



Office of the City Manager

INFORMATION CALENDAR

July 23, 2024

To: Honorable Mayor and Members of the City Council  
From: Dee Williams-Ridley, City Manager  
Submitted by: Terrance Davis, Director, Public Works  
Subject: Alameda County Transportation Commission Rail Safety Enhancement Program – Phase A

SUMMARY

The purpose of this report is to inform Council of an upcoming project by the Alameda County Transportation Commission (Alameda CTC) to design and construct safety improvements at selected railroad crossings across Alameda County, including five at-grade railroad crossings in the City. The project, known as the Rail Safety Enhancement Program (RSEP), comprises of three phases and encompasses selected crossings throughout Alameda County: Phase A (or RSEP-A, referred herein as Project) includes crossings that are candidates for expedited implementation, whereas RSEP-B and RSEP-C include the remaining crossings and are on separate schedules from RSEP-A. The Alameda CTC is the project sponsor and implementing agency for the Project.

The Project includes safety improvements at 27 railroad crossings and two trespass areas in Alameda County, including the five crossings to be improved in the City: Cedar Street, Virginia Street, Hearst Avenue, Addison Street, and Bancroft Way. The other at-grade railroad crossing in the City, at Gilman Street, will receive crossing improvements as part of the California Department of Transportation's (Caltrans') I-80 Gilman Interchange Improvement project that is currently under construction.

The RSEP was developed as a result of Alameda CTC's 2016 Alameda Countywide Goods Movement Plan and 2018 Rail Strategy Study, along with a 2019 finding from the Federal Railroad Administration (FRA) that identified Alameda County as having the fourth highest number of railroad corridor injuries in the nation.

The RSEP would design and construct pedestrian and roadway safety enhancements across five at-grade railroad crossings in the City, thereby improving pedestrian and bicycle infrastructure and removing potential impediments to using these more sustainable modes of transportation. The RSEP would also improve accessibility in these areas, which are classified as Equity Priority Communities by the Metropolitan Transportation Commission.

### CURRENT SITUATION AND ITS EFFECTS

The Project is currently at the 95% design stage. Previous design stages included 35% in December 2021 and 65% in May 2022. The Project is designed by Alameda CTC's design consultant, Kimley-Horn & Associates, Inc. (KHA) under the oversight of Alameda CTC staff. City Staff from the Public Works Department and Fire Department have reviewed and commented on the 35%, 65%, and 95% design submittals, along with affected utility companies. City Public Works Staff have also reviewed traffic studies developed by KHA.

The proposed safety improvements will occur in the public right of way, including the Union Pacific Railroad (UPRR) easement, which runs along a corridor that is also known as Third Street.

The Project proposes rail safety improvements to five existing at-grade rail crossings on Cedar Street, Virginia Street, Hearst Avenue, Addison Street and Bancroft Way in the City. The Project's improvements were developed by on-site diagnostic meetings with the City, California Public Utilities Commission (CPUC), UPRR, and the Alameda CTC.

The City's improvements are designed to increase safety for motorists and pedestrians and consist of both pedestrian treatments (sidewalks through the crossings, automated gate arms and swing gates, channelization fencing and railing, concrete panels and anti-trespass fencing) and roadway treatments (signing and striping, median islands, lighting, parking restrictions and curb bulbouts, where feasible).

In addition to the treatments described above, there will be additional Project features and changes at each of the crossings as follows:

- **Cedar Street** - removal of two sets of inactive railroad tracks, new sidewalk in the northeast quadrant, new striping limits to extend to Fourth Street to the east and Second Street to the west, added red-painted curb and four driveways that turn into right-in and right-out. Reduction in number of on-street parking spaces along the north side of Cedar: one space west of the crossing and four spaces east of the crossing.
- **Virginia Street** - removal of one set of inactive railroad tracks, new concrete sidewalk on the northeast and southwest quadrants, new curb bulbouts on the south side of Virginia Street, new striping limits to extend to Fourth Street to the east and Second Street to the west, added red-painted curb and two driveways that turn into right-in and right-out. Reduction of four on-street parking spaces along the north side of Virginia (east of the crossing) and two spaces along the south side of Virginia (west of the crossing).
- **Hearst Avenue** - removal of two sets of inactive railroad tracks, new curb bulbouts on the north and south side of Hearst Avenue, new striping limits to

extend to Fourth Street to the east and Second Street to the west, added red-painted curb and five driveways that turn into right-in and right-out. Reduction of two on-street parking spaces along the north side of Hearst, west of the crossing.

- **Addison Street** - curb bulbout for the exit driveway in the southwest quadrant, extension of the existing median on the east side of the tracks, provisions for a future fourth set of railroad tracks, added red-painted curb and one driveway that turns into right-in and right-out. Reduction of one on-street parking space along the north side of Addison, west of the crossing.
- **Bancroft Way** - removal of one set of inactive railroad tracks, new striping limits to extend to Fourth Street to the east, added red-painted curb and two driveways that turn into right-in and right-out. Reduction of one on-street parking space along the north side of Bancroft (east of the crossing) and two spaces along the south side of Bancroft (west of the crossing).

These proposed safety-related improvements meet CPUC and UPRR requirements. In particular:

- The median islands are designed to keep vehicles from driving around railroad gate arms, but would also prohibit left turns into and out of some driveways. The design team performed turning movement analyses of typical vehicles into and out of the driveways as a way to confirm their continued usability for their intended purposes.
- Extended lengths of red curb near the railroad crossings aim to prevent visual obstructions between drivers and railroad warning devices as vehicle approach the crossings but would also reduce the number of available curbside parking spaces.

Alameda CTC has recently conducted a public information meeting for the Project on May 22, 2024. Outreach for this meeting followed the Public Works Department's standard practices for a project of this size and nature, including sending postcard invitations to all addresses within 300 feet of the project limits, and included a 14-day comment period subsequent to the meeting. In coordination with City staff, Alameda CTC mailed copies of the presentation from the May 22, 2024 public information meeting to property owners of parcels immediately adjacent to proposed medians and red curbs. The design team received a few comments from the public following this effort and has been coordinating the design with these property owners to address their concerns.

Alameda CTC conducted prior public outreach meetings, including public hearings for the Project's environmental documents in March and April 2023 and an informational meeting to the Transportation and Infrastructure Commission in April 2023. More

information about these meetings are provided below in the Background section of this report.

On June 20, 2024, Alameda CTC staff presented the Project at the Transportation and Infrastructure Commission (TIC) meeting. The TIC voted 7-0 in support of the proposed project improvements, with a caveat that the project team make an effort to refine the design of a proposed roadway median to accommodate vehicular left turn egress from a parking lot at the northeast quadrant of the Hearst Avenue rail crossing, to address public comments received during the meeting.

Alameda CTC has completed their own community engagement activities and is working on the final design of the Project, which includes addressing feedback from City departments, utility companies, the public, and the TIC. State-level California Environmental Quality Act clearance for the Project was completed in September 2023. The Project is concurrently working on clearing the Federal-level National Environmental Policy Act to allow the Project to be eligible for future Federal funding while advancing the design work.

Construction of the Project, which occurs in several municipalities throughout Alameda County, is anticipated to start in mid-2026, although the start date for construction in the City has not yet been established.

## BACKGROUND

The Project was developed as an outgrowth of the recommendations included in the 2016 Alameda CTC-approved Alameda Countywide Goods Movement Plan and in response to safety-related issues many rail crossings pose throughout the County. The prioritization framework to select from the 133 at-grade crossings in Alameda County came from the 2018 Rail Strategy Study, which assessed the safety, vehicle delay, emissions, noise impacts as well as whether crossing locations were in Priority Development Areas or Equity Priority Communities.

In 2019, the FRA sent a letter to Alameda County officials notifying them that there were 56 trespassing deaths along railroad corridors in the County between 2012 and 2017, which was the fourth highest number of trespassing fatalities in the nation. Between 2016 and 2023, there have been a total of 6 fatalities and 5 injuries in the Project's City crossings alone. Since 1975, there have been 47 deaths caused by collisions with trains within the at-grade crossings included in this Project and the rate of fatalities is trending upward.

Currently, the at-grade crossings act as a barrier to communities on each side of the railroad tracks due to a lack of safe or non-existent facilities which prohibit both active transportation for pedestrians and bicyclists and reliable freight and passenger rail service. The continued lack of safe crossings in Alameda County would impede the growth of rail operations, reduce time travel reliability and continue to have major safety impacts for communities.

Alameda CTC has conducted several community meetings to provide the public opportunities to learn about the Project and provide comments, including the following meetings specific to the City:

- **March 28, 2023** - Virtual Public Hearing for Virginia Street and Hearst Avenue in the City in support of the environmental document with a 30-day public review and comment period.
- **April 13, 2023** – Virtual Public Hearing for Addison Street, Cedar Street and Bancroft Way in the City in support of the environmental document with a 30-day public review and comment period.
- **April 20, 2023** – Presentation to the TIC as an informational item on the Project.
- **May 22, 2024** – Virtual public information meeting for the RSEP improvements in the City in adherence with the City’s Public Participation Policy with a 14-day public review and comment period.
- **June 20, 2024** – Presentation to the City’s TIC and a vote of commissioners to support the Project.

For the March 2023 and April 2023 public hearings and May 2024 public information meeting, Alameda CTC, in coordination with the City, conducted outreach in advance of these meetings, which included sending mailers to nearby residents and businesses; e-mail blasts to interested parties, stakeholders, groups and businesses; and/or posting flyers.

#### ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

The improvements to the existing at-grade rail crossings will encourage transportation mode shifts from freight trucks to rail and from driving to walking and biking. These mode shifts help to reduce greenhouse gas emissions, reduce public health issues related to air quality caused by truck traffic, and improve the overall health and safety of the surrounding communities.

This Project advances the following City environmental sustainability and climate goals:

- Advance opportunities for people to safely walk, bike, take public transit, and electrify mobility options,
- Minimize air and water pollution for the health of people and planet, and
- Reduce greenhouse gas emissions by 2050 to 80% below 2000 levels per Climate Action Plan goals.

#### POSSIBLE FUTURE ACTION

The work of this Project may require that the City execute Construction and Maintenance Agreement(s) with UPRR and/or Alameda CTC to formalize maintenance

responsibilities. Alameda CTC will construct this Project and, in general, elements in the UPRR easement would be maintained by UPRR and elements in the public right of way and outside of the UPRR easement would be maintained by the City.

FISCAL IMPACTS OF POSSIBLE FUTURE ACTION

Upon execution of a Construction and Maintenance Agreement, the City would assume maintenance responsibilities for elements of this Project in the public right of way and outside of the UPRR easement, including but not necessarily limited to signage, pavement markings, sidewalk, railing, roadway pavement, median islands, and lighting. Budget will be identified in future fiscal year Transportation Division operating budgets to support maintenance of these facilities once they are constructed.

CONTACT PERSON

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Hamid Mostowfi, Transportation Manager, Public Works Department, (510) 981-6403  
Kenneth Jung, Supervising Civil Engineer, Public Works Department, (510) 981-7028

Attachments:

- 1: Presentation from 6/20/2024 Transportation and Infrastructure Commission Meeting
- 2: 95% Design-level Signing and Striping Plans for RSEP-A in Berkeley
- 3: Project Fact Sheet



ALAMEDA COUNTY TRANSPORTATION COMMISSION

# Rail Safety Enhancement Program (RSEP)



**City of Berkeley Transportation and Infrastructure Commission**

Angelina Leong, Alameda CTC Project Manager

Kevin Aguigui, Kimley-Horn Project Manager

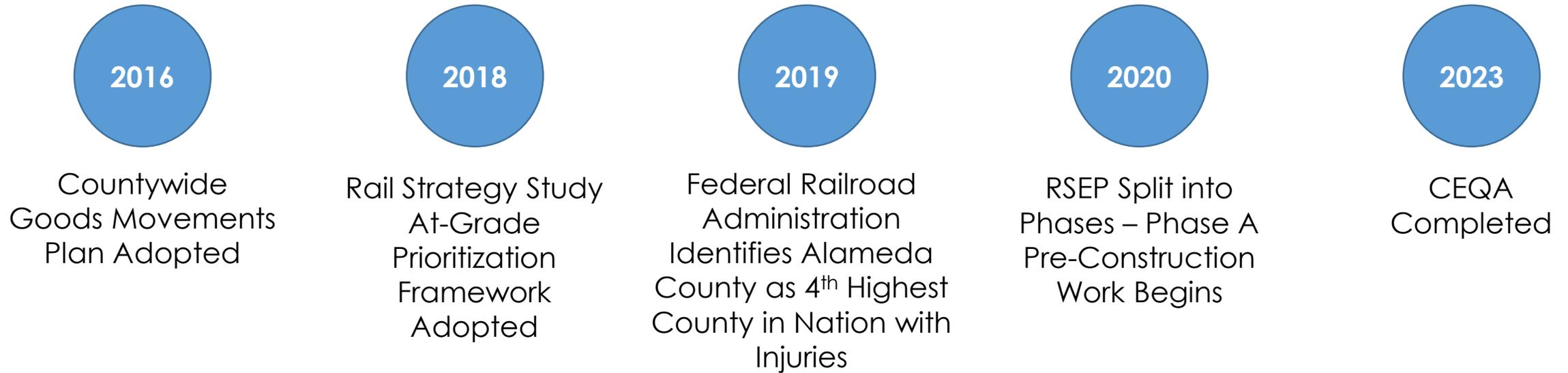
**June 20, 2024**

# Agenda

1. Program Overview
2. Needs and Benefits
3. Berkeley TIC and Public Engagement
4. Berkeley Crossing Improvements
5. County-Wide RSEP Schedule
6. Questions/Comments



# Program Overview



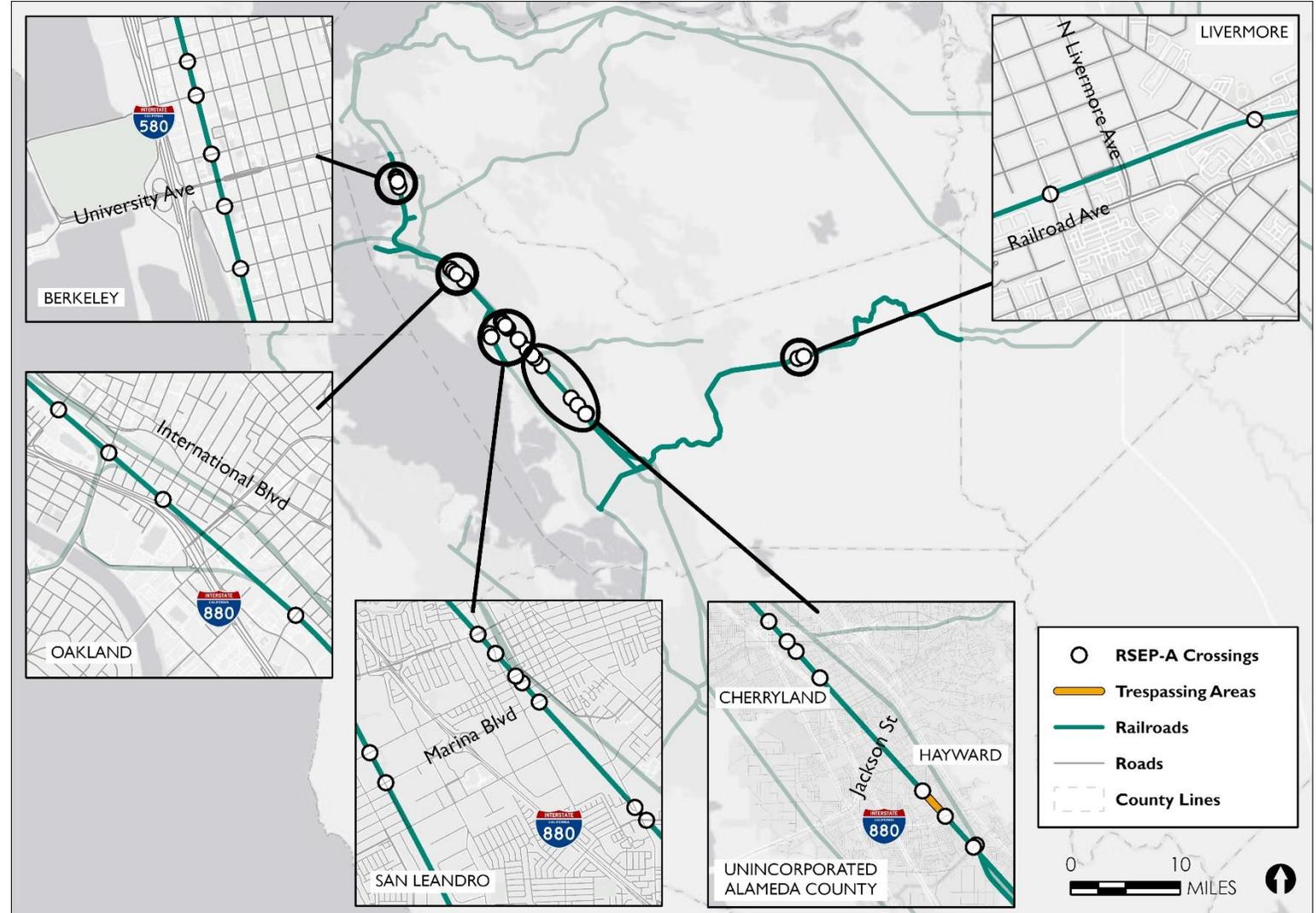
# Program Overview

Enhancements to 27 crossings and two trespass areas

## Project Partners



## Project Stakeholders



# Project Need

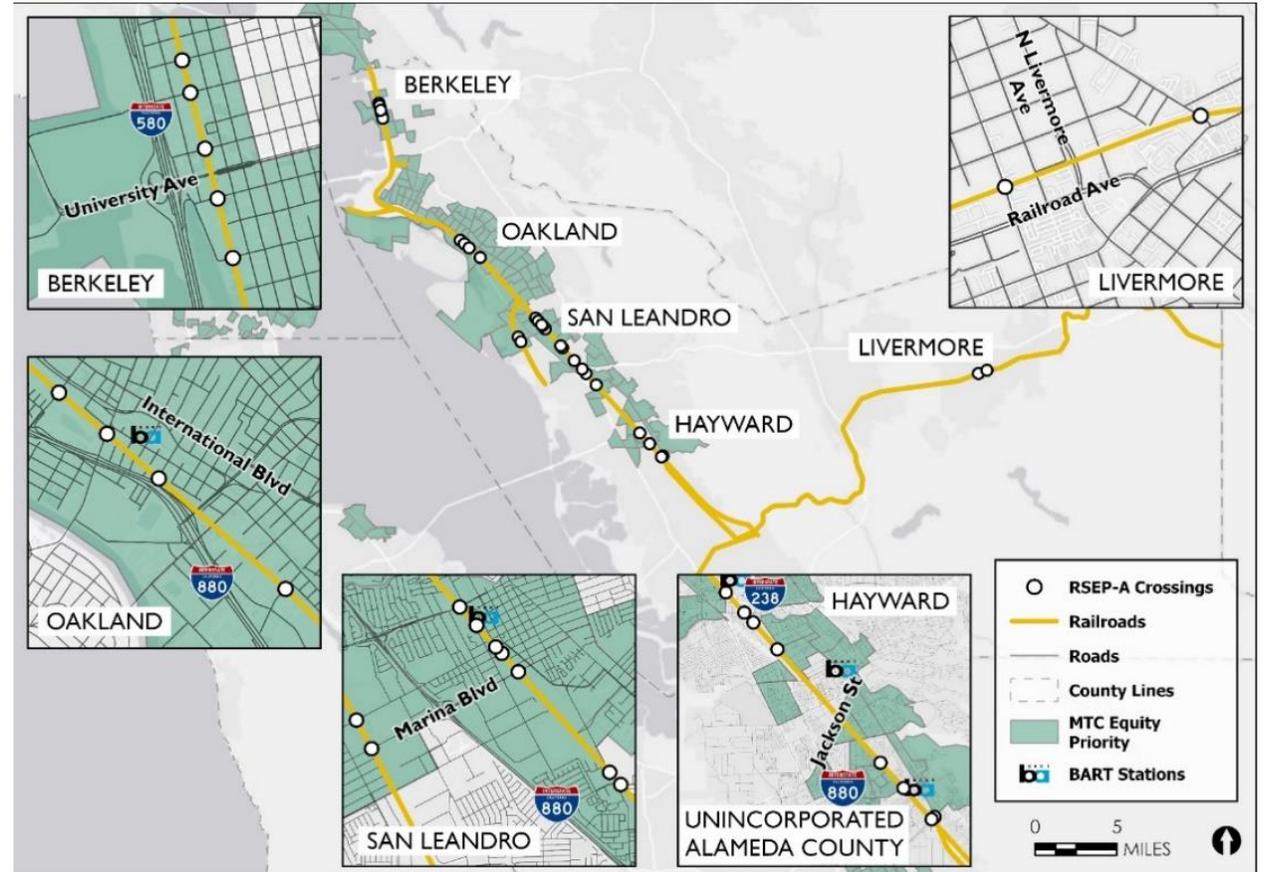
- Crossing Safety (2016-2021)
  - Overall RSEP: 28 incidents, resulting in 17 fatalities and 12 injuries.
  - In Berkeley: 5 incidents, resulting in 5 fatalities and 5 injuries.
- Additional Incidents (2022-2023)
  - Overall RSEP: 12 incidents, resulting in 3 fatalities and 6 injuries.
  - In Berkeley: 3 incidents, resulting in 1 fatality



**Total Incidents Map  
(2016-2021)**

# Project Benefits

- Improves pedestrian and vehicle user safety
- Increases reliability and efficiency of goods movement
- Real affect on Highest Equity Priority Communities (EPCs)
- Eliminates barriers to walking and encourages mode shifts from trucks to rail and cars to active transportation (walk and bike)



EPC Map

# Berkeley TIC and Public Engagement

- **March 28, 2023** – Virtual public hearing for Hearst Avenue and Virginia Street (30-day public comment period)
- **April 13, 2023** – Virtual public hearing for Addison Street, Cedar Street, and Bancroft Way (30-day public comment period)
- **April 20, 2023** – In-person informational presentation to City of Berkeley Transportation and Infrastructure Commission (TIC)
- **May 22, 2024** – Virtual Public Information Meeting (14-day public comment period)
- **June 20, 2024** – In-person presentation to City of Berkeley TIC (Today's Item)

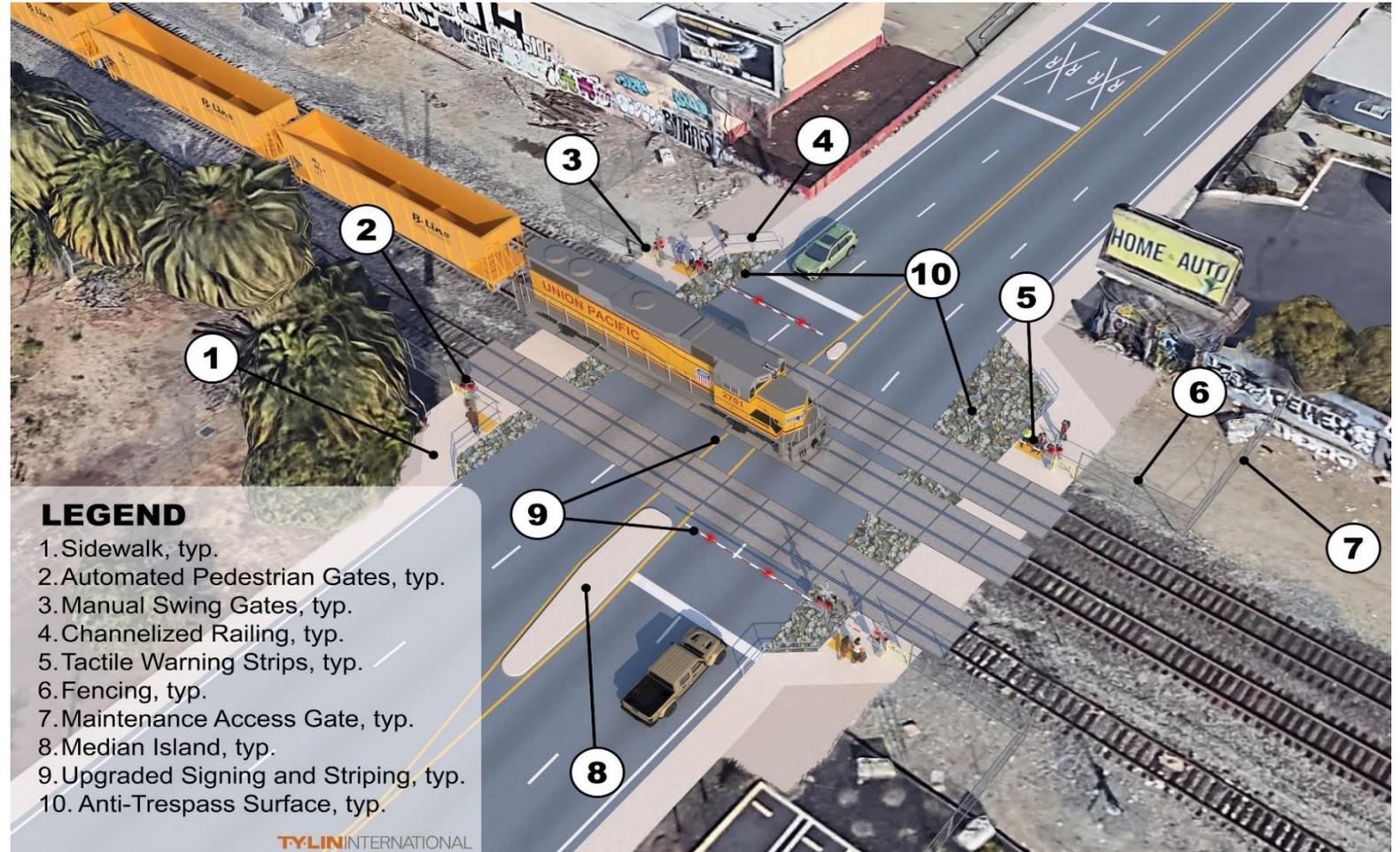
# Typical Crossing Improvements

## ➤ Full Pedestrian Treatments

- Sidewalks through the Crossings
- Automated Gate Arms
- Emergency Exit Gates
- Channelization / Railing
- Crossing Panels
- Anti-Trespass Fencing

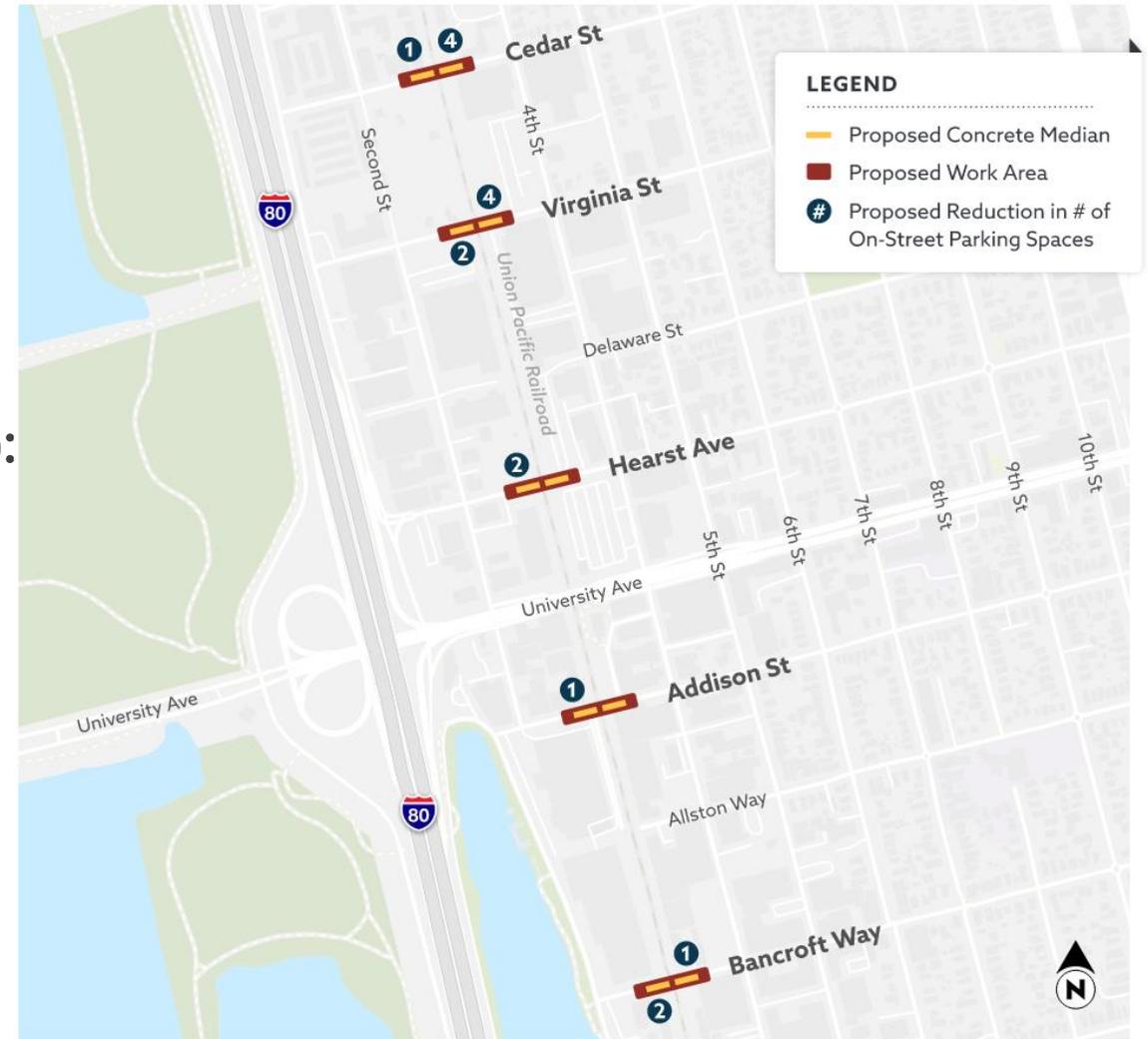
## ➤ Roadway Treatments

- Signing and Striping
- Automated Gate Arms
- Median Islands
- Lighting
- Parking Restrictions
- Curb Bulbouts



# Crossing Improvements in Berkeley

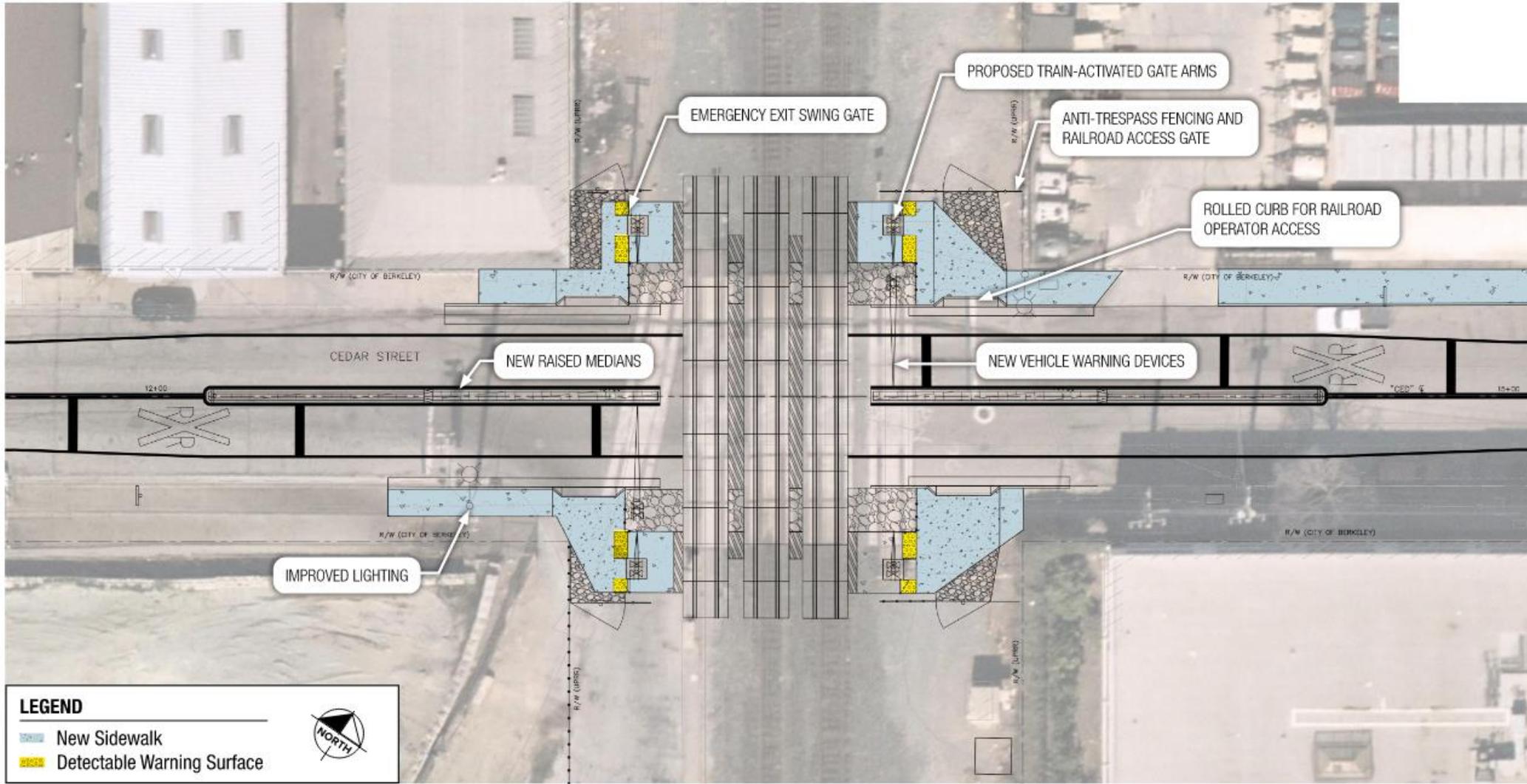
- Improvements developed by Field Diagnostic Meetings with the City of Berkeley, California Public Utilities Commission, Union Pacific Railroad, and Alameda CTC
- **5 Crossings (between 2<sup>nd</sup> Street and 4<sup>th</sup> Street):**
  - Cedar Street
  - Virginia Street
  - Hearst Avenue
  - Addison Street
  - Bancroft Way



# Crossing Improvements in Berkeley

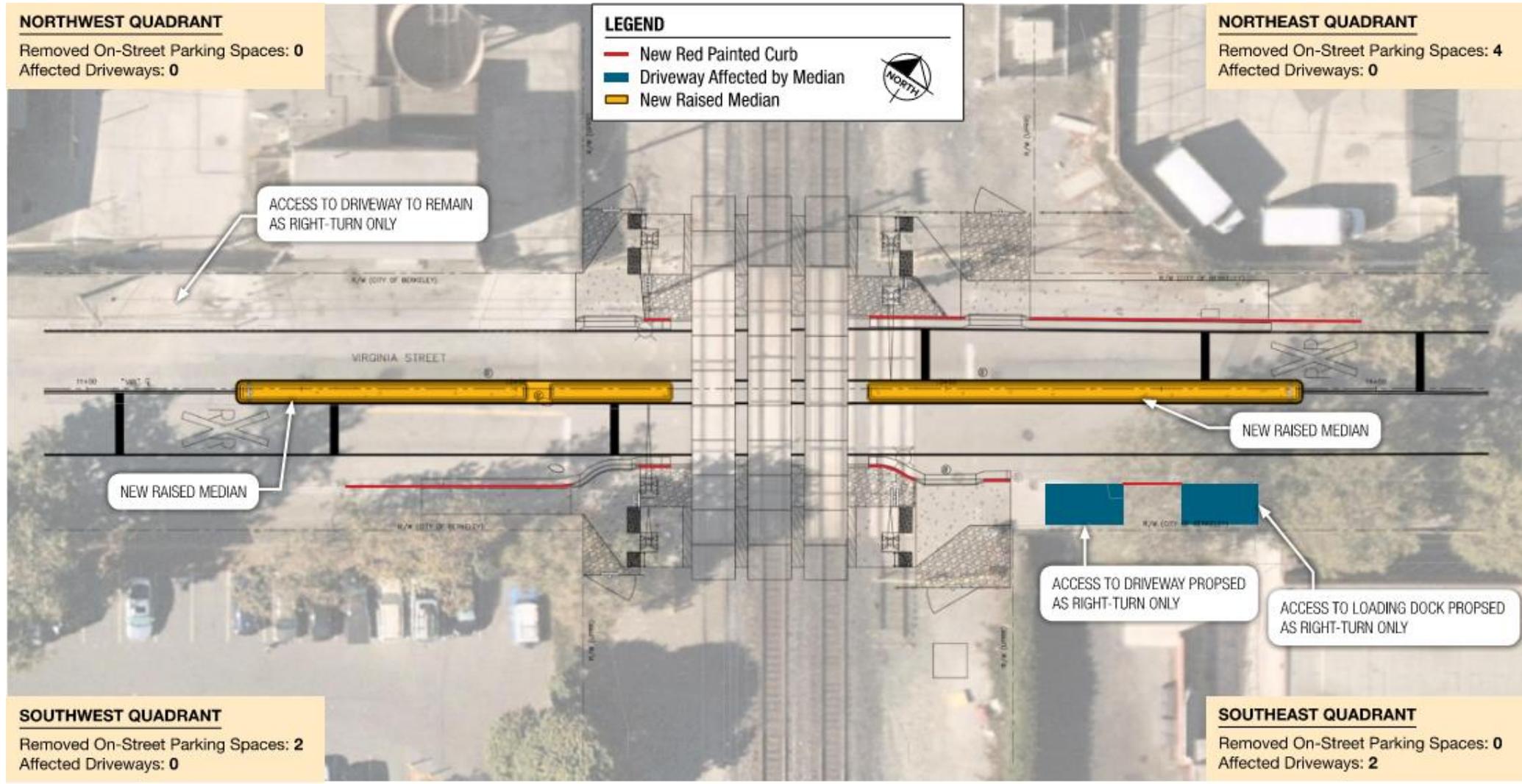
| Crossing Feature                  | Cedar Street | Virginia Street | Hearst Avenue | Addison Street | Bancroft Way |
|-----------------------------------|--------------|-----------------|---------------|----------------|--------------|
| <b>Pedestrian Treatments</b>      |              |                 |               |                |              |
| Sidewalks through the Crossing    | X            | X               | X             | X              | X            |
| Automated Gate Arms / Swing Gates | X            | X               | X             | X              | X            |
| Channelization Fencing/Railing    | X            | X               | X             | X              | X            |
| Concrete Panels                   | X            | X               | X             | X              | X            |
| Anti-Trespass Fencing             | X            | X               | X             | X              | X            |
| <b>Roadway Treatments</b>         |              |                 |               |                |              |
| Signing and Striping              | X            | X               | X             | X              | X            |
| Median Islands                    | X            | X               | X             | X              | X            |
| Lighting                          | X            | X               | -             | X              | X            |
| Parking Restrictions              | X            | X               | X             | X              | X            |
| Curb Bulbouts                     | -            | X               | X             | -              | -            |

# Crossing Improvements in Berkeley

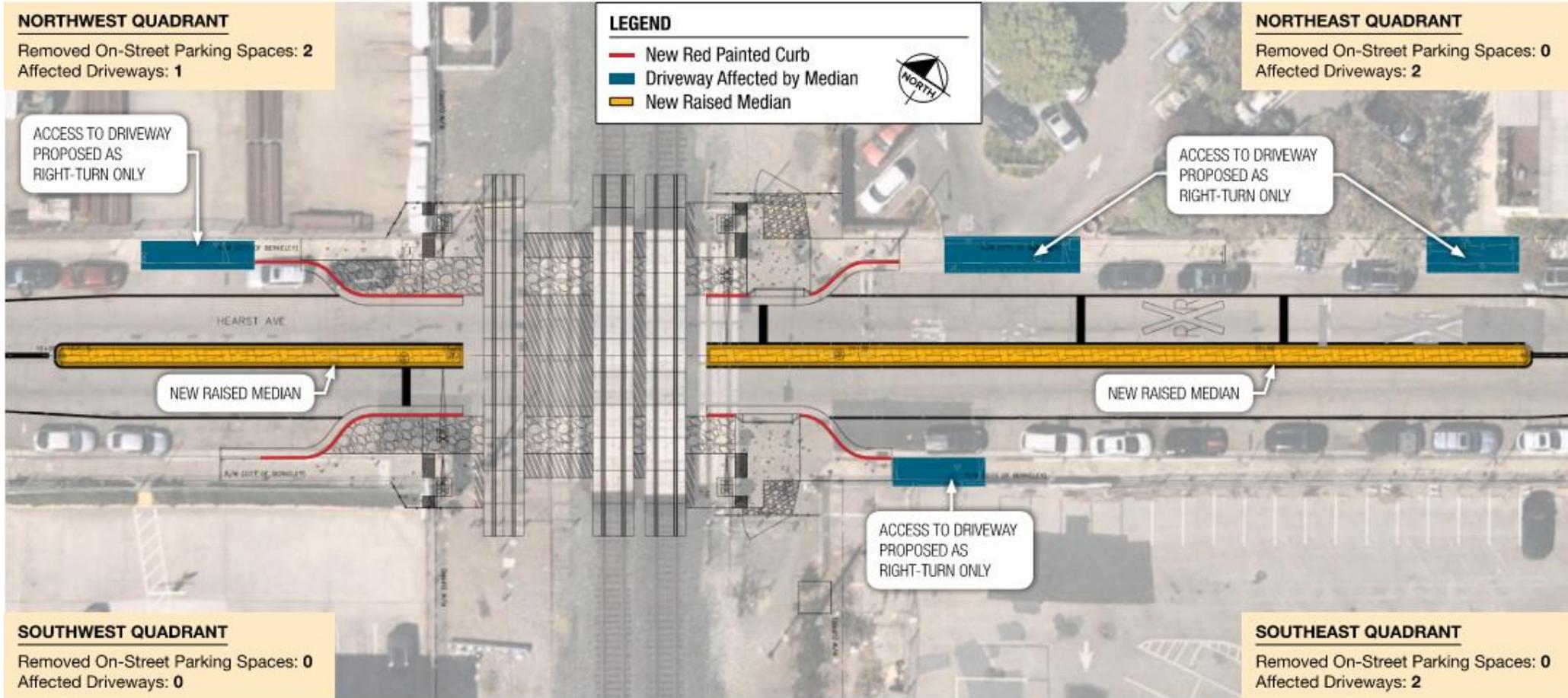




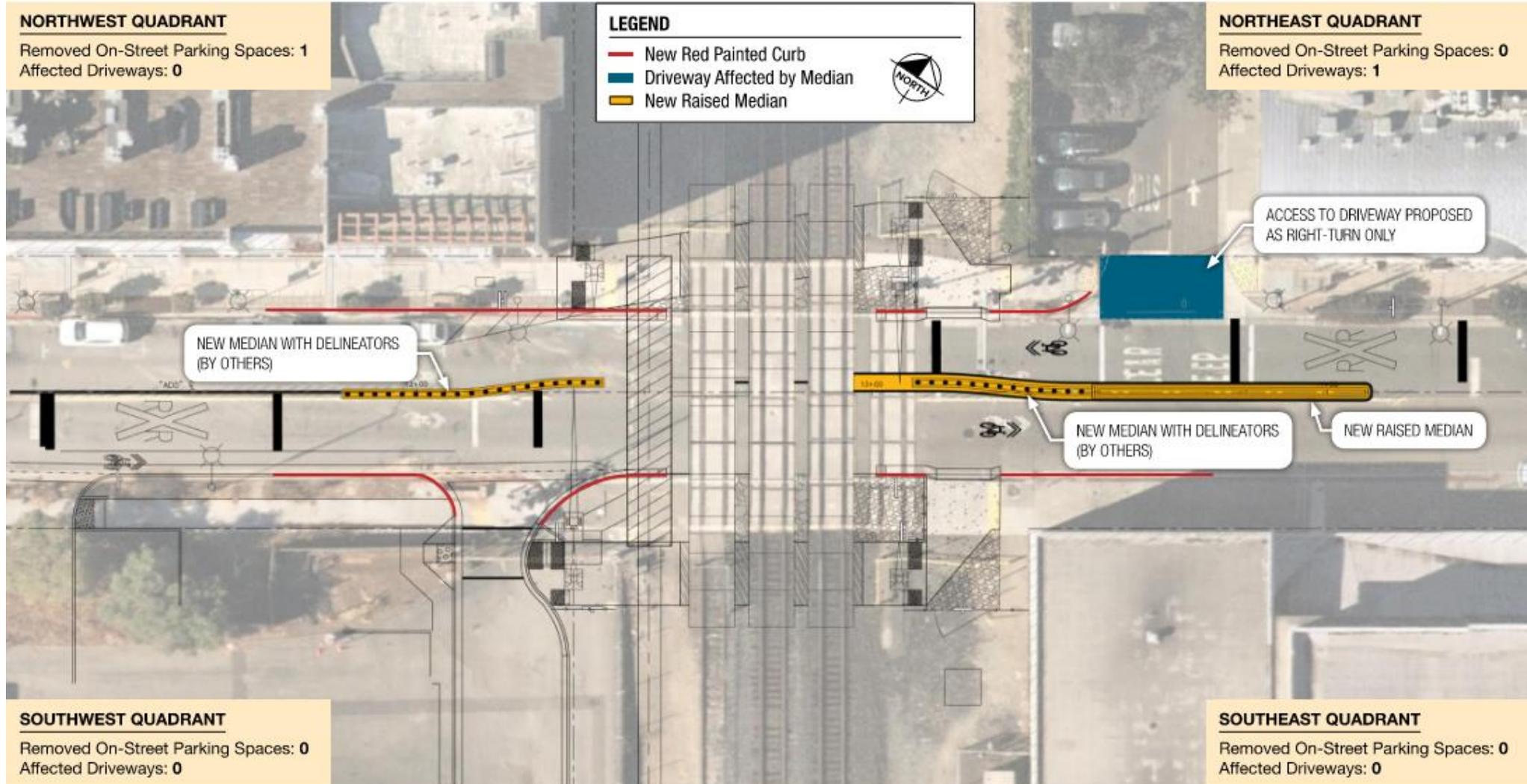
# On-Street Parking and Driveways Access: Virginia Street



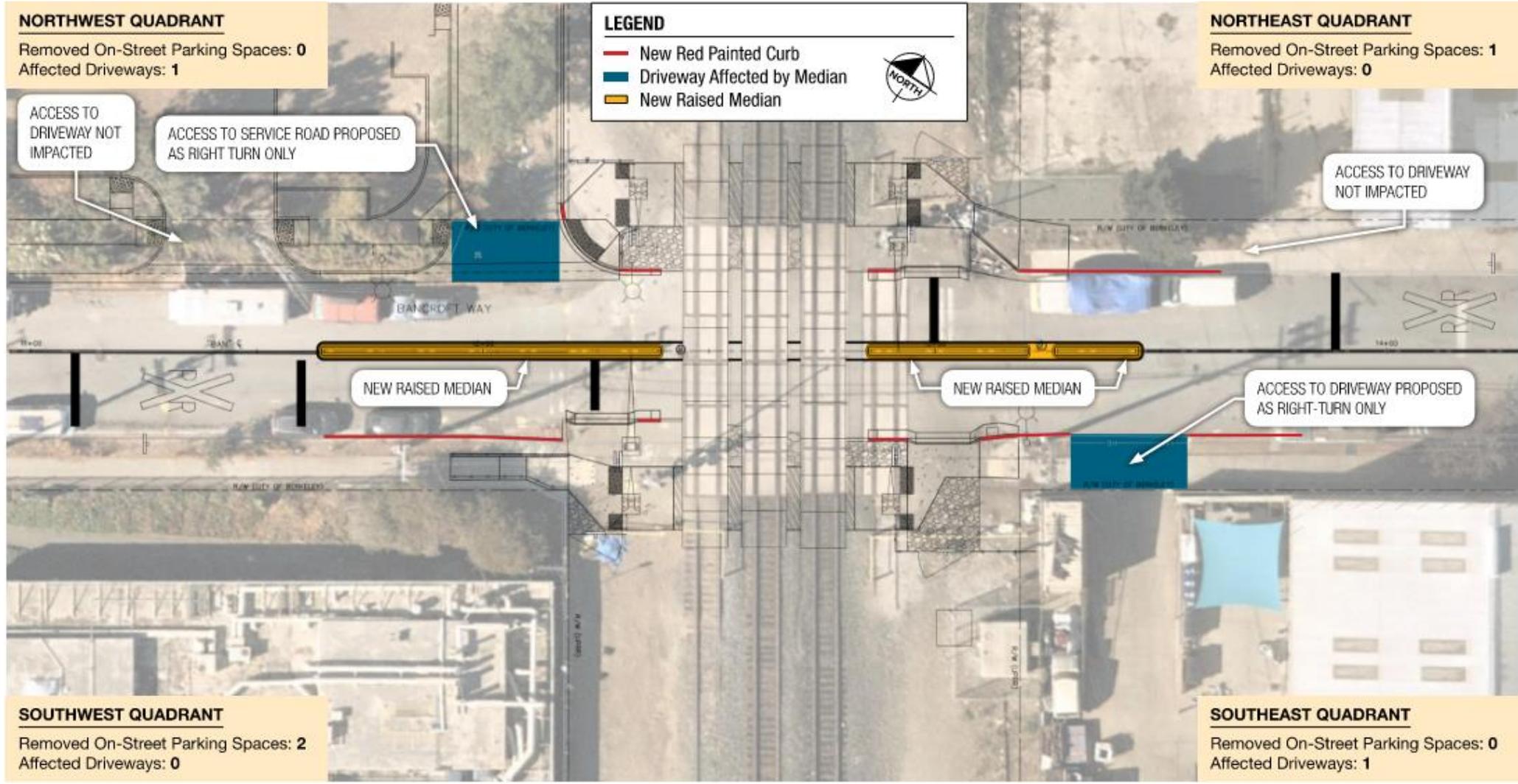
# On-Street Parking and Driveways Access: Hearst Avenue



# On-Street Parking and Driveways Access: Addison Street

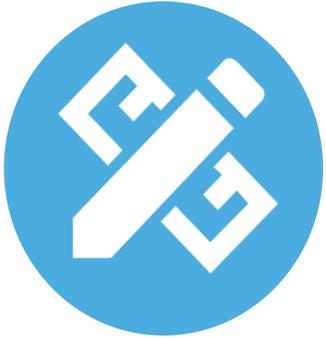


# On-Street Parking and Driveways Access: Bancroft Way



# County-Wide RSEP Schedule

Conceptual  
Design



Complete

Environmental  
Clearance



CEQA – Complete  
NEPA – Fall 2024

Final Design



Summer 2023 –  
Late 2025

Right-of-Way



Summer 2023 –  
Late 2025

Advertise /  
Award



Spring 2026

Construction



Beginning  
Summer 2026\*

\*Construction schedule in Berkeley to be determined in coordination with UPRR forces and the City of Berkeley.

# Recommended Action

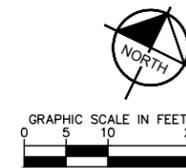
- Staff requests that the TIC supports the project and allow the project to proceed with completing the final design.

# Comments/Questions

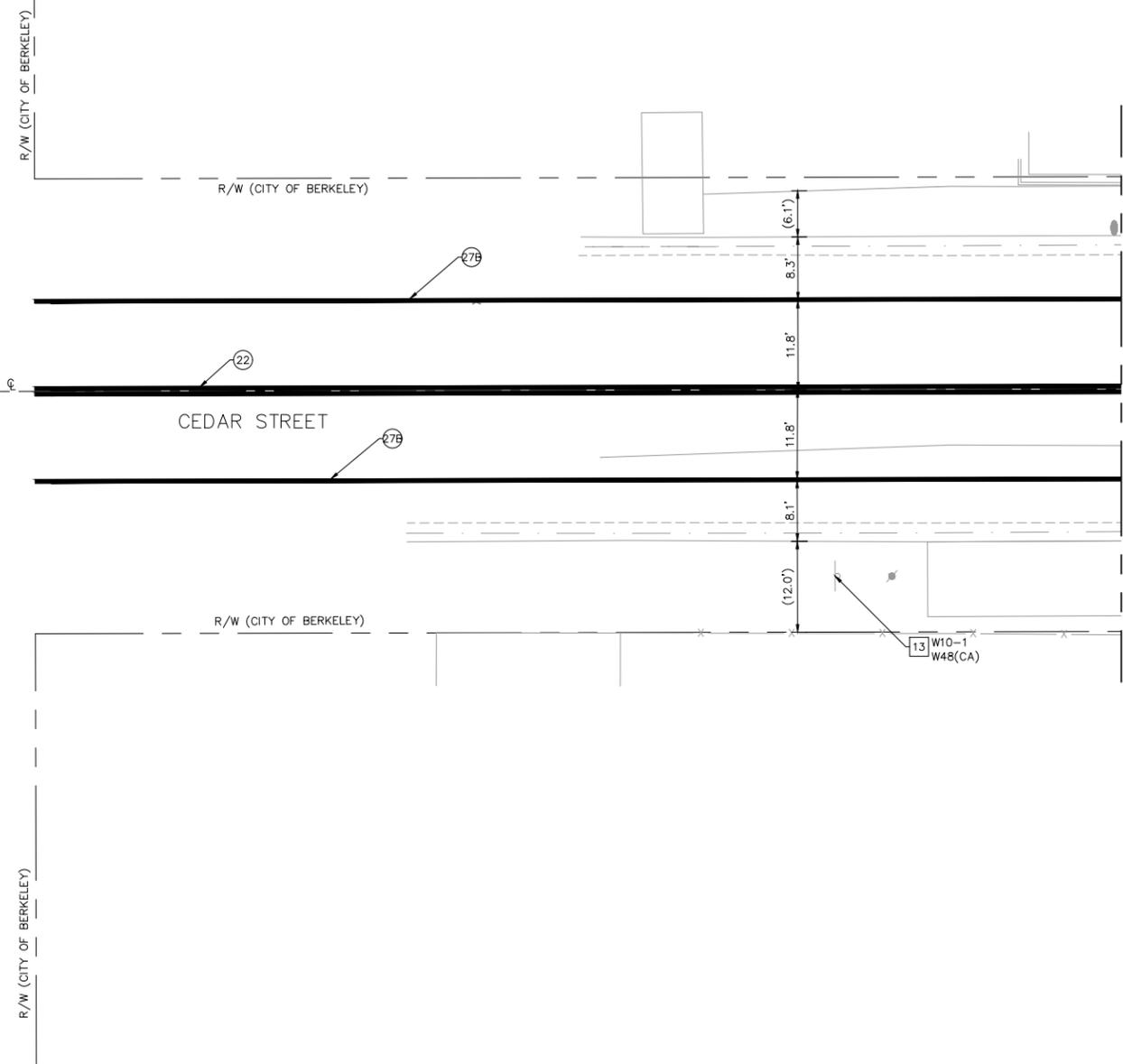
For more information, please visit Alameda CTC's RSEP Website at:



<https://www.alamedactc.org/programs-projects/transit-and-rail/rail-safety-enhancement-program>



SECOND STREET



MATCHLINE, SEE SHEET SS-011

GENERAL NOTES

- SEE LAYOUT PLANS FOR CIVIL IMPROVEMENTS.
- CONTRACTOR TO REMOVE ALL CONFLICTING STRIPING.

LEGEND

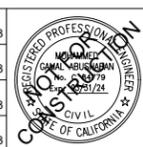
- NEW SIGN
- EXISTING SIGN
- REMOVE EXISTING MARKING BY GRINDING
- INSTALL STRIPING DETAIL NUMBER "XX" PER CALTRANS 2018 STANDARDS PLANS

SIGNING AND STRIPING NOTES

- INSTALL NEW SIGN(S) MOUNTING ON CPUC NO.9. SIGN(S) AS NOTED ON PLANS.
- INSTALL NEW SIGN(S) ON GATE. SIGN(S) AS NOTED ON PLANS.
- INSTALL LIMIT LINE PER CALTRANS STANDARD PLAN A24G.
- INSTALL NEW SIGN(S) ON NEW POST. SIGN(S) AS NOTED ON PLANS.
- INSTALL WHITE PAVEMENT MARKING PER 2018 CALTRANS STANDARD PLANS. INSTALL CENTERED IN LANE UNLESS OTHERWISE NOTED.
- INSTALL 50" OF RED CURB BEGINNING 10' FROM THE CENTERLINE OF NEAREST TRACK. QUANTITY OF PARKING STALLS REMOVED AS NOTED ON PLANS.
- PAINT MEDIAN EDGE YELLOW AND INSTALL REFLECTIVE DELINEATORS.
- INSTALL WHITE RXR PAVEMENT MARKING
- INSTALL NEW SIGN(S) MOUNTING ON CPUC NO.9. SIGN(S) AS NOTED ON PLANS.
- INSTALL NEW SIGN(S) ON EGRESS GATE FACING AWAY FROM THE TRACKS
- INSTALL SPECIAL SIGN PER DETAIL A ON CD-020 ON EGRESS GATE FACING TOWARDS THE TRACKS
- INSTALL DOUBLE-SIDED R15-8 SIGNS ON NEW POST. MOUNTING HEIGHT SHALL BE NO MORE THAN 5' FROM FG.
- REMOVE EXISTING SIGN(S) AND POLE AS NOTED ON PLANS.
- REMOVE EXISTING SIGN(S) ON STREETLIGHT POLE.

**JUNE 2023  
FOR REVIEW ONLY  
95% DESIGN**

| NO | REVISION / SUBMISSION | DATE | DESIGNED BY  | DATE      |
|----|-----------------------|------|--------------|-----------|
|    |                       |      | ONG, K       | 6/30/2023 |
|    |                       |      | DRAWN BY     |           |
|    |                       |      | TANIKELLA, R | 6/30/2023 |
|    |                       |      | CHECKED BY   |           |
|    |                       |      | ABUSHABAN, M | 6/30/2023 |
|    |                       |      | IN CHARGE    |           |
|    |                       |      | MARSHALL, J  | 6/30/2023 |



SCALE  
HORIZONTAL  
1" = 10'  
VERTICAL  
N/A

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(510) 625-0712

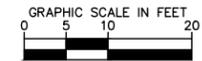
**JMA CIVIL**  
383 4TH STREET, STE 201  
OAKLAND, CA 94607  
(925) 400-4356

**ALAMEDA County Transportation Commission**  
Alameda County Transportation Commission  
RAIL SAFETY ENHANCEMENT PROGRAM  
1111 BROADWAY #800, OAKLAND, CA 94607

UPRR NILES SUB MP 15.29  
BERKELEY, CA DOT# 751183T  
CEDAR STREET AT-GRADE CROSSING  
SIGNING AND STRIPING PLAN

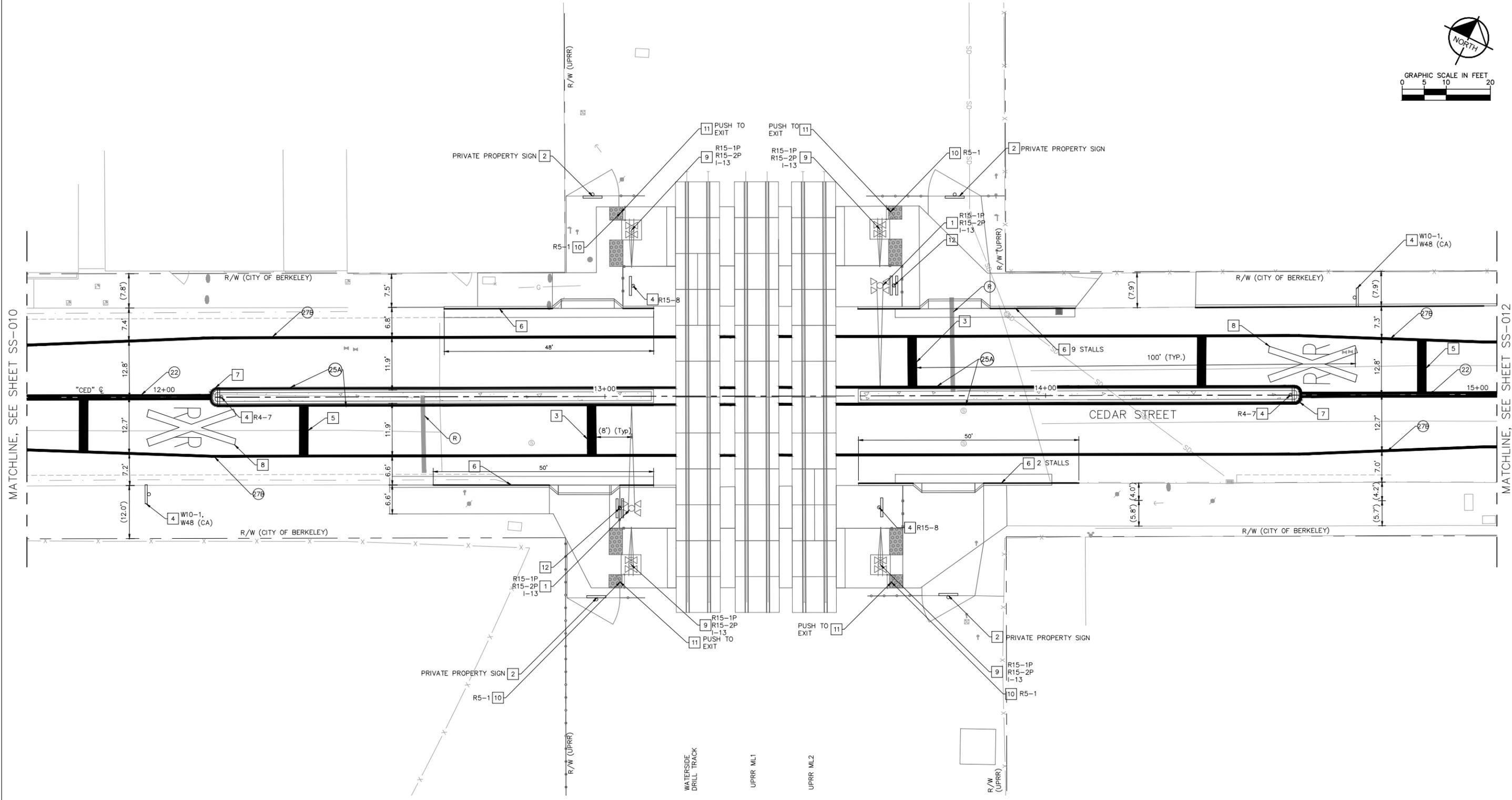
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| SHEET NO.   | 20     |

ALAMEDA COUNTY TRANSPORTATION COMMISSION - RAIL SAFETY ENHANCEMENT PROGRAM



MATCHLINE, SEE SHEET SS-010

MATCHLINE, SEE SHEET SS-012



**GENERAL NOTES**

1. SEE LAYOUT PLANS FOR CIVIL IMPROVEMENTS.
2. CONTRACTOR TO REMOVE ALL CONFLICTING STRIPING.
3. SIGNS NOTED IN PLANS ARE PER CA MUTOD 2014 EDITION UNLESS OTHERWISE NOTED. A SIGN LEGEND FOR REFERENCE IS PROVIDED ON CD-020.

**LEGEND**

- NEW SIGN
- EXISTING SIGN
- REMOVE EXISTING MARKING BY GRINDING
- INSTALL STRIPING DETAIL NUMBER "XX" PER CALTRANS 2018 STANDARDS PLANS

**SIGNING AND STRIPING NOTES**

- |  |  |  |  |  |
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| <ol style="list-style-type: none"> <li>1. INSTALL NEW SIGN(S) MOUNTING ON CPUC NO.9. SIGN(S) AS NOTED ON PLANS.</li> <li>2. INSTALL NEW SIGN(S) ON GATE. SIGN(S) AS NOTED ON PLANS.</li> <li>3. INSTALL LIMIT LINE PER CALTRANS STANDARD PLAN A24G.</li> </ol> | <ol style="list-style-type: none"> <li>4. INSTALL NEW SIGN(S) ON NEW POST. SIGN(S) AS NOTED ON PLANS.</li> <li>5. INSTALL WHITE PAVEMENT MARKING PER 2018 CALTRANS STANDARD PLANS. INSTALL CENTERED IN LANE UNLESS OTHERWISE NOTED.</li> <li>6. INSTALL 50' OF RED CURB BEGINNING 10' FROM THE CENTERLINE OF NEAREST TRACK. QUANTITY OF PARKING STALLS REMOVED AS NOTED ON PLANS.</li> </ol> | <ol style="list-style-type: none"> <li>7. PAINT MEDIAN EDGE YELLOW AND INSTALL REFLECTIVE DELINEATORS.</li> <li>8. INSTALL WHITE RXR PAVEMENT MARKING</li> <li>9. INSTALL NEW SIGN(S) MOUNTING ON CPUC NO.9. SIGN(S) AS NOTED ON PLANS.</li> <li>10. INSTALL NEW SIGN(S) ON EGRESS GATE FACING AWAY FROM THE TRACKS</li> </ol> | <ol style="list-style-type: none"> <li>11. INSTALL SPECIAL SIGN PER DETAIL A ON CD-020 ON EGRESS GATE FACING TOWARDS THE TRACKS</li> <li>12. INSTALL DOUBLE-SIDED R15-8 SIGNS ON NEW POST. MOUNTING HEIGHT SHALL BE NO MORE THAN 5' FROM FG.</li> <li>13. REMOVE EXISTING SIGN(S) AND POLE AS NOTED ON PLANS.</li> </ol> | <ol style="list-style-type: none"> <li>14. REMOVE EXISTING SIGN(S) ON STREETLIGHT POLE.</li> </ol> |
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JUNE 2023  
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|    |                       |      | MARSHALL, J  | 6/30/2023 |



SCALE  
HORIZONTAL  
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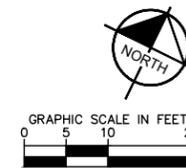
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**ALAMEDA COUNTY TRANSPORTATION COMMISSION**  
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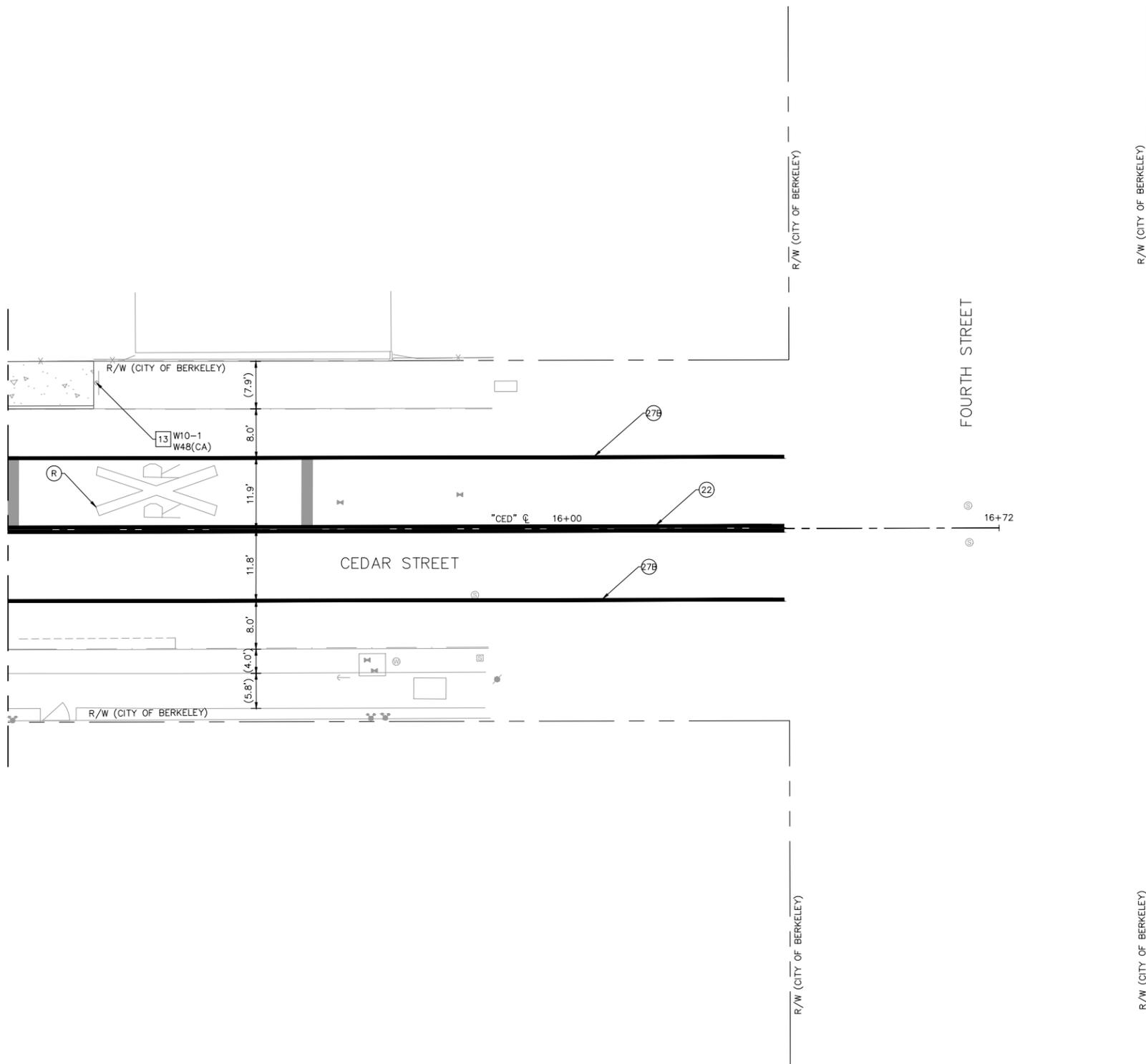
UPRR NILES SUB MP 15.29  
BERKELEY, CA DOT# 751183T  
CEDAR STREET AT-GRADE CROSSING  
SIGNING AND STRIPING PLAN

|                              |
|------------------------------|
| DRAWING NO.<br><b>SS-011</b> |
| SHEET NO.<br><b>21</b>       |

ALAMEDA COUNTY TRANSPORTATION COMMISSION - RAIL SAFETY ENHANCEMENT PROGRAM



MATCHLINE, SEE SHEET SS-011



**GENERAL NOTES**

- SEE LAYOUT PLANS FOR CIVIL IMPROVEMENTS.
- CONTRACTOR TO REMOVE ALL CONFLICTING STRIPING.

**LEGEND**

- NEW SIGN
- EXISTING SIGN
- REMOVE EXISTING MARKING BY GRINDING
- INSTALL STRIPING DETAIL NUMBER "XX" PER CALTRANS 2018 STANDARDS PLANS

**SIGNING AND STRIPING NOTES**

- INSTALL NEW SIGN(S) MOUNTING ON CPUC NO.9. SIGN(S) AS NOTED ON PLANS.
- INSTALL NEW SIGN(S) ON GATE. SIGN(S) AS NOTED ON PLANS.
- INSTALL LIMIT LINE PER CALTRANS STANDARD PLAN A24G.
- INSTALL NEW SIGN(S) ON NEW POST. SIGN(S) AS NOTED ON PLANS.
- INSTALL WHITE PAVEMENT MARKING PER 2018 CALTRANS STANDARD PLANS. INSTALL CENTERED IN LANE UNLESS OTHERWISE NOTED.
- INSTALL 50' OF RED CURB BEGINNING 10' FROM THE CENTERLINE OF NEAREST TRACK. QUANTITY OF PARKING STALLS REMOVED AS NOTED ON PLANS.
- PAINT MEDIAN EDGE YELLOW AND INSTALL REFLECTIVE DELINEATORS.
- INSTALL WHITE RXR PAVEMENT MARKING
- INSTALL NEW SIGN(S) MOUNTING ON CPUC NO.9. SIGN(S) AS NOTED ON PLANS.
- INSTALL NEW SIGN(S) ON EGRESS GATE FACING AWAY FROM THE TRACKS
- INSTALL SPECIAL SIGN PER DETAIL A ON CD-020 ON EGRESS GATE FACING TOWARDS THE TRACKS
- INSTALL DOUBLE-SIDED R15-8 SIGNS ON NEW POST. MOUNTING HEIGHT SHALL BE NO MORE THAN 5' FROM FG.
- REMOVE EXISTING SIGN(S) AND POLE AS NOTED ON PLANS.
- REMOVE EXISTING SIGN(S) ON STREETLIGHT POLE.

JUNE 2023  
 FOR REVIEW ONLY  
 95% DESIGN

| NO | REVISION / SUBMISSION | DATE | DESIGNED BY  | DATE      |
|----|-----------------------|------|--------------|-----------|
|    |                       |      | ONG, K       | 6/30/2023 |
|    |                       |      | TANIKELLA, R | 6/30/2023 |
|    |                       |      | ABUSHABAN, M | 6/30/2023 |
|    |                       |      | MARSHALL, J  | 6/30/2023 |



| SCALE      |
|------------|
| HORIZONTAL |
| 1" = 10'   |
| VERTICAL   |
| N/A        |

**Kimley»Horn**

1300 CLAY STREET, STE 325  
 OAKLAND, CA 94612  
 (510) 625-0712

**JMA CIVIL**

383 4TH STREET, STE 201  
 OAKLAND, CA 94607  
 (925) 400-4356

**Alameda County Transportation Commission**

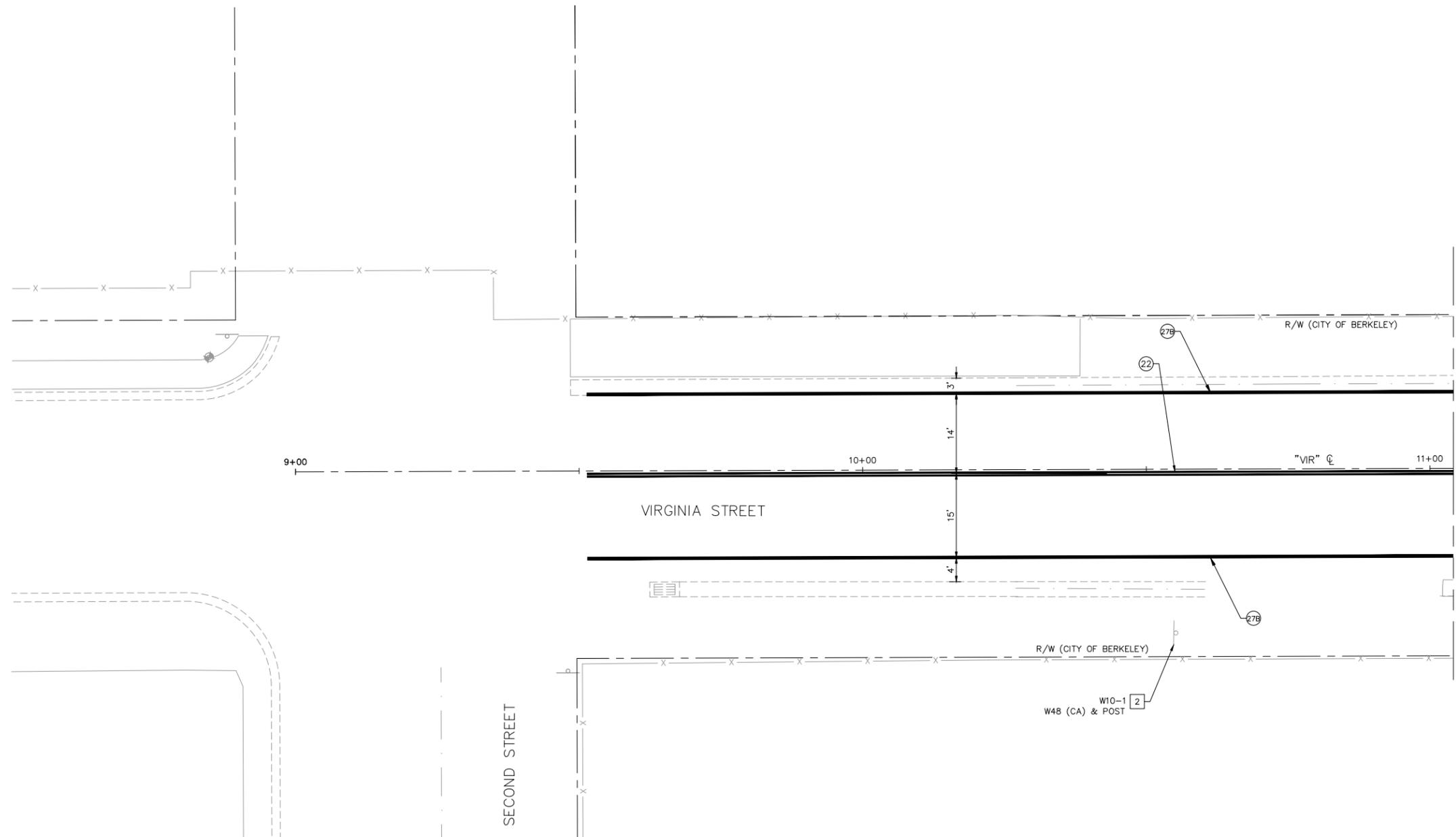
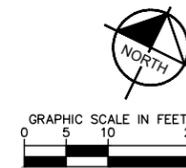
RAIL SAFETY ENHANCEMENT PROGRAM  
 1111 BROADWAY #800, OAKLAND, CA 94607

UPRR NILES SUB MP 15.29  
 BERKELEY, CA DOT# 751183T  
 CEDAR STREET AT-GRADE CROSSING

SIGNING AND STRIPING PLAN

| DRAWING NO. |
|-------------|
| SS-012      |
| SHEET NO.   |
| 22          |

ALAMEDA COUNTY TRANSPORTATION COMMISSION - RAIL SAFETY ENHANCEMENT PROGRAM



GENERAL NOTES

- SEE LAYOUT PLANS FOR CIVIL IMPROVEMENTS
- CONTRACTOR TO REMOVE ALL CONFLICTING STRIPING
- SIGNS NOTED IN PLANS ARE PER CA MUTCD 2014 EDITION UNLESS OTHERWISE NOTED. A SIGN LEGEND IS PROVIDED ON CD-020.

LEGEND

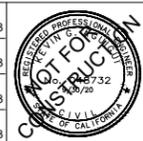
- NEW SIGN
- EXIST SIGN
- REMOVE EXISTING MARKING BY GRINDING
- INSTALL STRIPING DETAIL NUMBER "#" PER CALTRANS 2022 STANDARD PLANS

SIGNING AND STRIPING NOTES

- REMOVE EXIST EQUIPMENT AS NOTED.
- INSTALL RED CURB. QUANTITY OF PARKING SPACES REMOVED AS NOTED ON PLANS.

**JUNE 2023  
FOR REVIEW ONLY  
95% DESIGN**

| NO | REVISION / SUBMISSION | DATE | DESIGNED BY | DATE      |
|----|-----------------------|------|-------------|-----------|
|    |                       |      | WOOD, M.    | 6/30/2023 |
|    |                       |      | WOOD, M.    | 6/30/2023 |
|    |                       |      | JUMANAN, L. | 6/30/2023 |
|    |                       |      | AGUIGUI, K. | 6/30/2023 |

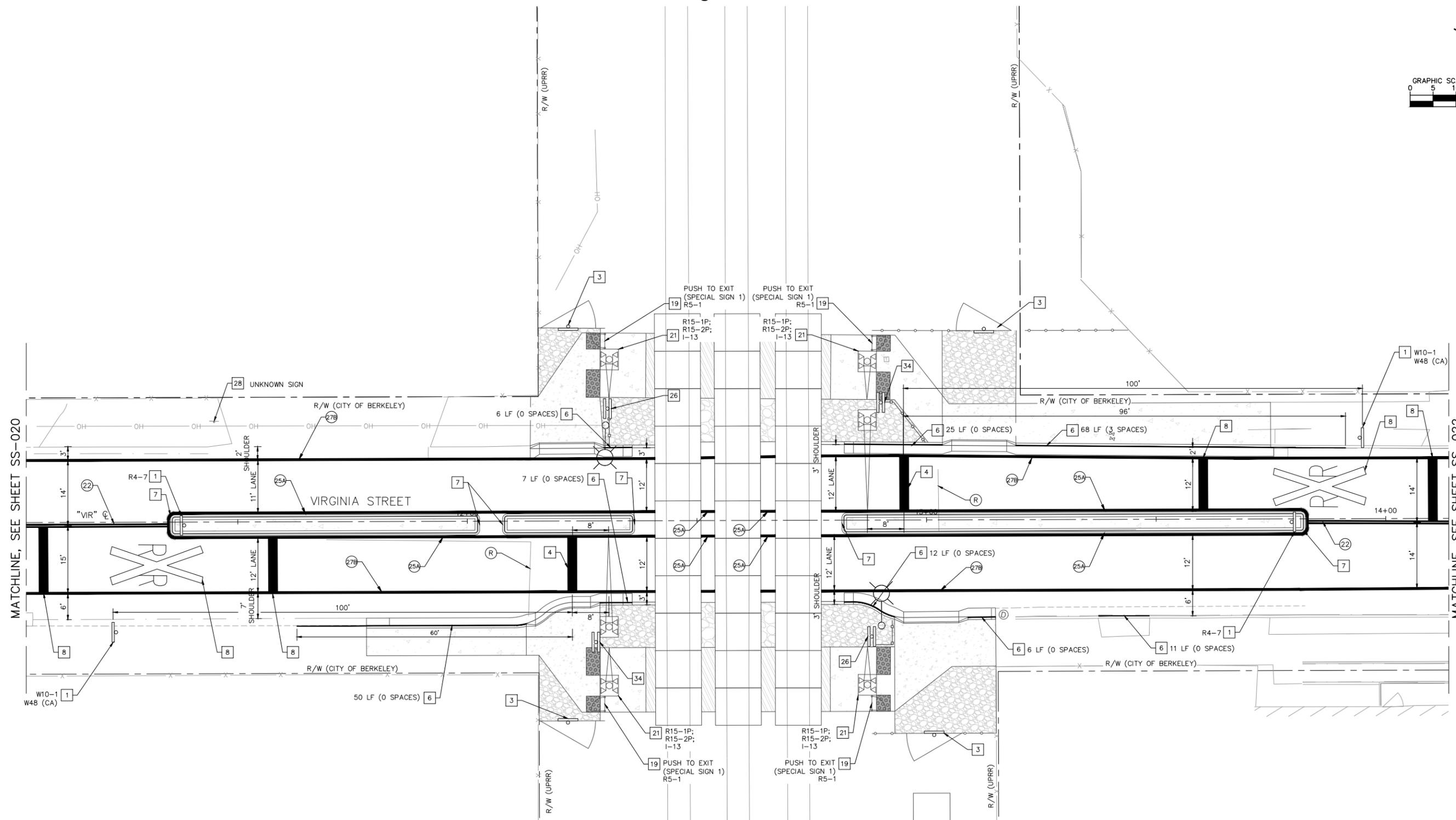
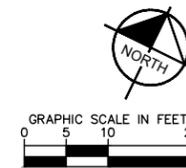


SCALE  
HORIZONTAL  
1" = 10'  
VERTICAL  
N/A



UPRR MARTINEZ SUB MP 6.55  
BERKELEY, CA DOT# 751181E  
VIRGINIA STREET AT-GRADE CROSSING  
SIGNING AND STRIPING PLAN

|             |        |
|-------------|--------|
| DRAWING NO. | SS-020 |
| SHEET NO.   | 29     |



GENERAL NOTES

- SEE LAYOUT PLANS FOR CIVIL IMPROVEMENTS
- CONTRACTOR TO REMOVE ALL CONFLICTING STRIPING
- SIGNS NOTED IN PLANS ARE PER CA MUTCD 2014 EDITION UNLESS OTHERWISE NOTED. A SIGN LEGEND IS PROVIDED ON CD-020.

LEGEND

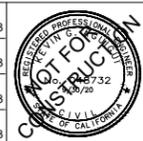
- NEW SIGN
- EXIST SIGN
- REMOVE EXISTING MARKING BY GRINDING
- INSTALL STRIPING DETAIL NUMBER "#" PER CALTRANS 2022 STANDARD PLANS

SIGNING AND STRIPING NOTES

- INSTALL NEW SIGN(S) ON NEW POST. SIGN(S) AS NOTED ON PLANS.
- REMOVE EXIST EQUIPMENT AS NOTED.
- INSTALL NEW UP PRIVATE PROPERTY SIGN ON GATE PER UNION PACIFIC RAILROAD ENGINEERING STANDARDS DRAWING 0528.
- INSTALL 24" WHITE ADVANCED LIMIT LINE PER CALTRANS STANDARD PLAN A24G.
- INSTALL RED CURB. QUANTITY OF PARKING SPACES REMOVED AS NOTED ON PLANS.
- PAINT MEDIAN EDGE YELLOW AND INSTALL REFLECTIVE DELINEATORS.
- INSTALL WHITE RXR PAVEMENT MARKING PER CALTRANS STANDARD PLAN A24B.
- INSTALL NEW SIGN(S) ON SWING GATES. MOUNT R5-1 ON PULL SIDE AND SPECIAL SIGN 1 ON PUSH SIDE.
- INSTALL NEW SIGN(S) ON STANDARD ASSEMBLY NO. 9. SIGN(S). (BY UPRR FORCES)
- INSTALL DOUBLE-SIDED R15-8 SIGNS ON NEW POST.
- EXISTING SIGN TO REMAIN.
- INSTALL DOUBLE-SIDED R15-8 SIGNS ON NEW POST. MOUNTING HEIGHT SHALL BE NO MORE THAN 5' FROM FG.

JUNE 2023  
 FOR REVIEW ONLY  
 95% DESIGN

| NO | REVISION / SUBMISSION | DATE | DESIGNED BY | DATE      |
|----|-----------------------|------|-------------|-----------|
|    |                       |      | WOOD, M.    | 6/30/2023 |
|    |                       |      | WOOD, M.    | 6/30/2023 |
|    |                       |      | JUMANAN, L. | 6/30/2023 |
|    |                       |      | AGUIGUI, K. | 6/30/2023 |



SCALE  
 HORIZONTAL  
 1" = 10'  
 VERTICAL  
 N/A

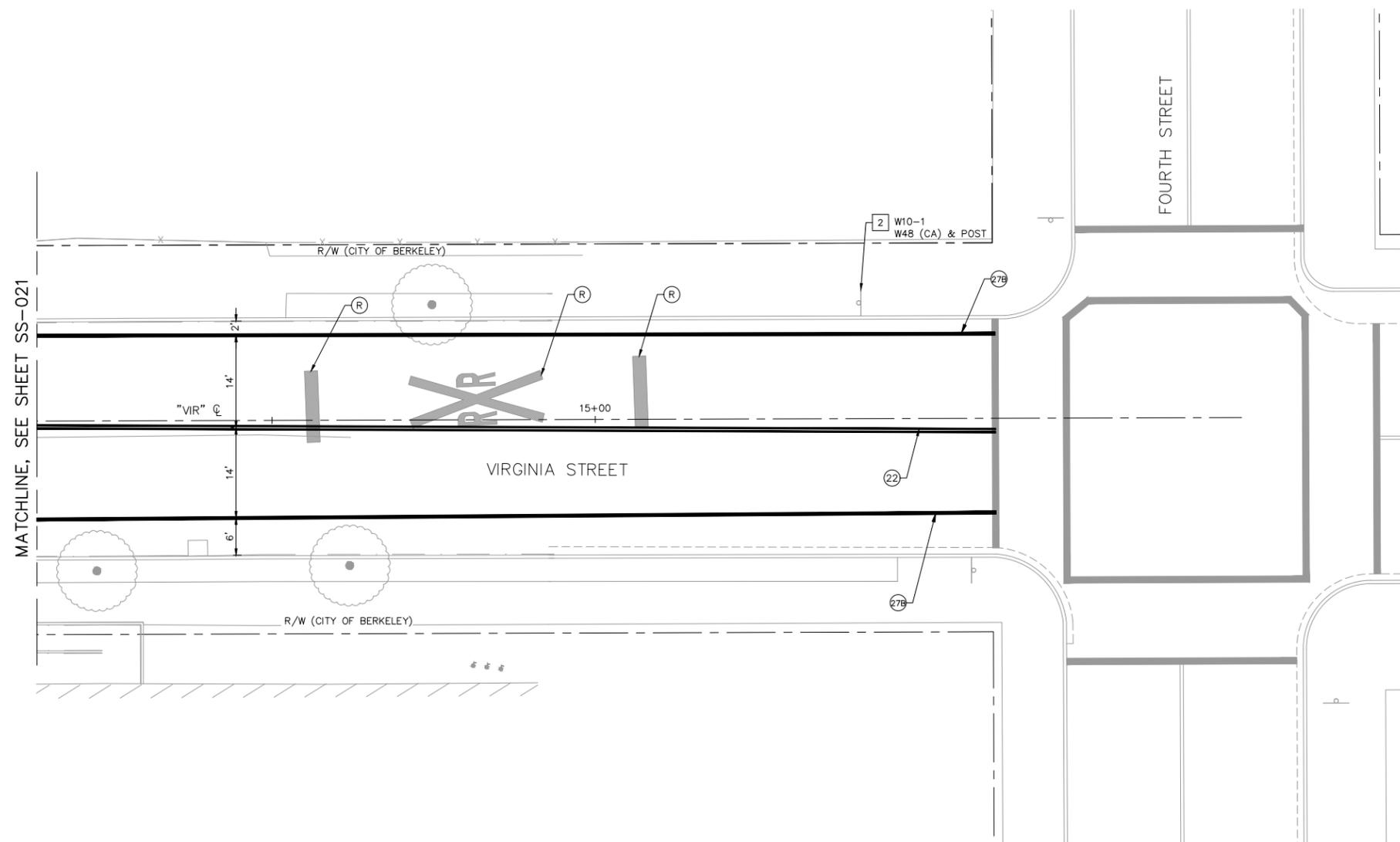
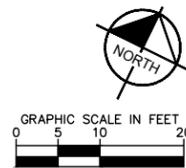
**Kimley-Horn**  
 1300 CLAY STREET, STE 325  
 OAKLAND, CA 94612  
 (510) 625-0712

**ALAMEDA** County Transportation Commission  
**Alameda County Transportation Commission**

RAIL SAFETY ENHANCEMENT PROGRAM  
 1111 BROADWAY #800, OAKLAND, CA 94607

UPRR MARTINEZ SUB MP 6.55  
 BERKELEY, CA DOT# 751181E  
 VIRGINIA STREET AT-GRADE CROSSING  
 SIGNING AND STRIPING PLAN

|             |        |
|-------------|--------|
| DRAWING NO. | SS-021 |
| SHEET NO.   | 30     |



GENERAL NOTES

1. SEE LAYOUT PLANS FOR CIVIL IMPROVEMENTS
2. CONTRACTOR TO REMOVE ALL CONFLICTING STRIPING
3. SIGNS NOTED IN PLANS ARE PER CA MUTCD 2014 EDITION UNLESS OTHERWISE NOTED. A SIGN LEGEND IS PROVIDED ON CD-020.

LEGEND

- NEW SIGN
- EXIST SIGN
- REMOVE EXISTING MARKING BY GRINDING
- INSTALL STRIPING DETAIL NUMBER "#" PER CALTRANS 2022 STANDARD PLANS

SIGNING AND STRIPING NOTES

- REMOVE EXIST EQUIPMENT AS NOTED.

JUNE 2023  
FOR REVIEW ONLY  
95% DESIGN

| NO | REVISION / SUBMISSION | DATE | DESIGNED BY | DATE      |
|----|-----------------------|------|-------------|-----------|
|    |                       |      | WOOD, M.    | 6/30/2023 |
|    |                       |      | WOOD, M.    | 6/30/2023 |
|    |                       |      | JUMANAN, L. | 6/30/2023 |
|    |                       |      | AGUIGUI, K. | 6/30/2023 |



SCALE  
HORIZONTAL  
1" = 10'  
VERTICAL  
N/A



1300 CLAY STREET, STE 325  
OAKLAND, CA 94612  
(510) 625-0712

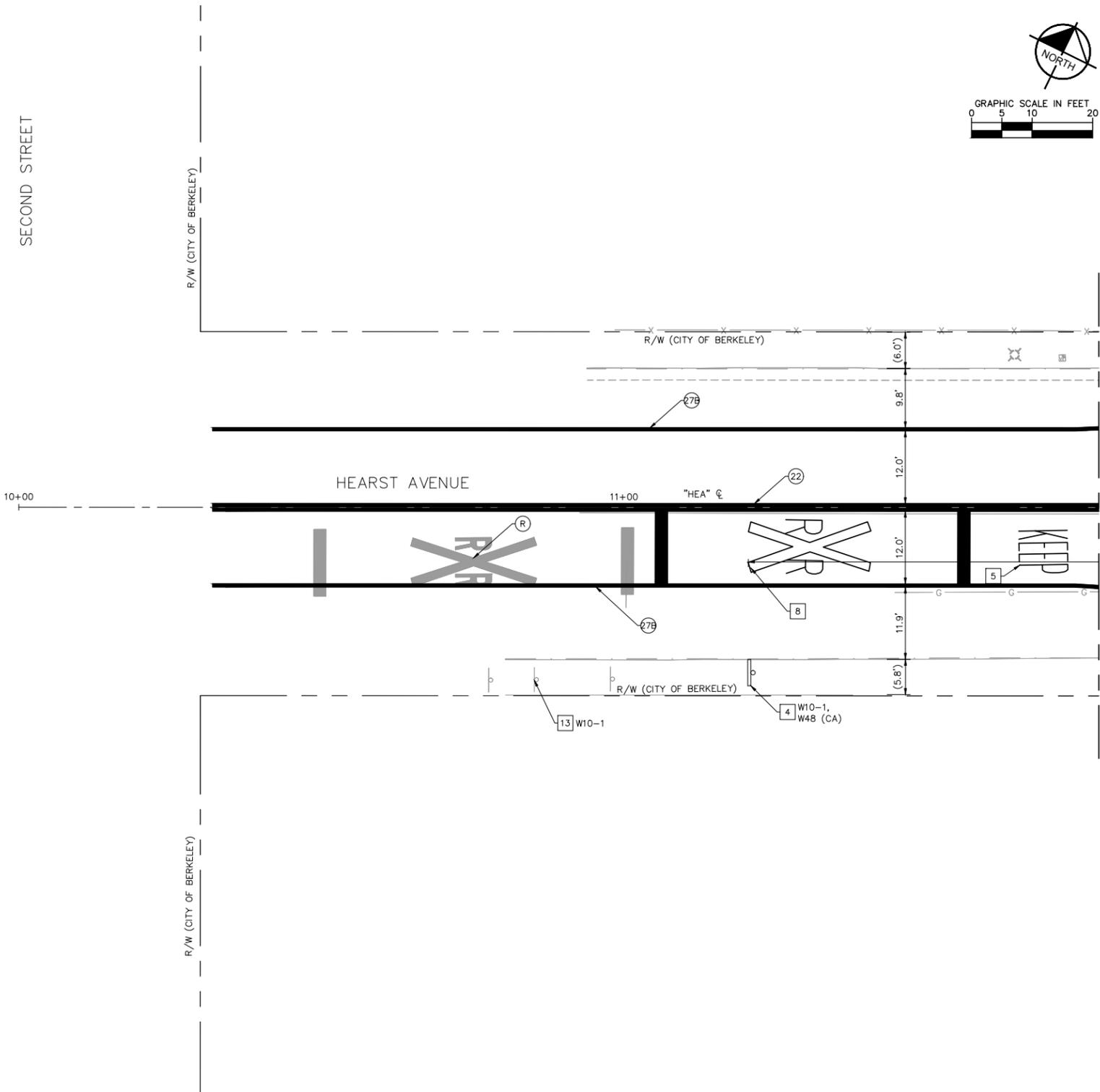
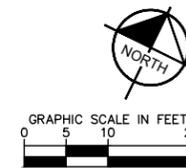


Alameda County  
Transportation Commission

RAIL SAFETY ENHANCEMENT PROGRAM  
1111 BROADWAY #800, OAKLAND, CA 94607

UPRR MARTINEZ SUB MP 6.55  
BERKELEY, CA DOT# 751181E  
VIRGINIA STREET AT-GRADE CROSSING  
SIGNING AND STRIPING PLAN

|             |        |
|-------------|--------|
| DRAWING NO. | SS-022 |
| SHEET NO.   | 31     |



**GENERAL NOTES**

- SEE LAYOUT PLANS FOR CIVIL IMPROVEMENTS.
- CONTRACTOR TO REMOVE ALL CONFLICTING STRIPING.
- SIGNS NOTED IN PLANS ARE PER CA MUTCD 2014 EDITION UNLESS OTHERWISE NOTED. A SIGN LEGEND FOR REFERENCE IS PROVIDED ON CD-020.

**LEGEND**

- NEW SIGN
- EXISTING SIGN
- REMOVE EXISTING MARKING BY GRINDING
- INSTALL STRIPING DETAIL NUMBER "XX" PER CALTRANS 2018 STANDARDS PLANS

**SIGNING AND STRIPING NOTES**

- INSTALL NEW SIGN(S) MOUNTING ON CPUC NO.9. SIGN(S) AS NOTED ON PLANS.
- INSTALL NEW SIGN(S) ON GATE. SIGN(S) AS NOTED ON PLANS.
- INSTALL LIMIT LINE PER CALTRANS STANDARD PLAN A24G.
- INSTALL NEW SIGN(S) ON NEW POST. SIGN(S) AS NOTED ON PLANS.
- INSTALL WHITE PAVEMENT MARKING PER 2018 CALTRANS STANDARD PLANS. INSTALL CENTERED IN LANE UNLESS OTHERWISE NOTED.
- INSTALL 50' OF RED CURB BEGINNING 10' FROM THE CENTERLINE OF NEAREST TRACK. QUANTITY OF PARKING STALLS REMOVED AS NOTED ON PLANS.
- PAINT MEDIAN EDGE YELLOW AND INSTALL REFLECTIVE DELINEATORS.
- INSTALL WHITE RXR PAVEMENT MARKING.
- INSTALL NEW SIGN(S) MOUNTING ON CPUC NO.9. SIGN(S) AS NOTED ON PLANS.
- INSTALL NEW SIGN(S) ON EMERGENCY EGRESS GATE FACING AWAY FROM THE TRACKS.
- INSTALL SPECIAL SIGN PER DETAIL A ON CD-020 ON EGRESS GATE FACING TOWARDS THE TRACKS.
- INSTALL DOUBLE-SIDED R15-8 SIGNS ON NEW POST. MOUNTING HEIGHT SHALL BE NO MORE THAN 5' FROM FG.
- REMOVE EXISTING SIGN(S) AND POLE AS NOTED ON PLANS.
- REMOVE EXISTING SIGN(S) ON STREETLIGHT POLE.

| NO | REVISION / SUBMISSION | DATE | DESIGNED BY  | DATE      |
|----|-----------------------|------|--------------|-----------|
|    |                       |      | ONG, K       | 6/30/2023 |
|    |                       |      | TANIKELLA, R | 6/30/2023 |
|    |                       |      | ABUSHABAN, M | 6/30/2023 |
|    |                       |      | MARSHALL, J  | 6/30/2023 |



SCALE  
HORIZONTAL  
1" = 10'  
VERTICAL  
N/A



1300 CLAY STREET, STE 325  
OAKLAND, CA 94612  
(510) 625-0712



383 4TH STREET, STE 201  
OAKLAND, CA 94607  
(925) 400-4356



Alameda County  
Transportation Commission

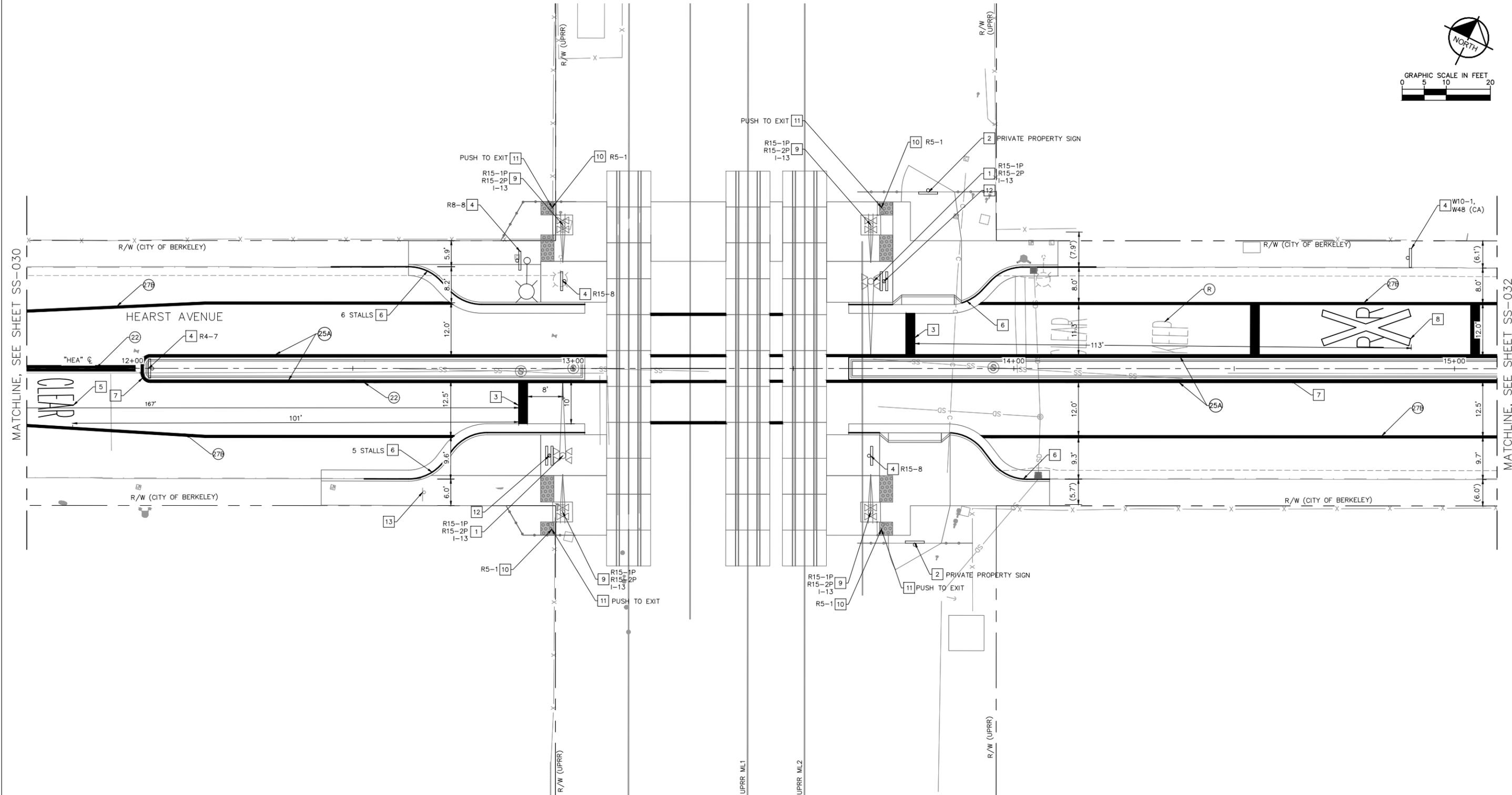
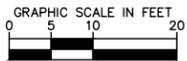
RAIL SAFETY ENHANCEMENT PROGRAM  
1111 BROADWAY #800, OAKLAND, CA 94607

UPRR MARTINEZ SUB MP 6.33  
BERKELEY, CA DOT# 751179D  
HEARST AVENUE AT-GRADE CROSSING  
SIGNING AND STRIPING PLAN

|             |        |
|-------------|--------|
| DRAWING NO. | SS-030 |
| SHEET NO.   | 39     |

**JUNE 2023  
FOR REVIEW ONLY  
95% DESIGN**

ALAMEDA COUNTY TRANSPORTATION COMMISSION - RAIL SAFETY ENHANCEMENT PROGRAM



**GENERAL NOTES**

1. SEE LAYOUT PLANS FOR CIVIL IMPROVEMENTS.
2. CONTRACTOR TO REMOVE ALL CONFLICTING STRIPING.
3. SIGNS NOTED IN PLANS ARE PER CA MUTCD 2014 EDITION UNLESS OTHERWISE NOTED. A SIGN LEGEND FOR REFERENCE IS PROVIDED ON CD-020.

**LEGEND**

- NEW SIGN
- EXISTING SIGN
- REMOVE EXISTING MARKING BY GRINDING
- INSTALL STRIPING DETAIL NUMBER "XX" PER CALTRANS 2018 STANDARDS PLANS

**SIGNING AND STRIPING NOTES**

1. INSTALL NEW SIGN(S) MOUNTING ON CPUC NO.9. SIGN(S) AS NOTED ON PLANS.
2. INSTALL NEW SIGN(S) ON GATE. SIGN(S) AS NOTED ON PLANS.
3. INSTALL LIMIT LINE PER CALTRANS STANDARD PLAN A24G.
4. INSTALL NEW SIGN(S) ON NEW POST. SIGN(S) AS NOTED ON PLANS.
5. INSTALL WHITE PAVEMENT MARKING PER 2018 CALTRANS STANDARD PLANS. INSTALL CENTERED IN LANE UNLESS OTHERWISE NOTED.
6. INSTALL 50' OF RED CURB BEGINNING 10' FROM THE CENTERLINE OF NEAREST TRACK. QUANTITY OF PARKING STALLS REMOVED AS NOTED ON PLANS.
7. PAINT MEDIAN EDGE YELLOW AND INSTALL REFLECTIVE DELINEATORS.
8. INSTALL WHITE RXR PAVEMENT MARKING.
9. INSTALL NEW SIGN(S) MOUNTING ON CPUC NO.9. SIGN(S) AS NOTED ON PLANS.
10. INSTALL NEW SIGN(S) ON EMERGENCY EGRESS GATE FACING AWAY FROM THE TRACKS.
11. INSTALL SPECIAL SIGN PER DETAIL A ON CD-020 ON EGRESS GATE FACING TOWARDS THE TRACKS.
12. INSTALL DOUBLE-SIDED R15-8 SIGNS ON NEW POST. MOUNTING HEIGHT SHALL BE NO MORE THAN 5' FROM FG.
13. REMOVE EXISTING SIGN(S) AND POLE AS NOTED ON PLANS.
14. REMOVE EXISTING SIGN(S) ON STREETLIGHT POLE.

JUNE 2023  
 FOR REVIEW ONLY  
 95% DESIGN

| NO | REVISION / SUBMISSION | DATE | DESIGNED BY  | DATE      |
|----|-----------------------|------|--------------|-----------|
|    |                       |      | ONG, K       | 6/30/2023 |
|    |                       |      | TANIKELLA, R | 6/30/2023 |
|    |                       |      | ABUSHABAN, M | 6/30/2023 |
|    |                       |      | MARSHALL, J  | 6/30/2023 |

DRAWN BY  
 TANI KELLA, R  
 CHECKED BY  
 ABUSHABAN, M  
 IN CHARGE  
 MARSHALL, J



SCALE  
 HORIZONTAL  
 1" = 10'  
 VERTICAL  
 N/A

**Kimley»Horn**  
 1300 CLAY STREET, STE 325  
 OAKLAND, CA 94612  
 (510) 625-0712

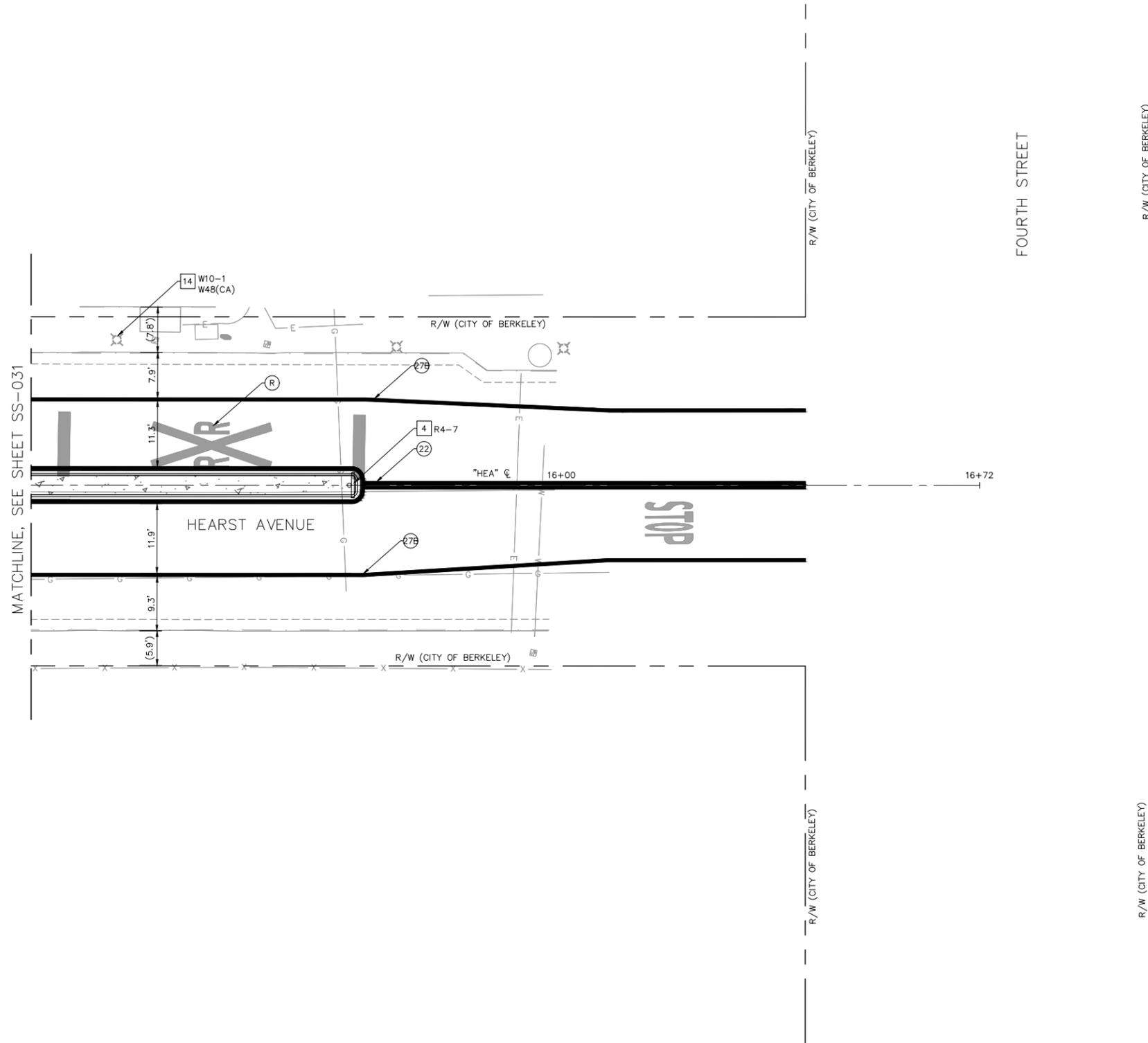
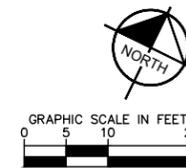
**JMA CIVIL**  
 383 4TH STREET, STE 201  
 OAKLAND, CA 94607  
 (925) 400-4356

**ALAMEDA** County Transportation Commission  
**Alameda County Transportation Commission**  
 RAIL SAFETY ENHANCEMENT PROGRAM  
 1111 BROADWAY #800, OAKLAND, CA 94607

UPRR MARTINEZ SUB MP 6.33  
 BERKELEY, CA DOT# 751179D  
 HEARST AVENUE AT-GRADE CROSSING  
 SIGNING AND STRIPING PLANS

|             |        |
|-------------|--------|
| DRAWING NO. | SS-031 |
| SHEET NO.   | 40     |

ALAMEDA COUNTY TRANSPORTATION COMMISSION - RAIL SAFETY ENHANCEMENT PROGRAM



**GENERAL NOTES**

1. SEE LAYOUT PLANS FOR CIVIL IMPROVEMENTS.
2. CONTRACTOR TO REMOVE ALL CONFLICTING STRIPING.
3. SIGNS NOTED IN PLANS ARE PER CA MUTOD 2014 EDITION UNLESS OTHERWISE NOTED. A SIGN LEGEND FOR REFERENCE IS PROVIDED ON CD-020.

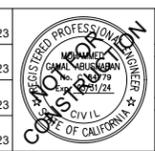
**LEGEND**

- NEW SIGN
- EXISTING SIGN
- REMOVE EXISTING MARKING BY GRINDING
- INSTALL STRIPING DETAIL NUMBER "XX" PER CALTRANS 2018 STANDARDS PLANS

**SIGNING AND STRIPING NOTES**

1. INSTALL NEW SIGN(S) MOUNTING ON CPUC NO.9. SIGN(S) AS NOTED ON PLANS.
2. INSTALL NEW SIGN(S) ON GATE. SIGN(S) AS NOTED ON PLANS.
3. INSTALL LIMIT LINE PER CALTRANS STANDARD PLAN A24G.
4. INSTALL NEW SIGN(S) ON NEW POST. SIGN(S) AS NOTED ON PLANS.
5. INSTALL WHITE PAVEMENT MARKING PER 2018 CALTRANS STANDARD PLANS. INSTALL CENTERED IN LANE UNLESS OTHERWISE NOTED.
6. INSTALL 50' OF RED CURB BEGINNING 10' FROM THE CENTERLINE OF NEAREST TRACK. QUANTITY OF PARKING STALLS REMOVED AS NOTED ON PLANS.
7. PAINT MEDIAN EDGE YELLOW AND INSTALL REFLECTIVE DELINEATORS.
8. INSTALL WHITE RXR PAVEMENT MARKING.
9. INSTALL NEW SIGN(S) MOUNTING ON CPUC NO.9. SIGN(S) AS NOTED ON PLANS.
10. INSTALL NEW SIGN(S) ON EMERGENCY EGRESS GATE FACING AWAY FROM THE TRACKS.
11. INSTALL SPECIAL SIGN PER DETAIL A ON CD-020 ON EGRESS GATE FACING TOWARDS THE TRACKS.
12. INSTALL DOUBLE-SIDED R15-8 SIGNS ON NEW POST. MOUNTING HEIGHT SHALL BE NO MORE THAN 5' FROM FG.
13. REMOVE EXISTING SIGN(S) AND POLE AS NOTED ON PLANS.
14. REMOVE EXISTING SIGN(S) ON STREETLIGHT POLE.

| NO | REVISION / SUBMISSION | DATE | DESIGNED BY             | DATE      |
|----|-----------------------|------|-------------------------|-----------|
|    |                       |      | ONG, K                  | 6/30/2023 |
|    |                       |      | DRAWN BY TANIPELLA, R   | 6/30/2023 |
|    |                       |      | CHECKED BY ABUSHABAN, M | 6/30/2023 |
|    |                       |      | IN CHARGE MARSHALL, J   | 6/30/2023 |



SCALE  
HORIZONTAL  
1" = 10'  
VERTICAL  
N/A

**Kimley»Horn**  
1300 CLAY STREET, STE 325  
OAKLAND, CA 94612  
(510) 625-0712

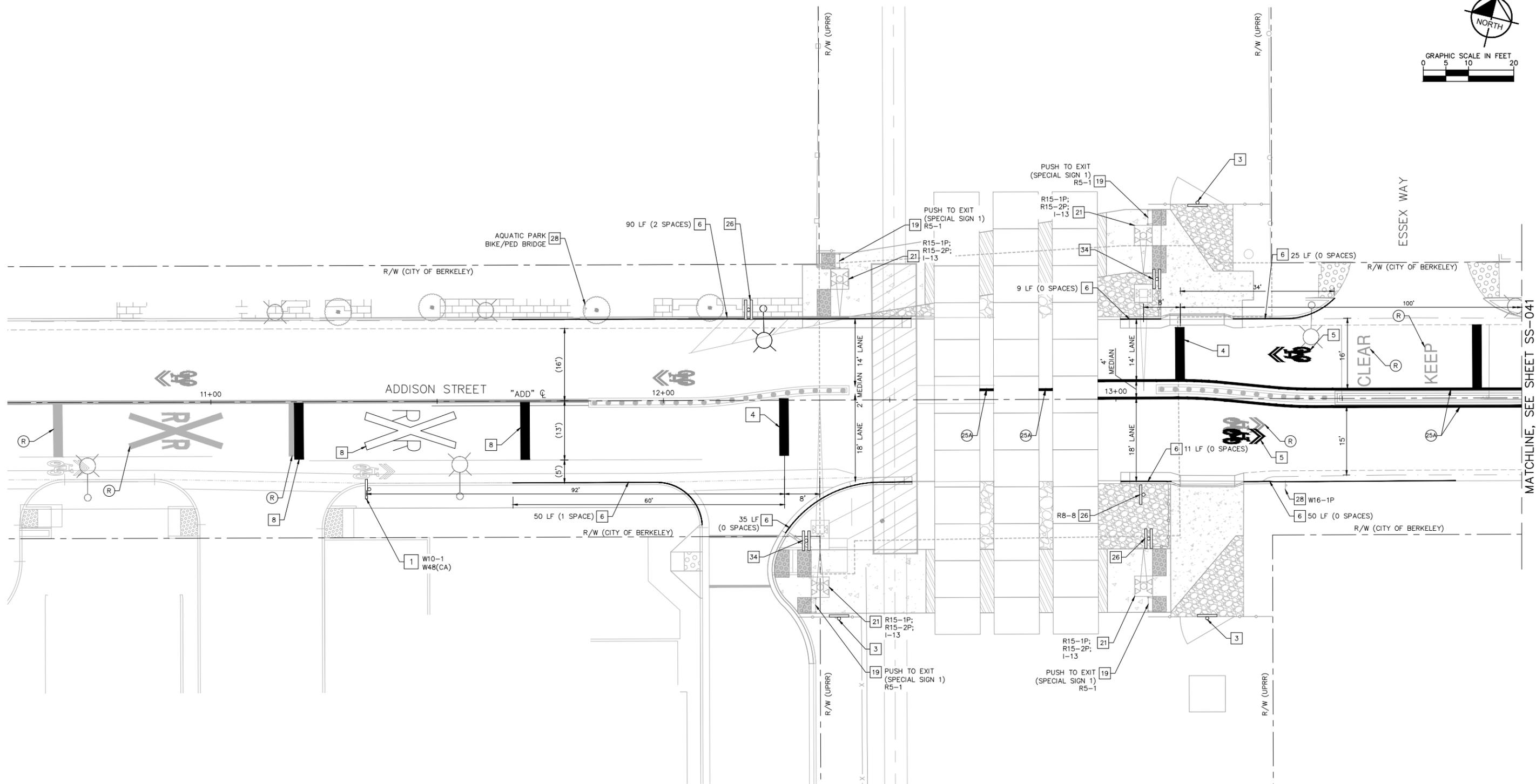
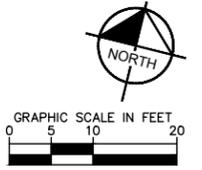
**JMA CIVIL**  
383 4TH STREET, STE 201  
OAKLAND, CA 94607  
(925) 400-4356

**ALAMEDA County Transportation Commission**  
**Alameda County Transportation Commission**  
RAIL SAFETY ENHANCEMENT PROGRAM  
1111 BROADWAY #800, OAKLAND, CA 94607

UPRR MARTINEZ SUB MP 6.33  
BERKELEY, CA DOT# 751179D  
HEARST AVENUE AT-GRADE CROSSING  
SIGNING AND STRIPING PLAN

|             |        |
|-------------|--------|
| DRAWING NO. | SS-032 |
| SHEET NO.   | 41     |

**JUNE 2023  
FOR REVIEW ONLY  
95% DESIGN**



MATCHLINE, SEE SHEET SS-041

**GENERAL NOTES**

1. SEE LAYOUT PLANS FOR CIVIL IMPROVEMENTS
2. CONTRACTOR TO REMOVE ALL CONFLICTING STRIPING
3. SIGNS NOTED IN PLANS ARE PER CA MUTCD 2014 EDITION UNLESS OTHERWISE NOTED. A SIGN LEGEND IS PROVIDED ON CD-020.

**LEGEND**

- NEW SIGN
- EXIST SIGN
- REMOVE EXISTING MARKING BY GRINDING
- INSTALL STRIPING DETAIL NUMBER "#" PER CALTRANS 2022 STANDARD PLANS

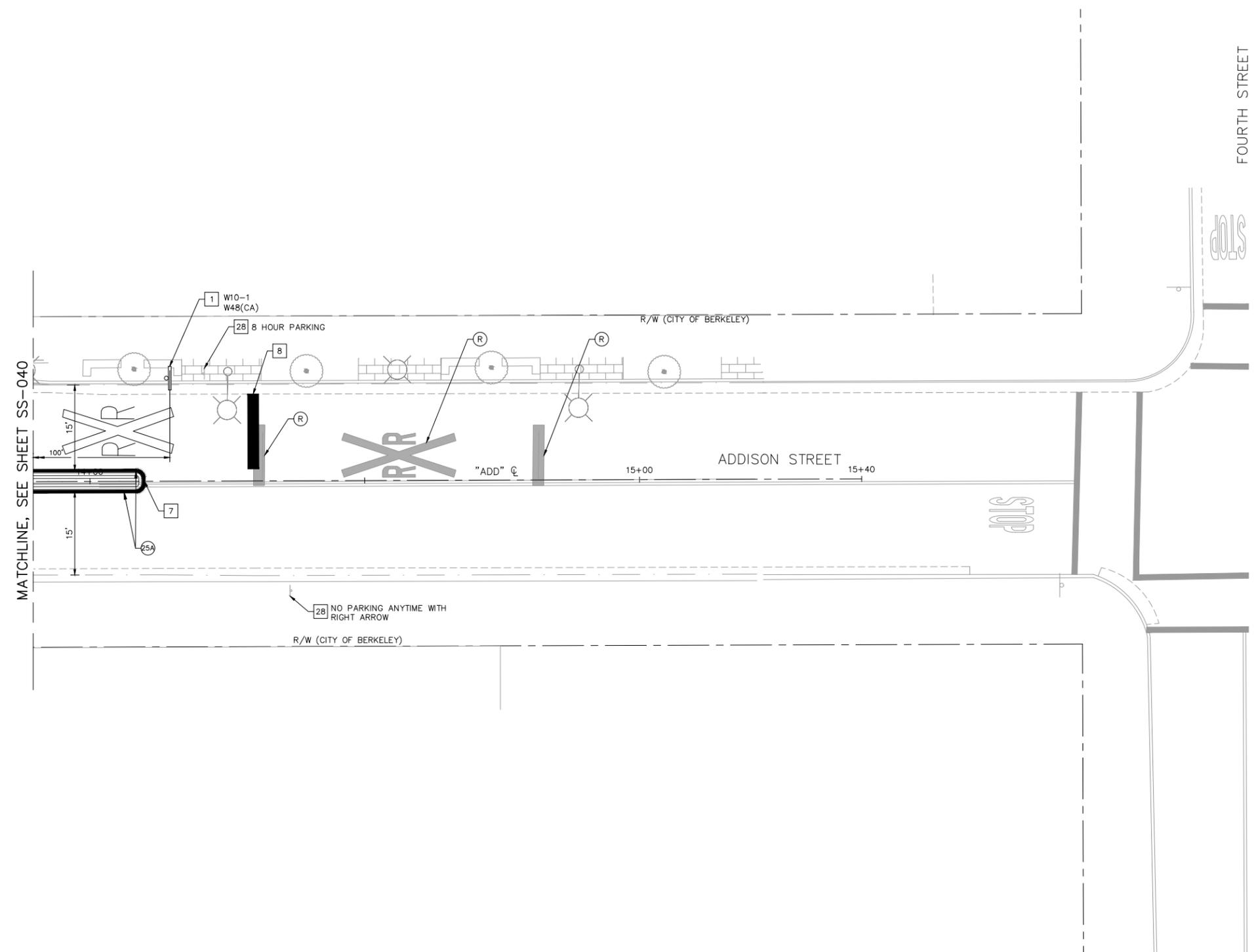
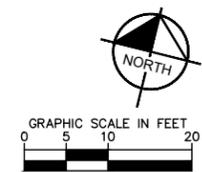
**SIGNING AND STRIPING NOTES**

- 1** INSTALL NEW SIGN(S) ON NEW POST. SIGN(S) AS NOTED ON PLANS.
- 2** REMOVE EXIST EQUIPMENT AS NOTED.
- 3** INSTALL NEW UP PRIVATE PROPERTY SIGN ON GATE PER UNION PACIFIC RAILROAD ENGINEERING STANDARDS DRAWING 0528.
- 4** INSTALL 24" WHITE ADVANCED LIMIT LINE PER CALTRANS STANDARD PLAN A24G.
- 5** INSTALL WHITE SHARED ROADWAY BICYCLE PAVEMENT MARKING PER CALTRANS STANDARD PLAN A24C.
- 6** INSTALL RED CURB. QUANTITY OF PARKING SPACES REMOVED AS NOTED ON PLANS.
- 8** INSTALL WHITE RXR PAVEMENT MARKING PER CALTRANS STANDARD PLAN A24B.
- 19** INSTALL NEW SIGN(S) ON SWING GATES. MOUNT R5-1 ON PULL SIDE AND SPECIAL SIGN 1 ON PUSH SIDE.
- 21** INSTALL NEW SIGN(S) ON STANDARD ASSEMBLY NO. 9. SIGN(S). (BY UPRR FORCES)
- 26** INSTALL DOUBLE-SIDED R15-8 SIGNS ON NEW POST.
- 28** EXISTING SIGN TO REMAIN.
- 34** INSTALL DOUBLE-SIDED R15-8 SIGNS ON NEW POST. MOUNTING HEIGHT SHALL BE NO MORE THAN 5' FROM FG.

JUNE 2023  
FOR REVIEW ONLY  
95% DESIGN

|           |                              |             |                                  |                          |  |  |  |   |                              |
|-----------|------------------------------|-------------|----------------------------------|--------------------------|--|--|--|---|------------------------------|
| <b>NO</b> | <b>REVISION / SUBMISSION</b> | <b>DATE</b> | <b>DESIGNED BY</b><br>WOOD, M.   | <b>DATE</b><br>6/30/2023 |  | <b>SCALE</b><br>HORIZONTAL<br>1" = 10' | <br>1300 CLAY STREET, STE 325<br>OAKLAND, CA 94612<br>(510) 625-0712 | <br>Alameda County<br>Transportation Commission<br>RAIL SAFETY ENHANCEMENT PROGRAM<br>1111 BROADWAY #800, OAKLAND, CA 94607 | <b>DRAWING NO.</b><br>SS-040 |
|           |                              |             | <b>DRAWN BY</b><br>WOOD, M.      | 6/30/2023                |  | <b>VERTICAL</b><br>N/A                 |  |   |                              |
|           |                              |             | <b>CHECKED BY</b><br>JUMANAN, L. | 6/30/2023                |  |  |  |   |                              |
|           |                              |             | <b>IN CHARGE</b><br>AGUIGUI, K.  | 6/30/2023                |  |  |  |   |                              |
|           |                              |             |                                  |                          |  |  |  |   | <b>SHEET NO.</b><br>48       |

ALAMEDA COUNTY TRANSPORTATION COMMISSION - RAIL SAFETY ENHANCEMENT PROGRAM



GENERAL NOTES

1. SEE LAYOUT PLANS FOR CIVIL IMPROVEMENTS
2. CONTRACTOR TO REMOVE ALL CONFLICTING STRIPING
3. SIGNS NOTED IN PLANS ARE PER CA MUTCD 2014 EDITION UNLESS OTHERWISE NOTED. A SIGN LEGEND IS PROVIDED ON CD-020.

LEGEND

- NEW SIGN
- EXIST SIGN
- REMOVE EXISTING MARKING BY GRINDING
- INSTALL STRIPING DETAIL NUMBER "#" PER CALTRANS 2022 STANDARD PLANS

SIGNING AND STRIPING NOTES

- 1** INSTALL NEW SIGN(S) ON NEW POST. SIGN(S) AS NOTED ON PLANS.
- 2** REMOVE EXIST EQUIPMENT AS NOTED.
- 5** INSTALL WHITE SHARED ROADWAY BICYCLE PAVEMENT MARKING PER CALTRANS STANDARD PLAN A24C.
- 7** PAINT MEDIAN EDGE YELLOW AND INSTALL REFLECTIVE DELINEATORS.
- 8** INSTALL WHITE RXR PAVEMENT MARKING PER CALTRANS STANDARD PLAN A24B.
- 28** EXISTING SIGN TO REMAIN.

**JUNE 2023  
FOR REVIEW ONLY  
95% DESIGN**

| NO | REVISION / SUBMISSION | DATE | DESIGNED BY | DATE      |
|----|-----------------------|------|-------------|-----------|
|    |                       |      | WOOD, M.    | 6/30/2023 |
|    |                       |      | DRAWN BY    |           |
|    |                       |      | WOOD, M.    | 6/30/2023 |
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|    |                       |      | JUMANAN, L. | 6/30/2023 |
|    |                       |      | IN CHARGE   |           |
|    |                       |      | AGUIGUI, K. | 6/30/2023 |



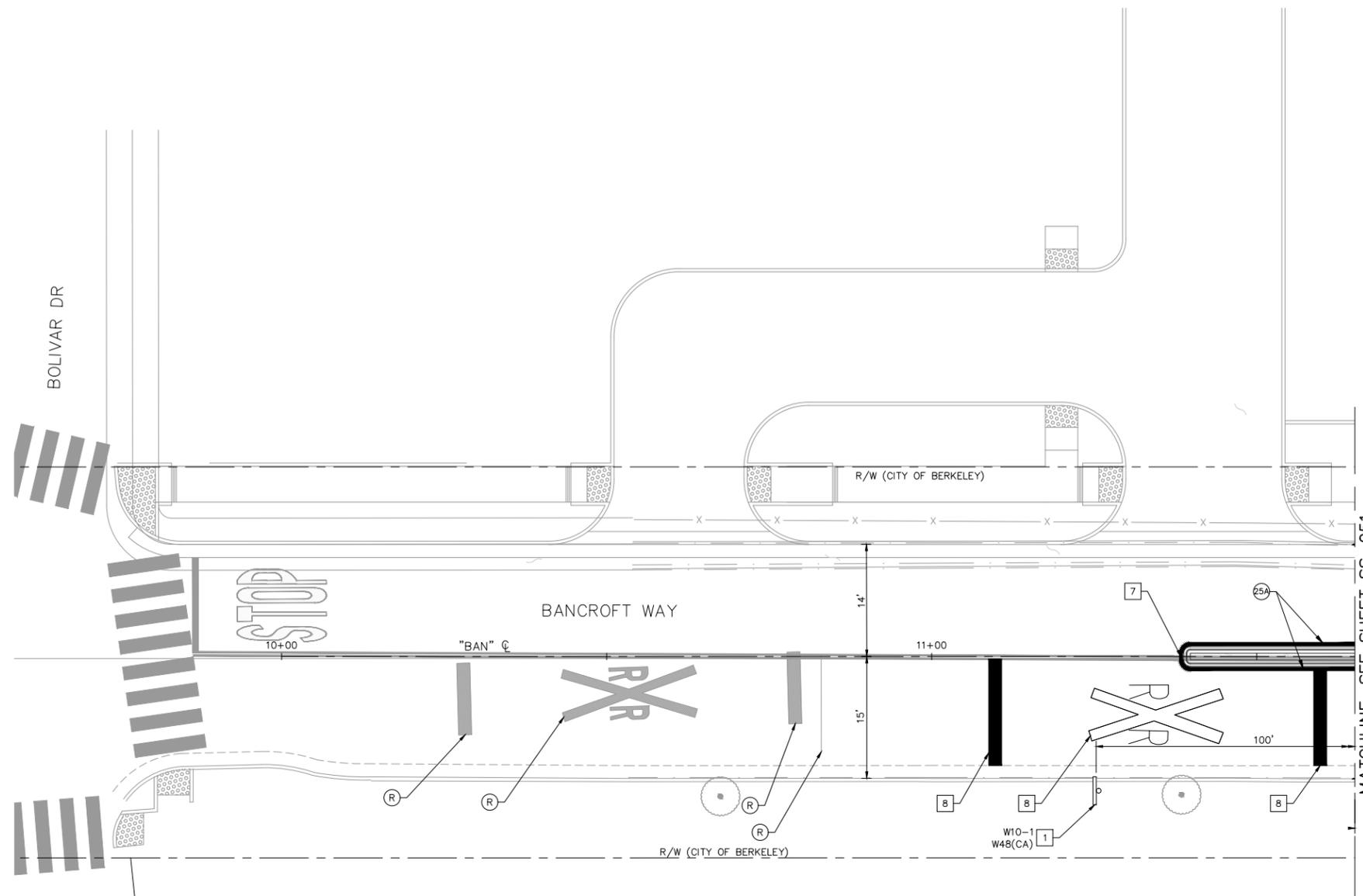
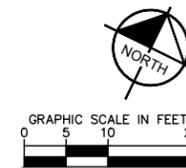
SCALE  
HORIZONTAL  
1" = 10'  
VERTICAL  
N/A

**Kimley»Horn**  
1300 CLAY STREET, STE 325  
OAKLAND, CA 94612  
(510) 625-0712

**Alameda County  
Transportation Commission**  
RAIL SAFETY ENHANCEMENT PROGRAM  
1111 BROADWAY #800, OAKLAND, CA 94607

UPRR MARTINEZ SUB MP 6.1  
BERKELEY, CA DOT# 751177P  
ADDISON STREET AT-GRADE CROSSING  
SIGNING AND STRIPING PLAN

|             |        |
|-------------|--------|
| DRAWING NO. | SS-041 |
| SHEET NO.   | 49     |



**GENERAL NOTES**

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**SIGNING AND STRIPING NOTES**

- 1** INSTALL NEW SIGN(S) ON NEW POST. SIGN(S) AS NOTED ON PLANS.
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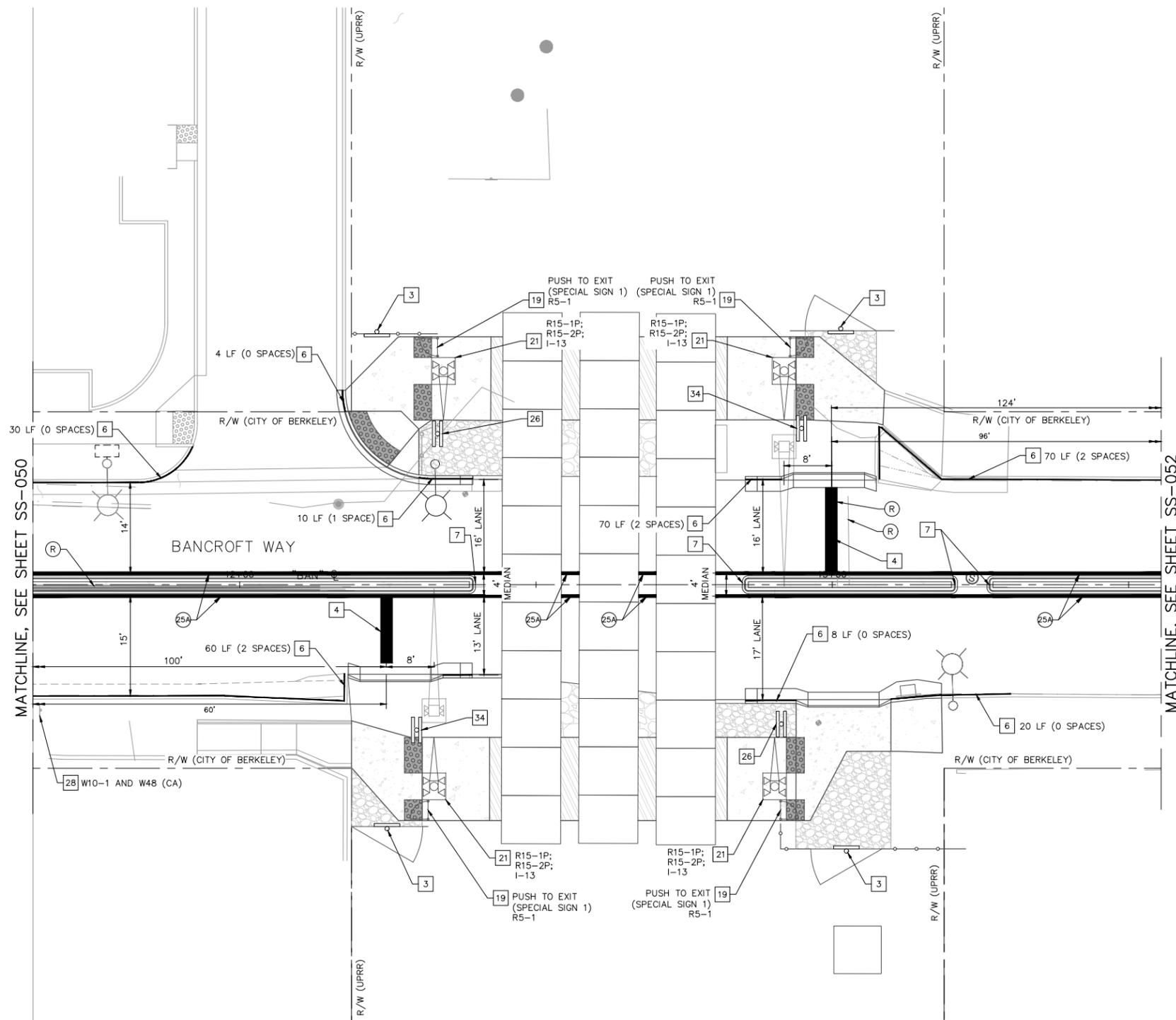
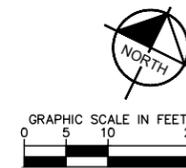
SCALE  
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**ALAMEDA** County Transportation Commission  
**Alameda County Transportation Commission**  
 RAIL SAFETY ENHANCEMENT PROGRAM  
 1111 BROADWAY #800, OAKLAND, CA 94607

UPRR MARTINEZ SUB MP 5.9  
 BERKELEY, CA DOT# 751176H  
 BANCROFT WAY AT-GRADE CROSSING  
 SIGNING AND STRIPING PLAN

|             |        |
|-------------|--------|
| DRAWING NO. | SS-050 |
| SHEET NO.   | 55     |



GENERAL NOTES

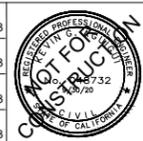
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LEGEND

- NEW SIGN
- EXIST SIGN
- REMOVE EXISTING MARKING BY GRINDING
- INSTALL STRIPING DETAIL NUMBER "#"

SIGNING AND STRIPING NOTES

- 3** INSTALL NEW UP PRIVATE PROPERTY SIGN ON GATE PER UNION PACIFIC RAILROAD ENGINEERING STANDARDS DRAWING 0528.
- 4** INSTALL 24" WHITE ADVANCED LIMIT LINE PER CALTRANS STANDARD PLAN A24G.
- 6** INSTALL RED CURB. QUANTITY OF PARKING SPACES REMOVED AS NOTED ON PLANS.
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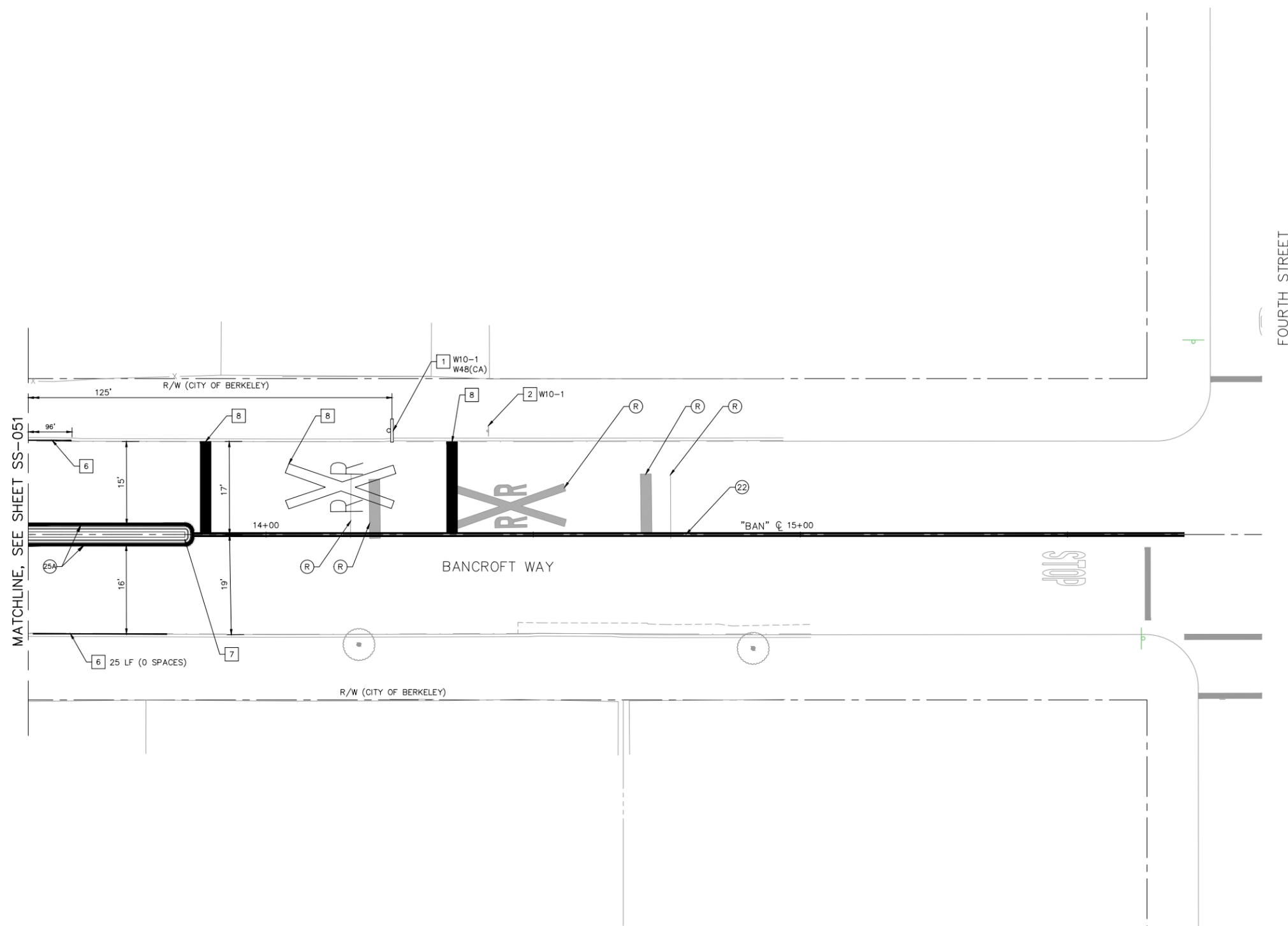
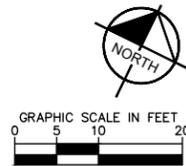
**ALAMEDA** County Transportation Commission  
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**JUNE 2023  
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|    |                       |      | JUMANAN, L. | 6/30/2023 |
|    |                       |      | AGUIGUI, K. | 6/30/2023 |

|             |        |
|-------------|--------|
| DRAWING NO. | SS-051 |
| SHEET NO.   | 56     |



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SCALE  
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1" = 10'  
VERTICAL  
N/A

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|             |        |
|-------------|--------|
| DRAWING NO. | SS-052 |
| SHEET NO.   | 57     |



# Rail Safety Enhancement Program, Phase A

MAY 2024

## PROJECT OVERVIEW

In response to the Alameda County Goods Movement Plan approved in 2016, individual rail crossings throughout the County were examined to identify crossings and corridors most impacted by rail traffic and to identify where rail crossings safety can be enhanced. The crossings analysis considered the following primary factors:

- Current and potential future rail volumes and routing, annual average daily automobile traffic, accident history, land use sensitivities and equity priority communities
- Safety, delay, noise and air quality

Once the crossing analysis identified needed at-grade rail crossing safety enhancements, those most impacted and in need of improvements were included in the Rail Safety Enhancement Program (RSEP).

Implementation of the program is a three-phased approach: RSEP-A, RSEP-B, and RSEP-C. RSEP-A, is comprised of crossings that are within six local jurisdictions, with recommended safety enhancements centered around pedestrian treatments, such as sidewalks, automatic pedestrian gates, channelization, lighting, warning strips, fencing and gates, and signing and striping. These near-term upgrades will have significant and immediate positive safety impacts for our local communities.



## PROJECT NEED

- Alameda County has a high volume of rail activity combined with densely populated residential areas.
- Pedestrian oriented safety devices are lacking in most of these areas.

## PROJECT BENEFITS

- Improves pedestrian, bicycle and vehicle user safety with an emphasis on schools
- Improves rail and roadway safety
- Supports economic vitality by supporting rail connectivity to the Port of Oakland
- Supports freight rail operations
- Supports housing and commercial redevelopment
- Improves transportation viability for passenger rail service and roadway networks
- Achieves emissions reductions through reduced idling supporting state and regional air quality goals—protecting our climate and maintaining the health of communities
- Promotes equity because these rail lines are often in low income and historically underserved communities



Rail crossing along 37th Avenue in the City of Oakland.



Rail crossing on L Street in the City of Livermore.

## STATUS

**Implementing Agency:** Alameda CTC

**Current Phase:** Environmental/Final Design

- The final Initial Studies/Mitigated Negative Declaration (ISMND) was adopted in September 2023.
- The project has completed the 65% design milestone for all crossings and for 25 of the 29 locations, has completed 95% design.

## PARTNERS AND STAKEHOLDERS

Alameda CTC, Alameda County and the cities of Berkeley, Hayward, Livermore, Oakland, and San Leandro, the Federal Railroad Administration, California Public Utilities Commission, Union Pacific Railroad, Caltrans, Hayward Unified School District, and Capital Corridor

Note: Information on this fact sheet is subject to periodic updates.

### COST ESTIMATE BY PHASE (\$ X 1,000)

|                           |                  |
|---------------------------|------------------|
| Environmental             | \$2,284          |
| Design                    | \$7,684          |
| Right-of-Way              | \$2,180          |
| Construction <sup>1</sup> | \$95,700         |
| <b>Total Expenditures</b> | <b>\$107,848</b> |

<sup>1</sup>Inclusive of Union Pacific signal and track costs.

### FUNDING SOURCES (\$ X 1,000)

|                       |                  |
|-----------------------|------------------|
| Measure BB            | \$12,863         |
| Federal <sup>2</sup>  | \$25,000         |
| TBD                   | \$69,985         |
| <b>Total Revenues</b> | <b>\$107,848</b> |

<sup>2</sup>\$25 million of Consolidated Rail Infrastructure and Safety Improvements Program (CRISI); \$1,000 earmark

### SCHEDULE BY PHASE

|  | Begin       | End         |
|--|-------------|-------------|
| Environmental/Advance Preliminary Design | Fall 2020   | Fall 2024   |
| Final Design                             | Summer 2023 | Summer 2026 |
| Right-of-Way                             | Summer 2023 | Summer 2026 |
| Construction                             | Fall 2026   | Fall 2029   |

Note: Project schedule subsequent to the preliminary engineering/ environmental phase is contingent on funding availability for future phases.

