agency (SFCTA) on traffic operations


OPPORTUNITIES FOR THE URBAN ENVIRONMENT



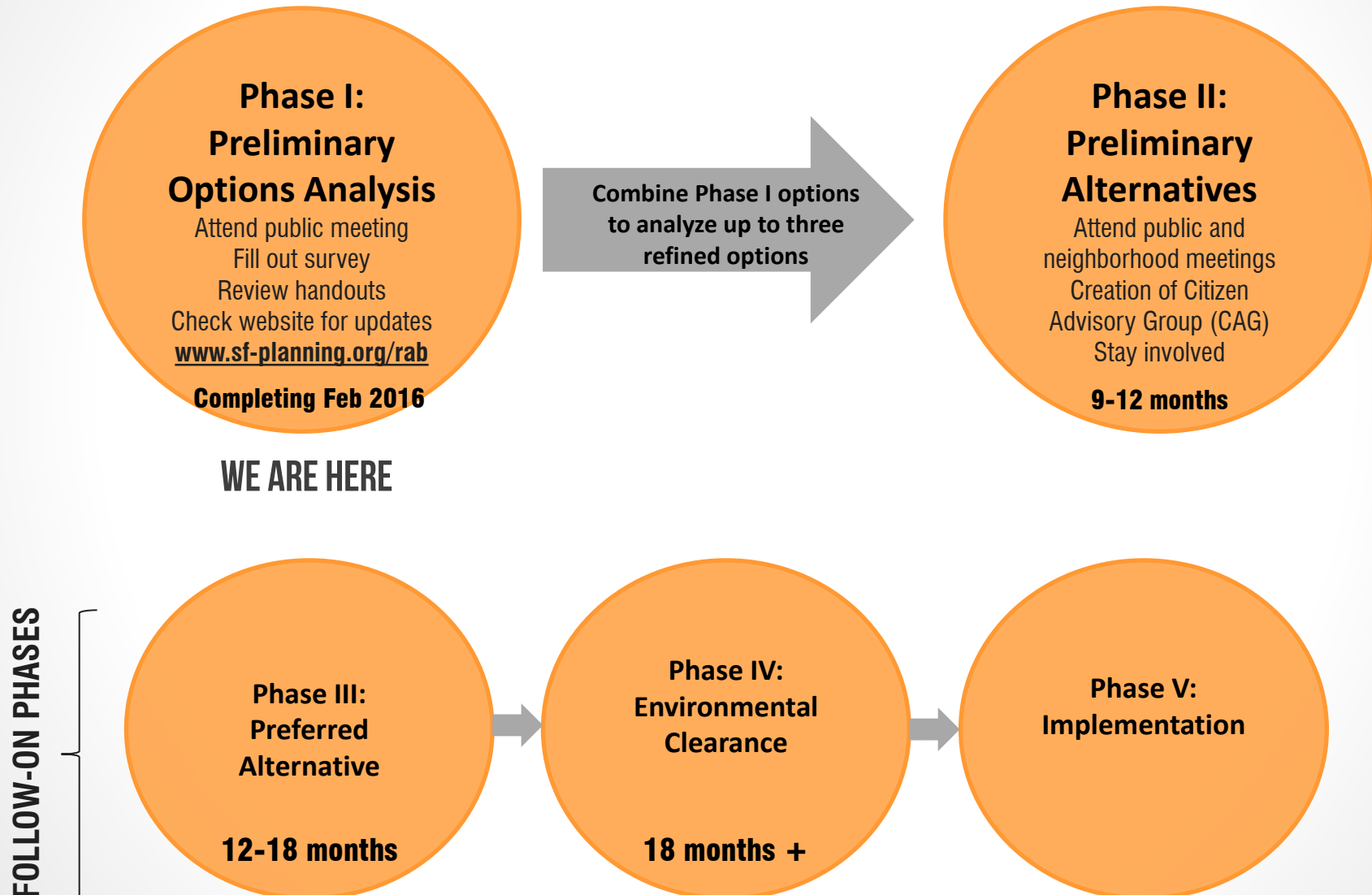


OUTREACH

WE NEED YOUR FEEDBACK

- 
- **Submit your questions** or ask them at the tables
 - **Answer our survey** provided to you tonight
 - **Sign-in** to ensure we have your information for future meetings

COMMUNITY ENGAGEMENT — HOW CAN YOU PARTICIPATE?



TIMELINE & NEXT STEPS

PHASE I –

Preliminary Options Analysis
June 2014-Feb 2016

PHASE II –

Alternatives Development
9-12 months

STAKEHOLDER BRIEFINGS UPON REQUEST

PUBLIC MEETING – Feb 2016

Preliminary Options Analysis
Public Input

PUBLIC MEETING –

Anticipated Winter 2016

Finalize Alternatives
Public Input

PUBLIC MEETING –

Anticipated Fall 2016

Draft Alternatives
Public Input

PHASE III –

Preferred Alternative
12-18 months

PHASE IV –

Environmental Phase
(could be semi-concurrent with Phase III)

PHASE V –

Funding and Implementation

STAKEHOLDER BRIEFINGS UPON REQUEST

PUBLIC MEETINGS at key milestones

FOLLOW-ON PHASES

THANK YOU

www.sf-planning.org/rab

Study Manager

Susan Gygi, PE



San Francisco
Planning