Memorandum

Date:	December 6, 2022
To:	Shawn Oriaz, Senior Environmental Planner, Caltrans District 8
From:	Stephanie Blanco, Capital Projects Manager (Toll), RCTC
CC:	Daniel Ciacchella, PE, Project Manager, Caltrans District 8
Subject:	**Errata for Value Engineering Revisions for the I-15 Express Lanes Project – Southern Extension [Project No. EA-0J0820]**

A Value Engineering (VE) Study was performed for the Interstate (I)-15 Express Lanes Project – Southern Extension (ELPSE) (project). The VE Study consisted of a 4-day workshop that was conducted with a multidisciplinary team between February 15 and February 18, 2022, with an objective to improve the value and performance of the project while reducing costs. The recommendations were presented in the Value Engineering Study Report, dated February 15-18, 2022, and were then further analyzed by Riverside County Transportation Commission (RCTC) for inclusion into the project. The final disposition of the VE Study recommendations is summarized in the Value Engineering Study Executive Summary Memorandum, dated July 5, 2022.

This errata has been prepared to document the changes made to the project description and features that resulted from the VE Study, and the related revisions to the following approved technical reports: Jurisdictional Delineation Report (JD Report) (approved December 2021), Water Quality Assessment Report (WQAR) (approved December 2021), Paleontological Identification Report/Paleontological Evaluation Report (PIR/PER) (approved January 2022), Rapid Assessment of Stream Crossings (RASC) (approved January 2022), and Initial Site Assessment (ISA) (approved January 2022).

It should be noted that the design changes to the project footprint are fully contained within the previous study area that was used in the approved technical reports. See updated Build Alternative Maps attached that include callouts to annotate the Change in Project Features discussed below.

Change in Project Description

As a result of the change in project improvements, the project description was updated to reflect that the I-15 ELPSE would include the widening of up to 15 bridges, instead of 14 bridges.

Change in Project Features

1. I-15 Alignment Shift between Weirick Road and Cajalco Road

a. Eliminate impacts for southbound (SB) outside widening from SB Cajalco Road On-Ramp to SB Weirick Road Off-Ramp by shifting the existing centerline of the I-15 to the east

b. Eliminate the replacement of two existing SB retaining walls between Cajalco Road On-Ramp and Weirick Road Off-Ramp

c. Add Bedford Wash Bridge widening in the SB direction inside to the median and in the NB direction inside to the median and outside

d. Add new northbound (NB) outside (east side) fill slope retaining walls between Weirick Road On-Ramp and Cajalco Road Off-Ramp

e. Add impacts on NB Weirick Road On-Ramp and NB Cajalco Road Off Ramp and Loop On-Ramp

f. Add impacts for grading to NB outside shoulder from Weirick Road On-Ramp through Cajalco Road Loop On-Ramp

2. Overhead Sign Revisions

    a. Reduce variable message tolling signs to a single sign placed approximately ¼ mile to the express lane (EL) access openings for consistency with Express Lane Project (ELP) signage already on the corridor

    b. Adjustments to the panel sizes of the tolling entrance signs to allow the diagonal arrows to extend over the interior general purpose (GP) lane

3. EL access shift northward between Indian Truck Trail and Temescal Canyon Road

    a. Shift EL access northward to provide standard weave distances to accommodate Future Campbell Road/Temescal Canyon Road Interchange

4. EL buffer width increase in single EL Condition (southern terminus)

    a. Increase buffer width in the single EL condition at the southern limits of the project to maintain less than 17 feet from the edge of travelled way to the concrete median barrier

5. GP lane drop at the EL southern terminus

    a. Extend the SB outside GP lane (lane #4) to join the auxiliary lane established at the SR-74 (Central Avenue) On-Ramp

    b. Add new SB outside (west side) fill slope retaining walls along SR-74 (Central Avenue) On-Ramp

The changes made to the project description and features in the approved technical reports are documented in the following section. Each report covered in this errata demonstrates that the changes would not alter the analysis or conclusions of the reports.

Revisions to the text in each report are provided below with reference to the page numbers of the original text in the approved reports (note approval dates below). Deleted text is identified with strikethrough (~~strikethrough~~) and new or revised text appears in red, bold italics (***italics***). For text that has been removed in the avoidance and minimization efforts, an explanation is provided in black italics (*italics*).

Reports Covered in this Errata

Jurisdictional Delineation Report (approved December 2021)

Revisions to Section 3.1 Project Description, Page 3-1

Along with the lane additions, which would extend from PM 21.2 to 38.1, the proposed Project would include widening of ***up to*** ~~14~~ ***15*** bridges; potential construction of noise barriers, retaining walls, drainage systems; and implementation of electronic toll collection equipment and signs.

Conclusion for Jurisdictional Delineation Report

The changes to the project description and features would not change the conclusions presented in the JD Report. As identified above, the revisions to the JD Report are minor. The changes to the project description and features, including the proposed Bedford Wash Bridge widening, are located within the Jurisdictional Study Area identified in the approved JD Report. Information within the JD Report pertaining to the jurisdictional delineation of Bedford Wash remains the same.

Water Quality Assessment Report (approved December 2021)

Revisions to Section 2.2 Project Description, Page 2-1

Along with the lane additions, which would extend from PM 21.2 to 38.1, the proposed Project would include widening of ***up to*** ~~14~~ ***15*** bridges; potential construction of noise barriers, retaining walls, drainage systems; and implementation of electronic toll collection equipment and signs.

Revisions to Section 5.2.1 Anticipated Changes to the Physical/Chemical Characteristics of the Aquatic Environment, Page 5-1

Project improvements would also involve the construction of about ~~0.85~~ ***0.75*** mile of continuous outer shoulder dike on the ~~southbound~~ ***northbound*** roadway segment located 0.25 mile north of Dos Lagos Road and ~~0.09~~ ***0.40*** mile south of Cajalco Road.

Revisions to Section 5.2.1 Anticipated Changes to the Physical/Chemical Characteristics of the Aquatic Environment, Page 5-10

The Project would construct, along the outside shoulder of I-15, approximately ~~0.85~~ ***0.75*** mile of shoulder dike along the ~~southbound~~ ***northbound*** portion of I-15 from ~~0.25 mile~~ north of Dos Lagos Rd and ~~0.09~~ ***0.40*** mile south of Cajalco Road.

As stated earlier, the Project would construct new bridge decks over the following watercourses: Gavilan Wash, Temescal Creek, Horsethief Canyon Wash, Indian Wash, Mayhew Wash, ***Bedford Wash,*** and Coldwater Wash. Stormwater runoff from the additional impervious surfaces as result of the Project is anticipated and would be collected via upstream drainages for Temescal Creek and Mayhew Wash Bridges. The other ~~four~~ ***five*** bridge decks currently drain directly into the watercourse below and would require further analysis during final design to maintain NPDES and SARWQCB compliance.

Conclusion for Water Quality Assessment Report

The changes to the project description and features would not change the conclusions presented in the WQAR. As identified above, the revisions to the WQAR are minor. The proposed Bedford Wash Bridge widening would not change the conclusions regarding water quality and stormwater runoff in the WQAR, as it was previously anticipated that there is a potential for pollutants to be transported via surface runoff into the channel due to construction activities and the increase in impervious surface areas. The original avoidance and minimization measures identified in the WQAR (Measures WQ-1 through WQ-10) still apply and no additional avoidance, minimization, and/or mitigation measures, or revisions or updates to these existing measures are required.

Paleontological Identification Report/Paleontological Evaluation Report (approved January 2022)

Revisions to Section 2.2 Project Description and Location, Page 2-4 and 2-5

Along with the lane additions, which would extend from PM 21.2 to 38.1, the proposed Project would include widening of up to ~~14~~ ***15*** bridges, potential construction of noise barriers, retaining walls, drainage systems, and implementation of electronic toll collection equipment and signs.

Anticipated Project excavations and their corresponding depths are summarized below:

- ***Outside widening to accommodate an easterly shift of I-15 between Cajalco Road and Weirick Road, will include excavations with a maximum depth of 8 feet.***
- ***Outside fill wall construction to accommodate widening along NB I-15 within the Weirick Road interchange with a maximum excavation depth of 12 feet.***
- ***Outside fill wall construction to accommodate widening along the NB Weirick Road On-Ramp with a maximum excavation depth of 16 feet.***
- ***Outside fill wall construction to accommodate widening along the NB I-15 between the Weirick Road and Cajalco Road interchanges with a maximum excavation depth of 20 feet.***
- ***Outside fill wall construction to accommodate widening along the SB SR-74 (Central Avenue) On-Ramp with a maximum excavation depth of 18 feet.***
- Structure widening will involve excavation to install cast-in-place/prestressed concrete box girder bridges and steel piles at the following locations:
    - APS and SPGR Package 3 (in development and not currently available)
        - Coldwater Wash, Temescal Canyon, Brown Canyon Wash, and Weirick Road – excavation parameters associated with widening right and left bridges inside to median are currently unavailable.
        - ~~Installing two retaining walls between Cajalco Road and Weirick Road along southbound roadbed will include excavations with a maximum depth of approximately 45 feet below ground surface (bgs) and 60 feet into the slope, based on early estimates.~~
    - ***APS and SPGR Package 4 (in development and not currently available)***

- ***Bedford Wash – excavation parameters associated with widening left bridge inside to the median and right bridge inside to the median and outside are currently unavailable.***

Revisions to Section 6.1.2 Geotechnical Investigations, Page 6-6

Bedford Wash Bridge - (PM 36.6): Bedford Wash area is underlain by alluvial deposits that consist of medium to very dense sand and gravel, extending to the maximum depth of exploration, approximately 60 feet below the Bedford Wash channel. Specifically, the channel is predominately underlain by Holocene- to Pleistocene-age young alluvial fan deposits (Qyf), while late to middle Pleistocene-age old alluvial fan deposits (Qoa) underlie the southern ends of the bridge abutments (Leighton Consulting, 2021). Larger clasts, including boulders with a maximum diameter of 2 feet, are scattered on the channel surface (Leighton and Associates, 2021). Additionally, late to middle Pleistocene-age old alluvial fan deposits (Qoa) may be encountered at depth beneath Holocene- to Pleistocene-age young alluvial fan deposits (Qyf), although there is no apparent transition or distinction between the two units based on the boring data. Further, although artificial fill is not documented in the boring logs, it is anticipated to be encountered near the northern ends of the bridge abutments where it was emplaced during the 1966 bridge construction (Leighton Consulting, 2021).

Revisions to Section 10 References, Page 10-1

Leighton Consulting, Inc. (Leighton Consulting). 2021. Interstate 15 Corridor Operations Project: Structure Preliminary Geotechnical Report Bedford Wash Bridge (Widen) Caltrans Bridge No. 56-0540 R/L (PM 36.58). Prepared for Caltrans in coordination with RCTC. Dated March 2021.

Conclusion for Paleontological Identification Report/Paleontological Evaluation Report

The changes to the project description and features would not change the conclusions presented in the (PIR/PER). As identified above, the revisions to the PIR/PER are minor. The geologic rock formation for the Bedford Wash Area is similar throughout the Project Area where it is underlain, in part, by high paleontologically sensitive geologic units, which are known to contain scientifically significant paleontological resources. The original measures (Measures PAL-1 through PAL-3) identified in the PIR/PER still apply and would be applicable to the Bedford Wash Bridge widening efforts. No additional avoidance, minimization, and/or mitigation measures, or revisions or updates to these existing measures are required.

Rapid Assessment of Stream Crossings (approved January 2022)

Revisions to Section 1.1 Project Description, Page 1

Along with the lane additions, the project will include the widening of up to ~~14~~ ***15*** bridges, potential construction of noise barriers, retaining walls, drainage systems, and implementation of electronic toll collection equipment and signs.

Conclusion for Rapid Assessment of Stream Crossings

The changes to the project description and features would not change the conclusions presented in the RASC. As identified above, the revisions to the RASC are minor. Bedford Wash was reviewed in the RASC and did not qualify for a Rapid Stability Assessment according to the Caltrans Hydromodification Requirements Guidance Storm Water Best Management Practices – Rapid Assessment of Stream Crossings (Manual).

Initial Site Assessment (approved January 2022)

Revisions to Section 1 Summary, Page 1-1 to Page 1-2

Along with the lane additions, which would extend from PM 21.2 to 38.1, the proposed Project would include widening of up to ~~14~~ ***15*** bridges, potential construction of noise barriers, retaining walls, drainage systems, and implementation of electronic toll collection equipment and signs.

However, the following environmental conditions were identified for the proposed Project and may be encountered during construction activities:

- Asbestos Containing Material (ACM) – ACM is present in the gray felt pad along the southbound (SB) and northbound (NB) Brown Canyon Wash Bridge***, Bedford Wash Bridge,*** and Weirick Road Undercrossing Bridge inner guard rails. In addition, there is a potential for all ~~14~~ ***15*** bridges that require widening by the Project to contain ACMs in areas that have not been sampled.
- Lead-Based Paint (LBP) – LBP is present on the railing of NB Temescal Wash Bridge and in the yellow lane surface paint at NB Indian Wash Bridge. In addition, there is a potential for all ~~14~~ ***15*** bridges that require widening by the Project to contain LBP in areas that have not been sampled.

Revisions to Section 1.1 Recommendations, Page 1-2

HW-1 **Asbestos Containing Materials and Lead-Based Paint.** The Project would include the widening of ~~14~~ ***15*** bridges. Asbestos containing materials (ACM) is present in the gray felt pad along the southbound and northbound Brown Canyon Wash Bridge***, Bedford Wash Bridge*** and Weirick Road Undercrossing Bridge inner guard rails. In addition, lead-based paint (LBP) is present in the light gray paint on the railing of northbound Temescal Wash Bridge and in the yellow lane surface paint at northbound Indian Wash Bridge. ACM and LBP associated with these bridges may be impacted by the Project. In addition, there is a potential for all ~~14~~ ***15*** bridges to contain ACMs and LBP in areas that have not been sampled. The Riverside County Transportation Commission's (RCTC) resident engineer or designated contractor will ensure that ACM and LBP content will be sampled for all areas of the ~~14~~ ***15*** affected bridges that will be disturbed by the Project during the Plans, Specifications, and Estimates phase, prior to any demolition or disturbance activities. RCTC's resident engineer or designated contractor will ensure that the survey will be conducted in conformance with the United States Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants 40 Code of Federal Regulations (CFR), South Coast Air Quality

Management District Rule 1403, and in accordance with Caltrans Standard Specifications, Section 14-11.13,Disturbance of Existing Paint Systems on Bridges, and Section 14-11.16, Asbestos-Containing Construction Materials in Bridges.

Revisions to Section 3 Project Description, Page 3-1

Along with the lane additions, which would extend from PM 21.2 to 38.1, the proposed Project would include widening of up to ~~14~~ ***15*** bridges, potential construction of noise barriers, retaining walls, drainage systems, and implementation of electronic toll collection equipment and signs.

Revisions to Section 3.1.1 Build Alternative, Page 3-7 to Page 3-9

Based on the current Project construction plans, the following soil disturbance activities and depth of excavation activities are anticipated for the proposed Project:

- Outside widening to accommodate the following (up to 8 feet excavation):
  - ~~SB auxiliary lane between Cajalco Road and Weirick Road.~~
  - ***NB widening between Weirick Road and Cajalco Road.***
- Bridge structure foundation and columns:
  - ***Bedford Wash Bridge (56-0540R/L) – widen left bridge inside to median and right bridge inside to median and to the outside (vertical piles driven to a depth of approximately 57 feet).***

- ~~Two retaining walls between Cajalco Road and Weirick Road along SB I-15 roadbed – these are anticipated to be a combination ground anchor wall and soldier pile wall (early estimates have this up to 60 feet into the existing slope and 45 feet deep below bottom of new wall).~~
- ***Outside fill wall construction to accommodate widening along NB I-15 within the Weirick Road interchange with a maximum excavation depth of 12 feet.***
- ***Outside fill wall construction to accommodate widening along the NB Weirick Road On-Ramp with a maximum excavation depth of 16 feet.***
- ***Outside fill wall construction to accommodate widening along the NB I-15 between the Weirick Road and Cajalco Road interchanges with a maximum excavation depth of 20 feet.***
- ***Outside fill wall construction to accommodate widening along the SB SR-74 (Central Avenue) On-Ramp with a maximum excavation depth of 18 feet.***

Revisions to Section 7.2.2 User-Provided Reports, Page 7-20

I-15 Express Lanes Project Southern Extension Limited Asbestos and Lead Chip Assessment (EA 08-0J0820)

Based upon the analytical results, ACM is present in the gray felt pad along the SB and NB Brown Canyon Wash Bridge***, Bedford Wash Bridge,*** and Weirick Road Undercrossing Bridge inner guard rails (Table 7-5). The asbestos type is chrysotile.

Revisions to Table 7-5 Asbestos and Lead Assessment Survey Findings for Affected I-15 Bridges, Page 7-20 to Page 7-21

Post Mile	Bridge Name	Asbestos-Containing Materials	Lead-Based Paint
36.58	***56-0540R/L - Bedford Wash***	***ACM is present in the gray felt pad along the SB and NB Brown Canyon Wash Bridge inner guard rail.***	***None.***

Revisions to Section 8.2.2 Asbestos-Containing Material, Page 8-13

The proposed Project would require widening of ~~14~~ ***15*** bridges on both the NB and SB sides of the I-15, between Nichols Road and Cajalco Road in the cities of Lake Elsinore and Corona, as listed in Table 7-5. No other bridge structures or building structures would be disturbed by the proposed Project. ACM surveys of the ~~14~~ ***15*** bridges were conducted for the proposed Project in 2020. ACM is present in the gray felt pad along the SB and NB Brown Canyon Wash Bridge***, Bedford Wash Bridge,*** and Weirick Road Undercrossing Bridge inner guard rails and may be impacted by the proposed Project. In addition, there is a potential for all ~~14~~ ***15*** bridges to contain ACMs in areas that have not been sampled (A-Tech 2020).

Revisions to Section 8.2.3 Lead-Based Paint, Page 8-14

The proposed Project would require widening of ~~14~~ ***15*** bridges on both the NB and SB sides of the I-15, between Nichols Road and Cajalco Road in the cities of Lake Elsinore and Corona, as listed in Table 7-5. No other bridge structures or building structures would be disturbed by the proposed Project. LBP surveys of the ~~14~~ ***15*** bridges were conducted for the proposed Project in 2020. LBP is present in the light gray paint on the railing of NB Temescal Wash Bridge and in the yellow lane surface paint at NB Indian Wash Bridge and may be impacted by the proposed Project. In addition, there is a potential for all ~~14~~ ***15*** bridges to contain LBP in areas that have not been sampled (A-Tech 2020).

Revisions to Section 10 Findings, Page 10-1

- ACM – The gray felt pad along the SB and NB Brown Canyon Wash Bridge***, Bedford Wash Bridge,*** and Weirick Road Undercrossing Bridge inner guard rails contain ACM. In addition, there is a potential for all ~~14~~ ***15*** bridges that require widening to contain ACMs in areas that have not been sampled.

- LBP – The light gray paint on the railing of NB Temescal Wash Bridge and in the yellow lane surface paint at NB Indian Wash Bridge contain LBP. In addition, there is a potential for all ~~14~~ ***15*** bridges that require widening to contain LBP in areas that have not been sampled.

Revisions to Section 11 Opinions, Page 11-1

- ACM – The proposed Project would include the widening of ~~14~~ ***15*** bridges. ACM is present in the gray felt pad along the SB and NB Brown Canyon Wash Bridge***, Bedford Wash Bridge,*** and Weirick Road Undercrossing Bridge inner guard rails and may be impacted by the proposed Project. In addition, there is a potential for all ~~14~~ ***15*** bridges to contain ACMs in areas that have not been sampled. It is the opinion of HDR that ACM content be sampled for all areas of the ~~14~~ ***15*** affected bridges that will be disturbed by the Project during the PS&E phase, prior to any demolition or disturbance activities to determine proper handling and disposal requirements.

- LBP – The proposed Project would include the widening of ~~14~~ ***15*** bridges. LBP is present in the light gray paint on the railing of NB Temescal Wash Bridge and in the yellow lane surface paint at NB Indian Wash Bridge and may be impacted by the proposed Project. In addition, there is a potential for all ~~14~~ ***15*** bridges to contain LBP in areas that have not been sampled. It is the opinion of HDR that LBP content be sampled for all areas of the ~~14~~ ***15*** affected bridges that will be disturbed by the Project during the PS&E phase, prior to any demolition or disturbance activities to determine proper handling and disposal requirements.

Revisions to Section 12 Conclusions, Page 12-1

- ACM in the Brown Canyon Wash Bridge***, Bedford Wash Bridge,*** and Weirick Road Undercrossing Bridge.

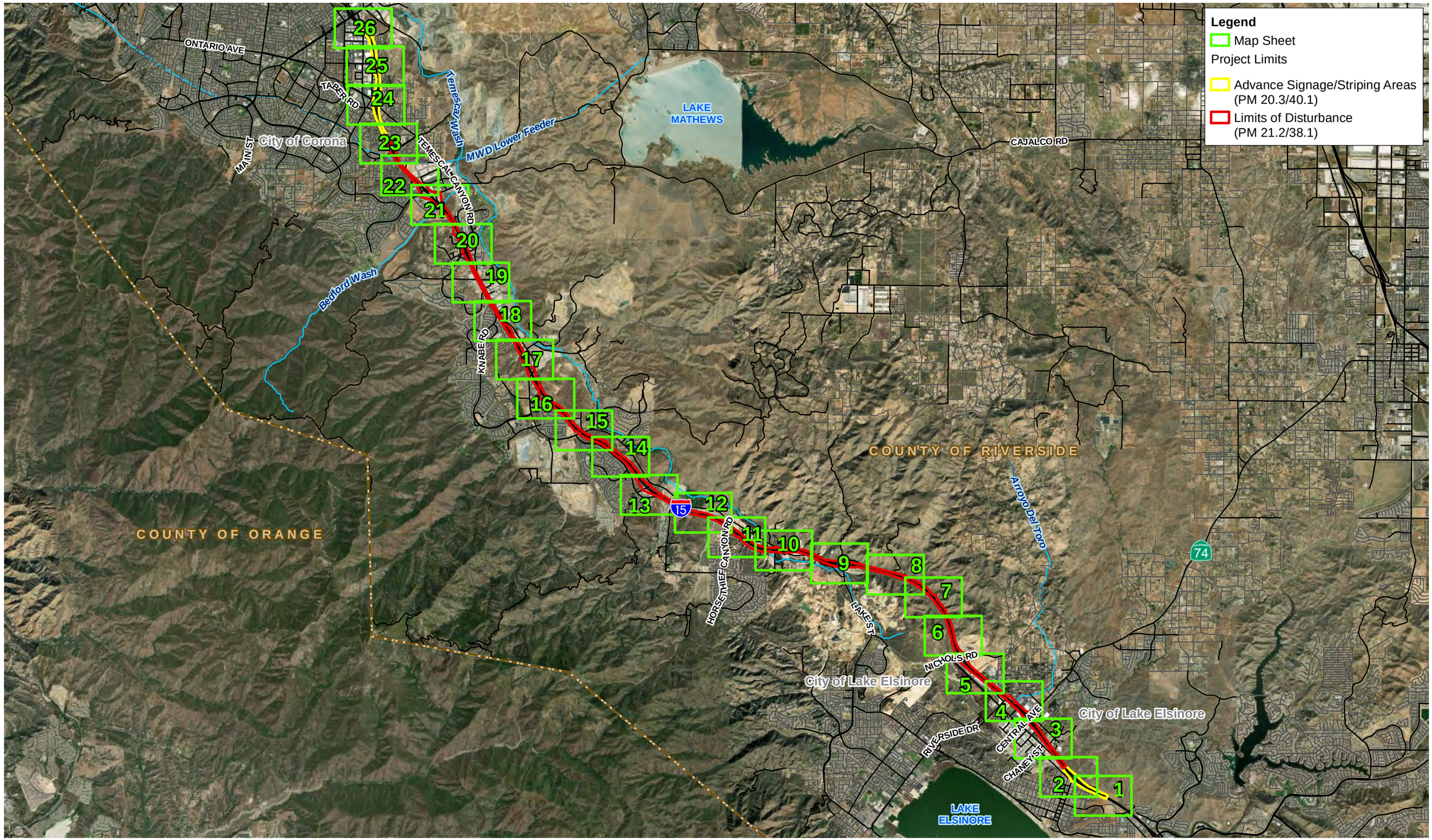
Revisions to Section 13 Recommendations, Page 13-1

HW-1 **Asbestos Containing Materials and Lead-Based Paint.** The Project would include the widening of ~~14~~ ***15*** bridges. Asbestos containing materials (ACM) is present in the gray felt pad along the southbound and northbound Brown Canyon Wash Bridge***, Bedford Wash Bridge*** and Weirick Road Undercrossing Bridge inner guard rails. In addition, lead-based paint (LBP) is present in the light gray paint on the railing of northbound Temescal Wash Bridge and in the yellow lane surface paint at northbound Indian Wash Bridge. ACM and LBP associated with these bridges may be impacted by the Project. In addition, there is a potential for all ~~14~~ ***15*** bridges to contain ACMs and LBP in areas that have not been sampled. The Riverside County Transportation Commission's (RCTC) resident engineer or designated contractor will ensure that ACM and LBP content will be sampled for all areas of the ~~14~~ ***15*** affected bridges that will be disturbed by the Project during the Plans, Specifications, and Estimates phase, prior to any demolition or disturbance activities. RCTC's resident engineer or designated contractor will ensure that the survey will be conducted in conformance with the United States Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants 40 Code of Federal Regulations (CFR), South Coast Air Quality Management District Rule 1403, and in accordance with Caltrans Standard

Specifications, Section 14-11.13,Disturbance of Existing Paint Systems on Bridges, and Section 14-11.16, Asbestos-Containing Construction Materials in Bridges.

Conclusion for Initial Site Assessment

The changes to the project description and features would not change the conclusions presented in the ISA. As identified above, the revisions to the ISA are minor. As previously identified in the approved ISA, the proposed Project has the potential to encounter ACM and LBP associated with the widening of bridge structures. The proposed Project would have the same potential of encountering ACM and LBP associated with the Bedford Wash Bridge widening as with any of the other 14 bridges that would be disturbed by the Project. The original avoidance and minimization measures identified in the ISA (Measures HW-1 through HW-8), including Measure HW-1 that addresses ACM and LBP, still apply and no additional avoidance, minimization, and/or mitigation measures are required.

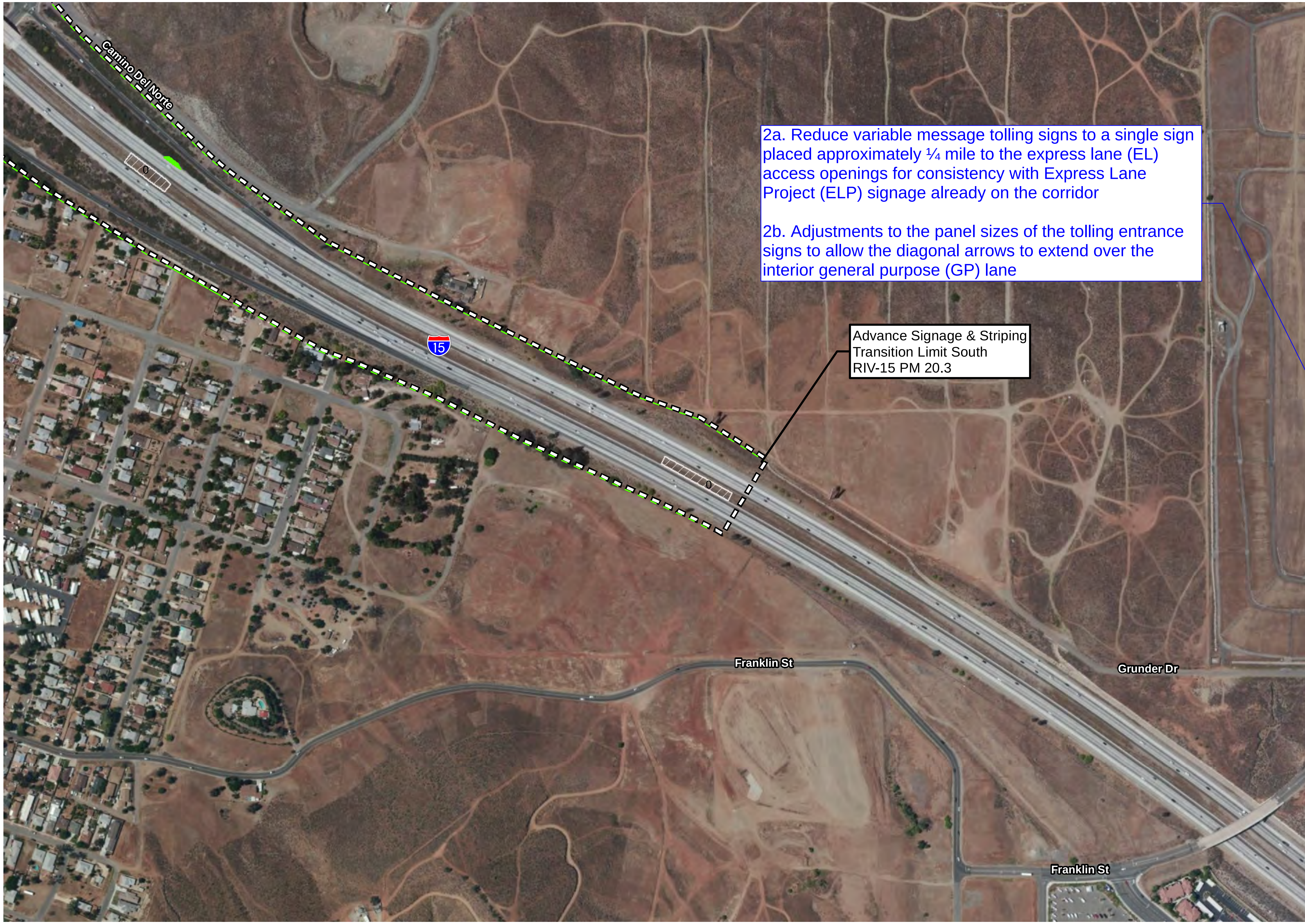


N

0 1 2 Miles

1:100,000

Map Index
Build Alternative Map
Interstate 15 Express Lanes Project Southern Extension



Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 1

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension

Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 2

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension

Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

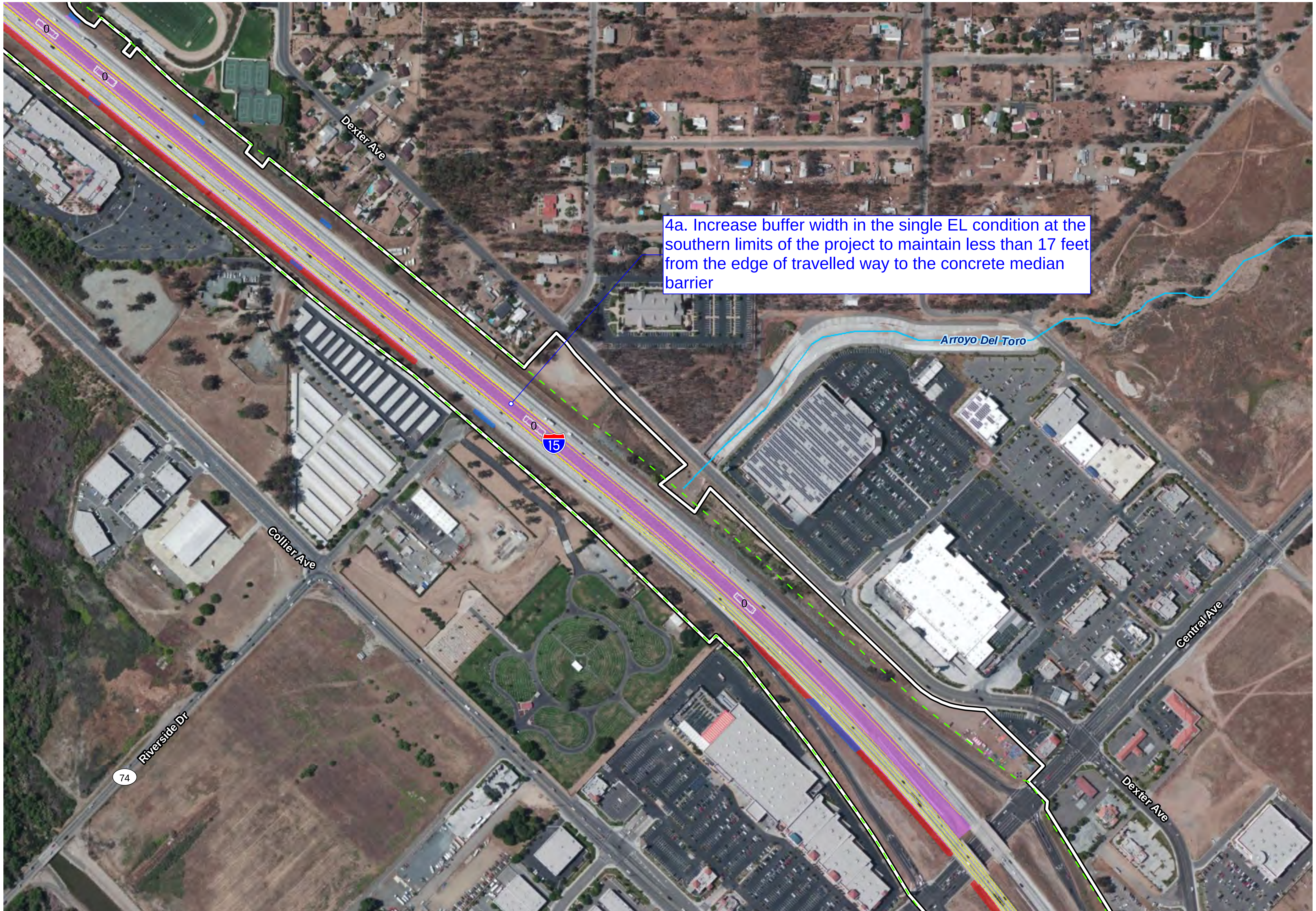
0 200 400 Feet

1:4,800

Sheet 3

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension



Legend

- Existing Right-of-Way (2008)
- Project Limits
- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

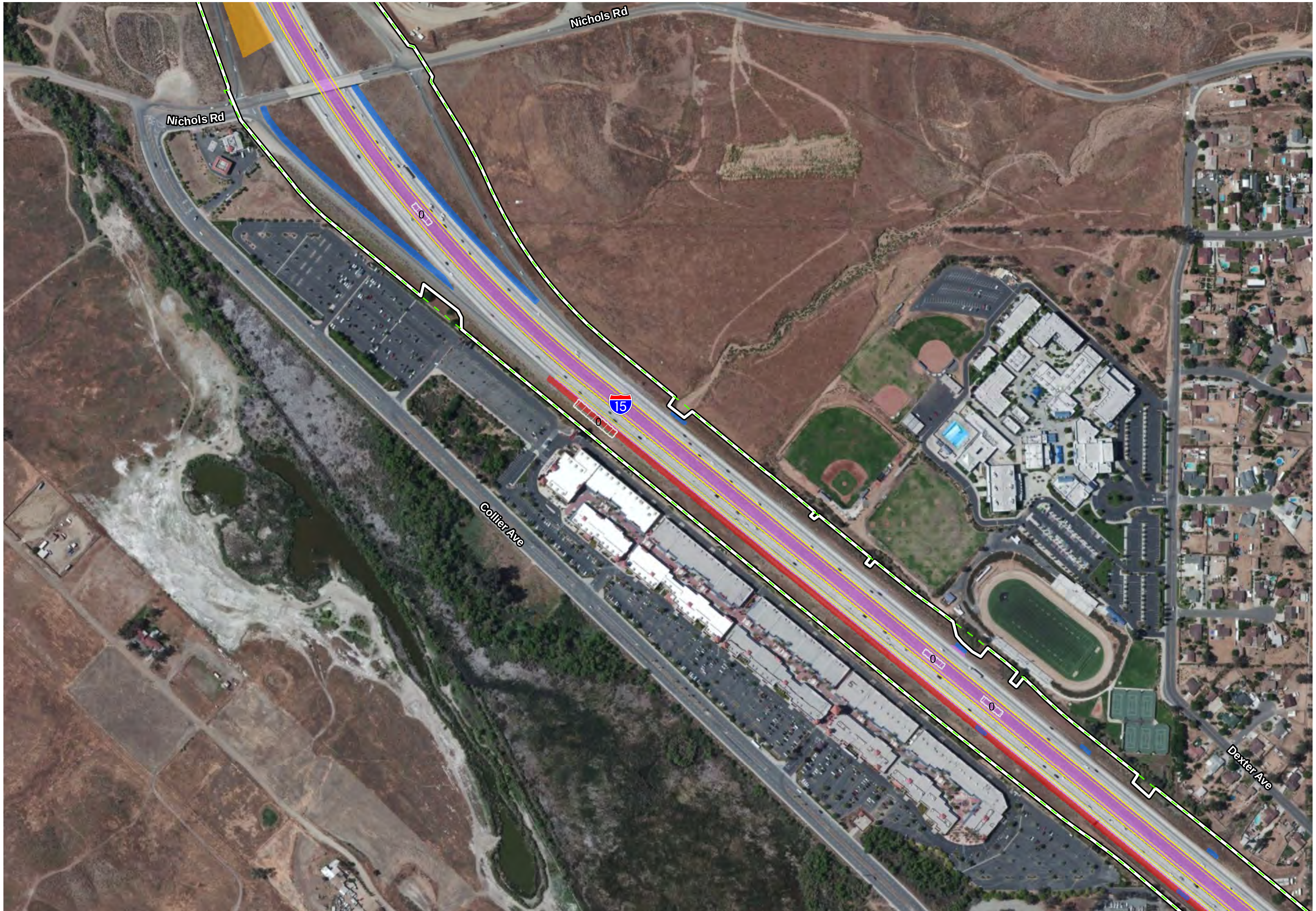
0 200 400 Feet

1:4,800

Sheet 4

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension



Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 5

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension

Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 6

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension

Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 7

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension

Legend

- Existing Right-of-Way (2008)
- Project Limits
- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 8
Build Alternative Map
Interstate 15 Express Lanes Project Southern Extension

Legend

- Existing Right-of-Way (2008)
- Project Limits
- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 9

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension

Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 10
Build Alternative Map
Interstate 15 Express Lanes Project Southern Extension

Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 11

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension

Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

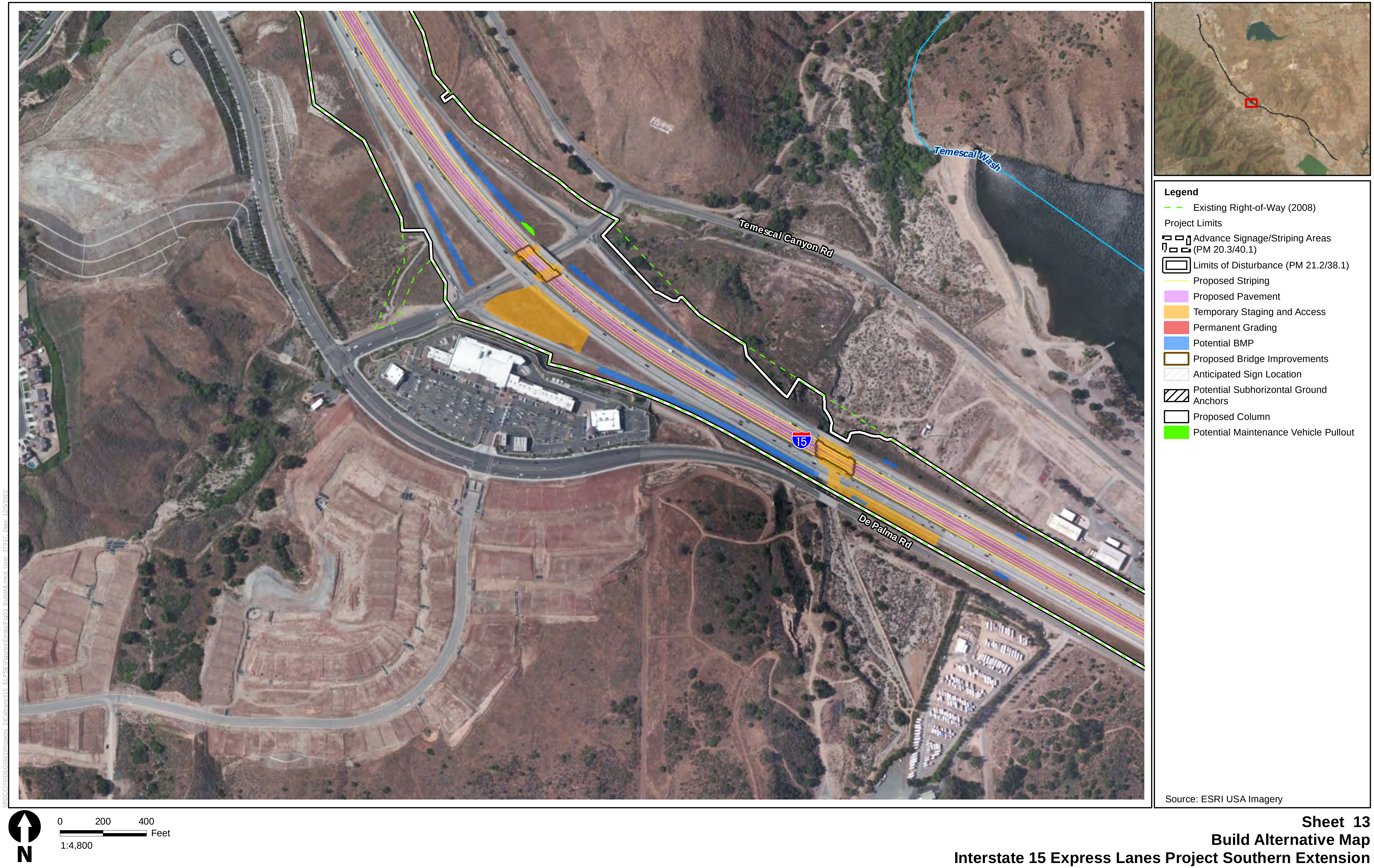
0 200 400 Feet

1:4,800

Sheet 12

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension


Temescal Canyon Rd
De Palma Rd
Temescal Wash
15
Legend
Existing Right-of-Way (2008)
Project Limits
Advance Signage/Striping Areas (PM 20.3/40.1)
Limits of Disturbance (PM 21.2/38.1)
Proposed Striping
Proposed Pavement
Temporary Staging and Access
Permanent Grading
Potential BMP
Proposed Bridge Improvements
Anticipated Sign Location
Potential Subhorizontal Ground Anchors
Proposed Column
Potential Maintenance Vehicle Pullout
Source: ESRI USA Imagery
0
200
400
Feet
1:4,800
N

Sheet 13

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension

Legend

- Existing Right-of-Way (2008)
- Project Limits
- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet
1:4,800

Sheet 14
Build Alternative Map
Interstate 15 Express Lanes Project Southern Extension

Legend

- Existing Right-of-Way (2008)
- Project Limits
- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

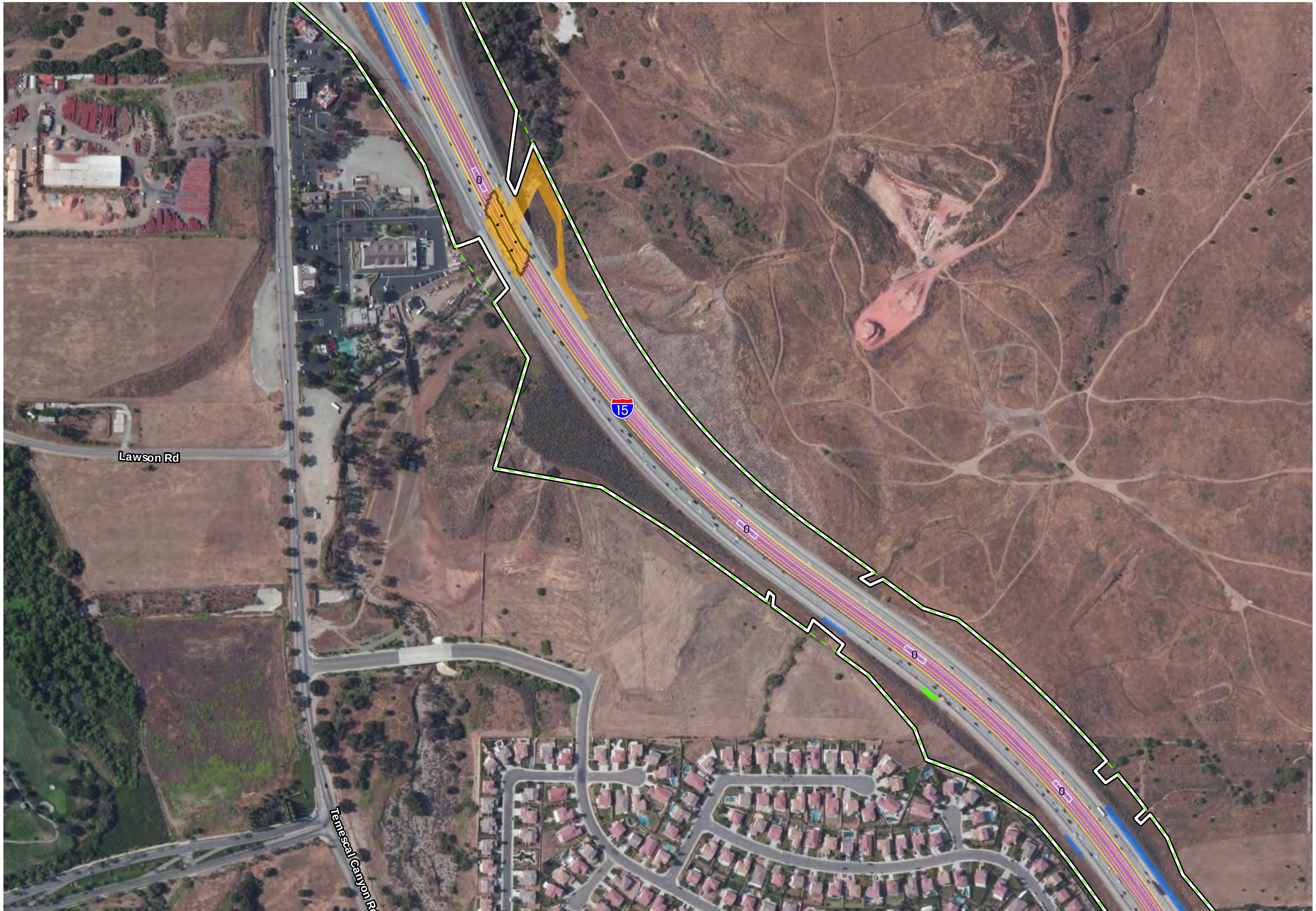
Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 15
Build Alternative Map
Interstate 15 Express Lanes Project Southern Extension



Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 16

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension

Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

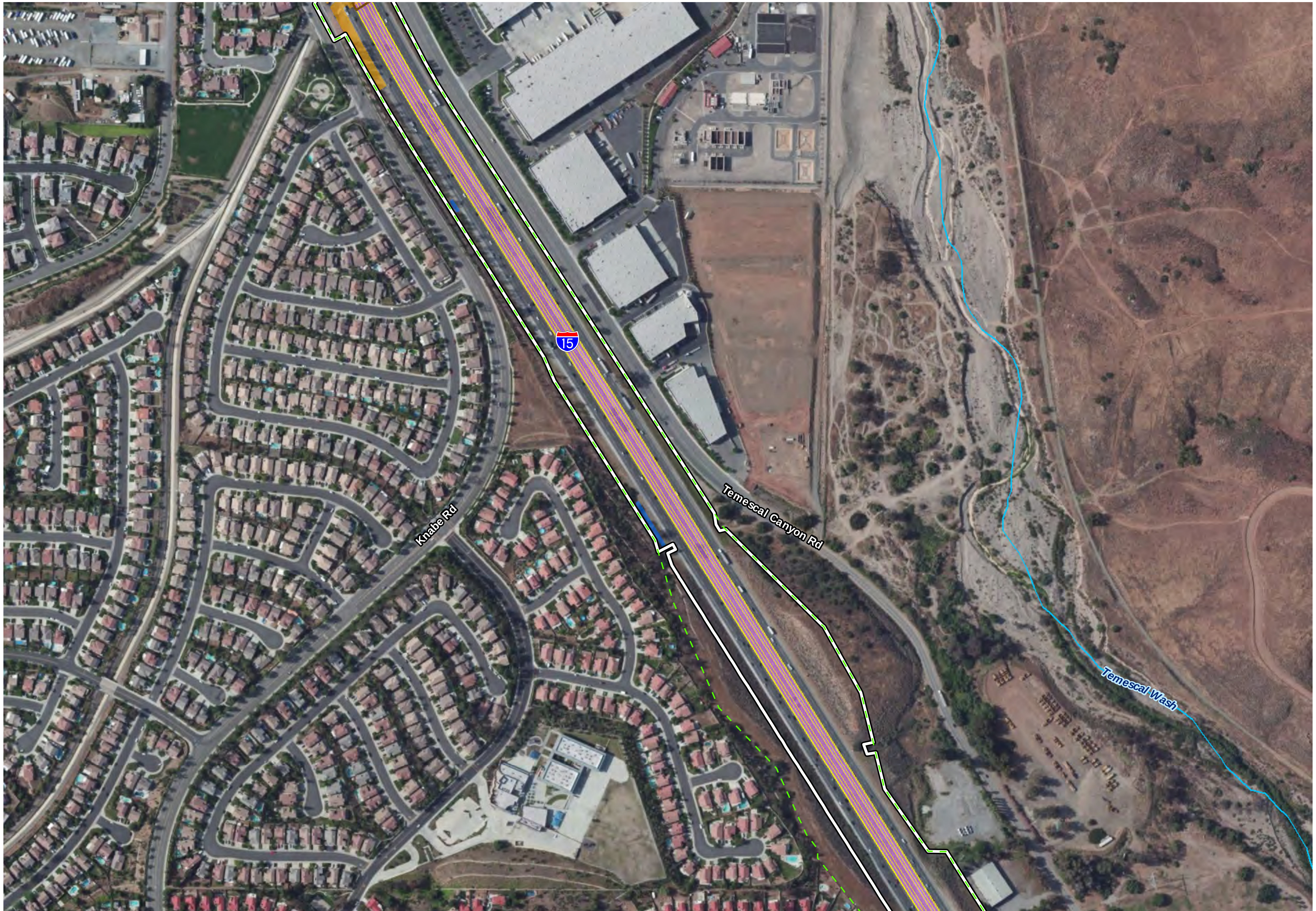
Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 17
Build Alternative Map
Interstate 15 Express Lanes Project Southern Extension



Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 18

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension

Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

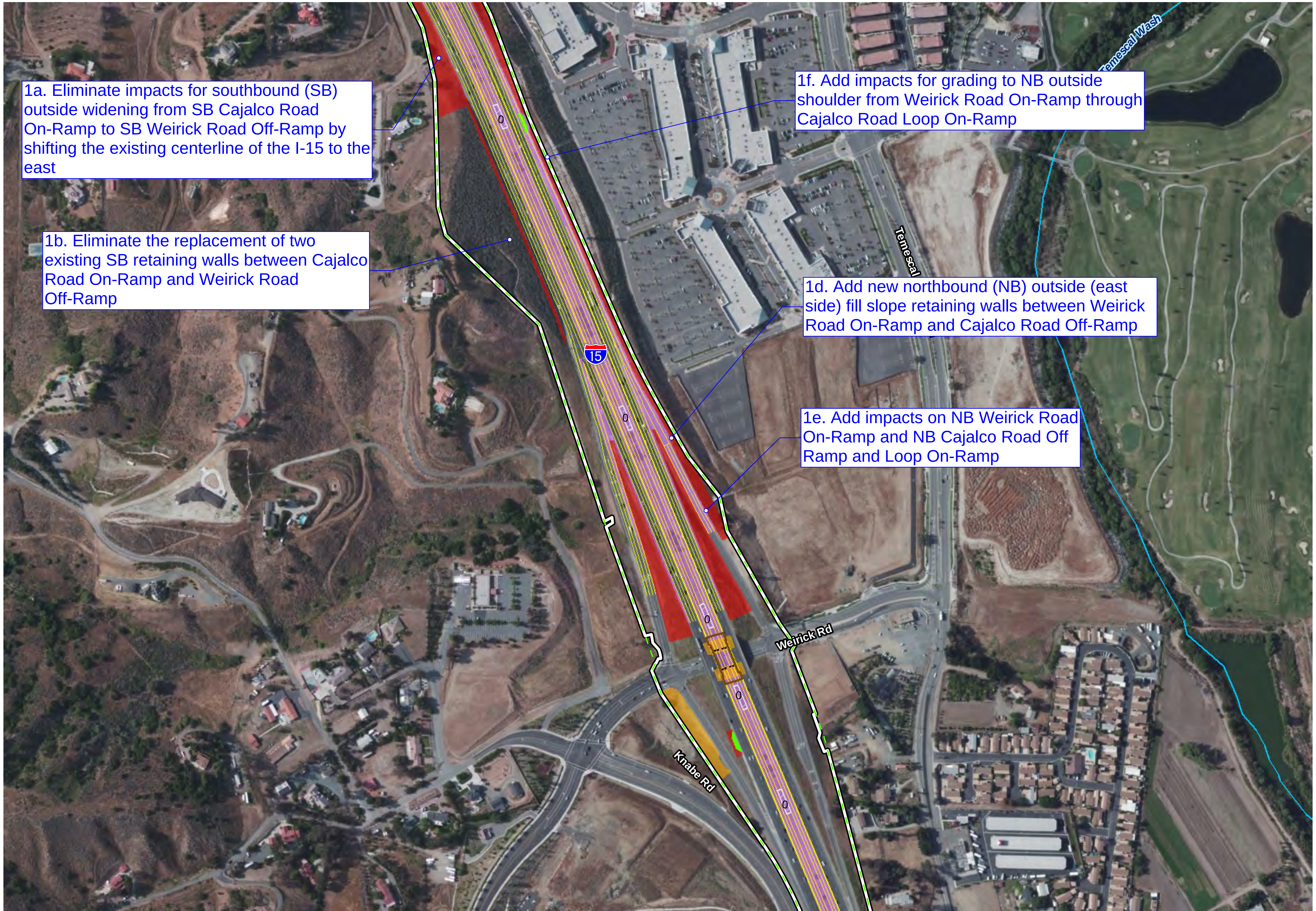
0 200 400 Feet

1:4,800

Sheet 19

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension


1a. Eliminate impacts for southbound (SB) outside widening from SB Cajalco Road On-Ramp to SB Weirick Road Off-Ramp by shifting the existing centerline of the I-15 to the east
1b. Eliminate the replacement of two existing SB retaining walls between Cajalco Road On-Ramp and Weirick Road Off-Ramp
1f. Add impacts for grading to NB outside shoulder from Weirick Road On-Ramp through Cajalco Road Loop On-Ramp
1d. Add new northbound (NB) outside (east side) fill slope retaining walls between Weirick Road On-Ramp and Cajalco Road Off-Ramp
1e. Add impacts on NB Weirick Road On-Ramp and NB Cajalco Road Off Ramp and Loop On-Ramp
Temescal Wash
Temescal
15
Weirick Rd
Knabe Rd

Legend

- Existing Right-of-Way (2008)
- Project Limits
- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

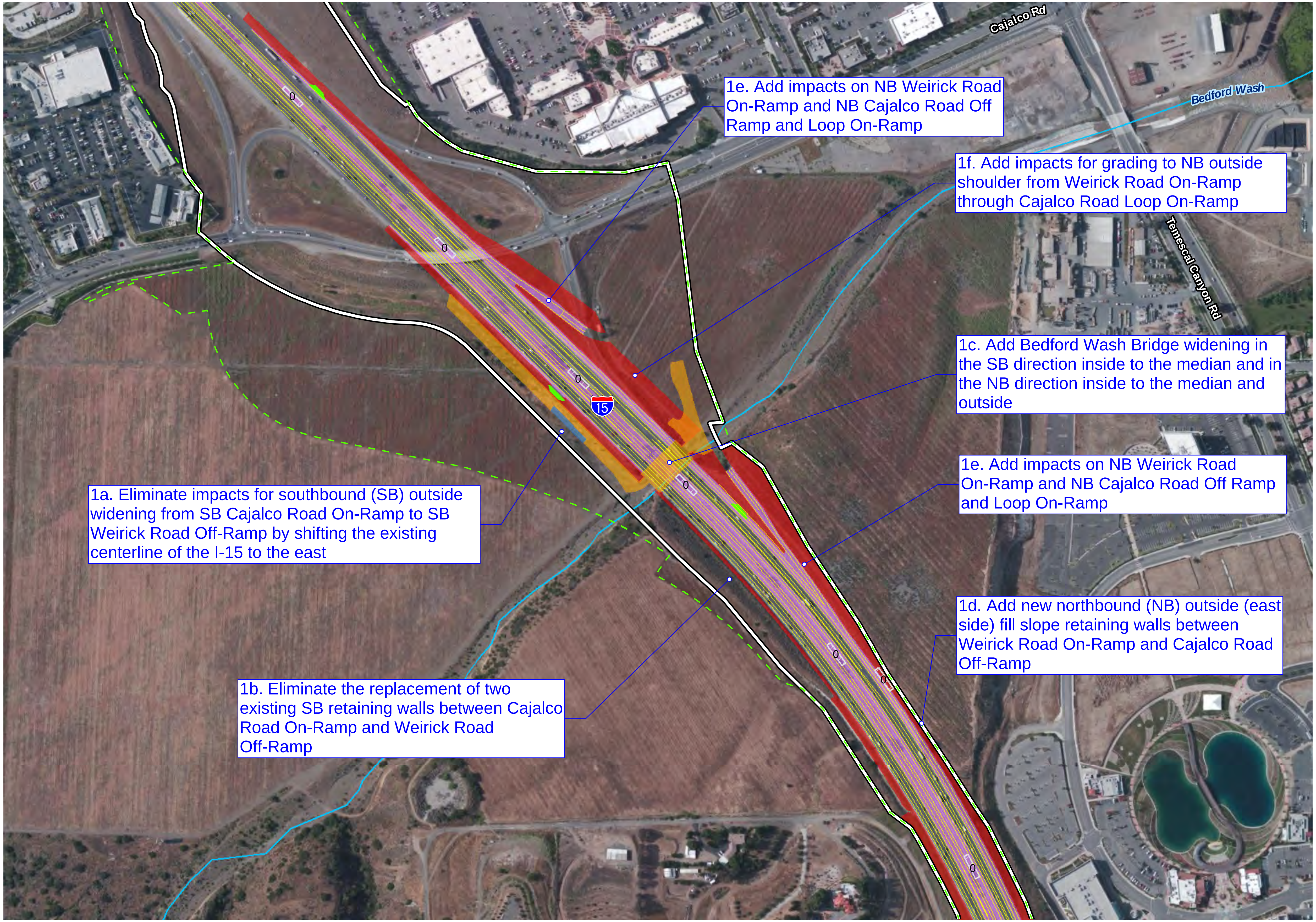
0 200 400 Feet

1:4,800

Sheet 20

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension



Legend

- Existing Right-of-Way (2008)
- Project Limits
- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 21

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension


Foothill Pkwy
Liberty Ave
Bedford Canyon Rd
15
MWD Lower Feeder
Temescal Canyon Rd
Cajalco Rd
Legend
Existing Right-of-Way (2008)
Project Limits
Advance Signage/Striping Areas (PM 20.3/40.1)
Limits of Disturbance (PM 21.2/38.1)
Proposed Striping
Proposed Pavement
Temporary Staging and Access
Permanent Grading
Potential BMP
Proposed Bridge Improvements
Anticipated Sign Location
Potential Subhorizontal Ground Anchors
Proposed Column
Potential Maintenance Vehicle Pullout
Source: ESRI USA Imagery
N
0 200 400
Feet
1:4,800

Sheet 22
Build Alternative Map
Interstate 15 Express Lanes Project Southern Extension

Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

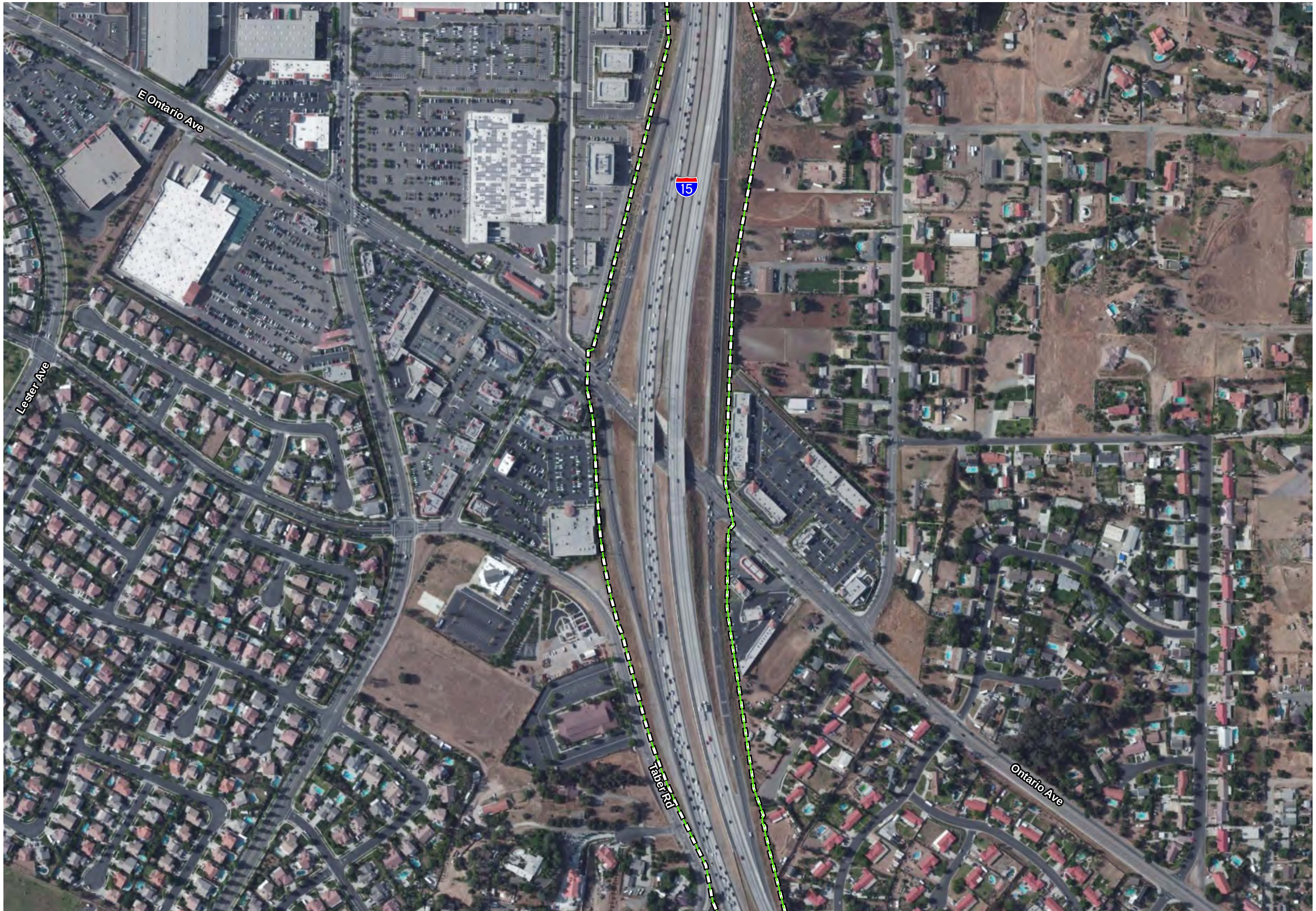
0 200 400 Feet

1:4,800

Sheet 23

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension



Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

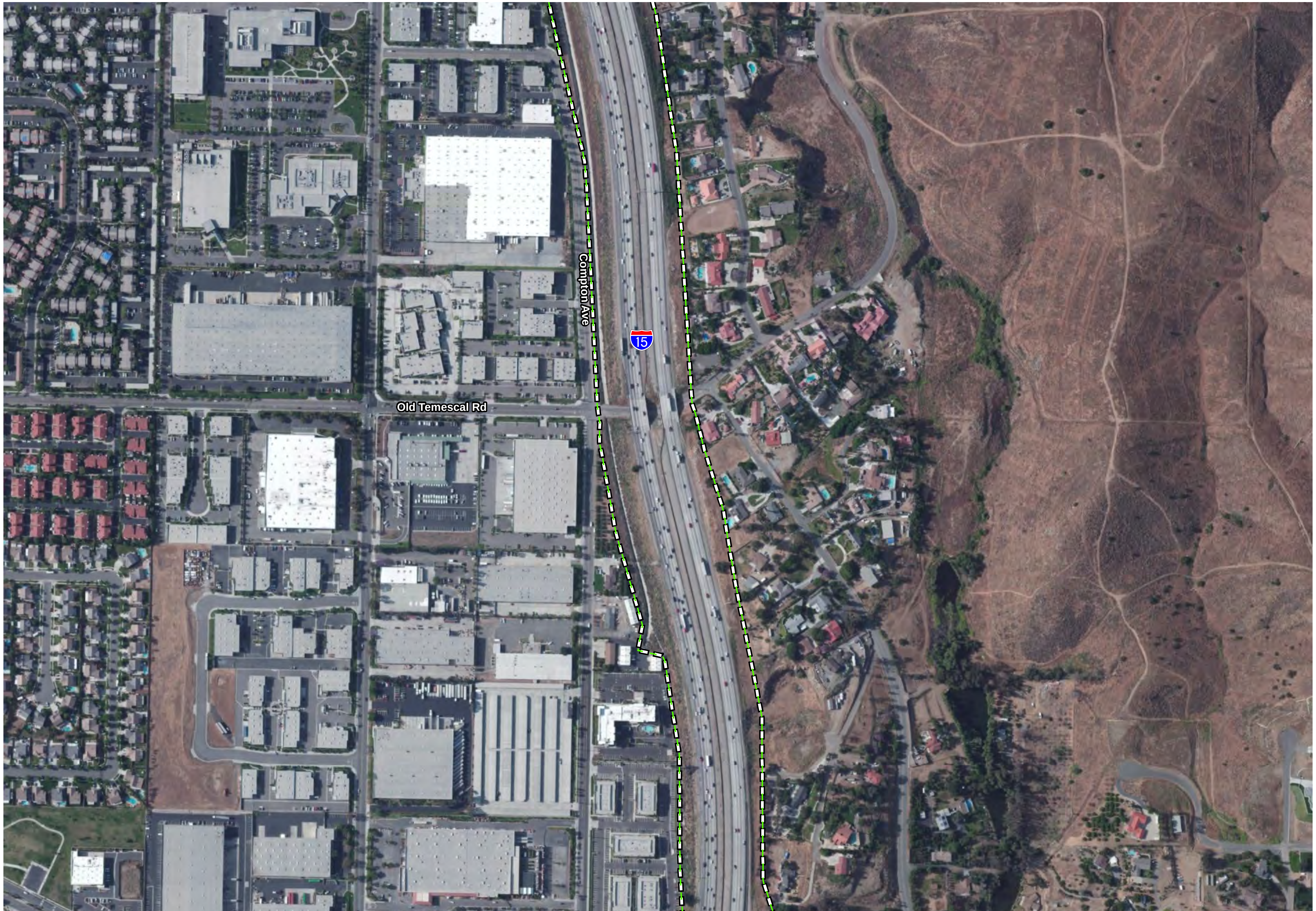
0 200 400 Feet

1:4,800

Sheet 24

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension



Legend

- Existing Right-of-Way (2008)

Project Limits

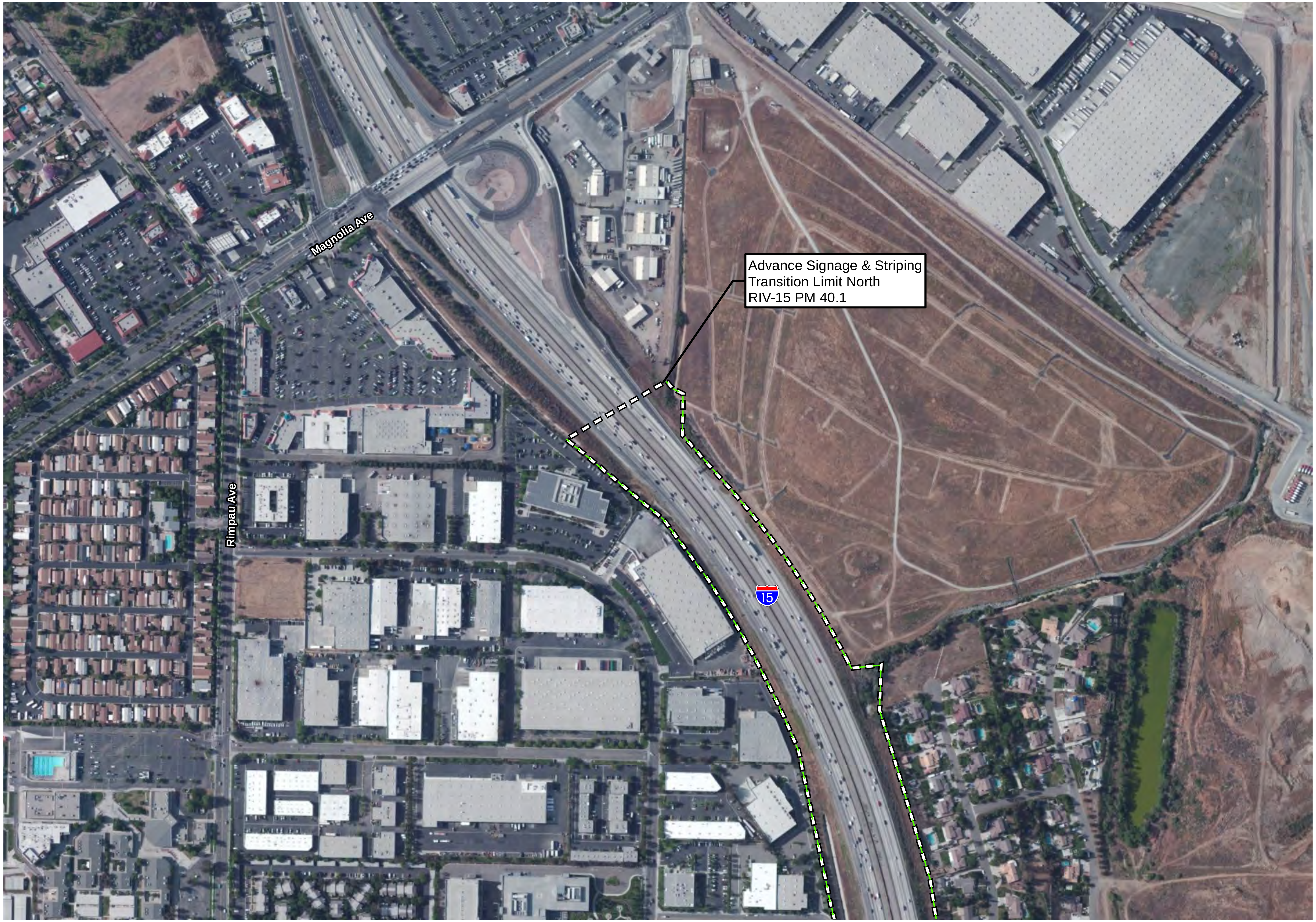
- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet
1:4,800

Sheet 25
Build Alternative Map
Interstate 15 Express Lanes Project Southern Extension



Legend

- Existing Right-of-Way (2008)

Project Limits

- Advance Signage/Striping Areas (PM 20.3/40.1)
- Limits of Disturbance (PM 21.2/38.1)
- Proposed Striping
- Proposed Pavement
- Temporary Staging and Access
- Permanent Grading
- Potential BMP
- Proposed Bridge Improvements
- Anticipated Sign Location
- Potential Subhorizontal Ground Anchors
- Proposed Column
- Potential Maintenance Vehicle Pullout

Source: ESRI USA Imagery

N

0 200 400 Feet

1:4,800

Sheet 26

Build Alternative Map

Interstate 15 Express Lanes Project Southern Extension

\\PDCCITRDSGIS01\Projects_1\Caltrans\I15_ELPSE\Figures\Errata\Fig03_BuildAlt.mxd; User: 37937; Date: 12/5/2022