

Volume III User Guide

Volume III of the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) provides engineering drawings, figures, and tables for Alternatives A and B for the San Francisco to San Jose Project Section. It presents preliminary design information showing alignment, primary features, anticipated right-of-way requirements and temporary construction easement details in support of the proposed high-speed rail project.

Volume III is a part of the EIR/EIS document: it delineates the extents of the work proposed in the EIR/EIS. It also provides a useful tool for stakeholders who want to understand potential property, visual, and circulation impacts of the two project alternatives.

Organization of Volume III

Volume III has been split into several books for readability and navigation. Each book begins with an index of drawings included in that book, and an associated key map. The General Information Book has the full index of drawings while each Project Alternative Book only includes the index for that book.

General Information Book

The Volume III General Information Book provides the index of drawings, the key maps, and several general elements including general notes, abbreviations, systems, and quad gate applications (at-grade crossings where traffic lanes in both directions are protected by safety gates). It provides information that is common to the two alternatives.

Project Alternative Books

In addition to the General Information Book, detailed Volume III books are available for both project alternatives.

Contents of Project Alternative Books

The following information is included in the Project Alternative Books:

- **Composite Plan, Profile, and Cross Sections:** Engineering drawings of the corridor and detailed plans that show the rail design and effects on adjacent rights-of-way and properties.
- **Stations:** Illustrations of the planned stations, showing tracks, station platforms, parking lots, transit facilities, and station design elements. Includes tables describing each station program.
- **Structures:** Plan and section drawings of underpasses, overpasses, viaducts, and tunnels.
- **Roadway:** Plan drawings showing where streets and roads are closed, added, redirected, or extended.
- **Light Maintenance Facility:** Drawings that illustrate the design of the planned light maintenance facility (LMF).
- **Track Guideway and Horizontal Alignment Data Table:** Design information about track guideway curves and geometry, train design speeds, superelevations, and track stationing.

List of Project Alternative Books

Each set of Project Alternative Books is labeled based on the project alternative number, as listed below:

Alternative A Books

4th & King, San Francisco, to W. Alma Ave, San Jose

- A1 Composite Plans, Profile, and Cross Sections
- A2 Composite Plans, Profile, and Cross Sections
- A3 Stations
- A4 Structures, Roadway, Light Maintenance Facility, Alignment Data Table

Alternative B Books

4th & King, San Francisco, to Scott Boulevard, Santa Clara

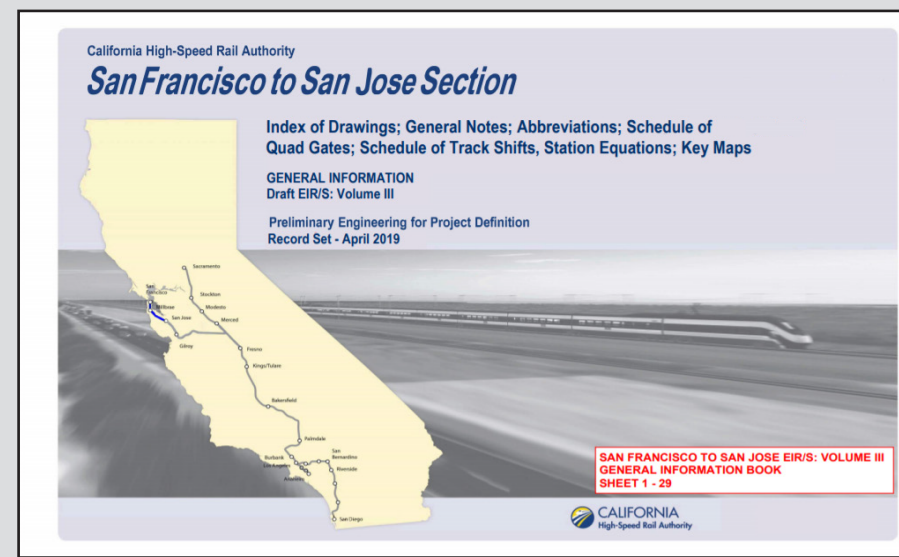
- B1 Composite Plan, Profile, and Cross Sections
- B2 Composite Plan, Profile, and Cross Sections
- B3 Stations, Structure and Roadway
- B4 Light Maintenance Facility, Track Guideway and Alignment Data Table

Scott Boulevard, Santa Clara, to W. Alma Ave, San Jose, Viaduct to I-880 Option

- B5 Composite Plan, Stations, Structures, Roadway, Alignment Data Table

Scott Boulevard, Santa Clara, to W. Alma Ave, San Jose, Viaduct to Scott Boulevard Option

- B6 Composite Plan, Stations, Structures, Roadway, Alignment Data Table



How to Find a Property in Volume III

You can use Volume III to identify impacts that project alternatives may have on specific areas. This information is contained in the drawings in Volume III books A1 and A2 for Alternative A and B1, B2, B5, and B6 for Alternative B. The composite plans include technical drawings to illustrate high-speed rail's design and its footprint (the footprint refers to the land used for the rail line, station construction, electric equipment, facilities, access roads, and other rail amenities).

The Key Maps

The Key Maps orient users to identify specific drawings along the corridor. Key Maps for both project alternatives are shown in the Volume III General Information Book on the sheets immediately following the Index.

To find a property adjacent to a high-speed rail alignment alternative:

1 Check the Key Maps

The Key Maps illustrate the drawing numbers for all of the detailed engineering drawings. They are shown on three separate sheets and depict the full project section from north to south.

2 Look for the City and Cross Streets

On the Key Maps, find the city name and cross streets or other landmarks to help you locate the part of the map where you want to take a closer look.

3 Find the Drawing Number

Each narrow rectangle represents the boundary of an engineering drawing and is labeled with a unique drawing number.

For example, if you want to look near Ralston Avenue in Belmont, you'll find it is shown on the map in the narrow rectangle labeled TT-D0113. TT-D0113 is the technical drawing for this area.

4 Locate the Book Number

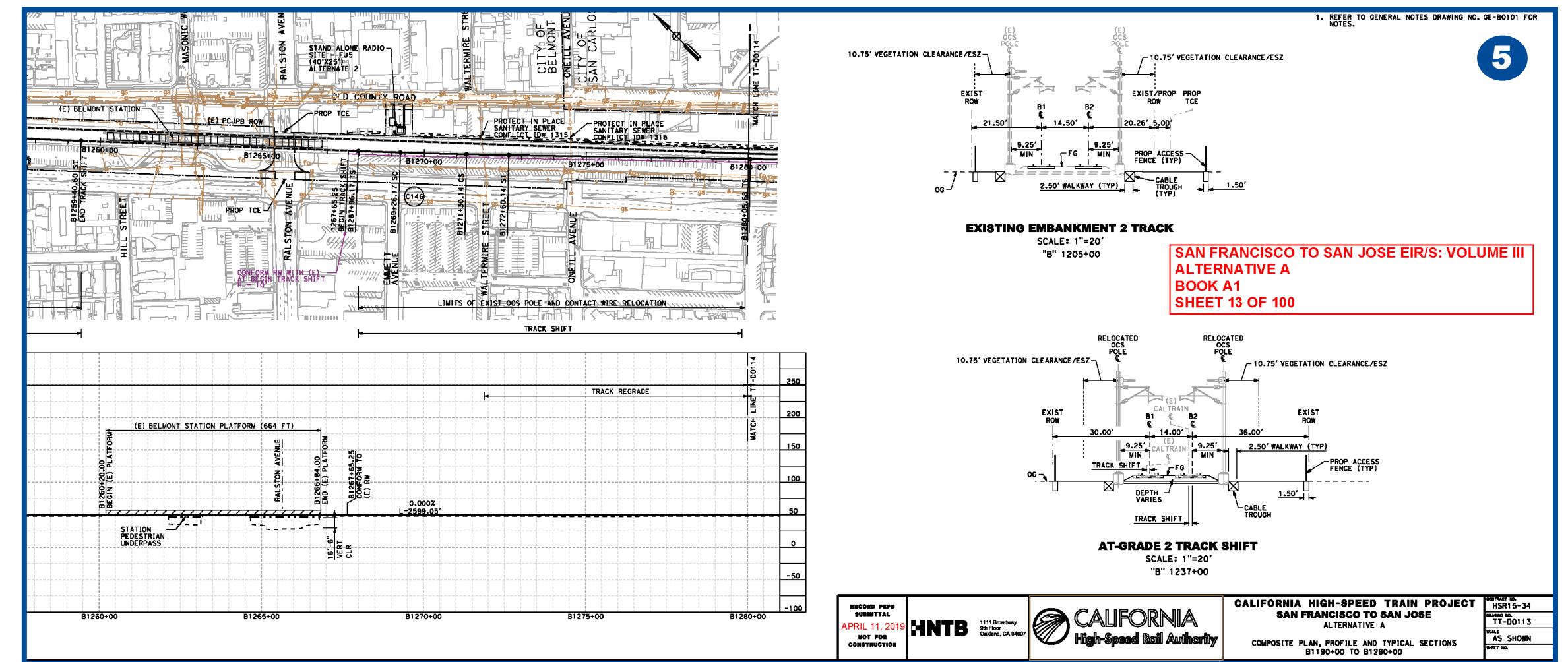
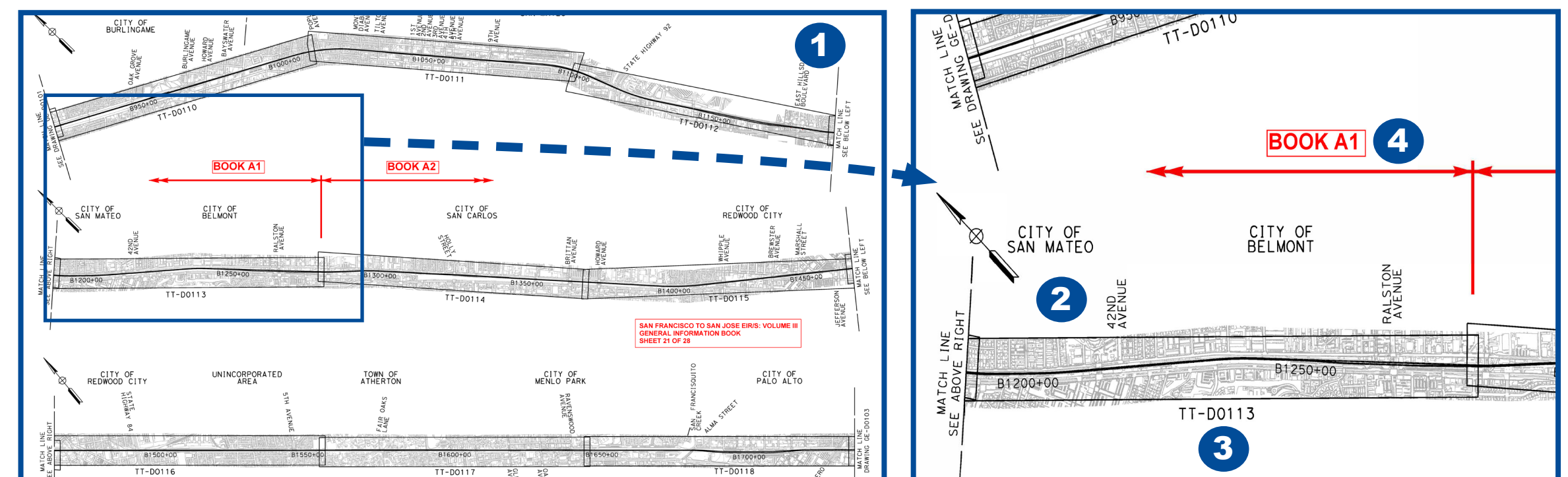
The Key Map shows where you'll find the engineering drawing you seek.

If you want to see drawing TT-D0113, you'll find it in Book A1.

5 Go to the Engineering Drawing

Find each detailed engineering drawing on its own page.

Open Book A1 and turn to drawing TT-D0113. This detailed drawing shows the entire section between 37th Avenue in San Mateo and the northernmost portion of San Carlos.



The Index

Each book begins with an index of drawings included in that book, and an associated key map. The General Information book includes a complete index. The complete index of drawings lists all of the pages (called "sheets") in numerical order. The different columns show the boundary or information available on each page. After finding a property on a Key Map, you can check the index for the composite plans (shown in the example below) to find additional information.

Book and Sheet Number show which Volume III book and sheet (or page) display the information listed on each row. This Index is for Book A1.

Each drawing has a drawing number. Drawing numbers on the Key Maps identify which maps illustrate specific geographic locations.

The San Francisco to San Jose Project Section is divided into subsections. For example, "San Bruno to San Mateo" is the name of a subsection, so the maps in this area are listed under this subsection.

Geographic location refers to cross streets or landmarks. These provide a point of reference for the area shown and can help point you to the correct drawing.

Alignment or feature generally describes the feature(s) of the high-speed rail alignment shown or points to a specific highlight of the drawing.

The sheet description refers to the type of information presented on the sheet and the additional description typically describes the station limits.

BOOK	SHEET NO	DRAWING NO	SUBSECTION	GEOGRAPHIC LOCATION OR FEATURE	ALIGNMENT OR FEATURE	SHEET DESCRIPTION	ADDITIONAL DESCRIPTION
COMPOSITE PLANS							
BOOK A1	1	TT-D0101	SAN FRANCISCO TO SOUTH SAN FRANCISCO	4TH & KING / 22ND ST	ALTERNATIVE A	COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS	B100+00 TO B195+00
BOOK A1	2	TT-D0102	SAN FRANCISCO TO SOUTH SAN FRANCISCO	23RD ST / I-280 / VENUS ST	ALTERNATIVE A	COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS	B195+00 TO B285+00
BOOK A1	3	TT-D0103	SAN FRANCISCO TO SOUTH SAN FRANCISCO	HWY 101 / BAYSHORE BLVD	ALTERNATIVE A	COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS	B285+00 TO B375+00
BOOK A1	4	TT-D0104	SAN FRANCISCO TO SOUTH SAN FRANCISCO	TUNNEL AVE	ALTERNATIVE A	COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS	B375+00 TO B465+00
BOOK A1	5	TT-D0105	SAN FRANCISCO TO SOUTH SAN FRANCISCO	BAYSHORE BLVD / HWY 101	ALTERNATIVE A	COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS	B465+00 TO B557+50
BOOK A1	6	TT-D0106	SAN FRANCISCO TO SOUTH SAN FRANCISCO/	HWY 101 / S. LINDEN AVE	ALTERNATIVE A	COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS	B557+50 TO B648+00
BOOK A1	7	TT-D0107	SAN BRUNO TO SAN MATEO	I-380 / SAN BRUNO AVE / SFO	ALTERNATIVE A	COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS	B648+00 TO B740+00
BOOK A1	8	TT-D0108	SAN BRUNO TO SAN MATEO	SFO / MILLBRAE CALTRAIN STATION	ALTERNATIVE A	COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS	B740+00 TO B830+00
BOOK A1	9	TT-D0109	SAN BRUNO TO SAN MATEO	CALIFORNIA DR / BROADWAY CALTRAIN STATION	ALTERNATIVE A	COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS	B830+00 TO B920+00
BOOK A1	10	TT-D0110	SAN BRUNO TO SAN MATEO	BURLINGAME CALTRAIN STATION	ALTERNATIVE A	COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS	B920+00 TO B1010+00
BOOK A1	11	TT-D0111	SAN BRUNO TO SAN MATEO/	CALTRAIN SAN MATEO STATION / N. RAILROAD AVE /	ALTERNATIVE A	COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS	B1010+00 TO B1100+00
BOOK A1	12	TT-D0112	SAN MATEO TO PALO ALTO	CALTRAIN HAYWARD PARK STATION / HWY 92 /	ALTERNATIVE A	COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS	B1100+00 TO B1190+00
BOOK A1	13	TT-D0113	SAN MATEO TO PALO ALTO	EL CAMINO REAL / CALTRAIN BELMONT STATION	ALTERNATIVE A	COMPOSITE PLAN, PROFILE AND TYPICAL SECTIONS	B1190+00 TO B1280+00

Need Assistance?

Call us:
1-800-435-8670

Email us:
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Viewing Volume III as a PDF online? Downloaded a PDF from the High-Speed Rail Authority website?

You can use built-in PDF tools like bookmarks to navigate the document and the find function to locate places.

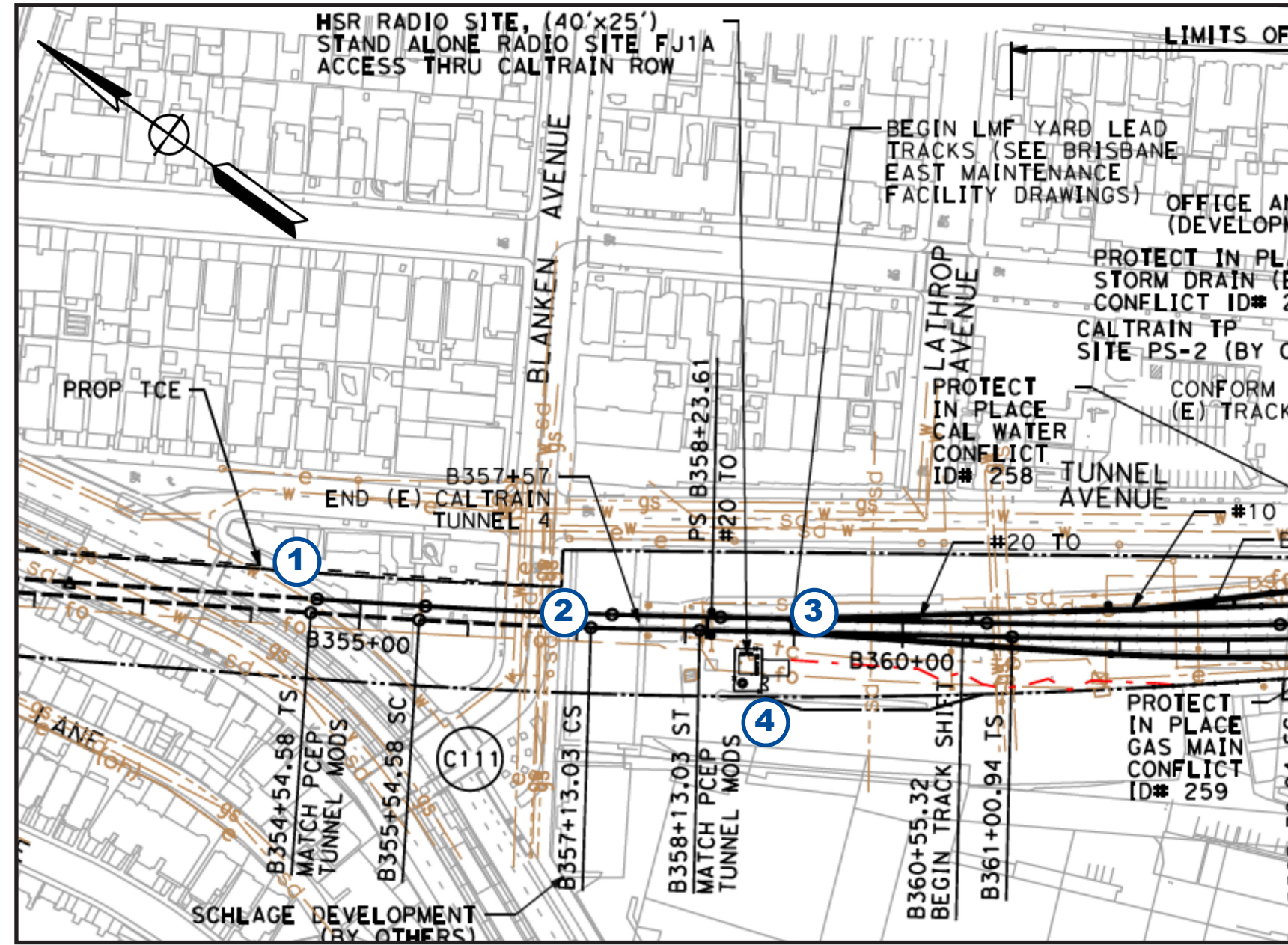
For example, use the find function (Ctrl+F on a PC; ⌘+F on a Mac) to search for a cross street. All instances of the street label will show up, including those in maps and engineering drawings.

Understanding the Information in Volume III

Plans

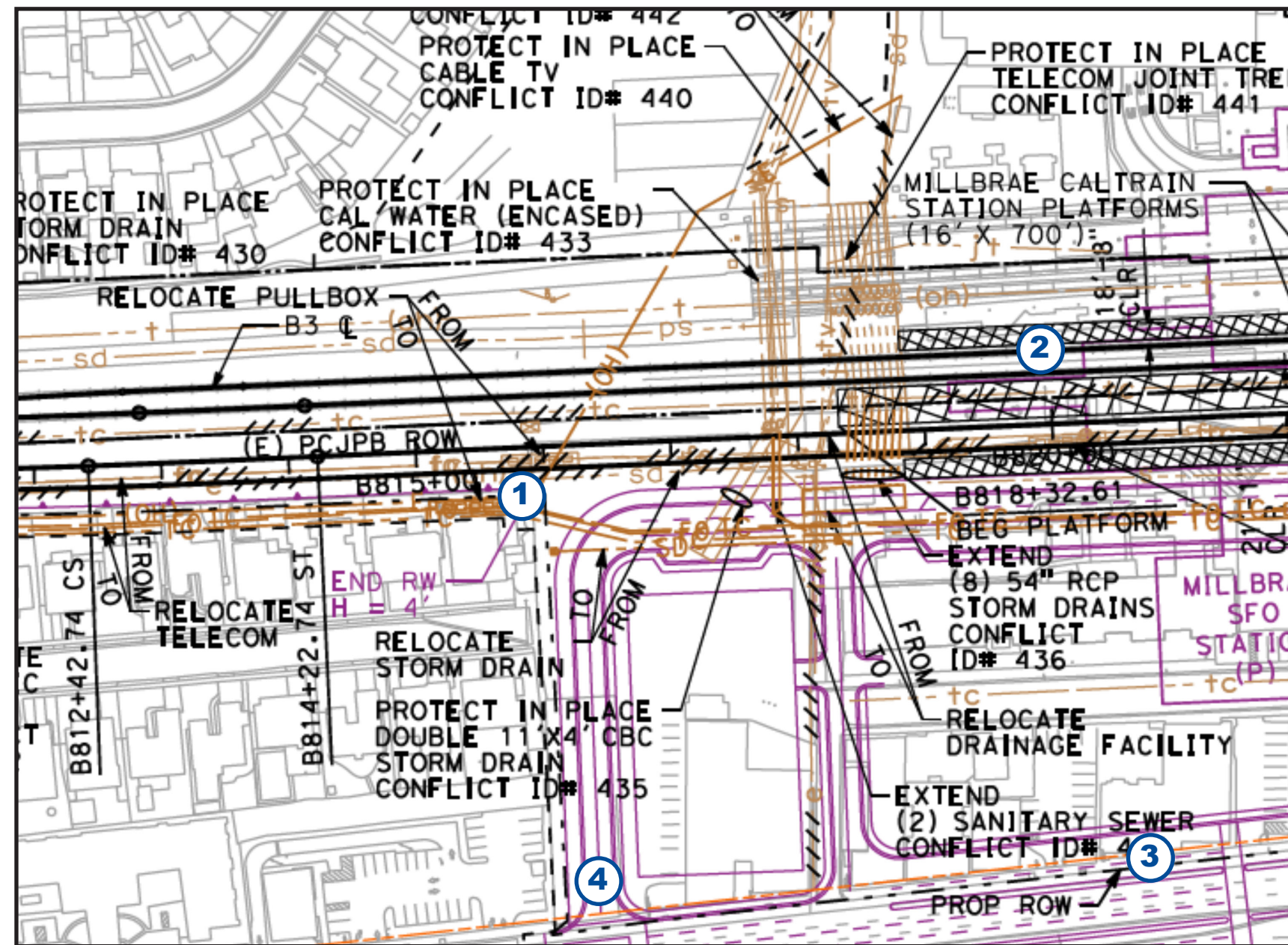
The plans in Volume III are detailed drawings of the project corridor that show the location of proposed high-speed rail infrastructure, existing and proposed rights-of-way, road alignments, utility lines, planned developments, and other features. Four enlarged examples from the plans are annotated below to highlight the different features that are labeled on these drawings.

- 1 The dashed line labeled "PROP TCE" indicates a proposed temporary construction easement.
- 2 Dashed lines indicate existing tracks. Solid lines indicate new or relocated track.
- 3 In this location, lead tracks for trains traveling to and from the Brisbane light maintenance facility (LMF) intersect with the trunk line (or main line).
- 4 The proposed locations of facilities such as stand-alone radio sites are shown on the plans. In this example, a stand-alone radio site is shown south of the tunnel.



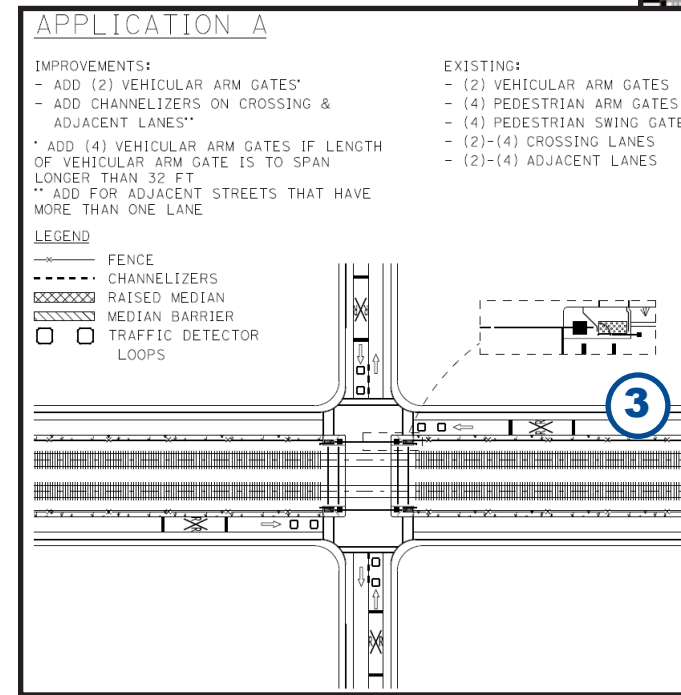
Example 1: South San Francisco near Blanken Avenue

- 1 Brown lines mark utility features such as gas, water, sewer, and telecommunications lines. A series of small slashes (///) shows where specific utility features will be removed and relocated.
- 2 The rectangle with small cross-hatching represents the Caltrain platform, while the high-speed rail train platform has large crosshatching.
- 3 The dashed line labeled "PROP ROW" indicates the boundary of the proposed high-speed rail right-of-way.
- 4 Magenta lines show proposed roadways and roadway realignments or restriping.



Example 2: North Side of Millbrae-SFO High-Speed Rail Station

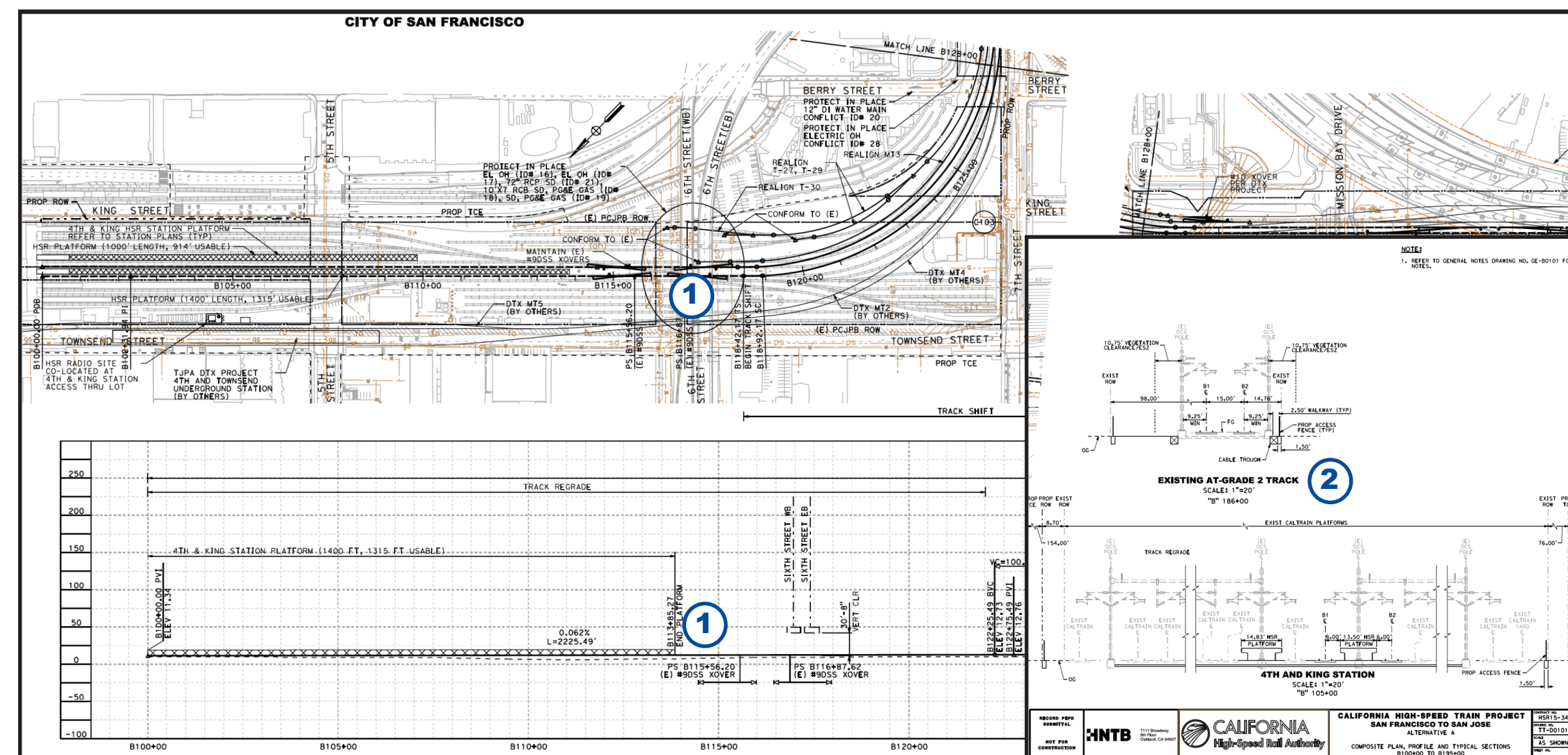
- 1 The location and style of quad gates that will be installed on 3rd Ave are labeled.
- 2 The location and style of quad gates that will be installed on 4th Ave are labeled.
- 3 The General Information Book contains drawings of the different applications of quad gates.



Example 3: Quad Gates in San Mateo

Cross Sections and Vertical Profiles

In addition to the plan view of the rail corridor, Volume III composite plan sheets include cross sections and a vertical profile of the alignment. Cross sections are shown on each sheet to represent the track configuration at a specific location on that drawing. A vertical profile is an engineering drawing representing what the design would look like from the side, or profile, of the alignment. An example is shown below.



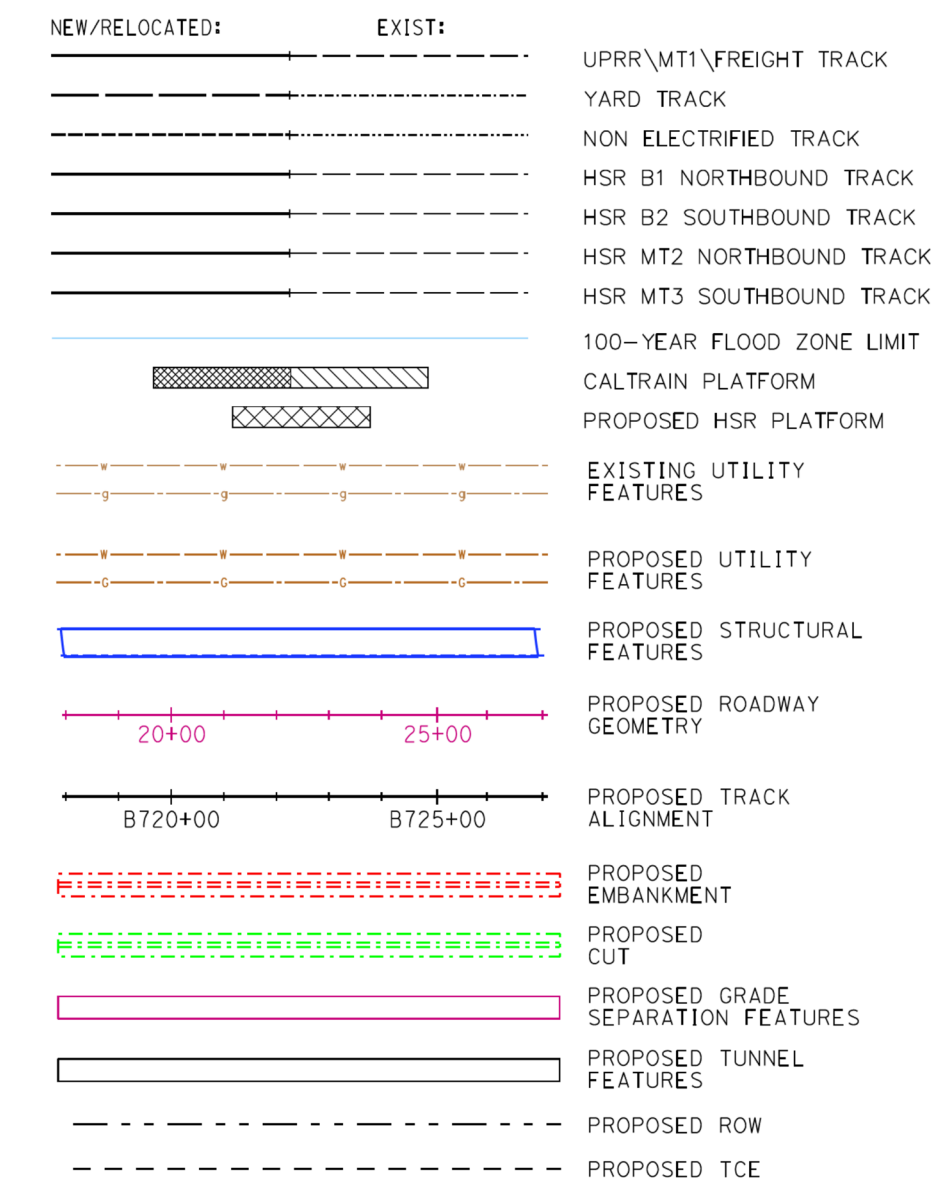
Example 4: 4th and King Station in San Francisco

- 1 The profile corresponds to the plan above. The limits of the platform are shown in both the plan and profile views.
- 2 Stationing is provided to identify the limits that the cross section represents.

Colors/Legend

A legend for the composite plans can be found on sheet 15 of the General Information Book. The four previous examples highlight the most common markings that are found on the composite plans, but the legend may be referenced to help understand the information depicted in the plans.

- "MT" means main track and "B" indicates alignment stationing of the southbound passenger track with tick marks at 100' intervals.
- A 100-year flood event has a 1 in 100 (1%) chance of happening in any given year.
- Caltrain station platforms and high-speed rail station platforms are distinguished by different styles of hatching.
- Utilities are marked with brown lines.
- Structural features, marked with blue lines, generally refer to viaducts and other bridges.
- Realigned roadways are drawn in magenta.



Scale

The drawings in Volume III are scaled, meaning the measurements in these drawings are in proportion to the actual locations they represent. For example, one inch of a drawing might represent 600 feet of the real alignment. All drawings show their scale. Note that some drawings have different horizontal and vertical scales, and these are shown on the drawing.

SECTION
SCALE 1"=10'-0"

RETAINING WALL PROFILE
SCALE 1"=50'

PLAN
SCALE: 1"=200'
1"=200' HOR

1"=600'
SCALE APPLICABLE FOR FULL SIZE ONLY