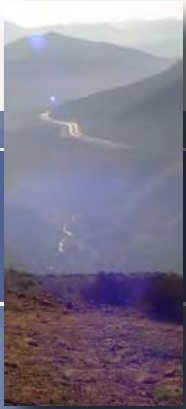




DRAFT

ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED CONSTRUCTION, OPERATION, AND MAINTENANCE OF TACTICAL INFRASTRUCTURE U.S. BORDER PATROL SAN DIEGO SECTOR, CALIFORNIA



JANUARY 2008

ABBREVIATIONS AND ACRONYMS

APE	Area of Potential Effect
AO	Areas of Operation
BEA	Bureau of Economic Analysis
BMP	Best Management Practices
BLM	Bureau of Land Management
CBP	U.S. Customs and Border Protection
CDFG	California Department of Fish and Game
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Database
CO	Carbon Monoxide
CWA	Clean Water Act
dB	decibel
dBA	decibel – A weighted scale
DHS	U.S. Department of Homeland Security
DNL	day-night average sound level
EA	Environmental Assessment
ECSSO	Engineering Construction Support Office
EIS	Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
GNEB	Good Neighbor Environmental Board
IA	illegal alien
INS	Immigration and Naturalization Service's
JTF-6	Joint Task Force Six
LWC	low water crossing
MBTA	Migratory Bird Treaty Act
MOU	Memorandum of Understanding
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWP	Nationwide Permit
O ₃	Ozone
OSHA	Occupational Safety and Health Administration
PCPI	per capita personal income
PM-10	Particulate<10 micrometers
PM-2.5	Particulate<2.5 micrometers

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DRAFT
FINDING OF NO SIGNIFICANT IMPACT
CONSTRUCTION, OPERATION, AND MAINTENANCE
OF TACTICAL INFRASTRUCTURE
U.S. DEPARTMENT OF HOMELAND SECURITY
U.S. CUSTOMS AND BORDER PROTECTION
U.S. BORDER PATROL
SAN DIEGO SECTOR,
SAN DIEGO COUNTY, CALIFORNIA

11 **PROJECT HISTORY:** United States (U.S.) Border Patrol (USBP) is a law enforcement entity of
12 U.S. Customs and Border Protection (CBP) within U.S. Department of Homeland Security (DHS).
13 USBP’s priority mission is to prevent the entry of terrorists and their weapons of terrorism and to
14 enforce the laws that protect the U.S. homeland. This is accomplished by the detection, interdiction,
15 and apprehension of those who attempt to illegally enter or smuggle any person or contraband across
16 the sovereign borders of the U.S. During recent years, illegal aliens (IA) have cost U.S. citizens
17 billions of dollars annually due directly to criminal activities, as well as the cost of apprehension,
18 detention, and incarceration of criminals; and, indirectly in loss of property, illegal participation in
19 government programs, and increased insurance costs. This Environmental Assessment (EA) was
20 prepared in accordance with the National Environmental Policy Act (NEPA) and analyzes the project
21 alternatives and potential impacts to the human and natural environment from these alternatives.
22

23 **PURPOSE AND NEED:** The purpose of the Proposed Action is to assist CBP/USBP agents and
24 officers in gaining effective control of a section of the international border within the USBP San
25 Diego Sector. The proposed project is needed to provide USBP agents with the tools necessary to
26 prevent terrorists and terrorist weapons from entering the U.S., to reduce the flow of illegal drugs, to
27 interdict illegal aliens, to provide a safer work environment for USBP agents, and to enhance the
28 response time of USBP agents.
29

30 **PROPOSED ACTION:** The Proposed Action Alternative is to construct, operate, and maintain
31 approximately 7 miles of new roads, 10 miles of primary pedestrian fence, and 10 miles of road
32 widening along the U.S./Mexico international border in eastern San Diego County, California. Most
33 of the proposed primary pedestrian fence and road improvements would be within the 60-foot wide
34 Roosevelt Reservation, which are public lands managed by the U.S. Bureau of Land Management
35 (BLM). However, some of the new road construction would extend beyond the Roosevelt
36 Reservation and affect additional Federal and private lands.
37

38 Routine maintenance of the road would be conducted as needed to maintain the driving surface
39 following construction. Maintenance would consist of grading and leveling the road surface,
40 applying road surface material where appropriate, and applying a soil stabilizer if needed. Repairs
41 and maintenance of the primary pedestrian fence would occur on an as needed basis.
42

43 In addition, this alternative would include the use of 10 staging areas (temporary impact areas) to
44 accommodate construction equipment and stockpile materials during the construction activities.
45 Temporary construction areas would be located in previously disturbed areas to the greatest extent
46 practical. Upon completion of construction activities, the temporary construction areas (*i.e.*, staging
47 areas) would be rehabilitated. Rehabilitation would include natural regeneration, planting with

1 native species, and/or the distribution of dead plant material (*i.e.*, woody plant skeletons) and
2 geologic materials (*i.e.*, rocks and boulders).
3

4 Numerous existing access roads will be used during the construction of the new road and primary
5 pedestrian fence; however, none of these roads would require additional improvements (*i.e.*,
6 straightening, widening, or drainage structures). The roads would be graded and brought back to pre-
7 project conditions once the construction is complete.
8

9 **ALTERNATIVES:** Three alternatives were identified and considered during the planning stages of
10 the proposed project: Alternative 1 (No Action Alternative), Alternative 2 (Proposed Action
11 Alternative), and Alternative 3 (Secure Fence Act Alternative). The No Action Alternative would
12 preclude any road improvements or fence and road construction activities; thus, would not deter
13 illegal entries or enhance safety or response time for USBP agents. Alternative 3 would have greater
14 environmental impacts compared to the Proposed Action Alternative. Of the alternatives considered,
15 the Proposed Action Alternative would have the least environmental impacts and be the most
16 strategically effective approach for controlling illegal traffic and satisfying the stated purpose and
17 need. It should be noted that USBP has identified its Preferred Alternative as the Proposed Action
18 Alternative.
19

20 **ENVIRONMENTAL CONSEQUENCES:** A total of approximately 123 acres would be impacted
21 as part of the Proposed Action Alternative. Approximately 78 acres of land use, geologic resources,
22 soils, vegetation, wildlife habitat, and potentially suitable habitat for protected species would be
23 permanently altered and 45 acres would be temporarily altered throughout the project corridor.
24 Through the use of environmental design measures and due to the vast amounts of similar habitat
25 surrounding the project corridor these impacts would be insignificant.
26

27 The Quino checkerspot butterfly and coastal California gnatcatcher, both Federally endangered
28 species, may be adversely affected under the Proposed Action Alternative. This determination is
29 made due to the loss of suitable habitat and adverse modification of critical habitat for the butterfly.
30 Consultation is on-going with the U.S. Fish and Wildlife Service (USFWS) to identify conservation
31 measures to be implemented to offset these impacts.
32

33 Noise levels would be temporarily increased during construction activities. Increased noise levels
34 associated with construction would cease following construction. Emissions and fugitive dust would
35 also increase during construction activities. However, due to the remote location of the project
36 corridor and wind dispersal patterns, the project is not expected to cause or contribute to a violation
37 of Federal or state ambient air quality standards. The aesthetics of project corridor would be not
38 adversely impacted due to the existing infrastructure in place throughout most of the corridor. The
39 Proposed Action Alternative would occur near two archaeological sites eligible for listing on the
40 National Register of Historic Places. Mitigation measures would be developed to reduce potential
41 impacts to a less than significant level. Indirect beneficial impacts to soils, socioeconomics, land use,
42 vegetation, wildlife habitat, protected species, and air quality would result from the implementation
43 of the Proposed Action Alternative as a result of eliminating illegal traffic north of the project
44 corridor.
45

46 **MITIGATION MEASURES:** Although no significant impacts have been identified, CBP would
47 implement mitigation measures, many of which are standard operating procedure, to further reduce
48 potentially adverse effects. The mitigation measures are presented for each resource category that

1 could be affected. The proposed measures would be coordinated through the appropriate agencies
2 and land managers/administrators prior to initiation of construction.

3
4 GENERAL CONSTRUCTION: Best Management Practices (BMPs) would be implemented
5 during all construction activities, and would include proper handling, storage, and/or disposal of
6 hazardous and/or regulated materials. To minimize potential impacts from hazardous and
7 regulated materials, all fuels, waste oils and solvents would be collected and stored in tanks or
8 drums within a secondary containment system that consists of an impervious floor and bermed
9 sidewalls capable of containing the volume of the largest container stored therein. The refueling
10 of machinery would be completed following accepted industry guidelines, and all vehicles would
11 have drip pans during storage to contain minor spills and drips. Although it would be unlikely
12 for a major spill to occur, any spill of reportable quantities would be contained immediately
13 within an earthen dike, and the application of an absorbent (*e.g.*, granular, pillow, sock, *etc.*)
14 would be used to absorb and contain the spill. Pursuant to compliance with 40 Code of Federal
15 Register (CFR), Part 112, Oil Pollution Prevention, a Spill Prevention, Control, and
16 Countermeasures Plan (SPCCP) would be in place prior to the start of operations and all
17 personnel would be briefed on the implementation and responsibilities of this plan. All spills
18 would be reported to the designated USBP point of contact for the project. Furthermore, a spill
19 of any petroleum liquids (*e.g.*, fuel) or material listed in 40 CFR 302 Table 302.4 of a reportable
20 quantity must be cleaned up and reported to the appropriate Federal and state agencies.
21 Reportable quantities of those substances listed on 40 CFR 302 Table 302.4 would be included
22 as part of the SPCCP.

23
24 All waste oil and solvents would be recycled. All non-recyclable hazardous and regulated wastes
25 would be collected, characterized, labeled, stored, transported, and disposed of in accordance
26 with all Federal, state, and local regulations, including proper waste manifesting procedures.

27
28 Solid waste receptacles would be maintained at staging areas. Non-hazardous solid waste (trash
29 and waste construction materials) would be collected and deposited in on-site receptacles. Solid
30 waste would be collected and disposed of by a local waste disposal contractor.

31
32 SOILS: Vehicular traffic associated with the construction activities and operational support
33 activities would remain on established roads. Areas with highly erodible soils would be given
34 special consideration when designing the proposed project to ensure incorporation of various
35 erosion control techniques such as, straw bales (weed seed free), silt fencing, aggregate
36 materials, wetting compounds, and rehabilitation, where possible, to decrease erosion.
37 Rehabilitation would include re-vegetating or the distribution of organic (*i.e.*, cacti skeletons and
38 other woody debris) and geological materials (*i.e.*, boulders and rocks) over the disturbed area to
39 reduce erosion while allowing the area to naturally vegetate. In addition, erosion control
40 measures and appropriate BMPs, as required and promulgated through the Storm Water
41 Pollution Prevention Plan (SWPPP) and engineering designs, would be implemented before,
42 during, and after construction activities.

43
44 Road maintenance shall avoid, to the extent practicable making wind rows with the soils once
45 grading activities are completed. Any excess soils would be used on-site to raise and shape the
46 road surface.

47

1 VEGETATION: Construction equipment would be cleaned, using a high pressure water system,
2 prior to entering and departing the project corridor to minimize the spread and establishment of
3 non-native invasive plant species. Soil disturbances in temporary impact areas would be
4 rehabilitated. Rehabilitation would include re-vegetating or the distribution of organic and
5 geological materials over the disturbed area to reduce erosion while allowing the area to
6 naturally vegetate. Rehabilitation methods would be developed in coordination with and
7 approved by BLM. Native seeds or plants, which are compatible with the enhancement of
8 protected species, would be used to the extent practicable, as required under Section 7(a)(1) of
9 the Endangered Species Act (ESA).

10
11 Disturbed and restored areas would be monitored for the spread and eventual eradication of non-
12 native invasive plant species as part of periodic maintenance activities. Monitoring would occur
13 annually for a period of 5 years. To minimize vegetation impacts, travel would be restricted to
14 the existing access roads and temporary construction areas.

15
16 WILDLIFE: Numerous migratory birds could nest in the project corridor. The Migratory Bird
17 Treaty Act requires that Federal agencies coordinate with U.S. Fish and Wildlife Service
18 (USFWS) if a construction activity would result in the take of a migratory bird. If construction
19 activities would result in the take of a migratory bird, then coordination with USFWS and
20 California Department of Fish and Game (CDFG) would be conducted prior to construction
21 activities. Bird surveys would not be required if construction activities occur outside of the
22 nesting season (typically February 15 through September 1). If construction activities can not be
23 scheduled outside of the nesting season then bird surveys would be required prior to
24 construction.

25
26 PROTECTED SPECIES: During the development of this EA, USFWS and USBP consulted on
27 various issues regarding protected species and developed potential mitigation measures that
28 would be implemented as part of the proposed project. These include:

- 29
- 30 • To mitigate for loss of habitat for the gnatcatcher and Quino checkerspot butterfly at the
31 Cetus Hill and Brickyard to Gunsight project sites, USBP would abandon and rehabilitate
32 two sections of Humphrey's Road, north of Cetus Hill and north of Gunsight Hill; at the
33 Ag Loop project site, USBP would abandon and rehabilitate some of the existing roads in
34 the area to mitigate for gnatcatcher and Quino checkerspot butterfly habitat loss.
 - 35 • Within the Bell Valley project site, live oaks would not be removed in the Bell Valley
36 drainage proper.
 - 37 • To mitigate for loss of habitat for the Quino checkerspot butterfly at the West and East
38 Smith Canyon project sites, USBP would abandon and rehabilitate roads. The road
39 immediately north of the West Smith Canyon as well as the existing access road at the
40 west end of the existing primary pedestrian fence near East Smith Canyon project site
41 would be abandoned and rehabilitated.

42
43 However, final mitigation measures would be developed through consultation with USFWS
44 under Section 7 of the ESA in order to offset impacts to the coastal California gnatcatcher and
45 Quino checkerspot butterfly as a result of the proposed action. The final conservation measures
46 would be outlined in a Biological Opinion.

1 CULTURAL RESOURCES: All construction would be kept within previously surveyed areas.
2 If any cultural material is discovered during the construction efforts, then all activities shall halt
3 until a qualified archeologist assesses the cultural remains. If cultural material is discovered on
4 BLM land, the Palm Springs-South Coast Field Office would be notified and all work in the area
5 would cease until authorization to proceed is provided by BLM. Buffers would be established
6 and delineated with fences around the two historic objects that lie within the proposed
7 construction corridor in order to avoid any effects to these significant cultural resources.
8 Construction activities near the monuments would be monitored to ensure avoidance.
9 Additionally, USBP would complete the Section 106 process prior to the start of any
10 construction activities.

11
12 WATER RESOURCES: Standard construction procedures would be implemented to minimize
13 the potential for erosion and sedimentation during construction. All work shall cease during
14 heavy rains and would not resume until conditions are suitable for the movement of equipment
15 and material. All fuels, waste oils, and solvents would be collected and stored in tanks or drums
16 within a secondary containment area consisting of an impervious floor and bermed sidewalls
17 capable of holding the volume of the largest container stored therein. The refueling of
18 machinery would be completed following accepted guidelines, and all vehicles would have drip
19 pans during storage to contain minor spills and drips. No refueling or storage would take place
20 within 100 feet of drainage. Other mitigation measures would be implemented such as straw
21 bales (weed and seed free), silt fencing, aggregate materials, wetting compounds, and re-
22 vegetation with native plant species, where possible, to decrease erosion and sedimentation.
23 Furthermore, a SWPPP and all applicable Section 404/401 permit procedures would be
24 completed before construction would be initiated within jurisdictional water of the U.S.

25
26 AIR QUALITY: Mitigation measures would be incorporated to ensure that particulate matter
27 (PM-10) emission levels do not rise above the minimum threshold as required per 40 CFR
28 51.853(b)(1). Measures would include dust suppression methods to minimize airborne
29 particulate matter that would be created during construction activities. Standard construction
30 BMPs such as routine watering of the construction site as well as and access roads to the site
31 would be used to control fugitive dust during the construction phases of the proposed project.
32 Additionally, all construction equipment and vehicles would be required to be kept in good
33 operating condition to minimize exhaust emissions.

34
35 NOISE: During the construction phase, short term noise impacts are anticipated. All
36 Occupation Safety and Health Administration requirements would be followed. The blasting
37 contractor would provide further analysis of blasting techniques and measures to be taken to
38 ensure negligible impacts would occur via the blasting. On-site activities would be restricted to
39 daylight hours near the 7 Gates/Railroad project site. Construction equipment would possess
40 properly working mufflers and would be maintained properly tuned to reduce backfires.
41 Implementation of these measures would reduce the expected short term noise impacts to an
42 insignificant level in and around the construction site.

43
44
45

1 **FINDING:** Based upon the results of this EA and the mitigation measures to be implemented,
2 the Proposed Action Alternative (*i.e.*, Preferred Alternative) would not have a significant effect
3 on the environment. Therefore, no additional NEPA documentation (*i.e.*, Environmental Impact
4 Statement) is warranted.

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10 _____
11 Robert F. Janson
12 Office of Finance Management
13 Acting Executive Director, Asset Management
14 U.S. Customs and Border Protection

_____ Date

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19 _____
20 Michael Fisher
21 Project Proponent
22 Office of Border Patrol
23 San Diego Sector Headquarters
24 Chief Patrol Agent

_____ Date

COVER SHEET

DRAFT ENVIRONMENTAL ASSESSMENT FOR PROPOSED CONSTRUCTION, OPERATION, AND MAINTENANCE OF TACTICAL INFRASTRUCTURE U.S. BORDER PATROL SAN DIEGO SECTOR, CALIFORNIA

Responsible Agencies: U.S. Department of Homeland Security (DHS), U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP)

Cooperating Agencies: Bureau of Land Management (BLM), Palm Springs-South Coast Field Office; U.S. Army Corps of Engineers (USACE) Los Angeles District; and the U.S. Section, International Boundary and Water Commission (USIBWC)

Affected Location: U.S./Mexico international border in San Diego County, California

Proposed Action: CBP proposes the construction, maintenance, and operation of tactical infrastructure, to include a primary pedestrian fence, construction roads, patrol roads, access roads, and minor improvements to existing roads along approximately 30 miles of the U.S./Mexico international border within the USBP San Diego Sector. The Proposed Action would be implemented in 14 discrete sections, which would range from approximately 0.1 to 4 miles in length.

Report Designation: Draft Environmental Assessment (EA).

Abstract: CBP proposes to construct, maintain, and operate approximately 30 miles of tactical infrastructure along the U.S./Mexico international border in San Diego County, California. Individual sections would range from approximately 0.1 to 4 miles in length. Most of the proposed construction would be within the 60-foot wide Roosevelt Reservation, which are public lands managed by the BLM. However, some of the new road construction would extend beyond the Roosevelt Reservation and affect additional Federal and private lands. Access roads would encroach upon on multiple privately owned land parcels and public lands managed by the BLM.

The EA will analyze and document potential environmental consequences associated with the Proposed Action. If the analyses presented in the EA indicate that implementation of the Proposed Action would not result in significant environmental or socioeconomic impacts then a Finding of No Significant Impact (FONSI) will be prepared. If potential environmental concerns arise that cannot be mitigated to insignificance, a Notice of Intent to prepare an Environmental Impact Statement (EIS) would be required.

Throughout the National Environmental Policy Act (NEPA) process, the public may obtain information concerning the status and progress of the Proposed Action and the EA via the project Web site at www.BorderFenceNEPA.com; by emailing information@BorderFenceNEPA.com; or by written request to Mr. Charles McGregor, Environmental Manager, U.S. Army Corps of Engineers, Fort Worth District, Engineering

Construction Support Office, 814 Taylor Street, Room 3B10, Fort Worth, TX 76102, Fax: (757) 229-5585.

You may submit written comments to CBP by contacting the SBI Tactical Infrastructure Program Office. To avoid duplication, please use only one of the following methods:

- (a) Electronically through the Web site at *www.BorderFenceNEPA.com*
- (b) By email to *ECcomments@BorderFenceNEPA.com*
- (c) By mail to San Diego Tactical Infrastructure EA, c/o Gulf South Research Corporation, 8081 GSRI Ave, Baton Rouge, Louisiana 70820
- (d) By fax to (757) 299-5585.

Privacy Notice

Your comments on this document are due by February 5, 2008. Comments will normally be addressed in the EA and made available to the public. Any personal information included in comments will therefore be publicly available.

Draft

**ENVIRONMENTAL ASSESSMENT
FOR PROPOSED
CONSTRUCTION, OPERATION, AND MAINTENANCE
OF TACTICAL INFRASTRUCTURE
U.S. DEPARTMENT OF HOMELAND SECURITY
U.S. CUSTOMS AND BORDER PROTECTION
U.S. BORDER PATROL
SAN DIEGO SECTOR, CALIFORNIA**

January 2008

Lead Agency: U.S. Department of Homeland Security
U.S. Customs & Border Protection
Office of Finance, Asset Management
1300 Pennsylvania Ave NW
Washington, D.C. 20229

Cooperating Agency: Bureau of Land Management

Point of Contact: Mr. Charles McGregor
U.S. Army Corps of Engineers
Engineering and Construction Support Office,
819 Taylor Street, Room 310B
Fort Worth, Texas 76102
Fax: (817) 886-6404

EXECUTIVE SUMMARY

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INTRODUCTION: United States (U.S.) Border Patrol (USBP) is a law enforcement entity of U.S. Customs and Border Protection (CBP) within U.S. Department of Homeland Security (DHS). USBP's priority mission is to prevent the entry of terrorists and their weapons of terrorism and to enforce the laws that protect the U.S. homeland. This is accomplished by the detection, interdiction, and apprehension of those who attempt to illegally enter or smuggle any person or contraband across the sovereign borders of the U.S. During recent years, illegal aliens (IA) have cost U.S. citizens billions of dollars annually due directly to criminal activities, as well as the cost of apprehension, detention, and incarceration of criminals; and, indirectly in loss of property, illegal participation in government programs, and increased insurance costs. This Environmental Assessment (EA) was prepared in accordance with the National Environmental Policy Act (NEPA) and analyzes the project alternatives and potential impacts to the human and natural environment from these alternatives.

PURPOSE AND NEED: The purpose of the Proposed Action is to assist CBP/USBP agents and officers in gaining effective control of a section of the international border within the USBP San Diego Sector. The proposed project is needed to provide USBP agents with the tools necessary to prevent terrorists and terrorist weapons from entering the U.S., to reduce the flow of illegal drugs, to interdict illegal aliens, to provide a safer work environment for USBP agents, and to enhance the response time of USBP agents.

DESCRIPTION OF PROPOSED ACTION: The Proposed Action Alternative is to construct, operate, and maintain approximately 7 miles of new roads, 10 miles of primary pedestrian fence, and 10 miles of road widening along the U.S./Mexico international border in eastern San Diego County, California. Most of the proposed fence and road improvements would be within the 60-foot wide Roosevelt Reservation, which are public lands managed by the U.S. Bureau of Land Management (BLM). However, some of the new road construction would extend beyond the Roosevelt Reservation and affect additional Federal and private lands.
Routine maintenance of the road would be conducted as needed to maintain the driving surface following

construction. Maintenance would consist of grading and leveling the road surface, applying road surface material where appropriate, and applying a soil stabilizer if needed. Repairs and maintenance of the primary pedestrian fence would occur on an as needed basis.

In addition, this alternative would include the use of 10 staging areas (temporary impact areas) to accommodate construction equipment and stockpile materials during the construction activities. Temporary construction areas would be located in previously disturbed areas to the greatest extent practical. Upon completion of construction activities, the temporary construction areas (*i.e.*, staging areas) would be rehabilitated. Rehabilitation would include natural regeneration, planting with native species, and/or the distribution of dead plant material (*i.e.*, woody plant skeletons) and geologic materials (*i.e.*, rocks and boulders).

Numerous existing access roads will be used during the construction of the new road and fence; however, none of these roads would require additional improvements (*i.e.*, straightening, widening, drainage structures). The roads would be graded and brought back to pre-project conditions once the construction is complete.

**PROPOSED ACTION
AND ALTERNATIVES
CONSIDERED:**

Three alternatives were identified and considered during the planning stages of the proposed project: Alternative 1 (No Action Alternative), Alternative 2 (Proposed Action Alternative), and Alternative 3 (Secure Fence Act Alternative). The No Action Alternative would preclude any road improvements or fence and road construction activities; thus, would not deter illegal entries or enhance safety or response time for USBP agents. Alternative 3 would have greater environmental impacts compared to the Proposed Action Alternative. Of the alternatives considered, the Proposed Action Alternative would have the least environmental impacts and be the most strategically effective approach for controlling illegal traffic and satisfying the stated purpose and need. It should be noted that USBP has identified its Preferred Alternative as the Proposed Action Alternative.

AFFECTED
ENVIRONMENT AND
CONSEQUENCES:

A total of approximately 123 acres would be impacted as part of the Proposed Action Alternative. Approximately 78 acres of land use, geologic resources, soils, vegetation, wildlife habitat, and potentially suitable habitat for protected species would be permanently altered and 45 acres would be temporarily altered throughout the project corridor. Through the use of mitigation measures and due to the vast amounts of similar habitat surrounding the project corridor these impacts would be insignificant.

The Quino checkerspot butterfly and coastal California gnatcatcher, both Federally endangered species, may be adversely affected under the Proposed Action Alternative. This determination is made due to the loss of suitable habitat and adverse modification of critical habitat for the butterfly. Consultation is on-going with the U.S. Fish and Wildlife Service (USFWS) to identify conservation measures to be implemented to offset these impacts.

Noise levels would be temporarily increased during construction activities. Increased noise levels associated with construction would cease following construction. Emissions and fugitive dust would also increase during construction activities. However, due to the remote location of the project corridor and wind dispersal patterns, the project is not expected to cause or contribute to a violation of Federal or state ambient air quality standards. The aesthetics of project corridor would be not adversely impacted due to the existing infrastructure in place throughout most of the corridor. The Proposed Action Alternative would occur near two historic objects (International Border Monuments) that are eligible for listing on the National Register of Historic Places. Mitigation measures would be developed to reduce potential impacts to a less than significant level. Indirect beneficial impacts to soils, socioeconomics, land use, vegetation, wildlife habitat, protected species, and air quality would result from the implementation of the Proposed Action Alternative as a result of eliminating illegal traffic north of the project corridor.

SUMMARY OF
MITIGATION
ACTIONS:

It is CBP's policy to reduce impacts through the sequence of avoidance, minimization, mitigation, and finally, compensation. Mitigation varies and includes activities such as restoration of habitat in other areas, acquisition of lands, implementation of Best Management Practices, and is typically coordinated with USFWS and other appropriate Federal and state resource agencies. Specific mitigation for resources is provided in Section 5.0 of the EA.

FINDINGS AND
CONCLUSIONS:

Based upon the results of the EA and the mitigation measures to be implemented, the Proposed Action Alternative (*i.e.*, Preferred Alternative) would not have a significant adverse effect on the environment. Therefore, no additional NEPA documentation is warranted.

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SECTION 1.0
INTRODUCTION



1 **1.0 INTRODUCTION**

2
3 The United States (U.S.) Customs and Border Protection (CBP) and U.S. Border Patrol
4 (USBP) propose to construct, operate, and maintain approximately 7 miles of new
5 roads, 10 miles of primary pedestrian fence, and 10 miles of road improvements along
6 the U.S./Mexico international border in eastern San Diego County, California. The
7 proposed fence and road improvements would be primarily restricted to the 60-foot wide
8 Roosevelt Reservation, which are public lands managed by the U.S. Bureau of Land
9 Management (BLM). However, some of the new road construction would extend
10 beyond the Roosevelt Reservation and affect additional Federal and private lands. The
11 Proposed Action would occur within the USBP El Cajon, Campo, and Boulevard
12 Stations' Areas of Operations (AO). The proposed tactical infrastructure (TI) is located
13 adjacent to numerous TI components that were described in the *Final Environmental*
14 *Assessment for Various Road Improvements from Canyon City to the Imperial County*
15 *Line, San Diego County, California, March 2003*, by the U.S. Department of Homeland
16 Security (DHS). Therefore, much of the information contained in the DHS 2003
17 Environmental Assessment (EA) will be incorporated by reference into this EA. Site
18 specific surveys for various resources were conducted for this EA in order to update
19 information from the DHS 2003 EA. This EA is also tiered from the Immigration and
20 Naturalization Service's (INS) 2001 *Supplemental Programmatic Environmental Impact*
21 *Statement for the Continuation of Immigration and Naturalization Service and Joint Task*
22 *Force Six Activities along the Southwestern Border* (INS 2001).

23
24 This EA is divided into seven sections plus appendices. Section 1 provides background
25 information on USBP missions, identifies the purpose of and need for the Proposed
26 Action, describes the area in which the Proposed Action would occur, and explains the
27 public involvement process. Section 2 provides a detailed description of the Proposed
28 Action, other alternatives considered, and the No Action Alternative. Section 3
29 describes the existing environmental conditions and potential environmental impacts
30 that could occur from each alternative evaluated in detail. Section 4 discusses potential

1 cumulative impacts and other impacts that might result from implementation of the
2 Proposed Action, combined with foreseeable future actions. Section 5 discusses
3 potential mitigation measures to reduce adverse effects. Sections 6 and 7 provide a list
4 of references and preparers for the EA.

6 **1.1 USBP BACKGROUND**

8 The mission of CBP is to prevent terrorists and terrorist weapons from entering the
9 United States, while also facilitating the flow of legitimate trade and travel. In supporting
10 CBP's mission, USBP is charged with establishing and maintaining effective control of
11 the border of the U.S. USBP's mission strategy consists of five main objectives:

- 13 • Establish substantial probability of apprehending terrorists and their
14 weapons as they attempt to enter illegally between the Ports of Entry
15 (POEs)
- 16 • Deter illegal entries through improved enforcement
- 17 • Detect, apprehend, and deter smugglers of humans, drugs, and other
18 contraband
- 19 • Leverage "smart border" technology to multiply the effect of enforcement
20 personnel
- 21 • Reduce crime in border communities and consequently improve quality of
22 life and economic vitality of targeted areas.

24 USBP has nine administrative sectors along the U.S./Mexico international border. Each
25 sector is responsible for implementing an optimal combination of personnel, technology,
26 and infrastructure appropriate to its operational requirements. The San Diego Sector is
27 responsible for San Diego County in California. The areas affected by the Proposed
28 Action include the southeastern portion of San Diego County.

30 **1.2 PURPOSE AND NEED**

32 The purpose of the Proposed Action is to increase border security within the USBP San
33 Diego Sector through the construction, operation, and maintenance of TI in the form of
34 fences and roads and other supporting technological and tactical assets. The USBP

1 San Diego Sector has identified 14 discrete areas along the border that experience high
2 levels of illegal cross-border activity. This activity occurs in areas that are remote and
3 not easily accessed by USBP agents, contain thick vegetation that can provide
4 concealment, near POE's where concentrated populations might live on either side of
5 the border, or have quick access to U.S. transportation routes.

6
7 The Proposed Action is needed to provide USBP agents with the tools necessary to
8 strengthen their control of the U.S. borders between POEs in the USBP San Diego
9 Sector. The Proposed Action would help to deter illegal cross border activities within the
10 USBP San Diego Sector by improving enforcement, preventing terrorists and terrorist
11 weapons from entering the U. S., reducing the flow of illegal drugs, and enhancing
12 response time, while providing a safer work environment for USBP agents.

13

14 **1.3 PROPOSED ACTION**

15

16 The project corridor for this EA extends from Tecate Port-of-Entry to the eastern edge of
17 O'Neill Valley, near the San Diego/Imperial County line (Figure 1-1). The project study
18 corridor is defined by a 100-foot to 250-wide corridor, approximately 30 miles long.
19 However, TI is not currently proposed along the entire corridor.

20

21 USBP proposes to construct, maintain, and operate TI consisting of 14 discrete sections
22 of primary pedestrian fence, patrol roads, and access roads along the U.S./Mexico
23 international border in the USBP San Diego Sector, California (examples of primary
24 pedestrian fence are included in Appendix A). Proposed TI includes installation of
25 primary pedestrian fence sections in areas of the border that are not currently fenced.
26 The proposed locations of TI are based on a USBP San Diego Sector assessment of
27 local operational requirements where such infrastructure would assist USBP agents in
28 reducing illegal cross-border activities. The Fiscal Year (FY) 2007 DHS Appropriations
29 Act (Public Law [P.L.] 109-295) provided \$1,187,565,000 under the Border Security
30 Fencing, Infrastructure, and Technology appropriation for the installation of fencing,

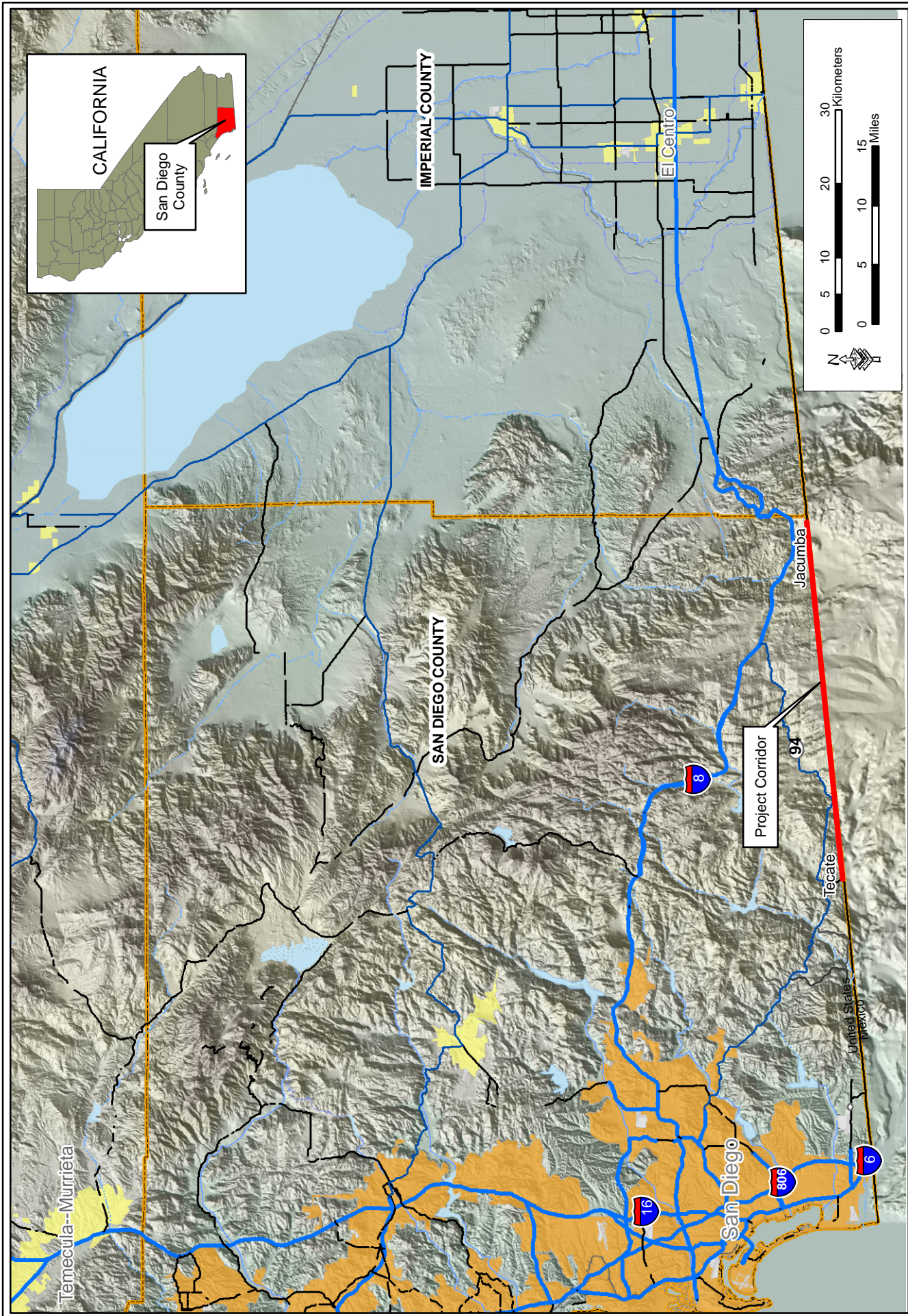


Figure 1-1: Vicinity Map

1 infrastructure, and technology along the border (CRS 2006). Figure 1-2 illustrates the
2 location of the proposed TI within the San Diego Sector. Details of the Proposed Action
3 are included in Section 2.2.2.

4 5 **1.4 FRAMEWORK FOR ANALYSIS** 6

7 The process for implementing the National Environmental Policy Act (NEPA) is codified
8 in Code of Federal Regulations 40 (CFR) Parts 1500–1508, *Regulations for*
9 *Implementing the Procedural Provisions of the National Environmental Policy Act*, and
10 DHS’s related Management Directive (MD) 5100.1, *Environmental Planning Program*.
11 The Council on Environmental Quality (CEQ) was established under NEPA to
12 implement and oversee Federal policy in this process.

13
14 An EA is prepared when a proposed action is anticipated to have potentially “significant”
15 environmental impacts, or a proposed action is environmentally controversial. CEQ
16 regulations specify that the following must be accomplished when preparing an EA:

- 17
- 18 • Briefly provide evidence and analysis for determining whether to prepare
19 an Environmental Impact Statement (EIS) or a Finding of No Significant
20 Impact (FONSI)
 - 21 • Aid in an agency’s compliance with NEPA when an EIS is unnecessary
 - 22 • Facilitate preparation of an EIS when one is necessary.
23

24 To comply with NEPA, the planning and decision making process for actions proposed
25 by Federal agencies involves a study of other relevant environmental statutes and
26 regulations. The NEPA process, however, does not replace procedural or substantive
27 requirements of other environmental statutes and regulations. It addresses them
28 collectively in the form of an EA or EIS, which enables the decision maker to have a
29 comprehensive view of major environmental issues and requirements associated with
30 the Proposed Action. According to CEQ regulations, the requirements of NEPA must
31 be integrated “with other planning and environmental review procedures required by law
32 or by agency so that all such procedures run concurrently rather than consecutively.”

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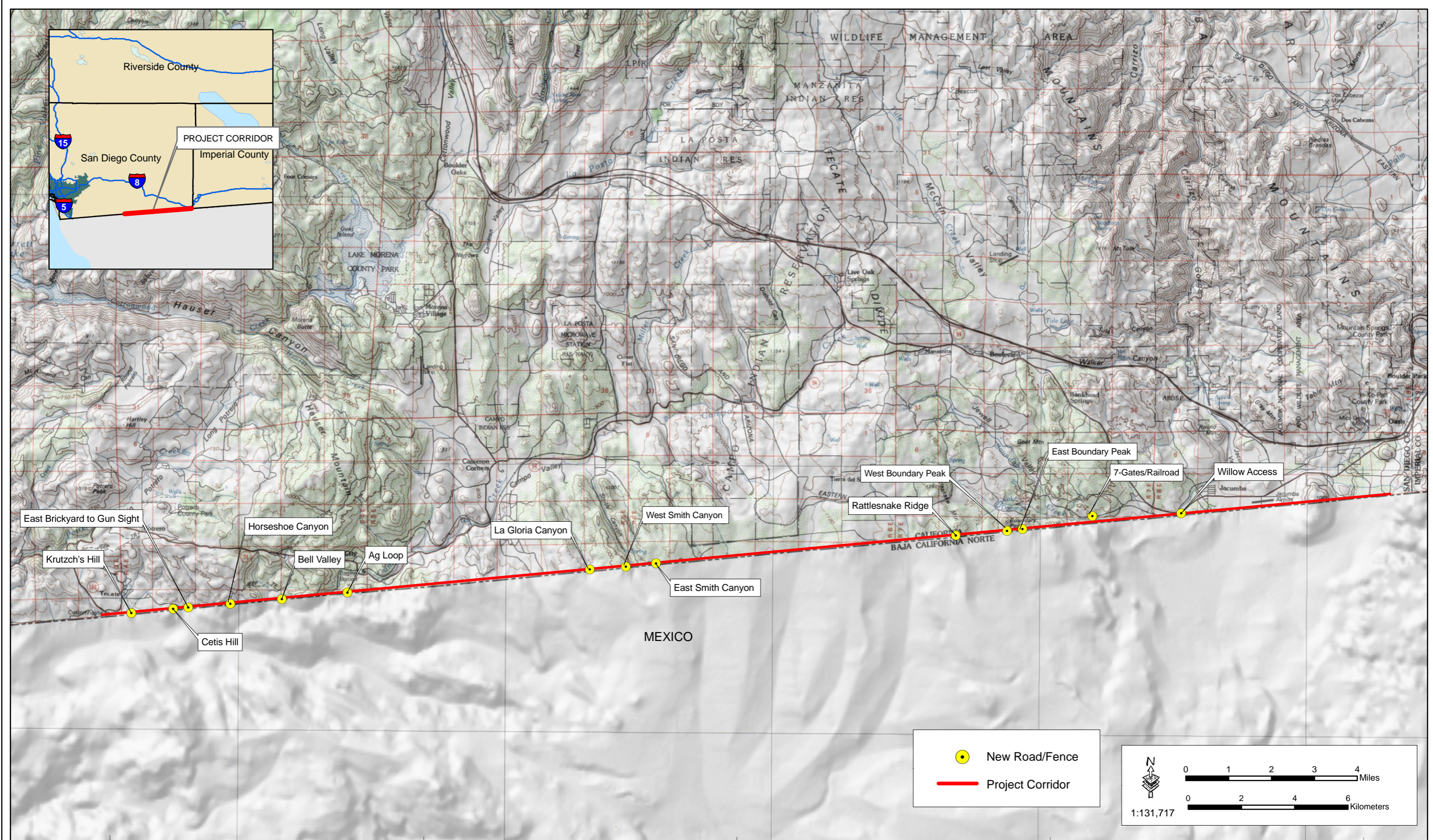


Figure 1-2: Project Location Map

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1 Within the framework of environmental impact analysis under NEPA, additional
2 authorities that may be applicable include the Clean Air Act (CAA), Clean Water
3 Act(CWA) (including a National Pollutant Discharge Elimination System [NPDES] storm
4 water discharge permit and Section 404 permit), Section 10 of the Rivers and Harbors
5 Act of 1899, Noise Control Act, Endangered Species Act (ESA), Migratory Bird Treaty
6 Act (MBTA), National Historic Preservation Act (NHPA), Archaeological Resources
7 Protection Act (ARPA), Resource Conservation and Recovery Act (RCRA), Toxic
8 Substances Control Act (TSCA), and various Executive Orders (EOs). A summary of
9 EOs that might be applicable to the Proposed Action include EO 11988 (Floodplain
10 Management), EO 11990 (Protection of Wetlands), EO12088 (Federal Compliance with
11 Pollution Control Standards), EO 12580 (Superfund Implementation), EO 12898
12 (Federal Actions to Address Environmental Justice in Minority Populations and Low-
13 Income Populations), EO 13045 (Protection of Children from Environmental Health
14 Risks and Safety Risks), EO 13423 (Strengthening Federal Environmental, Energy, and
15 Transportation Management), EO 13175 (Consultation and Coordination with Indian
16 Tribal Governments), EO 13148 (Greening the Government through Leadership in
17 Environmental Management) and EO 13186 (Responsibilities of Federal Agencies to
18 Protect Migratory Birds), EO 11514 (Protection and Enhancement of Environmental
19 Quality, as amended by EO 11991); EO 12114 (Environmental Effects Abroad of Major
20 Federal Actions); EO 13101 (Greening the Government through Waste Prevention,
21 Recycling, and Federal Acquisition); EO 13123 (Greening the Government through
22 Efficient Energy Management); EO 13148 (Greening the Government through
23 Leadership in Environmental Management); and EO 13149 (Greening the Government
24 through Federal Fleet and Transportation Efficiency).

25

26 Table 1-1 lists major Federal and state permits, approvals, and interagency coordination
27 required to construct, maintain, and operate the proposed TI.

28

29

30

31

1

Table 1-1. Major Permits, Approvals, and Interagency Coordination

Agency	Permit/Approval/Coordination
U.S. Department of the Interior, U.S. Fish and Wildlife Service (USFWS)	<ul style="list-style-type: none"> - Section 7 ESA consultation - MBTA coordination
U.S. Environmental Protection Agency (USEPA)	<ul style="list-style-type: none"> - CWA NPDES permit
U.S. Army Corps of Engineers	<ul style="list-style-type: none"> - CWA Section 404 permit
San Diego Regional Water Quality Control Board	<ul style="list-style-type: none"> - CWA Section 401 State Water Quality Certification
San Diego Air Pollution Control District	<ul style="list-style-type: none"> - CAA permit consultation
California Department of Fish and Game (CDFG)	<ul style="list-style-type: none"> - California Endangered Species Act (CESA) coordination
California State Historic Preservation Office (SHPO)	<ul style="list-style-type: none"> - NHPA Section 106 consultation
Federally recognized American Indian Tribes	<ul style="list-style-type: none"> - Consultation regarding potential effects on cultural resources
Advisory Council on Historic Preservation (ACHP)	<ul style="list-style-type: none"> - NHPA Section 106 consultation

2

3 **1.5 PUBLIC INVOLVEMENT**

4

5 Agency and public involvement in the NEPA process promotes open communication
 6 between the public and the government and enhances the decision-making process. All
 7 persons or organizations having a potential interest in the Proposed Action are
 8 encouraged to participate in the decision-making process.

9

10 NEPA and implementing regulations from the President’s CEQ and DHS direct
 11 agencies to make their EAs and EISs available to the public during the decision-making
 12 process and prior to actions being taken. The premise of NEPA is that the quality of
 13 Federal decisions will be enhanced if proponents provide information to the public and
 14 involve the public in the planning process.

15

16 Through the public involvement process, USBP notified relevant Federal, state, and
 17 local agencies of the Proposed Action and requested input regarding environmental
 18 concerns they might have regarding the Proposed Action. The public involvement

1 process provides USBP with the opportunity to cooperate with and consider state and
2 local views in its decision regarding implementing this Federal proposal. As part of the
3 EA process, USBP has coordinated with agencies such as the BLM; U.S.
4 Environmental Protection Agency (EPA); U.S. Fish and Wildlife Service (USFWS);
5 California State Historic Preservation Office (SHPO); and other Federal, state, and local
6 agencies (see Appendix B). Input from agency responses has been incorporated into
7 the analysis of potential environmental impacts.

8
9 A Notice of Availability (NOA) for this EA and proposed FONSI will be published in the
10 *San Diego Tribune*. This is done to solicit comments on the Proposed Action and
11 involve the local community in the decision-making process. Comments from the public
12 and other Federal, state, and local agencies will be incorporated into the Final EA and
13 included in Appendix B.

14
15 Throughout the NEPA process, the public may obtain information concerning the status
16 and progress of the EA via the project Web site at *www.BorderFenceNEPA.com*; by
17 emailing *information@BorderFenceNEPA.com*; or by written request to Mr. Charles
18 McGregor, Environmental Manager, U.S. Army Corps of Engineers, Fort Worth District,
19 Engineering and Construction Support Office, 814 Taylor Street, Room 3B10, Fort
20 Worth, TX 76102, and Fax: (817) 866-6404.

21

22 **1.6 COOPERATING AND COORDINATING AGENCIES**

23
24 The U.S. Army Corps of Engineers (USACE)-Los Angeles District, BLM Palm Springs-
25 South Coast Field Office, and U.S. Section, International Water Boundary and Water
26 Commission (USIBWC) as cooperating agencies, and the USFWS as a coordinating
27 agency, also have decision-making authority for components of the Proposed Action
28 and intend for this EA to fulfill their requirements for compliance with NEPA. The CEQ
29 regulations implementing NEPA instruct agencies to combine environmental documents
30 to reduce duplication and paperwork (40 CFR 1506.4).

1 The USACE-Los Angeles District Engineer has the authority to authorize actions under
2 Section 404 of the CWA. Applications for work involving the discharge of fill material
3 into waters of the United States will be submitted to the USACE-Los Angeles District
4 Regulatory Program Branch for review and a decision on issuance of a permit will be
5 reached.

6
7 Section 7 of the ESA (P.L. 93-205, December 28, 1973) states that any project
8 authorized, funded, or conducted by any Federal agency should not "...jeopardize the
9 continued existence of any endangered species or threatened species or result in the
10 destruction or adverse modification of habitat of such species which is determined ... to
11 be critical." The USFWS is a cooperating agency regarding this Proposed Action to
12 determine whether any federally listed or proposed endangered or threatened species
13 or their designated critical habitats would be adversely impacted by the Proposed
14 Action, to streamline the Section 7 consultation process, to identify the nature and
15 extent of potential effects, and to jointly develop measures that would avoid or reduce
16 potential effects on any species of concern. The USFWS will issue their Biological
17 Opinion of the potential for jeopardy. If their opinion is that the project is not likely to
18 jeopardize any listed species, they can also issue an incidental take statement as an
19 exception to the prohibitions in Section 9 of the ESA.

20
21 Along some of the proposed fence sections the tactical infrastructure would follow
22 rights-of-ways (ROWs) administered by the USIBWC. The USIBWC is an international
23 body composed of a U.S. Section and a Mexican Section, each headed by an Engineer-
24 Commissioner appointed by their respective president. Each Section is administered
25 independently of the other. The USIBWC is a Federal government agency
26 headquartered in El Paso, Texas, and operates under the foreign policy guidance of the
27 Department of State (USIBWC 2007). The USIBWC would provide access and ROWs
28 to construct proposed tactical infrastructure within the San Diego Sector. It will also
29 ensure that design and placement of the proposed tactical infrastructure does not
30 impact flood control process and does not violate treaty obligations between the U.S.
31 and Mexico.

1 As mentioned, a request to be a cooperating agency was also be submitted to BLM,
2 since some of the road improvements, required to construct and maintain the fence,
3 would be located within lands managed by BLM. BLM is required to manage the natural
4 resources to ensure sustainability of grazing leases, recreational opportunities, cultural
5 resources, and natural resources. As part of this mission, the EA will need to address
6 project impacts to BLM's Range Management Plan. BLM has accepted this invitation to
7 be a cooperating agency (Appendix B).

8

9 **1.7 CALIFORNIA ENVIRONMENTAL QUALITY ACT**

10

11 The California Environmental Quality Act (CEQA) as promulgated in the California
12 Public Resources Code §§21000-21177, was adopted in 1970 by the State of California
13 to inform governmental decision-makers and the public about the potential
14 environmental effects of a project, identify ways to reduce adverse impacts, offer
15 alternatives to the project, and disclose to the public why a project was approved.
16 CEQA applies to projects undertaken, funded, or requiring an issuance of a permit by a
17 public agency. For this project, CEQA is applicable because under Section 401 of the
18 CWA (33 United States Code [U.S.C.] 1341), states and tribes are delegated authority
19 to approve, condition, or deny all Federal permits of licenses that might result in a
20 discharge to state or tribal waters, including wetlands. Projects that have a potential for
21 resulting in physical change to the environment, and or that might be subject to several
22 discretionary approvals by governmental agencies including construction activities,
23 clearing or grading of land, improvements to existing structures, and activities or
24 equipment involving the issuance of a permit, are required to go through the CEQA
25 process. The California Code of Regulations (CCR), Title 14, Section 15063, allow the
26 use of a NEPA document to meet the requirements for an Initial Study under CEQA.

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SECTION 2.0
PROPOSED ACTION AND ALTERNATIVES

1 **2.0 PROPOSED ACTION AND ALTERNATIVES**

2
3 This section provides detailed information on USBP’s proposal to construct, maintain,
4 and operate TI along the U.S./Mexico international border in the San Diego Sector,
5 California. The range of reasonable alternatives considered in this EA is constrained to
6 those that would meet the purpose and need described in Section 1 to provide USBP
7 agents with the tools necessary to achieve effective control of the border in the San
8 Diego Sector. Such alternatives must also meet essential technical, engineering, and
9 economic threshold requirements to ensure that each is environmentally sound,
10 economically viable, and complies with governing standards and regulations.

11
12 The screening criteria for alternatives are described below in Section 2.1, followed by a
13 description of the No Action Alternative (Section 2.2). Section 2.3 provides specific
14 details of the Proposed Action Alternative, Section 2.4 describes the only other viable
15 alternative (Secure Fence Act Alternative). Other alternatives that were considered
16 during the preparation of the EA, but not analyzed in detail, are discussed in Section
17 2.5.

18
19 **2.1 SCREENING CRITERIA FOR ALTERNATIVES**

20
21 The following screening criteria were used to develop the Proposed Action and evaluate
22 potential alternatives. USBP San Diego Sector is working to develop the right
23 combination of personnel, technology, and infrastructure to meet its objective to gain
24 effective control of the border in the USBP San Diego Sector.

- 25
26 • USBP Operational Requirements. The selected alternative must support
27 USBP mission needs to hinder or delay individuals crossing the border
28 illegally. Once individuals have entered an urban area or suburban
29 neighborhood, it is much more difficult for USBP agents to identify and
30 apprehend suspects engaged in unlawful border entry. In addition, around
31 populated areas it is relatively easy for cross-border violators to find
32 transportation into the interior of the United States.

- 1 • Threatened or Endangered Species and Critical Habitat. The selected
2 alternative would be designed to minimize adverse impacts on threatened
3 or endangered species and their critical habitat to the maximum extent
4 practical. USBP is working with the USFWS to identify potential
5 conservation and mitigation measures.
- 6 • Wetlands and Floodplains. The selected alternative would be designed to
7 avoid and minimize impacts on wetlands, surface waters, and floodplain
8 resources to the maximum extent practicable. USBP is working with the
9 USACE-Los Angeles District to avoid, minimize, and mitigate potential
10 impacts on wetlands, surface waters, and floodplains.
- 11 • Cultural and Historic Resources. The selected alternative would be
12 designed to minimize impacts on cultural and historic resources to the
13 maximum.

14

15 **2.2 ALTERNATIVE 1. NO ACTION ALTERNATIVE**

16

17 CEQ regulations require inclusion of the No Action Alternative. Under the No Action
18 Alternative, the fence and road improvements would not be constructed. The No Action
19 Alternative will serve as a baseline against which the impacts of the proposed action
20 alternative can be evaluated. However, the No Action Alternative does not satisfy the
21 purpose and need or Congressional mandates.

22

23 **2.3 ALTERNATIVE 2. PROPOSED ACTION**

24

25 CBP/USBP proposes construction, operation, and maintenance of fence and roads at
26 various locations along the entire 30-mile long corridor. It should be noted that TI is not
27 proposed for construction along the entire 30-mile corridor and that USBP has identified
28 this alternative as the Preferred Alternative. New road construction is described below
29 in Section 2.3.1. Road improvements would occur along some border roads to reduce
30 driving hazards and concealment opportunities for IAs. These actions are described in
31 Section 2.3.2. The proposed primary pedestrian fence construction is described in
32 Section 2.3.3.

2.3.1 Road Improvements

New roads would be constructed at 14 different locations. These locations and the lengths of each road are described in Table 2-1 and detailed maps of the location and footprint of each component are contained in Appendix A.

Table 2-1. New Road Construction, by USBP Station

Road Name	Affected Station	Miles	Road Type
Krutzch's Hill	El Cajon	0.26	Construction
Cetis Hill	El Cajon	0.62	Construction
East Brickyard to Gunsight	El Cajon	0.25	Construction
Horseshoe Canyon	El Cajon	1.00	Construction/Access
Bell Valley	El Cajon	0.18	Patrol
Ag Loop	El Cajon	0.52	Construction/Access
La Gloria	Campo	0.25	Construction/Access
West Smith Canyon	Campo	0.25	Patrol
East Smith Canyon Access	Campo	0.03	Access
Rattlesnake Ridge	Campo	1.14	Construction/Access
West Boundary Peak	Campo	0.09	Construction
East Boundary Peak	Campo	0.09	Construction
7 Gates Railroad	Boulevard	2.00	Patrol
Willows Access Road	Boulevard	0.08	Access
Total		6.76	

As indicated in Table 2-1, there are three types of roads proposed, based on their intended use. Construction roads are needed to construct additional infrastructure, such as fence or future installation of lights or cameras. These roads are typically 12 to 16 feet wide to allow construction equipment to access the project site. The road is not improved (*i.e.*, no all-weather surface is applied), but can be used for future maintenance purposes. With the exception of the Willows Access Road and the East Smith Canyon Access Road, a new primary pedestrian fence (as described in Section 2.3.2), would be constructed along each of the new road segments.

Patrol roads are needed to provide a safe driving surface along the border. Patrol roads are typically 28 feet wide exclusive of parallel drainage ditches, shoulders and safety berms. These roads are typically constructed at grades less than 18 percent; thus, cut and fill activities are needed in terrain where hills and valleys occur. Aggregate and soil stabilizing or binding agent would be added to the surface of the road, once the

1 construction is completed, to reduce erosion and maintenance activities. A top shot of
2 the soil stabilizing agent would be added to the surface on an annual basis to ensure
3 the road surface longevity. Water bars would be installed at various locations along the
4 road to direct stormwater into parallel ditches or down slope to reduce erosion of the
5 road surface. Some roads proposed would have grades greater than 18 percent and,
6 thus, would require pavement to ensure safe driving conditions and control erosion.

7
8 Access roads (typically 12 to 16 feet wide) are constructed to allow USBP agents to
9 access areas that previously were inaccessible due to rough terrain, no roads, or
10 contained private lands. As shown in Table 2-1, many of the construction roads would
11 serve a dual purpose of allowing construction of the TI and future USBP access. These
12 roads would also provide access for maintenance activities required in the future.

13
14 A low water crossing (LWC) or similar drainage structure would be required at some
15 stream crossings to ensure access, except during extreme flood conditions. The design
16 of the LWC has not been determined as yet, but would typically consist of a concrete
17 swale or rock gabions. Rip rap would be placed on the upstream and downstream side
18 of the LWC for energy dissipation. The footprint of the LWC would be expected to
19 extend approximately 25 to 40 feet on either side of the crossing to allow placement of
20 the rip rap. Likewise, the design for other types of drainage structures have not been
21 finalized as yet, but would be expected to include reinforced concrete pipe (RCP) with
22 energy dissipation installed on either end of the RCP. Clean, native material would be
23 brought in from local sources for fill activities.

24
25 Descriptions of the specific actions proposed for implementation at each of the sites
26 listed in Table 1-1 are presented below. These components are described in order from
27 west to east (see Figure 1, previously).

- 28
29 • **Krutzch's Hill.** Krutzch's Hill is a small hill that is bisected by the
30 international border. Road construction on the south side of the border
31 has created a vertical cut approximately 40 feet deep that is less than 2
32 feet from the border. The existing primary pedestrian fence is at risk of
33 collapsing onto the Mexican side of the border if this vertical slope fails.

1 Consequently, USBP proposes to remove the fence and the remaining
2 portion of Krutzch's Hill, and bring the entire area down to the surrounding
3 grade. The primary pedestrian fence would then be re-installed along the
4 border. Approximately 1.9 acres would be impacted by this component.
5 All lands within this segment are within the Roosevelt Reservation.

- 6 • **Cetis Hill.** Cetis Hill is a large hill that is privately-owned and bisected by
7 the international border. Primary pedestrian fence has been installed on
8 either side of the hill, but not over the top of the hill, along the border.
9 Access roads have been constructed to the top of the hill on the south
10 side of the border, providing illegal aliens (IA) with opportunities to conduct
11 surveillance from an advantage point and to illegally breach the border. A
12 construction access and maintenance road would be constructed as close
13 to the border as possible. Primary pedestrian fence would also be
14 installed along the border and tie into the primary pedestrian fence on
15 either side of Cetis Hill. Current preliminary designs indicate that a
16 permanent footprint, varying from 60 to 125 feet wide, would be required
17 to allow construction and maintenance of the road and fence.
18 Approximately 3.4 acres would be permanently impacted by this
19 component.

- 20 • **East Brickyard to Gunsight.** The East Brickyard to Gunsight road and
21 fence component is located to the east of Cetis Hill. This section is under
22 BLM ownership. This small section of road is proposed because of the
23 lack of barrier, on-going development on the Mexican side of the border,
24 and to allow USBP to obtain the advantage of the high ground. A
25 construction access/maintenance road would be constructed within the
26 60-foot Roosevelt Reservation and a primary pedestrian fence would be
27 installed along the southern toe of the road. This component would
28 permanently impact about 0.9 acre.

- 29 • **Horseshoe Canyon.** USBP's existing patrol road begins to veer
30 northward of the border, immediately east of the East Brickyard to
31 Gunsight component in order to traverse Sacred Canyon and eventually
32 Horseshoe Canyon. Consequently, no border barriers, except for very
33 short reaches of permanent vehicle barrier (PVB), have been installed in
34 this reach and the area has become a high traffic route for both illegal
35 pedestrians and vehicles. The proposed action in this area is to construct
36 a construction access and maintenance road as close to the border as
37 practicable and install a primary pedestrian fence on the southern toe of
38 the road. Cut and fill activities would be required at some minor drainages
39 to keep the footprint close to the border and to avoid creating unsafe
40 driving conditions. The cut and fill at Horseshoe Canyon would be more
41 extensive, however. The footprint would be approximately 200 feet wide
42 in the bottom of the canyon and approximately 40 feet high. The slopes
43 would be 2:1 (2 feet horizontal to 1 foot vertical). The total length of the
44 Horseshoe Canyon component would be approximately 0.93 mile. The
45 western end of the road/fence would begin near the east side of Sacred

1 Canyon. An existing access road would be improved to allow
2 construction. The eastern end of the road/fence would dead end into a
3 steep rock outcrop on the eastern side of Horseshoe Canyon. Another
4 existing access road on the western side of Horseshoe Canyon would be
5 improved to facilitate construction. The two access roads and the
6 construction/maintenance road and primary pedestrian fence would
7 impact a total of approximately 5.9 acres. The footprint for this component
8 is contained within BLM land.

- 9 • **East Bell Valley.** The East Bell Valley component would consist of
10 constructing a short (0.18 mile) segment of patrol road and primary
11 pedestrian fence. There are existing segments of primary pedestrian
12 fence in this reach that need to be connected. The East Bell Valley would
13 tie all these segments together and extend the patrol road as far east as
14 practicable. The road would be widened to 60 feet in this reach to
15 accommodate an all-weather patrol road, drag road, and associated
16 parallel drainage ditches. A drag road is used by USBP agents to check
17 for sign of IA traffic. The drag road surface is prepared by dragging tires
18 or brushes behind a USBP vehicle to smooth the surface so that evidence
19 of crossings is readily apparent. Drag roads are typically adjacent to patrol
20 roads and are often just a wide shoulder of the patrol road.
21 Approximately 0.9 acre would be permanently impacted by this action.

- 22 • **Ag Loop.** The Ag Loop road is located east of the Eastern Railroad
23 Tunnel which extends into Mexico. This area is used as an advantage
24 point by IAs and smugglers, who use either the tunnel or existing high
25 ground at the Ag Loop to breach the border when USBP agents are not
26 present. Patrol roads in this area are located far to the north, due to
27 terrain restrictions, and the area between the border and the patrol roads
28 provides excellent concealment opportunities. The proposed action is to
29 extend existing access roads south to the border and then install a
30 construction access/maintenance road and primary pedestrian fence
31 along the border for approximately 0.5 mile. This action would help to
32 reduce illegal vehicle and pedestrian traffic and allow USBP agents to gain
33 the advantage of the higher grounds for surveillance. This component
34 would permanently impact approximately 3.2 acres, all of which is located
35 within BLM lands.

- 36 • **La Gloria Canyon.** A patrol road and primary pedestrian fence are
37 proposed for construction across La Gloria Canyon. The road is needed
38 to allow quick access across La Gloria Canyon. The current patrol road is
39 approximately 0.2 miles north of the border; however, because of the
40 severe grades and sharp curves, driving time from one side to the other
41 requires up to 10 minutes, in good weather. This is an unsafe condition for
42 USBP agents during emergency situations and it provides excellent
43 opportunities for IAs to escape into the U.S. This component would
44 require extensive cut and fill activities to create a road platform that
45 traverses the canyon. The entire length would be approximately 0.25 mile

1 long; the width and height of the embankment would be approximately 100
2 feet and 35 feet, respectively. Primary pedestrian fence would be installed
3 from the ends of the existing primary pedestrian fence on either side of La
4 Gloria Canyon to the primary pedestrian fence along the road
5 embankment. This component would impact approximately 2.3 acres.
6 This corridor is contained within BLM lands.

- 7 • **West Smith Canyon.** Smith Canyon is a deeply incised canyon
8 (approximately 500 feet deep) that trends northwest to southeast. Smith
9 Canyon is within BLM lands. The current access road to the western rim
10 of the canyon is located approximately 600 to 800 feet north of the border.
11 There is also an 800-foot long gap in the primary pedestrian fence that
12 creates opportunity for illegal pedestrians and vehicles to breach the
13 border. The proposed action is to extend the existing patrol road to the
14 western rim of Smith Canyon and install primary pedestrian fence along
15 the southern toe of the road. The road segment would be approximately
16 0.25 mile long and up to 60 feet wide. No drag road is expected to be
17 constructed in this reach since most of the area is comprised of cap rock.
18 Blasting would probably be required to construct the road. Approximately
19 0.9 acre would be impacted by this component.

- 20 • **East Smith Canyon Access Road.** The current access from the existing
21 patrol road to the border on the east rim of Smith Canyon is a very narrow
22 and circuitous road with steep grades, all of which create unsafe driving
23 conditions for USBP agents and maintenance equipment operators. This
24 road is proposed for abandonment; a new road would be constructed to
25 replace the current access road. The new access road would be located
26 approximately 0.4 mile from the eastern rim of the canyon in an area that
27 has been previously disturbed. The access road would be approximately
28 24 feet wide and 200 feet long and impact about 0.1 acre.

- 29 • **Rattlesnake Ridge.** The existing patrol road in the Rattlesnake Ridge
30 area is located approximately 0.5 mile north of the border and is situated
31 on private lands within San Diego Gas and Electric Company (SDG&E)
32 utility right-of-way. The length of patrol road is approximately 17 miles
33 starting at the western edge of Rattlesnake Ridge to the border at Larry
34 Pearce Road. This length and the circuitous route requires up to 30
35 minutes for USBP agents to respond to incursions or emergency actions
36 that occur within this reach. No primary pedestrian fence has been
37 installed in this area, so it too, is a high traffic area for illegal pedestrian
38 and vehicular traffic. The proposed action would be to construct a patrol
39 road and primary pedestrian fence as close to the border as practicable.
40 The construction footprint would be maintained within the 60-foot wide
41 Roosevelt Reservation, and thus, some vertical grades would be greater
42 than 18 percent. The road length would be approximately 1.1 mile long.
43 Construction of this road would reduce the amount of time required by
44 USBP agents to respond to emergencies by more than 25 minutes.
45 Installation of the primary pedestrian fence would be expected to preclude

1 illegal vehicle traffic and substantially reduce illegal pedestrian traffic. The
2 road and primary pedestrian fence would permanently impact
3 approximately 5 acres.

- 4 • **West Boundary Peak.** The existing primary pedestrian fence has a gap
5 that is approximately 425 feet long. The primary pedestrian fence was not
6 installed by previous Joint Task Force Six (JTF-6) actions due to large
7 boulders and a small drain. The proposed action at this location is to
8 install primary pedestrian fence in the gap; a construction
9 access/maintenance road would be required to install the primary
10 pedestrian fence. This would remove an opportunity for illegal pedestrian
11 and vehicle traffic to breach the border. It would also provide continuous
12 and parallel access along the border that currently is not available. The
13 road and primary pedestrian fence footprint would impact approximately
14 0.4 acres within the Roosevelt Reservation.
- 15 • **East Boundary Peak.** The existing primary pedestrian fence ends near a
16 large outcrop of rock, which provides a gap that is approximately 425 feet
17 long. The proposed action at this location is to install primary pedestrian
18 fence that ties into the rock outcrop and closes the gap; a construction
19 access/maintenance road would be required to install the primary
20 pedestrian fence. This would remove an opportunity for illegal pedestrian
21 and vehicle traffic to breach the border. The road and primary pedestrian
22 fence footprint would impact approximately 0.4 acres within the Roosevelt
23 Reservation.
- 24 • **7 Gates/Railroad Road.** This road is located east of Jacumba and would
25 be constructed adjacent to and within the right of way of the Southern
26 Pacific Railroad. Some cut and fill activities would be required to widen
27 the railroad corridor to accommodate both the railroad and the USBP
28 patrol road. The road would be approximately 12 feet wide and 2 miles
29 long. Construction of this road would substantially reduce the amount of
30 time to respond to incursions or emergency situations to the east and west
31 of this area. Currently, travel to either side involves driving approximately
32 18 miles along unimproved roads and Old Highway 80 and requires up to
33 30 minutes. Construction of this road would reduce the time required to
34 respond to less than 5 minutes. All areas that would be impacted have
35 already been disturbed by past railroad and other road construction. The
36 total area to be disturbed by this action is estimated to be 2.9 acres.
- 37 • **Willow Access Road.** In the Jacumba area, USBP's current access from
38 Old Highway 80 to the border is through private property. Landowners
39 have threatened to prevent use of these access roads. Consequently,
40 USBP has recently acquired an easement to access the border. The
41 easement would be developed into an access road. Use of the road
42 would be restricted to Government agencies and their representatives.
43 The road would be approximately 16 feet wide and have parallel drainage

1 on either side. The total area anticipated to be impacted would be less
2 than 0.2 acre.
3

4 **2.3.2 Road Improvements**

5 In addition to the new roads, slight improvements to the existing border road would be
6 implemented at various locations along the project corridor. Improvements would
7 include widening the road to encompass the entire 60-foot wide Roosevelt Reservation
8 and applying an all-weather surface, as described above. The majority of the existing
9 border road is currently 60 feet wide; however, many reaches are about 35 feet to 40
10 feet wide or contain large boulders, trees, or narrow strips of vegetation that create
11 concealment opportunities for IAs and increase health and safety risks to USBP agents.
12 Approximately 10 miles along the entire 30-mile long corridor would be widened or
13 would be improved to remove large boulders and trees. This road widening would
14 impact approximately 37 acres within the 30-mile long corridor.
15

16 **2.3.3 Fence**

17 Approximately 10 miles of primary pedestrian fence are also proposed as part of the
18 Proposed Action Alternative. These 10 miles include both new construction and
19 conversion of existing PVBs to primary pedestrian fence. The primary pedestrian fence
20 would be installed in the same areas described for the roads, with the exception of the
21 Willow Access Road, Smith Canyon Access Road, and 7 Gates Road. Vehicle fence
22 would be converted at two locations (Willow Access Road and O'Neil Valley). Table 2-2
23 provides the location and length of each fence segment.
24
25
26
27
28
29
30
31
32

1 **Table 2-2. Fence Construction, by USBP Station**

Area Name	Affected Station	Length (miles)	Fence Type
Krutch's Hill	El Cajon	0.26	Replacement
Cetis Hill	El Cajon	0.62	New
East Brickyard to Gunsight	El Cajon	0.25	New
Horseshoe Canyon	El Cajon	1.00	New
Bell Valley	El Cajon	0.18	Conversion
Ag Loop	El Cajon	0.52	New
La Gloria	Campo	0.25	New
Smith Canyon	Campo	0.25	New
Rattlesnake Ridge	Campo	1.14	New
West Boundary Peak	Campo	0.09	New
East Boundary Peak	Campo	0.09	New
Willows	Boulevard	4.00	Conversion
O'Neil Valley	Boulevard	1.16	Conversion
Total		9.81	

2
3 The primary pedestrian fence would be installed approximately 3 feet north of the
4 international border, within the Roosevelt Reservation. The final design will be selected
5 by the USACE. Typical types of primary pedestrian fences selected are illustrated in
6 Appendix A. However, at a minimum, the fence must be 15 to 18 feet high and capable
7 of withstanding a crash of 10,000-pound (gross weight) vehicle traveling at 40 miles per
8 hour. As mentioned above, there is an existing primary pedestrian fence at Krutch's
9 Hill; however, due to construction activities on the south side of the border, the primary
10 pedestrian fence is at risk of collapsing and will be replaced after the road
11 improvements are completed. Three areas (Bell Valley, Willows and O'Neil Valley)
12 currently contain PVBs; these barriers will be converted to or replaced with primary
13 pedestrian fence, as appropriate. Any PVBs that are removed will be recycled.

14 15 **2.3.4 Blasting**

16 Blasting might be required in certain sections (*i.e.*, 7 Gates and West Smith Canyon)
17 that have large rocks or boulders, which create sharp curves, large humps in the road,
18 or other driving hazards that need to be eliminated. Holes would be drilled into the
19 center of the larger rocks and detonating material would be placed in the hole. The
20 detonating material would be activated in order to split or fracture the rock into smaller
21 more manageable pieces for removal. This process would create low-level noise. A
22 noise analysis would be conducted prior to construction by the blasting contractor in

1 order to create a plan that would ensure the action would not risk injury or significantly
2 impact people near the construction site.

4 **2.3.5 Lighting**

5 To account for heat restrictions for adequate concrete drying and curing processes,
6 most concrete pours for low water crossings, other drainage structures, and fencing
7 would need to take place during pre-dawn hours during summer months. However, the
8 possibility exists that work would have to occur on a 24-hour basis. A 24-hour schedule
9 would be implemented only when additional efforts are needed in order to maintain the
10 work task schedule due to weather or other unforeseen situations. In order to facilitate
11 construction activities during these work hours, portable lights would be used. It is
12 estimated that no more than 10 lights would be in operation at any one time at each
13 project site.

14
15 A 6-kilowatt self-contained diesel generator powers
16 these lights (Photograph 2-1). Each unit typically
17 has four 400 to 1000-watt lamps. The portable light
18 systems can be towed to the desired construction
19 location, as needed. Upon completion of
20 construction activities, all portable lights would be
21 removed from the project corridor. Lights would be
22 oriented to illuminate the work area. The area
23 affected by illumination is limited to 200 feet from



Photograph 2-1. Portable lights

24 the light source. Also, the lights may or may not have shields placed over the lamps to
25 reduce or eliminate the effects of backlighting because they are work lights and would
26 not be deployed specifically for providing lighting for enforcement purposes.

28 **2.4 ALTERNATIVE 3: SECURE FENCE ACT ALIGNMENT ALTERNATIVE**

29
30 The Secure Fence Act of 2006 (Public Law 109-367) authorized the construction of at
31 least two layers of reinforced fencing along the U.S./Mexico international border. Two
32 layers of fence, known as primary and secondary fence, would be constructed

1 approximately 130 feet apart along the same route as Alternative 2, the Preferred
2 Alternative.

3
4 This alternative would also include construction and maintenance of access and patrol
5 roads. The patrol road would be between the primary secondary fences. Figure 2-1
6 shows a typical schematic of permanent and temporary impact areas for this alternative.
7 The design of the TI for Alternative 3 would be similar to that of Alternative 2.

8
9 Construction of the proposed TI would impact an approximate 130-foot wide corridor for
10 approximately 10 miles along the 14 primary pedestrian fence segments. This
11 construction corridor would accommodate access roads and construction staging areas.
12 Vegetation would be cleared and grading may occur where needed. Wherever
13 possible, existing roads would be used for construction access. This is a viable
14 alternative and will be evaluated in the EA.

15

16 **2.5 OTHER ALTERNATIVES EVALUATED BUT ELIMINATED FROM**
17 **CONSIDERATION**

18
19 Several other alternatives to the Proposed Action were evaluated but eliminated from
20 further consideration due to impediments to construction or failure to meet the purpose
21 and need for the project. These are discussed in the following subsections.

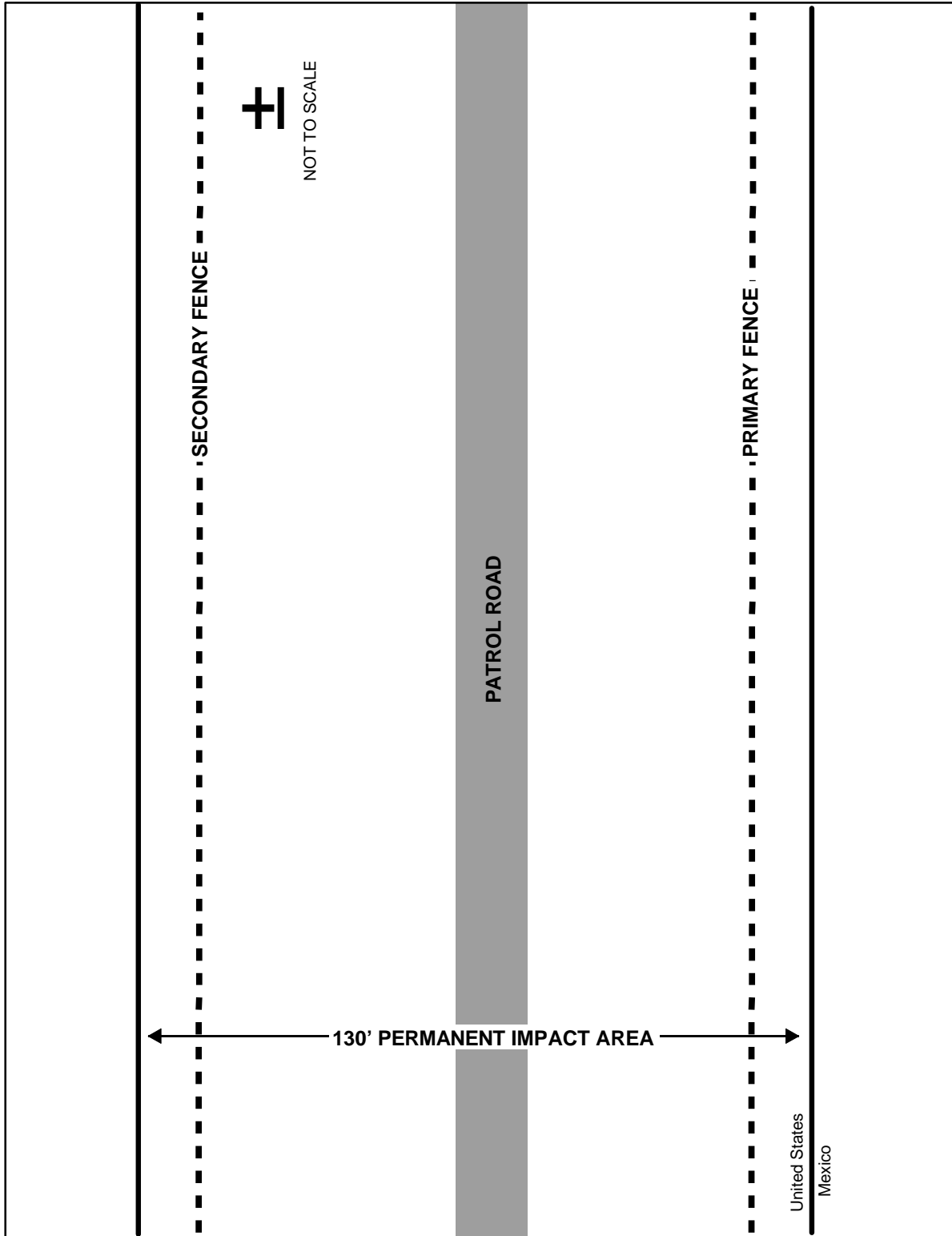
22

23 **2.5.1 Additional USBP Agents in Lieu of Tactical Infrastructure**

24 USBP considered the alternative of increasing the number of USBP agents assigned to
25 the border as a means of gaining effective control of the border. Under this alternative,
26 USBP would hire and deploy a significantly larger number of agents than are currently
27 deployed along the U.S./Mexico international border and increase patrols to apprehend
28 cross-border violators. USBP would deploy additional agents as determined by
29 operational needs, but might include 4-wheel drive vehicles, all-terrain vehicles,
30 helicopters, or fixed-wing aircraft. Currently, USBP maintains an aggressive hiring
31 program and a cadre of well-trained disciplined agents.

1
2

Figure 2-1. Schematic of Proposed Impact Areas—Alternative 3



3

1 This alternative was determined not to meet the screening criteria of USBP operational
2 requirements. The physical presence of an increased number of agents could provide
3 an enhanced level of deterrence against illegal entry into the U.S., but the use of
4 additional agents alone, in lieu of the proposed TI, would not provide a practical solution
5 to achieving effective control of the border in the San Diego Sector. The use of physical
6 barriers has been demonstrated to slow cross-border violators and provide USBP
7 agents with additional time to make apprehensions (USACE 2000).

8
9 A Congressional Research Service (CRS) report (CRS 2006) concluded that USBP
10 border security initiatives such as the 1994 “Operation Gatekeeper” required a 150
11 percent increase in USBP manpower, lighting, and other equipment. The report states
12 that “It soon became apparent to immigration officials and lawmakers that the USBP
13 needed, among other things, a ‘rigid’ enforcement system that could integrate
14 infrastructure (i.e., multi-tiered fence and roads), manpower, and new technologies to
15 further control the border region” (CRS 2006).

16
17 Tactical infrastructure, such as a primary pedestrian fence, is a force multiplier to allow
18 USBP to deploy agents efficiently and effectively. As TI is built, some agents would be
19 redeployed to other areas of the border within the sector. Increased patrols would aid in
20 interdiction activities, but not to the extent anticipated under the Proposed Action. As
21 such, this alternative is not practical in the USBP San Diego Sector and will not be
22 carried forward for further detailed analysis.

23

24 **2.5.2 Vehicle Barriers in Lieu of Fence**

25 The option to construct vehicle fence in lieu of the primary pedestrian fence would
26 restrict vehicles from illegally entering the United States; however, vehicle fences would
27 not prevent potential terrorists, illegal aliens, or drug smugglers from entering the U.S.
28 on foot in the San Diego Sector. For these reasons, construction of vehicle fences,
29 rather than a primary pedestrian fence, was eliminated from further consideration.

30

1 **2.5.3 Fence Types**

2 Pedestrian, aesthetic or hybrid fence alternatives were considered. The final primary pedestrian
3 fence design would be determined during the final design phase based on operational
4 parameters and maintenance requirements. For purposes of evaluating the proposed action
5 and alternatives, the environmental impacts of constructing, operating and maintaining
6 any of the three primary pedestrian fence designs would be virtually identical since the
7 foundations, construction, operations and maintenance access requirements, and fence
8 heights would be the same for any fence alternative selected. Therefore, no additional
9 fence designs will be evaluated in detail in this EA.

10

11 **2.5.4 Fence Only Alternative**

12 The Fence Only Alternative would involve construction of the primary pedestrian fence
13 only in areas where road construction or improvement is not required. Specifically,
14 these locations are West of Tecate, Willows, Airport Mesa, Boundary Peak, and O'Neil
15 Valley. This alternative would provide an additional 5.84 miles of primary pedestrian
16 fence. The fence would be constructed in the same manner as described above under
17 Section 2.3.3. This alternative would not provide the additional advantage of high
18 ground in some of the crucial areas that USBP needs, reduce risks to health and safety
19 of USBP agents due to unsafe driving conditions, reduce the time required to respond to
20 illegal incursions or emergency situations, or eliminate gaps in the primary pedestrian
21 fence that create escape opportunities for cross border violators. Thus, it was
22 eliminated from further consideration.

23

24 **2.5.5 Additional USBP Agents in Lieu of Tactical Infrastructure**

25 USBP maintains an aggressive hiring program and a cadre of well-trained and
26 disciplined agents. The physical presence of an increased number of agents may
27 provide an enhanced level of deterrence against illegal entry into the U.S. However,
28 additional agents alone, in lieu of the proposed TI, would not provide a practical solution
29 to achieving effective control of the border in USBP San Diego Sector. Furthermore,
30 this alternative would result in additional USBP agents working under conditions that are

not as safe, effective, or efficient as the conditions would be with the construction of the required TI. As such, this alternative will not be carried forward for further analysis.

2.5.6 Technology in Lieu of Tactical Infrastructure

Under this alternative, USBP would use radar, cameras, lights, and other technology to identify cross border crossings. The use of technology is a critical component of *SBI_{net}* and can be an effective force multiplier, allowing USBP to monitor large areas and deploy agents to where they will be most effective. However, physical barriers are often a required component to effectively control illegal entry into the United States. The use of technology alone would not provide a practical solution to achieving effective control of the border in USBP San Diego Sector. Therefore, this alternative would not meet the purpose and need as described in Section 1.2 and will not be carried forward for further analysis.

2.6 SUMMARY

The three alternatives carried forward for analysis are the No Action Alternative, Proposed Action Alternative, and the Secure Fence Act Alignment Alternative. An alternative matrix (Table 2-3) compares the three viable alternatives relative to the purpose and need. Table 2-4 presents a summary matrix of the impacts from the three alternatives analyzed and how they affect the environmental resources in the region.

Table 2-3. Relationship between Purpose and Need and Alternatives

Requirements	Alternative 1: No Action Alternative	Alternative 2: Proposed Action Alternative	Alternative 3: Secure Fence Act Alignment Alternative
Deter cross-border activities	NO	YES	YES
Enhance the response time for USBP agents	NO	YES	YES
Enhance the safety of USBP agents	NO	YES	YES
Prevent terrorists and terrorist weapons from entering the U.S.	NO	YES	YES
Reduce the flow of illegal drugs	NO	YES	YES

Table 2-4. Summary Matrix

Affected Environment	No Action Alternative	Proposed Action Alternative	Secure Fence Act Alignment Alternative
Land Use	No direct impacts are expected.	Approximately 27 acres of private land would be required to construct this alternative. The remainder of the project corridor is within the Roosevelt Reservation or on BLM property. The BLM is cooperating agency for this project; therefore, although land use would change in these areas, it is an acceptable change. No significant impacts are expected as the indirect beneficial impacts would greatly outweigh the minor direct impacts.	Approximately 157 acres of private and Federal lands would be changed from their current uses to USBP infrastructure. No significant impacts are expected as the indirect beneficial impacts would greatly outweigh the minor direct impacts.
Geology/Soils	No direct impacts are expected.	Geology resources in the region would not be significantly impacted. Up to 78 acres of soils could be permanently impacted if this alternative is implemented. The soils are regionally and locally common; thus, no significant impacts would occur. No prime farmlands would be impacted.	If implemented at least 157 acres of soils could be permanently impacted under this alternative. No prime farmlands would be impacted. No significant impacts to soils or geology would occur as a result of the Proposed Action Alternative.
Hydrology and Groundwater	No direct impacts are expected.	The total amount of water withdrawal over the life of the project is approximately 15 acre-feet. Water would be obtained from existing wells or those that were previously analyzed in the DHS 2003 EA. No deficit would occur to the region's available groundwater sources; therefore, no significant impacts to water resources would occur.	At least 30 acre-feet of water would be required for dust suppression and construction activities. No deficit would occur to the region's available groundwater sources; therefore, no significant impacts to water resources would occur.
Surface Waters and Waters of the U.S.	No direct impacts are expected.	The Proposed Action Alternative would result in indirect beneficial impacts to ephemeral streams as a result of reducing illegal vehicle traffic and reducing erosion and sedimentation.	This alternative would have greater impacts to surface waters and waters of the U.S. than the Proposed Action Alternative. No significant impacts would occur.
Floodplains	No direct impacts are expected.	No direct impacts to floodplains would occur. Indirect impacts could occur as IAs try to circumvent the proposed infrastructure.	The same impacts as those presented for the Proposed Action Alternative would be expected if this alternative were chosen.

Table 2-4, continued

Affected Environment	No Action Alternative	Proposed Action Alternative	Secure Fence Act Alignment Alternative
Vegetation	No direct impacts are expected.	Approximately 123 acres would be impacted if the Proposed Action Alternative is chosen. However, of the 123 acres only 78 would be permanently impacted; the remainder would be temporarily impacted and rehabilitated. No significant impacts would be expected. Indirect impacts could occur to areas outside of the project corridor.	At least 157 acres of permanent impacts could occur if the proposed action is implemented. The vegetation is regionally and locally common. Thus, no significant impacts would be expected.
Wildlife and Aquatic Resources	No direct impacts are expected.	If implemented, approximately 78 acres of habitat could be permanently impacted while 45 would be temporarily impacted. The temporarily impacted areas would be rehabilitated. The habitat in the corridor is locally and regionally common. Therefore, no significant impacts are expected. Wildlife movement across the international boundary would be impeded within the corridor; however, these impacts would be minimal to wildlife, locally or regionally. Indirect impacts could occur to areas outside the project corridor.	This alternative would impact at least 157 acres of wildlife habitat. However, this habitat is locally and regionally common and its loss would not constitute significant impacts. Wildlife movement impacts would be the same as those discussed for the Proposed Action Alternative. Therefore, no significant impacts are expected. Indirect impacts could occur to areas outside of the project corridor.
Protected Species	No direct impacts are expected.	The Proposed Action Alternative would likely adversely affect Quino checkerspot butterfly; and the coastal California gnatcatcher. No significant impact to any state or BLM protected species is expected.	Additional NEPA documentation and biological surveys would have to be completed in order to accurately analyze the impacts to protected species if this alternative is chosen.
Cultural Resources	No direct impacts are expected.	No cultural resources would be impacted either directly or indirectly.	Additional NEPA documentation and biological surveys would have to be completed in order to accurately analyze the impacts to protected species if this alternative is chosen.
Air Quality	No direct impacts are expected.	Under the Proposed Action Alternative, exhaust pollutants and dust emissions would increase temporarily from the operation of heavy equipment used for construction activities. These emissions would return to pre-construction levels following construction. The Proposed Action Alternative would have an indirect beneficial impact to air quality as a result of reducing fugitive dust emissions.	The impacts to air quality in the region would be similar to those mentioned for the Proposed Action Alternative; however, these impacts would be greater in nature. Regardless, due to the good wind dispersal patterns and the remote nature of the project corridor these impacts too would be below <i>de minimis</i> levels and would not be significant.

Table 2-4, continued

Affected Environment	No Action Alternative	Proposed Action Alternative	Secure Fence Act Alignment Alternative
Climate	No direct impacts are expected.	No impacts are expected.	No impacts are expected.
Noise	No direct impacts are expected.	The project corridor is located in remote areas with one residential or other sensitive receptor; therefore, the impacts would be minimal and temporary.	Noise impacts would be greater than the Proposed Action Alternative due to the larger footprint. However, these impacts too would be temporary and cease upon completion of the construction activities. No significant impacts are expected.
Aesthetics	No direct impacts are expected.	The aesthetics of the project corridor would be not be substantially impacted due to the existing infrastructure in place throughout most of the corridor. The beneficial impacts from the reduction of IAs and associated trash would outweigh any adverse impacts. No significant impacts would occur. Indirect impacts could occur outside of the project corridor.	Similar impacts as those discussed for the Proposed Action Alternative would be expected for this alternative; however, due to the larger footprint and the addition of a second fence, the adverse impacts would be greater.
Hazardous Materials	No direct impacts are expected.	Potential indirect impacts associated with the spill of petroleum, oil, or lubricants could occur during construction. Impacts associated with any potential spills would be minimized through the implementation of mitigation measures incorporated as part of the Proposed Action Alternative.	The same impacts as those discussed for the Proposed Action Alternative would be expected for this alternative if it were implemented.
Socioeconomics	No direct impacts are expected.	Minor, temporary impacts could occur. Indirect beneficial impacts would occur within the region due to the reduction of IA foot traffic and the associated societal cost (e.g. crime, vandalism, drug smuggling).	Minor, temporary impacts could occur. Indirect beneficial impacts would occur within the region due to the reduction of IA foot traffic and the associated societal cost (e.g. crime, vandalism, drug smuggling).
Environmental Justice and Protection of Children	No direct impacts are expected.	One residence is located near the 7 Gates/Railroad project site while all other areas are remote and uninhabited. This alternative would not require the displacement of any residence or disproportionately impact minority populations, low income families, or put children at risk of injury.	The same impacts as those discussed for the Proposed Action Alternative would be expected for this alternative since no additional fence would be installed along the 7 Gates/Railroad corridor.

Table 2-4, continued

Affected Environment	No Action Alternative	Proposed Action Alternative	Secure Fence Act Alignment Alternative
Sustainability and Greening	No direct impacts are expected.	Federal sustainability and greening practices would be implemented to the greatest extent practicable. No significant impacts are expected to occur.	The same impacts as those discussed for the Proposed Action Alternative would be expected for this alternative if it were implemented.
Human Health and Safety	No direct impacts are expected.	Construction activities would be completed by professionals who are skilled in their duties. Construction activities would be completed under Occupational Health and Safety Administration guidelines and would not jeopardize the health or safety of those working or residing in or near the project corridor. No significant impacts would occur.	The same impacts as those discussed for the Proposed Action Alternative would be expected for this alternative if it were implemented.

1 **2.7 IDENTIFICATION OF THE PREFERRED ALTERNATIVE**

2
3 CEQ's implementing regulation 40 CFR 1502.14(c) instructs NEPA preparers to
4 "Identify the agency's preferred alternative or alternatives, if one or more exists, in the
5 draft statement and identify such alternative in the final statement unless another law
6 prohibits the expression of such a preference." USBP has identified its Preferred
7 Alternative as Alternative 2.

8
9 Implementation of Alternative 2 would meet USBP's purpose and need described in
10 Section 1.2. The No Action Alternative would not meet USBP's purpose and need.
11 Alternative 3 would meet USBP's purpose and need but would have greater
12 environmental impacts compared to the Preferred Alternative. USBP might need to
13 implement this alternative at some point in the future, depending on future IA traffic and
14 USBP operational needs and strategies. At the present time, however, USBP believes
15 that this level of TI is not necessary. Still, it will be carried forward as a viable
16 alternative.

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SECTION 3.0
AFFECTED ENVIRONMENT AND CONSEQUENCES



1 **3.0 AFFECTED ENVIRONMENT AND CONSEQUENCES**

2
3 **3.1 PRELIMINARY IMPACT SCOPING**

4
5 This section of the EA describes the natural and human environment that exists within
6 the project corridor and region of influence (ROI) and the potential impacts of the No
7 Action and the two action alternatives outlined in Section 2.0 of this document. The ROI
8 for this project is San Diego County. Only those parameters that have the potential to
9 be affected by the Proposed Action Alternative are described, as per CEQ guidance (40
10 CFR 1501.7 [3]). Some topics are limited in scope due to the lack of direct effect from
11 the proposed project on the resource, or because that particular resource is not located
12 within the project corridor. Therefore, resources such as utilities, communications,
13 climate, and wild and scenic rivers are not addressed for the following reasons:

- 14
- 15 • Utilities: No utilities (e.g., sewer, transmission lines) would be affected by
16 the proposed action. Negligible amounts of energy (fuel) would be
17 required to construct, install, and maintain the infrastructure proposed for
18 this project.
 - 19 • Communications: The proposed action would not affect communications
20 systems in the area.
 - 21 • Climate: The proposed action would not affect climate; extreme local
22 weather conditions could affect the schedule of the construction activities,
23 but any delays to the schedule would not result in synergistic or indirect
24 effects to other resources.
 - 25 • Wild and Scenic Rivers: The proposed action would not affect any
26 designated Wild and Scenic Rivers because no rivers designated as such
27 are located within, or near the project corridor.
 - 28 • Roadways and Traffic: No high traffic roadways would be impacted as the
29 access roads and project areas are located in remote, undisturbed areas.
30 Traffic will not be impacted from construction equipment traveling to and
31 from the various work sites.

32
33 Impacts (consequence or effect) can be either beneficial or adverse, and can be either
34 directly related to the action or indirectly caused by the action. Direct impacts are those
35 effects that are caused by the action and occur at the same time and place (40 CFR

1 1508.8[a]). Indirect impacts are those effects that are caused by the action and are
2 later in time or further removed in distance, but are still reasonably foreseeable (40 CFR
3 1508.8[b]). As discussed in this section, the No Action, Proposed Action, and Secure
4 Fence Act alternatives may create temporary (lasting the duration of the project), short
5 term (up to 3 years), long term (3 to 10 years following construction), or permanent
6 impacts or effects. Significant impacts will receive the greatest attention in the decision
7 making process. Whether an impact is significant depends on the context in which the
8 impact occurs and the intensity of the impact.

9
10 Impacts can vary in degree or magnitude from a slightly noticeable change to a total
11 change in the environment. Significant impacts are those effects that would result in
12 substantial changes to the environment (40 CFR 1508.27) and should receive the
13 greatest attention in the decision-making process. Insignificant impacts are those that
14 would result in minimal changes to the environment. The following discussions describe
15 and, where possible, quantify the potential effects of each alternative on the resources
16 within or near the project corridor. All impacts described below are considered to be
17 adverse unless stated otherwise. In addition, impacts are also addressed compared to
18 significance criteria relative to CEQA, as mentioned previously. Under NEPA,
19 significance is used to determine whether an Environmental Impact Statement or other
20 level of NEPA documentation is warranted. Some impacts deemed to be significant
21 under CEQA might not be of sufficient magnitude to be considered significant under
22 NEPA.

23
24 The anticipated direct, permanent and temporary impacts from the Proposed Action
25 Alternative total approximately 78 and 45 acres, respectively. The impacts are based
26 on calculations using design concepts and baseline engineering drawings, as depicted
27 in Appendix A. All temporarily impacted areas would be rehabilitated upon completion
28 of the construction activities (see Section 5.0). The proposed project would be
29 constructed by private contractors; the anticipated completion date is December of
30 2008. Some military units could be used to assist in road construction. Furthermore, it
31 is assumed water for construction would be obtained from existing water wells or

1 previously analyzed wells described in the DHS 2003 EA. It is further assumed that for
2 primary pedestrian fence and road construction approximately 1-acre foot per mile
3 would be needed for concrete and dust suppression, while for road widening
4 approximately ½-acre foot per mile would be used for dust suppression.

5
6 Conversion of PVBs to primary pedestrian fence in the Willows and O’Neil Valley areas
7 would not require any additional clearing or grubbing activities and, thus, quantifications
8 of impacted acres do not include these components. Conversion to a primary
9 pedestrian fence, however, could have impacts to wildlife, and these potential effects
10 are discussed in the appropriate sections below.

11
12 Portable lights could be placed within the construction footprint but would be removed
13 upon cessation of the construction activities. It is possible that a 24-hour work schedule
14 could be activated; however, this would only occur in order to maintain the work
15 schedule due to weather or other unforeseen situations. It is anticipated that the
16 temporary lights would not operate any longer that 4 weeks in one location, no more
17 than 0.5-mile of lights would be in operation at any one time, and no more than 10 lights
18 would be in operation at one time, at each project site. Additionally, no lights would be
19 placed in a manner to illuminate riparian areas and no nighttime work would occur in the
20 7 Gates/Railroad project site.

21
22 The amount of land impacted by the Secure Fence Act Alternative is based on a
23 footprint of 130 feet X 10 miles for a total of 157 acres. This footprint may not be totally
24 accurate as design concepts may dictate a much larger footprint. Additionally, if the
25 Secure Fence Act Alternative is ultimately selected, some impacts may be potentially
26 significant and subsequent site-specific surveys and NEPA documentation will be
27 needed to accurately analyze these potential impacts. Throughout this section of the
28 EA, the Secure Fence Act Alternative is analyzed using professional opinion and best
29 data available.

30
31

1 **3.2 LAND USE**

2
3 **3.2.1 Affected Environment**

4 A description of land use and how it is identified is herein incorporated by reference
5 from the DHS 2003 EA. In summary, land within the proposed project areas is
6 predominately undeveloped. Land use is indicative of land ownership. Ownership of
7 land in the project corridor is divided between private ownership, and Federal lands.
8 BLM is the majority landowner for the project corridor, including the 60-foot Roosevelt
9 Reservation. This land is used for recreation and grazing rights. The BLM issued their
10 South Coast Resource Management Plan (RMP) in 1994. This plan provides
11 management guidance and identifies land use decisions to be implemented under BLM
12 jurisdiction within the South Coast Region. The goals of the RMP were to provide a
13 framework for the BLM to maximize values and the multiple use of BLM lands through a
14 rational, consistently applied set of guidelines (BLM 1994). An example of this would be
15 the promotion and protection of long-term recovery abilities of both flora and fauna
16 within BLM lands. A Memorandum of Understanding (MOU) between DHS and
17 Department of the Interior was signed in 2006, which acknowledged the authority of
18 USBP to utilize the Roosevelt Reservation for law enforcement purposes. A copy of the
19 MOU is contained in Appendix C. The private lands are typically developed as single-
20 residence ranch land or remain undeveloped and held for occasional use (*i.e.*,
21 recreation) or investment purposes.

22

23 **3.2.2 Environmental Consequences**

24 The CEQA significance threshold established for land use is:

25

- 26 • The action is inconsistent with adopted land use plans or would
27 substantially affect those resources required for, supporting, or benefiting
28 current use.

29

30 **3.2.2.1 No Action Alternative**

31 Under the No Action Alternative, no road or fence construction would occur within the
32 project corridor. Therefore, land use would not change (*i.e.*, no direct impacts).

1 However, indirect impacts would be expected as IA traffic and subsequent USBP
2 pursuits continue and possibly increase.

3

4 **3.2.2.2 Proposed Action Alternative**

5 With the implementation of the Proposed Action Alternative, land use within the
6 Roosevelt Reservation would remain as a Federal law enforcement zone. The
7 Proposed Action Alternative would conform to the BLM South Coast Resource
8 Management Plan and would not impact BLM's guidance for lands under BLM
9 jurisdiction (Hill 2007). Privately owned land and land owned by BLM is currently open,
10 undeveloped areas. These sites would be permanently converted to areas set aside for
11 law enforcement purposes. However, open space is common within this area and would
12 not pose a significant change to the land use regionally. The staging areas, which are
13 needed to store and stockpile materials and equipment, would temporarily impact
14 approximately 45 acres. These areas would be rehabilitated upon completion of the
15 construction activities and the current land use would return; therefore, impacts
16 associated with the staging areas are considered short-term and insignificant.

17

18 Approximately 27 acres of privately-owned land would be impacted by this alternative.
19 This private land would change from private land to lands used for USBP activities.
20 Negotiations are on-going with private land owners, and they would be compensated at
21 fair market value for any lands acquired by the USBP for the Proposed Action
22 Alternative.

23

24 **3.2.2.3 Secure Fence Act Alignment Alternative**

25 Under the Secure Fence Act Alignment Alternative, a larger portion of land that is
26 currently open space would be dedicated to law enforcement with the implementation of
27 an enforcement zone from the border for approximately 130 feet to the north. However,
28 open space is common within this area and would not pose a significant change to the
29 land use regionally, especially since the majority of the affected land would be located
30 adjacent to the border. Compensation for private land owners would be administered
31 the same as it is described for the Proposed Action Alternative. The impacts as a result

1 of this alternative would be minor to moderate, depending upon the final design or
2 construction footprint.

3

4 **3.3 GEOLOGY AND SOILS**

5

6 **3.3.1 Affected Environment**

7 General information regarding soil associations, soil types, and geology within the
8 project corridor and region was previously presented in the DHS 2003 EA; thus, this
9 information is incorporated herein by reference. The entire project corridor is located
10 within the Peninsular Range Geomorphic Province, which is mostly comprised of
11 granitic rock (Nyman 2002). The Peninsular Ranges Province was formed by the
12 Southern California Batholith, a composite of several bodies of igneous rock formed in
13 the subsurface (Demere 1997). These bodies of igneous rock, having varying chemical
14 composition, shifted from gabbro to granodiorite. In the Cretaceous period, the Nevadan
15 Orogeny caused major upward thrusting in southern California (Sharp 1976).

16

17 Additionally, the project corridor consists of soils in the Tollhouse, La Posta, Rock land,
18 Calpine, Carrizo, Kitchen Creek, and Mottsville associations. The Tollhouse association
19 is described as consisting of shallow, somewhat excessively or excessively drained
20 soils that formed in material weathered from granitic rocks (U.S. Department of
21 Agriculture [USDA] 1973). The Las Posta association consists of well-drained stony fine
22 sandy loams that have clay subsoils (USDA 1973). Exposed bedrock and large
23 boulders dominate the Rock land association. Rock land consists of rocks and boulders
24 with little vegetation (USDA 1973). The La Posta association is somewhat excessively
25 drained loamy coarse sands over decomposed granodiorite; the Mottsville association is
26 similar, but is associated with alluvial fans. All these soils have a severe erodibility
27 rating (USDA 1973). None of these soils are considered Prime Farmland.

28

29

30

1 **3.3.2 Environmental Consequences**

2 The CEQA significance thresholds for geology and soils are:

- 3
- 4 • The action exposes people or structures to substantial adverse effects,
5 including the risk of injury or death;
 - 6 • The action entirely removes a geologic resource; thus removing the
7 potential for scientific investigation of that geologic resource;
 - 8 • The action results in substantial soil erosion or loss of topsoil; and
 - 9 • Infrastructure is located on inappropriate soil types creating substantial
10 risks to life or property.
- 11

12 **3.3.2.1 No Action Alternative**

13 Under the No Action Alternative, soils and geology in the project area would remain in
14 the existing condition as no road or fence construction would occur at or within the
15 project corridor. Therefore, no direct impacts, either beneficial or adverse, to soils or
16 geology would result from the implementation of the No Action Alternative. However,
17 indirect impacts could occur throughout the project area from continuous IA traffic and
18 consequent USBP enforcement actions

19

20 **3.3.2.2 Proposed Action Alternative**

21 Minor surface impacts to geologic formations would be expected due to road and
22 primary pedestrian fence construction activities. Although geologic formations would be
23 adversely impacted, these impacts would be minimal and localized. No dangerous or
24 unstable conditions would be created within any geologic unit as a result of the
25 Proposed Action Alternative. Additionally, the Proposed Action Alternative would not
26 expose people or structures to potential substantial adverse effects. Furthermore, no
27 geologic resource is found exclusively within the project corridor; thus, no geologic
28 resources would be removed from future scientific study. Therefore, the Proposed
29 Action Alternative would not result in a significant adverse impact to any geologic unit or
30 local and regional geologic formations.

31

32 With the implementation of the Proposed Action Alternative, there would be
33 approximately 78 acres of direct permanent impacts to soils. These include: 28 acres of

1 Tollhouse association soils, 25 acres of La Posta association soils, 8 acres of Rock land
2 association soils, 4 acres of the Calpine soils, 3 acres of Carrizo soils, 5 acres of
3 Kitchen Creek soils, and 5 acres of Mottsville association soils. These soils are
4 common locally and regionally. Therefore, no significant impacts are expected.

5
6 Short-term impacts, such as increased runoff, to soils can be expected from the
7 construction of roads; however, these impacts would be alleviated once construction is
8 finished. Long-term effects to soils would be compaction from vehicles on new roads.
9 Pre- and post-construction best management practices (BMPs) would be developed
10 and implemented to reduce or eliminate erosion and downstream sedimentation.
11 Compaction techniques and erosion control measures such as waterbars, gabions,
12 straw bales, and the use of rip-rap or sediment traps would be some of the BMPs
13 expected to be implemented.

14
15 The temporary operation of portable lights within the construction footprint would have
16 no effect on soils. The potential exists for petroleum, oil, and lubricants (POL) to be
17 spilled during refueling of the generators; however, drip pans would be provided for the
18 power generators to capture any POL that is accidentally spilled during maintenance
19 activities or leaks from the equipment; thus, no significant impacts would occur due to
20 the operation of the portable lights.

21
22 **3.3.2.3 Secure Fence Act Alignment Alternative**

23 Under the Secure Fence Act Alignment Alternative, approximately 157 acres would be
24 impacted to create the 130-foot enforcement zone. The 130-foot enforcement zone
25 would be maintained clear of vegetation, thereby increasing the potential for soil to be
26 impacted by wind and stormwater erosion. Additional post-construction BMPs would
27 need to be implemented to reduce the potential for soil erosion. The same soil
28 associations would be impacted as those presented for the Proposed Action Alternative.
29 Although this alternative would create greater impacts to soils, these impacts would be
30 considered minimal to moderate due to the impacted soils abundance locally and
31 regionally.

1 **3.4 HYDROLOGY AND GROUNDWATER**

2
3 **3.4.1 Affected Environment**

4 Groundwater of the region was discussed in detail in the original EA (DHS 2003) and is
5 incorporated herein by reference. The project area lies within the Peninsular Range
6 geomorphic province. This province covers a large portion of southern California,
7 including all of San Diego County. Large quantities of water are stored in the granitic
8 rock from which this area formed. Most of the groundwater stored moves through the
9 area through cracks and fractures (Nyman 2002). Groundwater in this system is
10 replenished through rain and snow events. Groundwater for this project would be
11 obtained from existing wells or wells that were previously planned for an analyzed in the
12 DHS 2003 EA.

13
14 **3.4.2 Environmental Consequences**

15 The CEQA significance threshold for groundwater resources is:

- 16
17 • The action substantially depletes groundwater supplies, or interferes
18 substantially with groundwater recharge such that there would be a net
19 deficit in aquifer volume, or a lowering of the local groundwater table.
20

21 **3.4.2.1 No Action Alternative**

22 Upon implementation of the No Action Alternative no direct or indirect impacts to
23 groundwater would be expected as no construction would occur.

24
25 **3.4.2.2 Proposed Action Alternative**

26 Water would be required for the road construction, widening, and maintenance.
27 Workable soil moisture content must be obtained in order to properly compact soils for
28 road construction and to reduce fugitive dust emissions during construction. Water for
29 construction and maintenance would be hauled into the project corridor from existing
30 wells or wells that were previously analyzed in the DHS 2003 EA. The total amount of
31 water that would be required to facilitate construction of the Proposed Action Alternative
32 would be approximately 15 acre-feet. This 15 acre-feet could be consumed during the
33 construction activities, which would be completed by December 2008. A hydrology

1 report conducted for the DHS 2003 EA is included in Appendix D, which provides
2 specific details on the region's groundwater resources. Although groundwater would be
3 used from within the project corridor, the area is adequately recharged via rains and
4 snow-melt each year. Therefore, no significant impacts to groundwater or hydrology,
5 locally or regionally, would occur upon implementation of this alternative.
6

7 **3.4.2.3 Secure Fence Act Alignment Alternative**

8 This alternative would require greater quantities of groundwater to be used versus the
9 Proposed Action Alternative; however, the impacts would still be considered
10 insignificant. An estimate of water needed to facilitate the construction of this
11 alternative is approximately 30 acre-feet. The removal of 30 acre-feet within the basin
12 would not significantly impact water resources locally or in the region due to the high
13 recharge capability of the area (see Appendix D).
14

15 **3.5 SURFACE WATERS AND WATERS OF THE U.S.**

16 **3.5.1 Affected Environment**

17 Section 305(b) of the CWA requires each state to provide a list, known as the 303(d)
18 List, which identifies those streams or lakes that do not meet one or more surface water
19 quality standards. These waters are known as "impaired waters." The CWA requires
20 California Environmental Protection Agency to develop Total Maximum Daily Loads
21 (TMDLs) for impaired waters. The statute addresses how the department identifies
22 impaired waters, develops TMDLs, and prepares implementation plans to achieve the
23 needed pollution reductions in the watershed so that the impaired stream will meet
24 applicable standards (U.S. Environmental Protection Agency [EPA] 1999). The list of
25 water quality limited segments in the Tijuana River Watershed and their pollutants of
26 impairment are provided in Table 3-1. No TMDLs have been reported by the EPA to
27 California since October 1995 (EPA 2007a).
28
29
30
31

Table 3-1. Water Quality Limited Segments in the Tijuana River Watershed

Waterbody	Pollutants of Impairment
Tijuana River	Bacteria, Trace Elements, Solids, Low Dissolved Oxygen, Trash, Eutrophic, Pesticides, and Trash
Tijuana River Estuary	Bacteria, Low Dissolved Oxygen, Eutrophic, Pesticides, Trash, Thallium, Synthetic Organics, Lead, and Nickel

Source: EPA 2007a

The designation of beneficial uses for waters of the State of California is mandated by the Porter-Cologne Water Quality Control Act. Water quality for designated beneficial uses are protected by the state and should work in tandem with sections 303 and 305 of the CWA. The project area is located in the Tijuana River watershed (CA 91111000). Several ephemeral washes (Campo Creek, Boundary Creek, and several small unnamed creeks) cross the project area and contribute as water sources to the Tijuana River.

The Tijuana River, Campo Creek, and other creeks in the area have the following designated beneficial uses:

- **Contact Water Recreation** – includes uses of water for recreational activities involving body contact with water where ingestion of water is reasonably possible.
- **Non-Contact Water Recreation** - includes uses of water for recreational activities involving proximity to water, but not normally involving body contact with water where ingestion is reasonably possible.
- **Warm Freshwater Habitat** – includes uses of water that support warm water ecosystems (eg., aquatic habitat, vegetation, fish and wildlife).
- **Wildlife Habitat** – includes uses of water that support terrestrial ecosystems including preservation and enhancement of terrestrial habitats, vegetation, wildlife or wildlife water and food sources (California Regional Water Quality Control Board 1994).

The lack of a beneficial uses listed for any given area does not rule out the possibility of existing or future beneficial uses.

1 The Tijuana River stream segment is on California's 303(d) List of impaired waters for
2 eutrophication, bacteria indicators, low dissolved oxygen, pesticides, synthetic organics,
3 solids, trace elements, and trash. This subsegment of the Tijuana River is not meeting
4 designations for beneficial uses of primary and secondary contact recreation and wildlife
5 and fish propagation. Sources of pollution are non-point sources and point sources
6 (CalEPA 2007).

7
8 Section 404 of the CWA authorizes the Secretary of the Army, acting through USACE,
9 to issue permits for the discharge of dredged or fill material into Waters of the U.S.
10 (WUS), including wetlands. Wetlands are those areas inundated or saturated by surface
11 or groundwater at a frequency and duration sufficient to support, and under normal
12 circumstances do support, a prevalence of vegetation typically adapted for life in
13 saturated soil conditions (Environmental Laboratory 1987). Due to the climate of the
14 project area, most of the surface drainage channels are dry much of the year and are
15 considered ephemeral. Although no wetlands exist within the project corridor, six
16 unvegetated tributary waters do occur that would be considered other WUS and are
17 subject to regulation under Section 404 of the CWA. The location of these WUS are
18 illustrated in Figure 3-1.

19

20 **3.5.2 Environmental Consequences**

21 The CEQA significance thresholds for water resources are:

22

- 23 • The action substantially increases the impairment of existing impaired
24 waters or creates impairment of water bodies;
- 25 • The action substantially alters existing drainage patterns of the site or
26 area, resulting in substantial erosion; and
- 27 • The action results in a permanent loss of a wetland or wetland function
28 that can not be compensated.

29

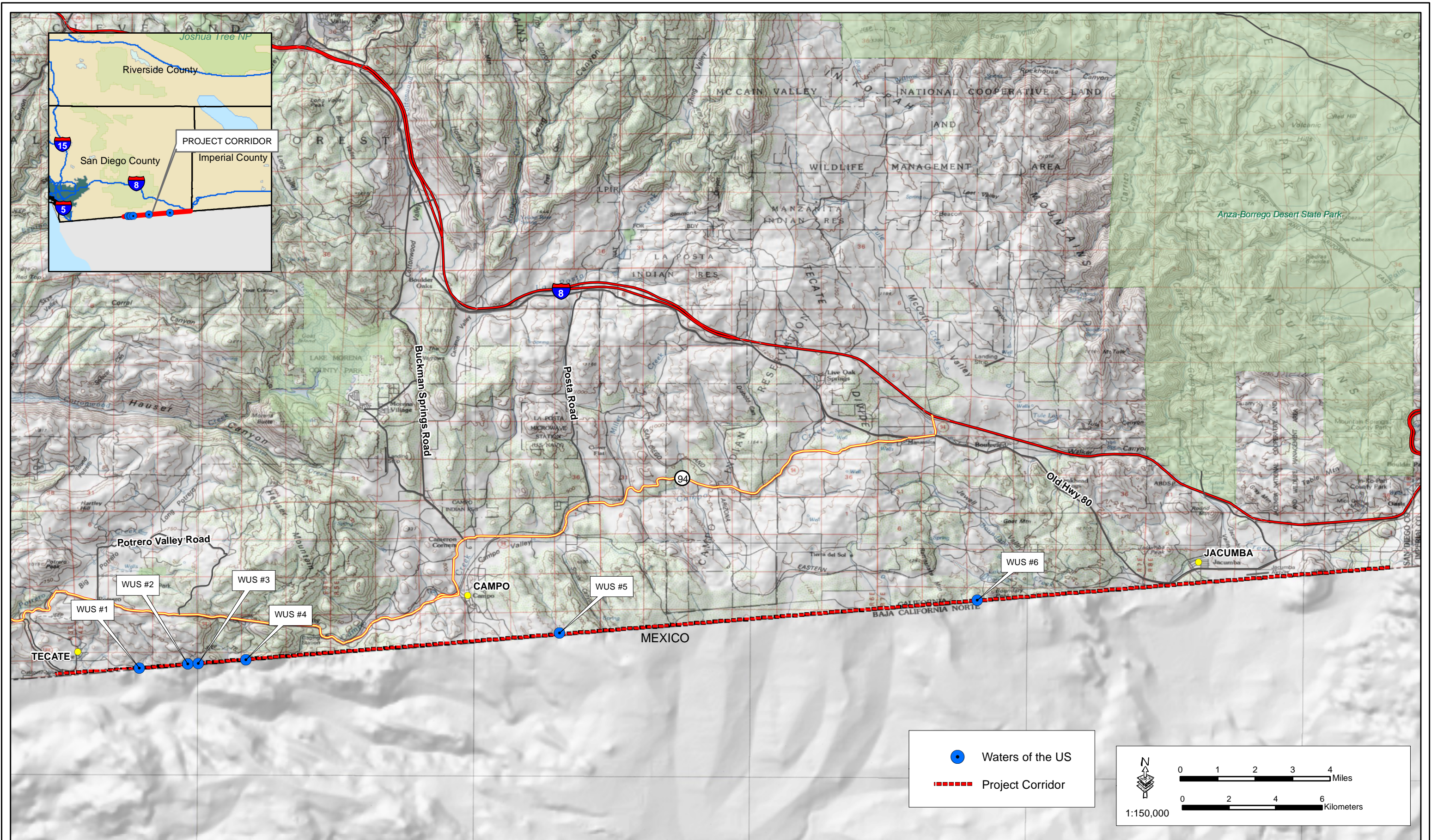


Figure 3-1: Waters of the US

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1 **3.5.2.1 No Action Alternative**

2 Under this alternative, no construction would occur; therefore, no direct impacts would
 3 be expected. Indirect impacts could occur as IAs continue to illegally cross the border
 4 resulting in subsequent USBP pursuits. These potential impacts could occur in the form
 5 of erosion and sedimentation of stream banks as a result of the IA traffic and pursuits.
 6

7 **3.5.2.2 Proposed Action Alternative**

8 The Proposed Action Alternative would not result in a permanent impact to any
 9 perennial or intermittent streams, as none are present within the project corridor. As
 10 mentioned above, there are six potential jurisdictional ephemeral WUS identified during
 11 field surveys within the project corridor. These WUS would be traversed using some
 12 type of drainage structure, which could include concrete low water crossings,
 13 improvements to existing dirt/gravel crossings, reinforced concrete pipes, box culverts,
 14 or bridges. The expected impact to each WUS is presented in Table 3-2. As can be
 15 seen from the table, each of the crossings would be within the impact threshold (0.5
 16 acre) for authorization under Section 404 Nationwide Permit (NWP) 14. Since the
 17 project sites are not connected and each has independent utility, each crossing would
 18 be considered a single and complete project. Still, the total impact of all six crossings
 19 would not exceed 0.5 acre. Once the final designs are completed, authorization under
 20 NWP 14 or 18 would be obtained from the USACE Los Angeles District Regulatory
 21 Division prior to construction in these drainages. In addition, a Section 401 Water
 22 Quality Certification would be obtained from the San Diego Regional Water Quality
 23 Control Board.
 24

25 **Table 3-2. Impacts to Potential Waters of the U.S.**

Project Component	WUS No.	Acres Impacted
Cetis Hill	1	0.041
Horseshoe Canyon	2	0.016
Horseshoe Canyon	3	0.038
East Bell Valley	4	0.008
LaGloria Canyon	5	0.033
West Boundary Peak	6	0.005
TOTAL		0.142

26

1 Existing drainage patterns of transboundary runoff would not be changed due to
2 implementation of the Proposed Action Alternative. In addition, rip-rap, rock, or other
3 energy dissipating materials would be placed downstream of the proposed drainage
4 structures to alleviate flow velocity, long term erosion, and downstream sedimentation.

6
7 Construction sites greater than 1 acre require a Storm Water Pollution Prevention Plan
8 (SWPPP) as part of the NPDES permit process, which would be obtained prior to
9 construction. During construction activities, water quality within ephemeral drains would
10 be protected through the implementation of BMPs (e.g., silt fences) as specified in the
11 SWPPP. General BMPs routinely employed as part of CBP construction projects are
12 described in Section 5.0. Additionally, although the exact design of the primary
13 pedestrian fence is unknown at this time, the primary pedestrian fence would be
14 designed and constructed in the washes that would ensure proper conveyance of
15 floodwaters is achieved and that floodwaters are not backed up on either side of the
16 border.

17
18 No impacts are expected to surface water or WUS from the placement of up to 10
19 portable lights. Lights would not be placed in or adjacent to drainages to reduce the
20 potential of surface water contamination. As a precaution, catch pans would be placed
21 under the portable light generators to contain any accidental POL spills that may occur
22 during refueling or operation.

23
24 Indirect adverse impacts as a result of the Proposed Action Alternative could occur in
25 ephemeral drains, during seasonal rain events, and would include stream channel
26 sedimentation, stream bank erosion, and possible release of POLs into stream
27 channels. These impacts could occur during the construction of stream crossings within
28 the project corridor. However, equipment required for the construction activities would
29 not be staged or maintained in or near any surface water resources to prevent surface
30 water contamination from accidental POL spills that could occur.

31

1 The Proposed Action Alternative would also be expected to result in an indirect
2 beneficial impact to WUS by reducing erosion and sedimentation associated with
3 degraded road segments and off-road travel associated with vehicles deviating from
4 road surface to avoid degraded road segments.

5
6 The Proposed Action Alternative would not result in severe erosion or sedimentation,
7 nor would it substantially alter existing drainage patterns, or result in a violation of any
8 Federal or state water quality standards. Through compliance with Sections 404 and
9 401 regulations and mitigation measures outlined in Section 5.0, the Proposed Action
10 Alternative would not have a significant adverse impact on WUS or water quality.
11 Therefore, no significant adverse impacts to surface water resources as a result of this
12 alternative are expected.

13

14 **3.5.2.3 Secure Fence Act Alignment Alternative**

15 This alternative would result in greater impacts than the Proposed Action Alternative
16 and would require either individual or pre-construction notification permits from the
17 USACE Los Angeles District prior to construction within or near jurisdictional WUS. The
18 impacts to surface waters associated with this alternative would be similar as those
19 identified for the Proposed Action Alternative, except the construction footprint would be
20 more than twice as large for the Secure Fence Act Alternative. Consequently, the
21 anticipated amount of the impact to WUS would be doubled, when compared to the
22 Proposed Action Alternative. Impacts from the use of portable lights would be the same
23 as those presented in the Proposed Action Alternative. The same SWPPP requirements
24 and mitigation measures proposed for Proposed Action Alternative would apply to this
25 alternative. Therefore, no significant impacts to surface waters or WUS would be
26 expected if this alternative were implemented.

27

28

29

30

31

1 **3.6 FLOODPLAINS**

2
3 **3.6.1 Affected Environment**

4 A floodplain is the area adjacent to a river, creek, lake, stream, or other open waterway
5 that is subject to flooding when there is a significant rain. If an area is in the 100-year
6 floodplain, there is a 1-in-100 chance in any given year that the area will flood. EO
7 11988 (Floodplain Management) (43 FR 6030) was enacted on May 24, 1977 to “avoid
8 to the extent possible the long and short term adverse impacts associated with the
9 occupancy and modification of floodplains and to avoid direct or indirect support of
10 floodplain development wherever there is a practicable alternative. EO 11988 directs all
11 Federal agencies to reduce the risk of flood loss; minimize the impact of floods on human
12 safety, health, and welfare; and restore and preserve the natural and beneficial values
13 served by floodplains...” (USFWS 2002). Additionally, where the only practicable
14 alternative is to site in a floodplain, a specific step-by-step process must be followed to
15 comply with EO 11988 outlined in the FEMA document *Further Advice on EO 11988*
16 *Floodplain Management*. As a planning tool, the NEPA process incorporates floodplain
17 management through analysis and public coordination of the EA.

18
19 Federal Emergency Management Agency (FEMA) floodplain maps were reviewed to
20 identify project locations that would occur within mapped floodplains (FEMA 2007 and
21 San Diego County 2007). The only location within the project corridor that falls within
22 the 100-year floodplain is Krutzch’s Hill (FEMA Map 06073C2275F). As depicted on
23 Figure 3-2, the extreme eastern end of the project (approximately 110 feet) would
24 extend into the 100-year floodplain of an unnamed drainage. In addition, the proposed
25 road widening east of Krutzch’s Hill would also occur within the 100-year floodplain.

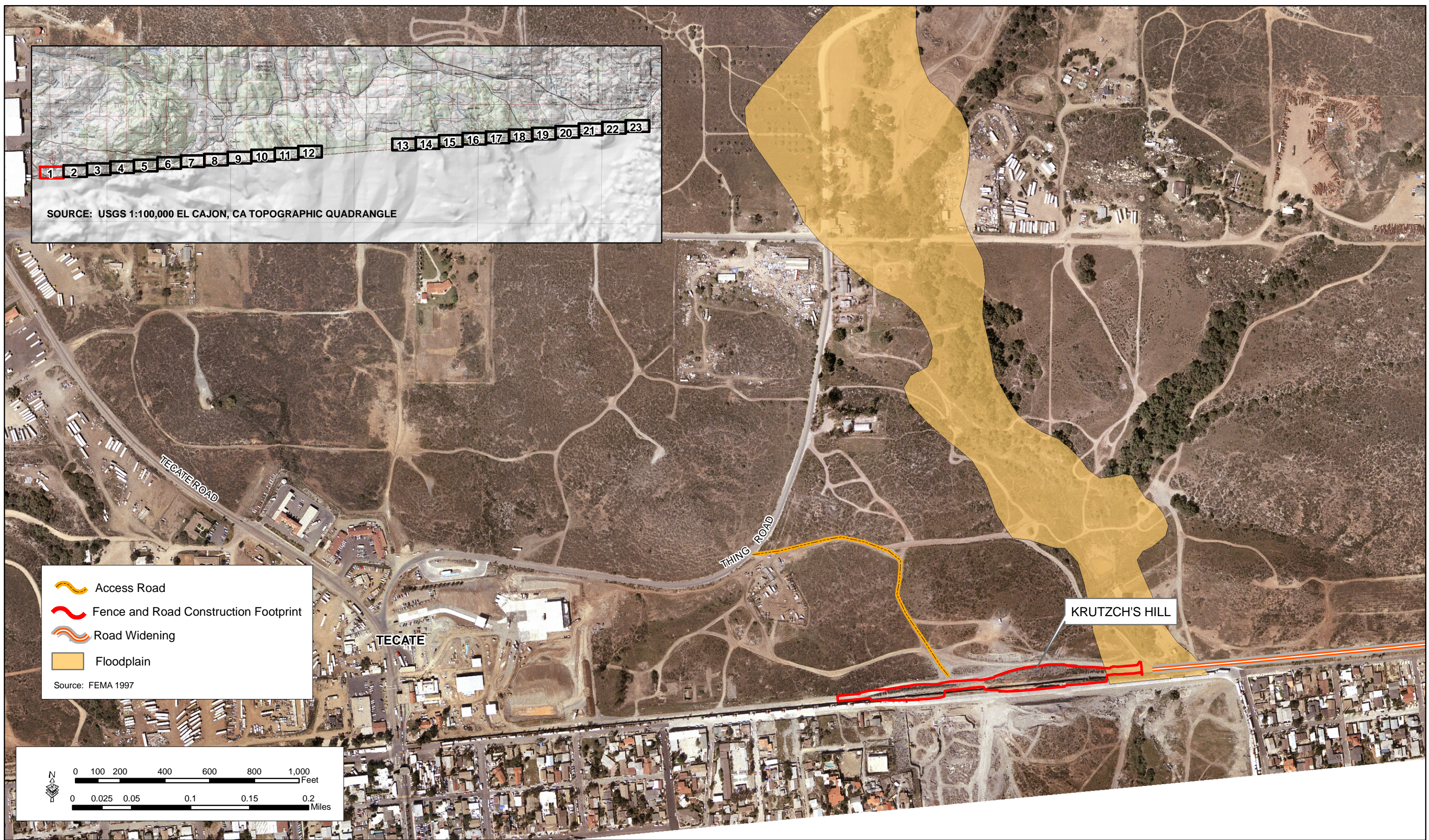


Figure 3-2: FEMA Floodpain

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1 **3.6.2 Environmental Consequences**

2 The CEQA significance thresholds established for floodplains are:

3

- 4 • Any action that places structures within a 100-year flood hazard area,
5 which would impede or redirect flood flows, would be significant.

6

7 **3.6.2.1 No Action Alternative**

8 Under the No Action Alternative, no direct impacts to floodplain areas would occur since
9 no construction would take place. However, indirect impacts to floodplains could occur
10 due to continued degradation of surface water channels from IA traffic and subsequent
11 USBP pursuits.

12

13 **3.6.2.2 Proposed Action Alternative**

14 Although a portion of the proposed construction activities at Krutzch's Hill would fall within
15 the 100-year floodplain, the primary pedestrian fence construction would be replacement of
16 existing primary pedestrian fence and the road improvements would occur along existing
17 roads. Therefore, no additional impediments to stream flow or increases in stormwater
18 runoff would occur that could cause flood elevations or flood flow velocities to increase.
19 Border infrastructure, by definition, must be on the border; therefore, no other
20 practicable alternative location is available. Consequently, the proposed action would be
21 in compliance with EO 11988. Indirect beneficial impacts from reducing erosion and
22 sedimentation associated with degraded road segments would also be expected. No
23 significant impacts would occur to floodplains as a result of implementing the Proposed
24 Action Alternative.

25

26 **3.6.2.3 Secure Fence Act Alternative**

27 The impacts to floodplains associated with this alternative would be greater than those
28 identified for the Proposed Action Alternative due to the larger construction footprint.
29 However, through properly designed erosion and sediment controls and storm water
30 management practices that would be implemented during construction activities,
31 compliance with EO 11988 would still be expected. Additionally, as mentioned in
32 Section 3.6.2.2 no other practical location than on the border is available for the

1 construction of border infrastructure. The same impacts as mentioned for the Proposed
 2 Action Alternative related to the use of portable lights would be expected as result of
 3 implementing this alternative. No significant impacts would be expected if this
 4 alternative were implemented.

5
 6 **3.7 VEGETATIVE HABITAT**

7
 8 **3.7.1 Affected Environment**

9 General information regarding vegetation within the project corridor and region was
 10 previously discussed in the DHS 2003 EA and is incorporated herein by reference.
 11 However, additional pedestrian surveys were conducted during October 2007 of each of
 12 the proposed project sites to identify specific community types, sensitive species, and
 13 habitat suitable to support sensitive species. Table 3-3 identifies the vegetation
 14 communities identified at each project site, although the vegetation at some sites
 15 observed during field surveys displayed a transition from one vegetation community to
 16 another. It should also be noted that these surveys were conducted immediately prior
 17 to the 2007 wildfires; much of the vegetation in the areas in and surrounding the
 18 proposed project sites have been destroyed by these fires.

19
 20 **Table 3-3. Vegetation Communities within the Project Area**

Project Site	Vegetation Community
Krutzch's Hill	Disturbed
Cetis' Hill	Coastal Sage Scrub
East Brickyard to Gunsight	Coastal Sage Scrub
Horseshoe Canyon	Coastal Sage Scrub and Chamise Chaparral
East Bell Valley	Chamise Chaparral
Ag Loop	Chamise Chaparral
La Gloria Canyon	Mixed Chaparral and Coast Live Oak Woodland
West Smith Canyon	Mixed Chaparral
East Smith Canyon	Mixed Chaparral
Rattlesnake Ridge	Mixed Chaparral
West Boundary Peak	Chamise Chaparral
East Boundary Peak	Chamise Chaparral
7 Gates/Railroad	Disturbed
Willow Access Road	Mixed Chaparral

21

22

1 A description of the vegetation communities and specific plant species observed are
2 described in the following paragraphs. Coastal sage scrub is identified by low scrub
3 shrubs that are drought-resistant and most active in the rainy periods of winter and early
4 spring (Holland 1986). Dominant plant species typically found within this vegetation
5 community are California sagebrush (*Artemisia californica*), flat-top buckwheat
6 (*Eriogonum fasciculatum*), laurel sumac (*Rhus laurina*), and white sage (*Salvia apiana*)
7 (Holland 1986). Plant species observed within the coastal sage scrub community
8 included broom baccharis (*Baccharis sarothroides*), broom matchweed (*Gutierrezia*
9 *californica*), peppergrass (*Lepidium* sp.), chalk-lettuce (*Dudleya pulverulenta*), caterpillar
10 phacelia (*Phacelia cicutaria*), tocalote (*Centaurea melitensis*), and ripgut grass (*Bromus*
11 *diandrus*). This community occurs in the western portions of the project corridor,
12 specifically at Cetus' Hill, East Brickyard to Gunsight, and the extreme western portion
13 (*i.e.*, near Sacred Canyon) of the Horseshoe Canyon project reach.

14
15 Chamise chaparral are dominated by chamise (*Adenostoma fasciculatum*) that is often
16 densely interwoven with little understory when mature (Holland 1986). Chamise is
17 adapted to revegetating areas cleared by fire by stump sprouting (Holland 1986). Other
18 plant species observed within the chamise chaparral vegetation community included red
19 shank (*Adenostoma sparsifolium*), holly-leaved cherry (*Prunus ilicifolia*), sugar bush
20 (*Rhus ovata*), *Ceanothus* sp., Mexican manzanita (*Arctostaphylos pungens*), our Lord's
21 candle (*Yucca whipplei*), yerba santa (*Eriodictyon crassifolium*), San Diego bushmallow
22 (*Malocothamnus densiflorus*), Davidson's buckwheat (*Eriogonum davidsonii*), brittlebush
23 (*Encelia farinosa*), broom matchweed, broom baccharis, deerweed (*Lotus scoparius*),
24 wild oat (*Avena* sp.), rock rose (*Helianthemum scoparium*), saw-toothed goldenbush
25 (*Hazardia squarrosa*), sagebrush (*Artemisia* sp.), California milkweed (*Asclepias*
26 *californica*), San Diego County sunflower (*Viguiera laciniata*), and thistle (*Cirsium* sp.).

27
28 Mixed chaparral is typically dominated by scrub oak (*Quercus berberidifolia*), chamise,
29 and any one of several taxa in manzanita (*Arctostaphylos* sp.) and *Ceanothus* species
30 (Holland 1986). Mixed chaparral is also adapted to repeated fires, by which many
31 species respond by stump sprouting (Holland 1986). Plant species observed during field

1 surveys within the mixed chaparral vegetation community included Tecate cypress
2 (*Cupressus forbesii*), sugar bush, deerweed, four-wing saltbush (*Atriplex canescens*),
3 mustard (*Brassica* sp.), prickly pear (*Opuntia phaeacantha*), our Lord's candle, valley
4 cholla (*Opuntia parryi* var. *parryi*), catclaw acacia (*Acacia greggii*), Mexican manzanita,
5 Davidson's buckwheat, *Ceanothus* sp., California buckwheat (*Eriogonum fasciculatum*),
6 Mormon tea (*Ephedra californica*), and holly-leaved cherry.

7
8 Coast live oak woodlands are dominated by coast live oak (*Quercus agrifolia*) which can
9 grow up to 90 feet in height (Holland 1986). The shrub layer in the coast live oak
10 woodland is typically poorly developed, but may include toyon (*Heteromeles arbutifolia*),
11 *Ribes* spp., laural sumac, or Mexican elderberry (*Sambucus mexicana*). The herb
12 component is continuous and dominated by *Bromus* spp. and other introduced taxa
13 (Holland 1986). Plant species observed during field surveys included lemonade berry
14 (*Rhus integrifolia*), caterpillar phacelia, mustard, deerweed, Mexican manzanita,
15 western ragweed (*Ambrosia psilostachya*), aster (*Aster* sp.), spiny cocklebur (*Xanthium*
16 *spinosum*), San Diego honeysuckle (*Lonicera subspicata*), scrub oak, curly dock
17 (*Rumex crispus*), California peony (*Paeonia californica*), chamise, mountain mahogany
18 (*Cercocarpus betuloides*), holly-leaved cherry, and California deergrass (*Muhlenbergia*
19 *rigens*). This community occurred only as a small patch on the east side of LaGloria
20 Canyon and was an inclusion within the surrounding mixed chaparral community.

21
22 Disturbed vegetation communities occur along the existing border roads, including
23 Krutzch's Hill, and along the 7 Gates/Railroad corridor. The communities along the
24 border road occur as a very narrow strip. The vegetation along the railroad is very
25 sparse and includes non-native, invasive species as well as some native species.

27 **3.7.2 Environmental Consequences**

28 The CEQA significance thresholds established for vegetation resources are:

- 29
- 30 • Any action that affects ecological processes, population size, population
31 connectivity, migration, or individual fecundity to the extent that long-term
32 viability of any species becomes threatened would be significant.

- Any action that results in the permanent loss or substantial degradation of sensitive or rare plant communities (*i.e.*, riparian habitats) would be significant.

3.7.2.1 No Action Alternative

Under the No Action Alternative, no road or primary pedestrian fence construction would occur at the project locations. Therefore, vegetation would not be directly impacted from construction; however, vegetation at the project sites and throughout the region would be indirectly impacted from continued IAs traffic which creates new trails through undisturbed areas. Increases in illegal foot and vehicle traffic would continue to result in damage to vegetation.

3.7.2.1 Proposed Action Alternative

With the implementation of the Proposed Action Alternative, there would be approximately 78 acres of vegetation permanently altered. Road widening would impact 8 acres of chamise chaparral, 16 acres of mixed chaparral, and 13 acres of disturbed vegetation. The new road construction would permanently impact 9 acres of mixed chaparral, 11 acres of chamise chaparral, 2 acres of mixed chaparral/coast oak woodlands, 6 acres of coastal sage scrub and 13 acres of disturbed vegetation. In addition, approximately 45 acres of temporary impacts would be expected due to staging areas. **Note: These areas have not been surveyed because of a lack of ROEs.** The staging areas would be rehabilitated upon completion of construction activities. These plant communities are both locally and regionally common. In addition, the permanent loss of 78 acres of vegetation would not adversely affect the population viability or fecundity of any floral or faunal species. Therefore, impacts are not expected to be significant.

The Proposed Action Alternative would also result in temporary indirect impacts to vegetation. Fugitive dust emissions resulting from construction would affect photosynthesis and respiration of plants within and adjacent to the project corridor. The magnitude of these effects would depend upon several biotic and abiotic factors

1 including the speed and type of vehicles, climatic conditions, success of wetting
2 measures during construction, and the general health and density of nearby vegetation.

3
4 The use of portable lighting could affect plant growth, but would also be temporary in its
5 potential effects. As construction activities are completed within a particular area, the
6 lights would be moved to the new construction area. It should be emphasized that the
7 use of a 24-hour work schedule would only occur when construction crews are delayed
8 and need to work 24-hours a day to maintain schedule due to weather or unforeseen
9 circumstances. Also, all lights would be removed from the project corridor upon
10 completion of the construction activities and the lights would be fitted with backlighting
11 shields to minimize any stray light from escaping to areas outside of the project area.
12 Therefore, no significant impacts to vegetation from the use of portable lights are
13 expected.

14
15 Beneficial indirect impacts, such as a reduction of native vegetation being damaged
16 from illegal activities and consequent USBP enforcement activities, would occur as IAs
17 and smuggling activities are reduced or potentially eliminated within the area.
18 Conversely, areas outside of the project corridor could be indirectly impacted as IAs
19 attempt to avoid detection and circumvent the proposed infrastructure. These impacts
20 cannot be quantified at this time because IA patterns and migration routes are
21 completely out of the USBP's control. However, the primary pedestrian fence would act
22 as a force multiplier and allow USBP to deploy agents to areas without primary
23 pedestrian fence; therefore minimizing potential adverse indirect impacts.

24
25 The Proposed Action Alternative is not expected to promote the establishment and
26 spread of non-native and invasive species. Following construction, daily traffic and
27 regular maintenance (twice a year) of the roads would impede the establishment of non-
28 native and invasive species. Further, temporary impact areas would be rehabilitated by
29 the USBP using native vegetation or the distribution of organic and geological materials
30 in association with natural revegetation. Rehabilitation efforts of temporary impact
31 areas would reduce the potential establishment of non-native and invasive species.

1 Through implementation of mitigation measures, such as those outlined in Section 5.0,
2 the Proposed Action Alternative is not expected to promote the establishment of non-
3 native and invasive plant species; therefore, this action would not have a significant
4 impact on the spread of non-native and invasive species.
5

6 **3.7.2.3 Secure Fence Act Alignment Alternative**

7 Under the Secure Fence Act Alignment Alternative, approximately 157 acres of
8 vegetation would be removed to accommodate the 130-foot enforcement zone required
9 for the primary and secondary fences and associated patrol road. These vegetation
10 communities are all common regionally but there would be a greater loss of vegetation
11 due to the larger footprint from this alternative. All other impacts would be similar to
12 those discussed for the Proposed Action Alternative. The potential impacts would be
13 considered minimal to moderate.
14

15 **3.8 WILDLIFE AND AQUATIC RESOURCES**

17 **3.8.1 Affected Environment**

18 California is one of the most biologically diverse areas in North America. Within its
19 160,000 square miles, California harbors more unique animals than any other state
20 (Steinhart 1990). The native faunal components of the Peninsular Range support 432
21 species of birds, which are dominated by wood warblers (40 species), swans, geese,
22 and ducks (34 species), sandpipers and phalaropes (30 species), gulls and terns (20
23 species), sparrows and towhees (20 species), and tyrant flycatchers (22 species). The
24 majority of these species occur in spring and fall when neotropical migrants (*e.g.*,
25 flycatchers and warblers) pass through on their way to either summer breeding or
26 wintering grounds and during winter when summer resident birds (*i.e.*, robins, kinglets,
27 and sparrows) from the north arrive to spend the winter. The majority of the 94
28 mammalian species found in the Peninsular Range are evening bats and rodents, with
29 rodents being the most common. Only 17 species of amphibians are found within this
30 province, with frogs being the most abundant and common. A total of 54 species of

1 reptiles inhabit the Peninsular Range, with the iguanid lizards and colubrid snakes being
2 dominant (Ingles 1957; Stebbins 1985; Holt 1990).

3
4 Wildlife species observed during field visits conducted in October 2007 within the
5 project corridor were western scrub jay (*Aphelocoma californica*), common raven
6 (*Corvus corax*), California towhee (*Pipilo crissalis*), spotted towhee (*Pipilo maculatus*),
7 American kestrel (*Falco sparverius*), California quail (*Callipepla californica*), house finch
8 (*Carpodacus mexicanus*), bushtit (*Psaltriparus minimus*), Bewick's wren (*Thryomanes*
9 *bewickii*), red-tailed hawk (*Buteo jamaicensis*), mule deer (*Odocoileus hemionus*),
10 coyote (*Canis latrans*) scat, and desert cottontail (*Sylvilagus audubonii*).

11
12 **3.8.2 Environmental Consequences**

13 Significance thresholds established for wildlife resources are:

- 14
- 15 • Conflict with the provisions of an adopted Habitat Conservation Plan,
16 Natural Community Conservation Plan, or other approved Federal, state
17 or local habitat conservation plan.
- 18 • Substantial interference with the movement of any native, resident, or
19 migratory fish or wildlife species, or with established native resident, or
20 migratory wildlife corridors, or impedence of the use of native wildlife
21 nursery sites.

22
23 **3.8.2.1 No Action Alternative**

24 No impacts to fish and wildlife resources would occur as a result of the implementation
25 of the No Action Alternative because no construction activities would occur. However,
26 indirect adverse impacts to wildlife from continued illegal traffic degrading habitat would
27 occur and could potentially increase.

28
29 **3.8.2.2 Proposed Action Alternative**

30 Approximately 78 acres of wildlife habitat would be permanently impacted from the
31 Proposed Action Alternative. These impacts would be considered negligible as some of
32 the project components occur in near and within previously disturbed areas (e.g., road
33 widening), the proposed infrastructure is proposed near existing infrastructure, and the

1 wildlife habitat is locally and regionally common. Temporary impacts to 45 acres of
2 wildlife habitat would occur due to staging areas. The staging areas would be
3 rehabilitated upon completion of the construction activities; therefore, any impacts as a
4 result of the staging areas are not considered significant.

5

6 The Proposed Action Alternative would not have direct impacts to fish or other aquatic
7 species, because the proposed construction activities would not take place in naturally
8 flowing or standing water. Mitigation measures would be implemented for construction
9 in or near washes as stated in Section 5.0 and follow the measures described in the
10 project's SWPPP to reduce potential impacts to riparian areas from erosion or
11 sedimentation.

12

13 Mobile animals (e.g., birds) would escape to areas of similar habitat, while other slow or
14 sedentary species of reptiles, amphibians, and small mammals could potentially be lost.
15 As a result, direct minor adverse impacts to wildlife species in the vicinity of the project
16 corridor are expected. Although some animals may be lost, this alternative would not
17 result in any substantial reduction of the breeding opportunities for birds and other
18 animals on a regional scale due to the suitable, similar habitat adjacent to the project
19 corridor. Additionally, mitigation measures would be implemented to ensure that no
20 "take" of migratory birds occurs if this alternative is implemented, in accordance with the
21 Migratory Bird Treaty Act (MBTA).

22

23 Although the primary pedestrian fence could preclude transboundary migration patterns
24 of animals, especially larger mammals (e.g., mule deer), and thus fragmenting habitat
25 within the project corridor, these impacts would be considered minimal. Habitat
26 fragmentation typically affects species with small population sizes or that are dependent
27 upon migration to obtain spatially or temporally limited resources. The primary
28 pedestrian fence designs in the washes, which would be used to convey flood flows,
29 would also allow the transboundary migration of reptiles, amphibians, and small
30 mammals and, thus, reduce the fragmentation effects. Wildlife would also still be able to
31 migrate across the U.S.-Mexico border either to the east or west of the project

1 components. In addition, the species located within the project corridor which could be
2 affected by fragmentation are regionally common in both the U.S. and Mexico.
3 Therefore, no significant adverse effects are anticipated to the region's wildlife
4 population.

5
6 Additionally, short-term impacts to wildlife species (e.g., mule deer, red-tailed hawk,
7 desert cottontail, and California towhee) from increased noise during construction
8 activities could occur. Physiological responses from noise range from minor responses
9 such as an increase in heart rate to more damaging effects on metabolism and
10 hormone balance. Long-term exposure to noise can cause excessive stimulation to the
11 nervous system and chronic stress that is harmful to the health of wildlife species and
12 their reproductive fitness (Fletcher 1990). Behavioral responses vary among species of
13 animals and even among individuals of a particular species. Variations in response may
14 be due to temperament, sex, age, or prior experience. Minor responses include head-
15 raising and body-shifting, and usually, more disturbed mammals would travel short
16 distances. Panic and escape behavior results from more severe disturbances causing
17 the animal to leave the area (Busnel and Fletcher 1978). Since the highest period of
18 movement for most wildlife species occurs during nighttime or low daylight hours, and
19 construction activities would be conducted during daylight hours to the maximum extent
20 practicable, short-term impacts of noise on wildlife species are expected to be
21 insignificant.

22
23 Impacts to wildlife resulting from the operation of the portable lights could potentially
24 occur. Some species, such as insectivorous bats, may benefit from the concentration of
25 insects that would be attracted to the lights. However, the proposed portable lights
26 would only illuminate a minimal amount of area (200 feet per light), would be fitted with
27 backlighting shields, would not shine into riparian areas, and would be temporary. The
28 adverse and beneficial effects of lighting on reptiles and amphibians are currently
29 unknown (Rich and Longcore 2006). However, due to the temporary exposure to light
30 as a result of the proposed project, circadian rhythms in mammals and birds would not
31 be significantly altered. This artificial lighting may cause activity levels of in diurnal

1 animals to increase; however, any increase would not create significant impacts (Rich
2 and Longcore 2006). It is anticipated that the temporary lights would not operate any
3 longer than 4 weeks in one location, no more than 0.5-mile of lights would be in
4 operation at any one time, and no more than 10 lights would be used at once at each
5 project location. Wildlife would not be exposed to a nighttime lighting source once the
6 project is complete. Therefore, no significant impacts to wildlife are expected as a result
7 of the operation of portable lights.

8
9 The Proposed Action Alternative would not significantly impact wildlife resources
10 because construction activities would not conflict with the provisions of conservation
11 plans or interfere with the wildlife movements. The project sites are located within BLM
12 lands or private lands and would not affect the BLM South Coast Resource
13 Management Plan as mentioned in Section 3.2.2.2.

14
15 Indirect adverse impacts to wildlife habitat adjacent to the project corridor could occur
16 as IAs attempt to circumvent the proposed infrastructure. It is possible for IAs to
17 attempt illegal entry outside of the project corridor. However, the primary pedestrian
18 fence would act as a force multiplier and allow USBP to deploy agents to areas without
19 pedestrian barriers, minimizing potential adverse indirect impacts. Beneficial indirect
20 impacts would be expected from the protection afforded to areas to the north of the
21 project corridor due to the implementation of Proposed Action Alternative.

22
23 **3.8.2.3 Secure Fence Act Alignment Alternative**

24 Impacts would be similar to the Proposed Action Alternative, but the amount of wildlife
25 habitat impacted would be greater. Anticipated stresses to wildlife (e.g., mule deer, red-
26 tailed hawk, desert cottontail, and California towhee) caused by construction activities
27 (e.g., noise) would be expected. The implementation of the Secure Fence Act
28 Alignment Alternative would result in approximately 157 acres of wildlife habitat
29 permanently altered. The implementation of the Secure Fence Act alignment would
30 require a 130-foot wide corridor that would be devoid of vegetation to accommodate the
31 primary and secondary fences and the patrol road between them. Vegetation within this

1 corridor would be permanently removed and maintained as such, for agent safety
2 reasons and to reduce concealment opportunities, in the event the primary pedestrian
3 fence is breached. All other impacts would be similar to those discussed for the
4 Proposed Action Alternative. Minimal to moderate impacts would be expected.

6 **3.9 THREATENED AND ENDANGERED SPECIES**

8 **3.9.1 Affected Environment**

9 General information regarding Federal, state, and BLM threatened and endangered
10 species, critical habitat, and a list of protected species within the San Diego County was
11 previously discussed in the DHS 2003 EA; thus, this information is incorporated herein
12 by reference. A full list of Federally and state threatened and endangered species
13 occurring within San Diego County can be found in Appendix E.

14
15 The Federally listed species with the greatest potential to occur within or near the
16 project corridor are the least Bell's vireo (*Vireo bellii pusillus*), coastal California
17 gnatcatcher (*Polioptila californica californica*), Quino checkerspot butterfly (*Euphydryas*
18 *editha quino*), arroyo toad (*Bufo microscaphus californicus*), Otay tarplant (*Hemizonia*
19 *conjugens*), willowy monardella (*Monardella linoides* ssp. *viminea*), Encinitas baccharis
20 (*Baccharis vanessae*), and San Diego thornmint (*Acanthomintha ilicifolia*).

21
22 Biological surveys were completed for each portion of the proposed project in October
23 2007 to determine the presence of potential habitat for protected species. No Federally
24 listed threatened or endangered species were observed during the biological surveys
25 for this project or from past surveys in the area (USACE 1994, 1997; DHS 2003);
26 however, due to schedule conflicts, the most recent surveys were not conducted during
27 the proper season or in accordance with USFWS protocol. Thus, only habitat
28 assessments could be made to determine the presence of suitable habitat.

29
30 There is little potential for the least Bell's vireo or the arroyo toad to occur on or near the
31 project sites due to the lack of suitable habitat. Boundary Creek, near the Willows

1 project site, has had historic records of arroyo toads further north (upstream). However,
2 suitable habitat for the coastal California gnatcatcher was observed at the Horseshoe
3 Canyon site, as Diegan coastal sage scrub vegetation was present. Although the East
4 Brickyard to Gunsight and Cetis' Hill project sites also displayed Diegan coastal sage
5 scrub vegetation, these sites had a great level of disturbance due to the proximity to
6 residential and commercial establishments on the border as well as recent wildfires.
7 Therefore, these areas were not considered high quality suitable habitat.

8
9 There is potential for the Quino checkerspot butterfly to occur throughout the project
10 corridor. In addition, the 7 Gates/Railroad, Willow Access, and Willows primary
11 pedestrian fence conversion project sites, are located within designated critical habitat
12 for the Quino checkerspot butterfly. However, the primary host plant for the butterfly,
13 *Plantago erecta*, was not observed at any of the project sites during October 2007 field
14 visits. Vegetation within the 60-foot Roosevelt Reservation at the Willows Fence
15 conversion site has been removed by past construction projects and on-going public
16 and USBP vehicle traffic. Consequently, no primary constituent elements for the Quino
17 checkerspot butterfly occurs within this specific project reach.

18
19 Otoy tarplant, willowy monardella, Encinitas baccharis, and San Diego thornmint were
20 not observed within the areas surveyed for the individual project sites during October
21 2007 biological surveys.

22
23 The Wildlife and Habitat Data Analysis Branch of the California Department of Fish and
24 Game (CDFG) Department maintains lists of Wildlife of Special Concern. This list
25 includes species whose occurrence in California is or may be in jeopardy, or with known
26 or perceived threats or population declines. The California Natural Diversity Database
27 (CNDDDB) is a statewide inventory of the locations and condition of the state's rare
28 species and natural communities. These species are not necessarily the same as those
29 protected by the Federal government under the ESA.

30 The CDFG currently list 99 species that are considered endangered, threatened, or
31 species of concern within San Diego County (CNDDDB 2007). Only species that are

1 designated state endangered or threatened have state laws protecting them. The
2 CNDDDB indicated no known locations of Federally listed species within 1 mile of the
3 project sites (CNDDDB 2007); however, numerous state listed species have been
4 reported near the project corridor, as shown in Figure 3-3 and 3-4.

5
6 The BLM Manual 6840 provides policy and guidance, consistent with appropriate laws,
7 for the conservation of special status species of plants and animals, and the
8 ecosystems upon which they depend. These are species which are proposed for listing,
9 officially listed as threatened or endangered, or are candidates for listing as threatened
10 or endangered under the provisions of the ESA; those listed by a state in a category
11 such as threatened or endangered implying potential endangerment or extinction; and
12 those designated by each state director as sensitive. Tecate cypress (*Cupressus*
13 *forbesii*), a BLM sensitive plant species, is known to occur near the Willows Access
14 project site. The Thorne's hairstreak butterfly (*Callophrys gryneus thornei*) is also a
15 BLM sensitive butterfly that uses the Tecate cypress as its host plant. The remaining
16 BLM sensitive species are included on the list provided in Appendix E.

17 18 **3.9.2 Environmental Consequences**

19 The threshold of significance established for this analysis for threatened and
20 endangered species is:

- 21
22 • The action has a substantial adverse effect, either directly or through
23 habitat modifications, on any species identified as a sensitive or special-
24 status (*i.e.*, threatened or endangered) in local or regional plans, policies
25 or regulations by the USFWS and CDFG which cannot be mitigated.
26

27 **3.9.2.1 No Action Alternative**

28 The No Action Alternative would not directly impact any protected species as no
29 construction activities would occur. However, indirect adverse impacts to protected
30 species, such as habitat degradation as a result of continued illegal traffic, would occur
31 and could potentially increase.

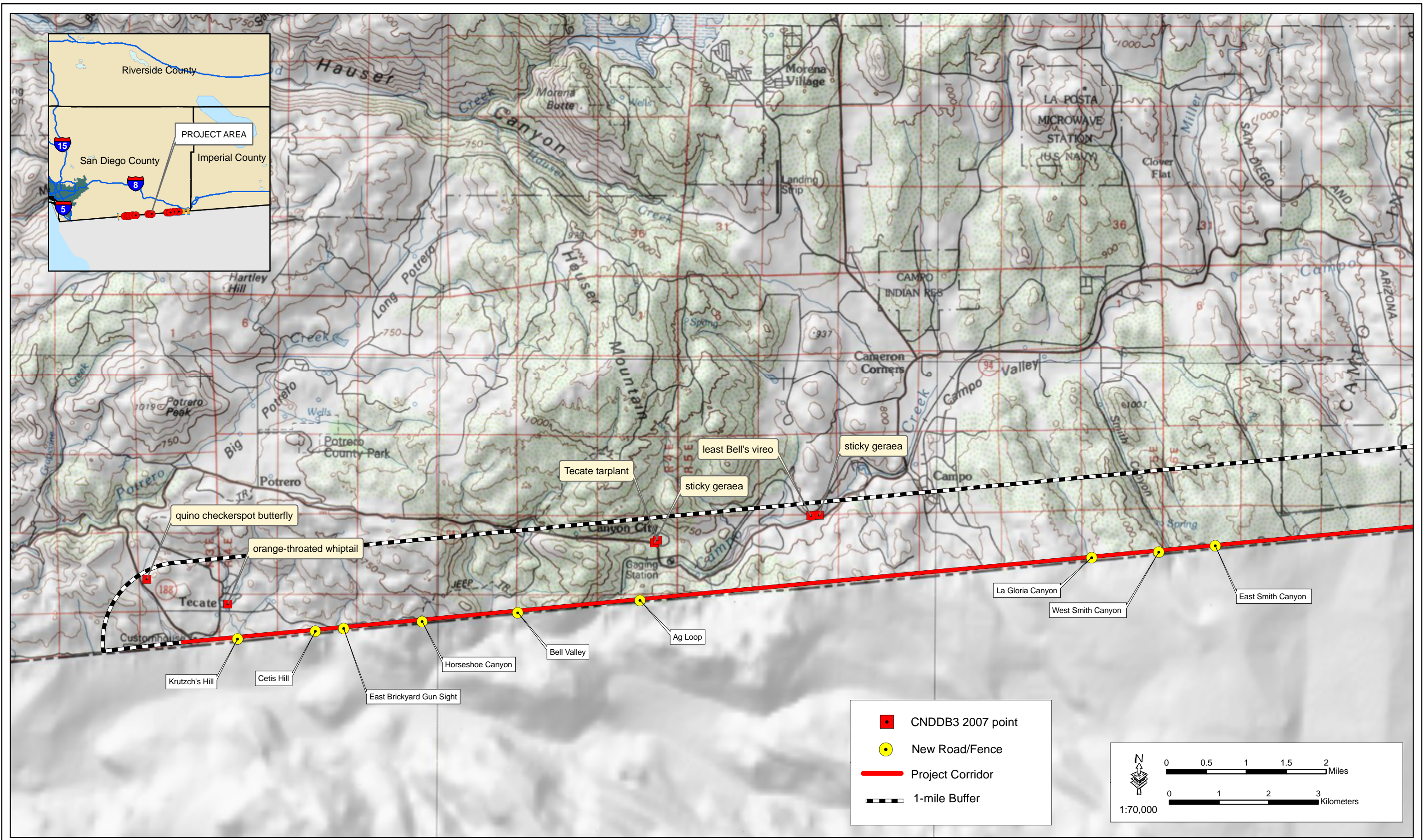


Figure 3-3 Proposed Action & CNDDDB Map 1

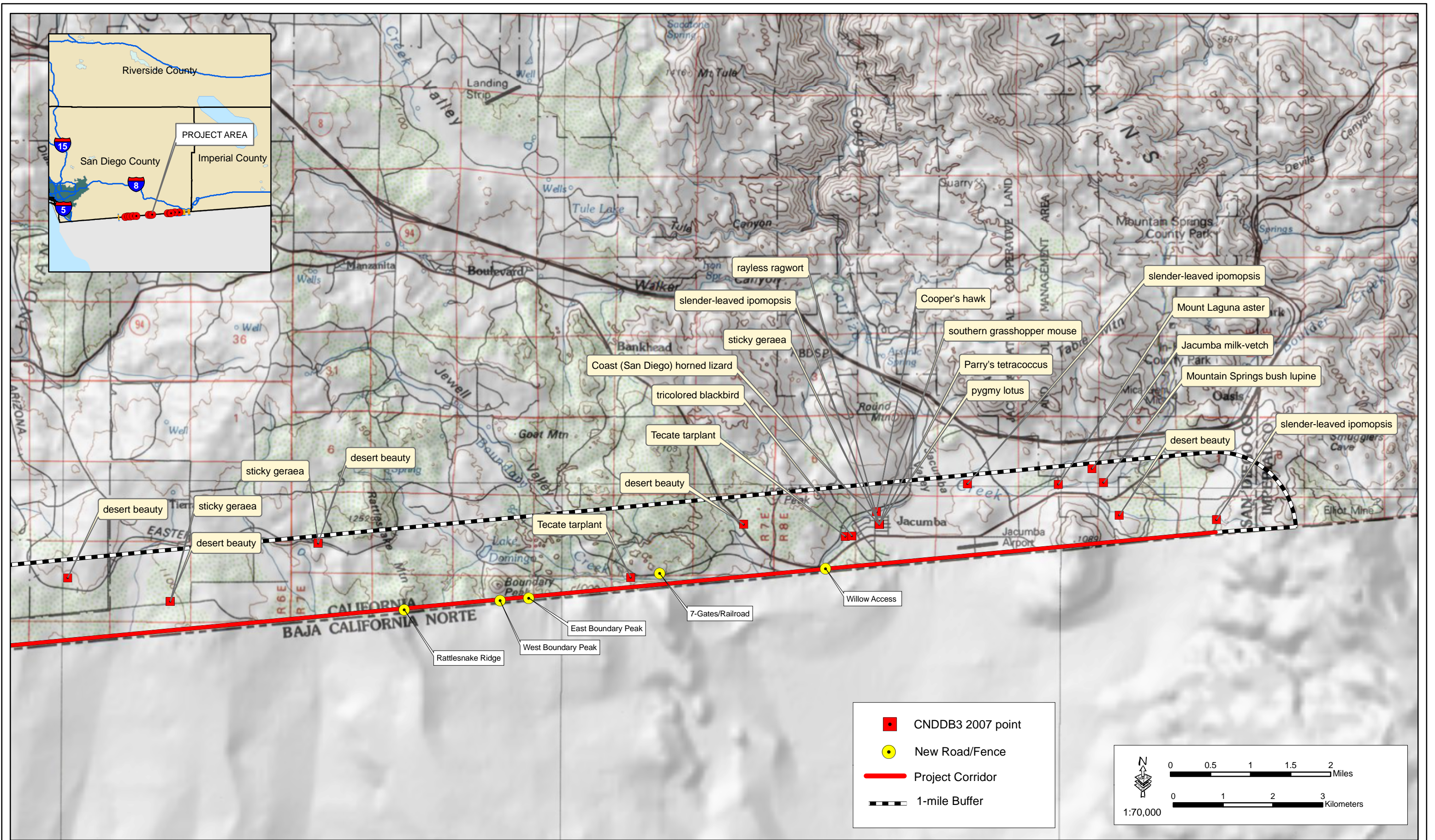


Figure 3-4: Proposed Action & CNDDDB Map 2

1 **3.9.2.2 Proposed Action Alternative**

2 The Proposed Action Alternative has the potential to adversely affect the coastal
3 California gnatcatcher and the Quino checkerspot butterfly. Although suitable habitat
4 exists throughout the project corridor for the butterfly, only three of the project sites,
5 Horseshoe Canyon, East Brickyard to Gunsight, and Cetus' Hill supported coastal sage
6 scrub vegetation that is utilized by the coastal California gnatcatcher. East Brickyard to
7 Gunsight and Cetus' Hill are highly disturbed due to wildfires that had occurred prior to
8 the biological surveys, and are in proximity to developed areas along the border.
9 Therefore, the habitat that currently exists at these sites is considered low quality.

10

11 Conversely, based upon current design concepts, 5 acres of mixed coastal sage scrub
12 and chamise chaparral habitat would be impacted at the Horseshoe Canyon project
13 site. This loss of habitat may adversely affect the coastal California gnatcatcher,
14 although there is an abundance of similar, and higher quality habitat north of the project
15 site and within the region.

16

17 The use of portable lighting and a 24-hour work schedule could also have adverse
18 impacts to the gnatcatcher due to the potential disturbance of nesting and breeding
19 opportunities. However, nighttime construction and use of portable lights would only
20 occur in the event of schedule delays due to weather or unforeseen circumstances. The
21 lights would be removed upon completion of construction activities. The portable lights
22 would be equipped with backlighting shields to minimize stray light into potential habitat
23 north of the project corridor and no lights would be positioned in a manner to illuminate
24 riparian areas.

25

26 Potential habitat for the least Bell's vireo and the southwestern willow flycatcher is
27 located along Boundary Creek, south of the 7 Gate/Railroad project site. Noise created
28 during construction activities at this project site could have an impact on either species,
29 if they are indeed present. However, due to the temporary nature of the construction
30 combined with the fact that the railroad is currently active, USBP has determined that

1 the Proposed Action Alternative may affect but is not likely to adversely either the least
2 Bell's vireo or the southwestern willow flycatcher.

3
4 As mentioned above, suitable habitat for the Quino checkerspot butterfly exists
5 throughout the project corridor. However, during recent biological surveys the primary
6 host plant, *Plantago erecta*, was not observed. Regardless, the loss of potential habitat
7 for the butterfly is likely to create adverse impacts to the butterfly. Formal consultation
8 with the USFWS has been initiated to address adverse impacts to both species.

9
10 No effects to any other Federally protected species are expected as the project sites
11 either lacks suitable habitat or the species were not observed in the project corridor
12 during recent biological surveys.

13
14 No state listed species are expected to occur in or near the project sites; therefore, no
15 direct impacts are not anticipated to occur to any state listed species. The Tecate
16 cypress is located within the footprint of the Willows Access Road and would be
17 permanently impacted. Up to eight specimens of Tecate cypress would be impacted by
18 the construction of the Willows Access road, depending upon the final road design and
19 alignment. This loss, however, would not be considered a long-term, significant impact
20 to this species' population. The design of the road would be developed to avoid these
21 specimens to the maximum extent practicable.

22
23 Indirect adverse impacts to potentially suitable habitat for protected species along the
24 southwest border could occur due to IAs shifting their activities in order to avoid
25 apprehension. It is impossible, however, for USBP to determine how much of the illegal
26 traffic currently entering the project corridor would shift either to the east, west, or be
27 eliminated completely. The implementation of the Proposed Action Alternative would
28 reduce or eliminate illegal traffic north of the primary pedestrian fence within the project
29 corridor, protecting habitat that could otherwise be disturbed and permanently
30 degraded. Further, because the primary pedestrian fence would act as a force
31 multiplier, USBP would be able to deploy agents to those areas without primary

1 pedestrian fence, thereby minimizing any potential indirect impacts to protected species
2 habitat.

3
4 Construction activities would impact 0.2 acre at the Willow Access Road and 11 acres
5 at the 7 Gates/Railroad Road, which is located within Quino checkerspot butterfly critical
6 habitat. Although 7 Gates/Railroad is located within critical habitat, the area is currently
7 disturbed due to the existing railroad right-of-way and previous road construction.
8 Therefore, it is the USBP's determination that there would be adverse modification to
9 only 0.2 acre of Quino checkerspot butterfly critical habitat located at the Willow Access
10 Road. Formal consultation with USFWS would be conducted to create mitigation
11 measures to reduce adverse affects to the butterfly and to offset the modification of 0.2
12 acre of critical habitat.

13
14 Since implementation of the Proposed Action Alternative would result in significant
15 impacts to threaten or endangered species, from a CEQA standpoint, mitigation would
16 be required to reduce these impacts to less than significant. Impacts to individual
17 specimens or suitable habitat that could potentially support protected species would be
18 offset by mitigation measures that are currently being negotiated with the USFWS.

19

20 **3.9.2.3 Secure Fence Act Alternative**

21 The Secure Fence Act Alignment Alternative would have greater impacts to the coastal
22 California gnatcatcher and Quino checkerspot butterfly due to the larger construction
23 footprint and enforcement zone required under this alternative. The impacts associated
24 with this alternative could potentially be significant and additional surveys and
25 subsequent NEPA documentation would be required to properly analyze the
26 significance of the potential impacts.

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1 **3.10 CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES**

2
3 **3.10.1 Affected Environment**

4 Cultural, historical, and archaeological resources were previously discussed in the DHS
5 2003 EA and therefore are incorporated herein by reference. The archaeological
6 record in southern California begins approximately 12,000 years ago. Chartkoff and
7 Chartkoff recognize four major periods: Paleoindian, Archaic, “Pacific” (herein referred
8 as Late Prehistoric consistent with Erlandson 1994; Moratto 1984), and Historic (Vargas
9 *et al.* 2002).

10
11 *The Paleoindian Period (12,000 – 8,000 B.P.)* is characterized by small, mobile bands
12 of hunter-gatherers. There is only sparse evidence of terminal Paleoindian occupation in
13 the San Diego area. Lasting from the terminal Pleistocene to the Altithermal in the San
14 Diego region is a series of cultures termed the Western Pluvial Lakes Tradition (WPLT).
15 Typically WPLT sites are associated with pluvial lakes, and the associated lake, marsh,
16 and grassland environments. In the San Diego region the cultural expression of that
17 parallels the WPLT has been classified by Moratto as a “Paleo-Coastal Tradition,” which
18 is seen as including the San Dieguito Complex (Moratto 1984; Vargas *et al.* 2002).

19
20 *The Archaic Period (8,000 – 2500 B.P.)* occupations that followed the San Dieguito
21 Complex were originally defined as the *Shell Midden Culture* and were later renamed
22 the La Jolla Complex (Vargas *et al.* 2002). The La Jolla tool kits include ceramics, large-
23 stemmed and indented-based points, and unique discoidal and cogged stones of
24 unknown function and sites of this complex are frequent recognized by milling stone
25 assemblages associated with shell middens (Vargas *et al.* 2002).

26
27 *The Late Prehistoric Period (2500 – 200 B.P.)* arose gradually from the Archaic and is
28 characterized by a shift to a more local economy and the development of complex
29 societies. Both True (1966, 1970) and Moratto (1984) suggest that for the San Diego
30 Area the La Jolla evolved into the Cuyamaca Complex, which in turn evolved into the
31 historic Digueño speakers.

1 *The Historic Period (200 B.P. – present)* marks the advent of European settlement in
2 California. The first Spanish Explorer in San Diego County was Juan Rodigro Cabrillo in
3 1542. Soon afterwards, other missions and presidios were established farther north
4 along the coast of California. The mission complexes sought to convert the indigenous
5 Yuman-speaking inhabitants to Christianity and make them loyal to the Spanish Crown.
6 Mexico declared its independence in 1822 and replaced the colonial Spanish missions
7 with the rancharo system. Mexico held this area of California until the end of the
8 Mexican-American War with the signing of the Treaty of Guadalupe-Hidalgo in 1848 and
9 ceded California to the U.S. By the 1850-1870 interval, California became a state and
10 San Diego became an American frontier town. With its position on the San Diego Bay
11 and plans for the construction of a railroad connection, San Diego became the regional
12 economic center and a merchant port. In 1919, the San Diego and Arizona Railroad
13 was completed. Portions of the rail line occur within the 7 Gates/Railroad project area.
14 The last passenger train operated in 1951; however, the railroad is still used today for
15 hauling freight.

16

17 **3.10.1.1 Previous Archaeological Investigations**

18 A site record search was conducted by the South Coastal Information Center (SCIC) at
19 San Diego State University to determine if previously recorded sites are located within
20 the project Area of Potential Effect (APE). The records search included site
21 descriptions and locations of previously recorded sites, locations of previously
22 conducted archaeological investigations, and historic reference data such as historic
23 homes database and historic maps. The records search indicated that 44
24 archaeological sites are located within 1 mile of the project APE. These sites include
25 prehistoric resource procurement and processing sites and temporary camps with minor
26 habitation, and historic railroad, mining, and homesteading sites from the turn of the
27 twentieth-century through the middle twentieth-century. Of the 44 previously recorded
28 archaeological sites, two sites are mapped by SCIC as being within or very close to the
29 project area. One site consisted of a prehistoric lithic scatter of three to four flakes, the
30 other consisted of a single bedrock milling feature with one grinding surface and no
31 associated artifacts or subsurface midden. The records search also indicated that 31

1 previously conducted archaeological investigations have occurred within 1 mile of the
2 proposed project area. Three of these projects appear to overlap the current project
3 area.

4
5 **3.10.1.2 Current Archaeological Investigation**

6 A Class III cultural resources survey was conducted within the APE of the proposed
7 project. The cultural resources survey identified two prehistoric cultural resources and
8 two historic cultural resources. The first prehistoric cultural resource consisted of two
9 bedrock milling loci including approximately four bedrock-milling features with 14
10 grinding surfaces (12 slicks and two basins). The site measures approximately 180 feet
11 east/west by 23 feet meters north/south. No artifacts, other features, or evidence of
12 subsurface cultural deposits were found associated with these features. This site is not
13 considered eligible for either the State or National Registers of Historic Places (NRHP).
14 The second prehistoric cultural resource recorded consisted of a single retouched flake.
15 No other artifacts or features were found associated with this isolate. The isolate is not
16 eligible for either the State or NRHP lists.

17
18 The two historic cultural resources identified were International Boundary Monuments
19 No. 243 and No. 235. Both of these historic objects are considered eligible for the
20 NRHP and are, therefore, considered significant cultural resources. The monuments
21 are associated with numerous treaties signed with Mexico concerning the surveying and
22 marking of the international border and the subsequent resurveying, upkeep, and
23 maintenance of the border markers stretching from El Paso, Texas/Ciudad Juarez, and
24 Chihuahua to the Pacific Ocean. These treaties include the 1848 Treaty of Guadalupe
25 Hidalgo, the 1853 Gadsen Treaty, and the Conventions of 1882, 1884, and 1889.
26 Border Monuments No. 243 and No. 235 are also associated with U.S. Commissioner
27 John Whitney Barlow, a prominent figure in American history.

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1 **3.10.2 Environmental Consequences**

2 The CEQA significance thresholds established for cultural resources are:

- 3
- 4 • Any action that would alter characteristics that qualify a historic property
 - 5 for the NRHP or diminish the historic property's integrity.
 - 6 • Any action that would disturb any human remains, including those interred
 - 7 outside of formal cemeteries.
 - 8

9 **3.10.2.1 No Action Alternative**

10 No direct impacts to cultural resources are expected, as no construction activities would
11 occur. However, indirect adverse impacts to cultural resources as a result of continued
12 IA traffic disturbing cultural resources north of the project corridor could occur, and
13 could potentially increase.

14

15 **3.10.2.2 Proposed Action Alternative**

16 The two prehistoric cultural resources identified are not considered to be eligible for
17 listing on the NRHP and are, therefore, not considered significant cultural resources.
18 Two historic objects, International Boundary Monument numbers 243 and 235, are
19 located within the project corridor and could be potentially affected by the Proposed
20 Action Alternative. The historic objects are considered eligible for listing on the NRHP
21 and are considered significant cultural resources. Mitigation measures to avoid adverse
22 impacts to these cultural resources are outlined in Section 5.0 of this document. These
23 measures, as well as other potential mitigation measures developed through
24 consultation with the California SHPO and BLM would assure that no adverse impacts
25 would occur to these cultural resources. Additionally, all Federally recognized tribes
26 with affiliation to the project corridor have been coordinated with regarding the proposed
27 project. To date, no comments have been received from any tribes.

28

29 As a result, the Proposed Action Alternative would not result in significant impacts on
30 cultural resources provided mitigation measures, which would be identified through the
31 Section 106 process, are properly implemented.

32

1 **3.10.2.3 Secure Fence Act Alternative**

2 This alternative has the potential for significant impacts to cultural, historic, or
3 archaeological resources and would need additional surveys and analysis if this
4 alternative were ultimately selected. Section 106 compliance would need to be
5 reinitiated as well.

6

7 **3.11 AIR QUALITY**

8

9 **3.11.1 Affected Environment**

10 Information regarding air quality within the project corridor was discussed and described
11 in the DHS 2003 EA and is incorporated by reference herein. In California, attainment is
12 classified for both National Ambient Air Quality Standards (NAAQS) established by the
13 EPA and the California Ambient Air Quality Standards. In addition to being classified as
14 “non-attainment,” the degrees of non-attainment are divided into categories indicating the
15 severity. Degrees of non-attainment include marginal, moderate, serious, severe, or
16 extreme.

17

18 The NAAQS are included in Table 3-4. Areas that do not meet these standards are
19 called non-attainment areas; areas that meet both primary and secondary standards are
20 known as attainment areas. The California Applicant’s Attorneys Association of 1990
21 established new deadlines for the achievement of NAAQS, depending on the severity of
22 non-attainment. San Diego County is classified as a moderate non-attainment area for
23 carbon monoxide (CO) and the 8-hour ozone (O₃) (EPA 2007b). Air emissions from
24 internal combustion engines produce volatile organic compounds and nitrogen oxides,
25 which are precursor molecules that react with oxygen in the atmosphere to create O₃.
26 CO in San Diego County is a result of combustion by-products produced by cars, trucks,
27 and industrial operations utilizing petroleum for energy needs.

28

29

30

31

1

Table 3-4. National Ambient Air Quality Standards

POLLUTANT	STANDARD VALUE*	STANDARD TYPE
CO		
8-hour average	9 ppm (10mg/m ³)	P
1-hour average	35 ppm (40mg/m ³)	P
Nitrogen Dioxide		
Annual arithmetic mean	0.053 ppm (100µm ³)	P and S
O₃		
1-hour average	0.12 ppm (235µg/m ³)	P and S
8-hour average	0.08 ppm (157µg/m ³)	P and S
Lead		
Quarterly average	1.5 µg/m ³	P and S
Particulate<10 micrometers (PM-10)		
Annual arithmetic mean	50 µg/m ³	P and S
24-hour average	150 µg/m ³	P and S
Particulate<2.5 micrometers (PM-2.5)		
Annual arithmetic mean	15 µg/m ³	P and S
24-hour Average	65 µg/m ³	P and S
Sulfur Dioxide (SO₂)		
Annual arithmetic mean	0.03 ppm (80µg/m ³)	P
24-hour average	0.14 ppm (365µg/m ³)	P
3-hour average	0.50 ppm (1300µg/m ³)	S

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6

Source: EPA 2006
 Legend: P = Primary S = Secondary
 ppm = parts per million mg/m³ = milligrams per cubic meter
 µg/m³ = micrograms per cubic meter
 *Parentetical value is an approximate equivalent concentration.

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According to 40 CFR 51.853(b), Federal actions require a Conformity Determination for each pollutant where the total of direct and indirect emissions in a non-attainment or maintenance area caused by a Federal action would equal or exceed any of the rates in paragraphs 40 CFR 51.853(b)(1) or (2). If emissions from a Federal action do not exceed *de minimis* thresholds, and if the Federal action is not considered a regionally significant action, it is exempt from further conformity analysis. Although San Diego County is in non-attainment for CO and 8-hour O₃, the project area is located outside of the City of San Diego and within remote locations that have great wind dispersal patterns.

1 **3.11.2 Environmental Consequences**

2 The CEQA significance thresholds established for air quality are:

- 3
- 4 • Any action that conflicts with or obstructs implementation of the applicable
 - 5 air quality plan.
 - 6 • Any action that violates any air quality standard or contributes
 - 7 substantially to an existing or projected air quality violation.
 - 8 • Any action that exposes sensitive receptors to substantial pollutant
 - 9 concentrations.
- 10

11 **3.11.2.1 No Action Alternative**

12 No impacts to air quality are expected as no construction activities would occur.

13 However, indirect adverse impacts to air quality from IA traffic and subsequent USBP

14 enforcement activities would occur, and could potentially increase.

15

16 **3.11.2.2 Proposed Action Alternative**

17 A minimal short-term increase in local air pollution would be expected from primary

18 pedestrian fence and road construction. Temporary increases in air pollution would be

19 from the use of construction equipment, portable lights, and fugitive dust. Due to the

20 short duration of the individual projects, any increases or impacts on ambient air quality

21 during construction activities are expected to be short-term and can be reduced further

22 through the use of standard dust control techniques, including roadway watering and

23 chemical dust suppressants, such as PennzSuppress® or an equivalent product.

24 During the construction of the proposed project, proper and routine maintenance of all

25 vehicles and other construction equipment would be implemented to ensure that

26 emissions are within the design standards of all construction equipment. Air emissions

27 from the Proposed Action Alternative would be temporary and would not significantly

28 impair air quality in the region.

29

30 Calculations were performed to estimate the total air emissions from the construction

31 activities. Calculations were made for standard construction equipment such as

32 bulldozers, generators, excavators, pole trucks, front end loaders, back hoes, cranes,

33 and dump trucks using emission factors from EPA approved emission model NOROAD

6.2. See Appendix F for air quality calculations. Assumptions were made regarding the type of equipment, the total number of days each piece of equipment would be used, and the number of hours per day each type of equipment would be used. The assumptions, emission factors, and resulting calculations are presented in Appendix F.

Fugitive dust calculations were made for soil disturbance while installing primary pedestrian fence, constructing new roads and grading and constructing the re-alignment of the all weather patrol road. A significant amount of dust can arise from the mechanical disturbance of surface soils. Dust generated from these open sources is termed "fugitive" because it is not discharged to the atmosphere in a confined flow stream. Fugitive dust emissions were calculated using emission factors from Mid-Atlantic Regional Air Management Association (2006).

Impacts from combustible air emissions from Office of Border Patrol traffic are expected to be the same before and after the proposed construction activities. Construction workers will temporarily increase the combustible emissions in the air shed during their commute to and from the project area. Their emissions were calculated in the air emission analysis (Appendix F) and are included in the totals in Table 3-5.

Table 3-5. Total Air Emissions (tons/year) from Construction Activities vs. de minimis Levels

Pollutant	Total (tons/year)	de minimis Thresholds (tons/year)
Carbon Monoxide	42.45	100
Volatile Organic Compounds	9.61	100
Nitrogen Oxides	77.39	100
PM-10	22.70	NA
PM-2.5	9.72	NA
Sulfur Dioxide	9.31	100

Source: 40 CFR 51.853 and GSRC air emission model projections.

The total air quality emissions, as presented in Appendix F, were calculated to determine the applicability of the General Conformity Rule. A summary of the total emissions are presented in Table 3-5. As can be seen from this table, the proposed construction activities do not exceed de minimis thresholds and, thus, do not require a

1 Conformity Determination. As there are no violations of air quality standards and no
2 conflicts with the state implementation plan, there would be no significant impacts to air
3 quality from the implementation of the Proposed Action Alternative.

4
5 Dust and small rock fragments would be emitted into the air during blasting detonation;
6 however, this would be expected to immediately settle and fall to the ground causing no
7 significant or long-term negative impacts to air quality. CO would be the most important
8 factor on air quality in the area. This gas would be produced during detonation,
9 depending on the type and amount of explosives used for the activities (MEMCL 1999).
10 Transporting winds would facilitate dispersion and alleviate high concentrations of CO in
11 the project area. Furthermore, the blasting contractor would be required to use BMPs to
12 ensure minimal fugitive dust and other emission impacts from the blasting. No long-
13 term impacts are expected if this alternative is chosen.

14
15 Diesel generators would be used to power the portable lights. These generators would
16 cause low amounts of air emissions. These amounts would be below the *de minimis*
17 threshold (*i.e.*, 100 tons per year) and, thus, would not violate National or state
18 standards. If a 24-hour work schedule is needed then the portable lights would operate
19 throughout the night. However, these portable lights would be temporary and as
20 construction activities are completed within a particular area the lights would be
21 relocated to the new area. Furthermore, a 24-hour schedule would only occur if
22 unforeseen circumstances occur or additional work crews become available.
23 Regardless, the impacts from the operation of the lights would be temporary as the
24 lights would be eliminated from the project area upon cessation of the project. Thus, no
25 significant impacts to air quality in the region would occur as a result of operating
26 portable lights.

27
28 Indirect impacts to air quality due to the shifting of illegal traffic in order to avoid the
29 proposed infrastructure is possible; however, it is unknown where IAs would choose to
30 breach the U.S.-Mexico border. Therefore, it is impossible for the USBP to determine

1 how much of the illegal traffic currently entering the project corridor would shift either to
 2 the west or be eliminated completely.

3
 4 The Proposed Action Alternative would not conflict with any air quality plans, violate air
 5 quality standards, or expose sensitive receptors to pollutants. Therefore, no significant
 6 impacts are expected.

7
 8 **3.11.2.3 Secure Fence Act Alternative**

9 This alternative would have similar impacts to those discussed as the Proposed Action
 10 Alternative. However, these impacts would be greater due to the increased size of the
 11 project footprint. If this alternative were ultimately selected, moderate to major amounts
 12 of blasting would potentially have to occur in order to construct the enforcement zone.
 13 As with the Proposed Action Alternative, the blasting contractor would be mandated to
 14 use BMPs to ensure minimal impact to air quality from blasting. No long-term impacts
 15 or significant impacts would be expected if this alternative is chosen. The Secure
 16 Fence Act Alternative air quality emissions were calculated in Appendix F and a
 17 summary of the calculations are presented in Table 3-6.

18
 19 **Table 3-6. Total Air Emissions (tons/year) from Construction Activities**
 20 **vs. de minimis Levels**

Pollutant	Total (tons/year)	de minimis Thresholds (tons/year)
Carbon Monoxide	49.68	100
Volatile Organic Compounds	10.66	100
Nitrogen Oxides	90.52	100
Particulate Matter <10 microns	31.39	NA
Particulate Matter <2.5 microns	12.14	NA
Sulfur Dioxide	11.61	100

21 Source: 40 CFR 51.853 and GSRC air emission model projections.

25
 26 **3.12 NOISE**

27
 28 **3.12.1 Affected Environment**

29 Noise is generally described as unwanted sound, which can be based either on
 30 objective effects (hearing loss, damage to structures, etc.) or subjective judgments

1 (community annoyance). Sound is usually represented on a logarithmic scale with a
 2 unit called the decibel (dB). Sound on the decibel scale is referred to as a sound level.
 3 The threshold of human hearing is approximately 0 dB, and the threshold of discomfort
 4 or pain is around 120 dB.

5
 6 Noise levels are computed over a 24-hour period and adjusted for nighttime
 7 annoyances to produce the day-night average sound level (DNL). DNL is the
 8 community noise metric recommended by the EPA and has been adopted by most
 9 Federal agencies (EPA 1972; FICON 1992).

10
 11 Several examples of noise pressure levels in decibel – A weighted scale (dBA) are
 12 listed in Table 3-7. A DNL of 65 dBA is the level most commonly used for noise
 13 planning purposes and represents a compromise between community impacts and the
 14 need for activities like construction, which do cause noise. Areas exposed to DNL above
 15 65 dBA are generally not considered suitable for residential use. A DNL of 55 dBA was
 16 identified by the EPA as a level below which there is effectively no adverse impact (EPA
 17 1972).

18
 19 **Table 3-7. dBA Sound Levels of Typical Noise Environments**

dBA	Overall Level	Noise Environment
120	Uncomfortably Loud (32 times as loud as 70 dBA)	Military jet takeoff at 50 ft
100	Very loud (8 times as loud as 70 dBA)	Jet flyover at 1,000 ft
80	Loud (2 times as loud as 70 dBA)	Propeller plane flyover at 1,000 ft Diesel truck 40 mph at 50 ft
70	Moderately loud	Freeway at 50 ft from pavement edge Vacuum cleaner (indoor)
60	Relatively quiet (1/2 as loud as 70 dBA)	Air condition unit at 10 ft Dishwasher at 10 ft (indoor)
50	Quiet (1/4 as loud as 70 dBA)	Large transformers Small private office (indoor)
40	Very quiet (1/8 as loud as 70 dBA)	Bird calls Lowest limit of urban ambient sound
10	Extremely quiet (1/64 as loud as 70 dBA)	Just audible
0	Threshold of hearing	

20

1 Some noise levels are continuous sounds (*i.e.*, air conditioner, vacuum cleaner) whose
2 levels are constant for some time. Other noise levels like the automobile or heavy truck
3 are the maximum sound during a vehicle passby. Noise levels, such as urban daytime
4 and urban nighttime, are averages over some extended period.

6 **3.12.2 Environmental Consequences**

7 The CEQA significance thresholds established for noise are:

- 8
- 9 • Any action that would result in a substantial permanent increase in
10 ambient noise levels in the project vicinity above existing levels without the
11 project.
- 12 • Any action that would result in a substantial temporary or periodic increase
13 in ambient noise levels in the project vicinity above existing levels without
14 the project.

15

16 **3.12.2.1 No Action Alternative**

17 No noise impacts would occur as a result of the No Action Alternative because
18 construction activities would not occur. However, indirect temporary, increases in noise
19 levels from illegal traffic and consequent USBP enforcement activities would be
20 expected to continue and possibly increase in frequency of occurrences.

21

22 **3.12.2.2 Proposed Action Alternative**

23 Noise levels created by the transport of construction vehicles, construction equipment,
24 and construction activities would vary depending on several factors, such as climatic
25 conditions, season, and the condition of the equipment. All construction and transport
26 activities would occur during daylight hours. Noise levels would decrease to an
27 inaudible level as the distance between the construction activities and potential noise
28 receptors increases. Table 3-8 describes noise emission levels for construction
29 equipment which range from 73 dBA to 82 dBA (Federal Highway Administration
30 [FHWA] 2007).

1 **Table 3-8. dBA Sound Levels of Construction Equipment**

Type of Construction Equipment	dBA
Backhoe	78
Crane	81
Dump Truck	76
Excavator	81
Front end loader	79
Generator	73
Concrete mixer truck	79
Bull dozer	82

2 Source: FHWA 2007

3
 4 Two residences are located near the 7 Gates/Railroad area that are considered
 5 sensitive noise receptors. Within the remainder of the project corridor, no sensitive
 6 noise receptors exist. Construction activities would create temporary and minor
 7 increases in ambient noise levels. Blasting contractors would be mandated to establish
 8 BMPs that would ensure that any blasting activities would have minimal noise impacts
 9 locally and regionally. Nighttime construction would be restricted along the 7
 10 Gates/Railroad project site to avoid disturbances to the local residents.

11
 12 Assuming the worst case scenario of 82 dBA for a bull dozer, as would be the case
 13 during the road construction along the project corridor, all areas within 350 feet of the
 14 project corridor would have noise levels exceeding 65 dBA. Construction noise levels
 15 would attenuate to 55 dBA at a distance of 1,100 feet from construction activities.
 16 Attenuation could be achieved at much shorter distances depending upon the local
 17 topography, vegetation, climatic conditions, and the time of year. Noise impacts would
 18 detract from the undeveloped characteristics of the project corridor. However, this level
 19 of noise is expected to be minimal as it would be localized and be expected to return to
 20 pre-project conditions at the completion of construction. Therefore, noise impacts would
 21 be temporary and no significant impacts to ambient noise levels would occur.

22
 23 **3.12.2.3 Secure Fence Act Alternative**

24 This alternative would have greater impacts to ambient noise levels in the project
 25 corridor due to the increased footprint, construction activities, and amount of

1 disturbance. This alternative would require more blasting and clearing than the
2 Proposed Action Alternative; however, the impacts associated with this alternative
3 would similar to the Proposed Action Alternative. Noise levels and impacts along the 7
4 Gates/Railroad project site would be the same as that described for the Proposed
5 Action Alternative, since no primary pedestrian fence would be installed in this area.
6 The impacts would be considered minimal to moderate and would be short-term.
7 Ambient noise levels would return to pre-construction levels upon completion of the
8 project. No significant impacts to noise levels regionally would be expected if this
9 alternative were chosen.

10

11 **3.13 AESTHETIC AND VISUAL RESOURCES**

12

13 **3.13.1 Affected Environment**

14 Visual and aesthetic resources were discussed in the DHS 2003 EA and are
15 incorporated by reference herein. Aesthetic resources consist of the natural and man-
16 made landscape features that appear indigenous to the area and give a particular
17 environment its visual characteristics. It is essentially based on an individual or group of
18 individuals' judgment as to whether or not an object is pleasing, and/or would affect
19 quality of life. With the exception of small residential communities near Canyon City,
20 Campo, and Jacumba, the project region is characterized by undeveloped, open
21 landscapes. The major appeal of the region is its vast areas of naturally occurring
22 landscape. At a closer look, however, a large number of illegal trails and roads, damage
23 from human-induced wildland fires, and litter left behind by IAs can be found throughout
24 the project corridor, all of which detracts from the region's natural beauty. There are no
25 unique, natural, or manmade features in the project area that create any different visual
26 landscapes than those described above.

27

28 **3.13.2 Environmental Consequences**

29 The CEQA significance threshold for aesthetics is:

30

- 31 • The action substantially and permanently degrades the existing visual
32 character or quality of the region.

33

1 **3.13.2.1 No Action Alternative**

2 No impacts to aesthetics would occur upon implementation of the No Action Alternative
3 as no construction activities would occur. However, indirect adverse impacts to
4 aesthetics as a result of IAs trampling vegetation and leaving trash and debris would
5 continue and possibly increase.

6

7 **3.13.2.2 Proposed Action Alternative**

8 The construction of primary pedestrian fence and road would create adverse impacts to
9 aesthetics of the project corridor. However, the proposed TI projects are extending
10 existing road and fences, which has already degraded the aesthetic value of the project
11 area. In addition, illegal trails and trash currently detract from the visual qualities of the
12 project corridor. A short-term, minimal impact to aesthetics would occur during
13 construction by the presence of construction equipment and use of portable lighting.
14 The Proposed Action would not substantially or permanently degrade the existing visual
15 character of the region; thus, there would be no long term significant adverse impacts.

16

17 Indirect adverse impacts related to the possibility of IAs circumventing the proposed
18 primary pedestrian fence would be similar to those mentioned previously. Beneficial
19 indirect impacts would be expected as the primary pedestrian fence would substantially
20 reduce or eliminate IA traffic and associated trash and illegal trails in the project
21 corridor.

22

23 **3.13.2.3 Secure Fence Act Alternative**

24 This alternative would have minimal to moderate impacts on aesthetics and visual
25 resources as all areas within the project corridor would consist of an enforcement zone
26 130-feet wide with a double fence. However, as stated above, the project corridor is
27 interlaced with existing infrastructure, illegal trails, and debris left by IAs. Although there
28 would be minimal to moderate impacts upon implementation of this alternative, because
29 of the existing infrastructure, debris, and illegal trails, these impacts would not be
30 considered significant.

31

1 **3.14 HAZARDOUS MATERIALS**

2
3 **3.14.1 Affected Environment**

4 EPA's mission is to protect humans and the environment and work to develop and
5 enforce regulations that implement environmental laws enacted by Congress (from such
6 legislation as the Resource Conservation and Recovery Act of 1976 and the
7 Comprehensive Environmental Response, Compensation, and Liability Act of 1980).
8 The EPA maintains a list of hazardous waste sites, particularly waste storage/treatment
9 facilities or former industrial manufacturing sites in the U.S.

10
11 EPA databases, Environmental and Compliance History Online and Envirofacts Data
12 Warehouse, were reviewed for the locations of hazardous waste sites within or near the
13 proposed project corridor (EPA 2007c, 2007d). According to both of these databases,
14 no hazardous waste sites are located near or within the project corridor.

15
16 Unregulated solid waste within east San Diego County has become a severe problem in
17 recent years due to illegal vehicle and foot traffic. According to the Ninth Report of the
18 Good Neighbor Environmental Board (GNEB) to the President and Congress of the
19 U.S., the average IA disposes of approximately 8 pounds of waste a day. This waste
20 consists of backpacks, clothing, blankets, water bottles, plastic sheeting, food, and other
21 debris (GNEB 2006). Within the project area these forms of unregulated solid waste are
22 the most commonly observed.

23
24 **3.14.2 Environmental Consequences**

25 The CEQA significance thresholds for hazardous materials are:

- 26
27
- 28 • Any action that creates a hazard to the public or the environment through
routine transport, use, or disposal of hazardous materials.
 - 29 • Any site location which is included on a list of hazardous materials sites
30 and as a result would create a significant hazard to the public or the
31 environment.
 - 32 • Any action that would impair implementation of or physically interfere with
33 an adopted emergency response plan or emergency evacuation plan.

1 **3.14.2.1 No Action Alternative**

2 No impacts regarding hazardous or solid waste are expected, as no construction
3 activities would occur.

4
5 **3.14.2.2 Proposed Action Alternative**

6 The potential exists for POL spills to occur while refueling construction equipment or
7 portable lighting used during the implementation of the Proposed Action Alternative.
8 However, clean-up materials (e.g., oil mops) would be maintained at the project site to
9 allow immediate action in case an accidental spill occurs. Drip pans would be provided
10 for stationary equipment to capture any POL that is accidentally spilled during
11 maintenance activities or leaks from the equipment. In addition, a Spill Prevention,
12 Control, and Countermeasures Plan (SPCCP) would be in place prior to the start of
13 construction, and all personnel would be briefed on the implementation and
14 responsibilities of this plan. BLM would be provided a copy of the SPCCP prior to
15 construction activities.

16
17 Sanitary facilities would be provided during construction activities and waste products
18 would be collected and disposed of by licensed contractors. No gray water would be
19 discharged to the ground. Disposal contractors would disposed of all waste in strict
20 compliance with Federal, state, and local regulations, in accordance with the
21 contractor's permits.

22
23 The proposed infrastructure would also have indirect beneficial impacts through the
24 reduction of solid waste. As illegal foot traffic is reduced or eliminated within the project
25 corridor, so would the solid waste that is associated with it.

26
27 **3.14.2.3 Secure Fence Act Alternative**

28 The same impacts that are discussed for the Proposed Action Alternative would be
29 expected for this alternative. No significant impacts would occur.

30
31

1 **3.15 SOCIOECONOMICS**

2
3 **3.15.1 Affected Environment**

4 The population in San Diego County in 2005 was 2,933,462 (U.S. Census Bureau
5 2005a). The 2005 racial mix of San Diego County was predominantly Caucasian (79.8
6 percent), followed by people of Asian descent (10.2 percent), followed by African
7 Americans (5.6 percent), with the remaining 3.2 percent of the population split between
8 American Indians and Alaskan Natives, Native Hawaiians, and other races (U.S.
9 Census Bureau 2005a). Approximately 29 percent of the 2005 population of San Diego
10 County identify themselves as of Hispanic or Latino origin (U.S. Census Bureau 2005a).

11
12 The total number of jobs in San Diego County in 2004 was 1,838,917, an increase of 29
13 percent over the number of jobs in 1994 (1,421,394) (Bureau of Economic Analysis
14 [BEA] 2004a). The 2006 annual average unemployment rate for San Diego County was
15 4.0 percent. This is lower than the 4.2 percent average annual unemployment rate for
16 the State of California (Bureau of Labor Statistics 2006).

17
18 In 2004, San Diego County had a per capita personal income (PCPI) of \$37,965 (BEA
19 2004b). This PCPI ranked 13th in the State of California, and was 108 percent of the
20 state average of \$35,219, and 115 percent of the National average of \$33,050. The
21 average annual growth rate of PCPI from 1994 to 2004 was 5.3 percent. This average
22 annual growth rate was higher than the growth rate for the state (4.3 percent) and the
23 Nation (4.1 percent). In 2004, San Diego County had a total personal income (TPI) of
24 \$111.4 billion. This TPI ranked 3rd in the state and accounted for 8.8 percent of the
25 state total. The 2004 TPI reflected an increase of 7.1 percent from 2003, which was
26 higher than 2003-2004 state change of 6.6 percent and the National change of 6.0
27 percent during the same period.

28
29 The estimated number of people of all ages living in poverty for San Diego County was
30 308,791 in 2004. This represented 10.9 percent of the population of the county, which
31 is both lower than the percentage of the state and the Nation's population that live in

1 poverty (U.S. Census Bureau 2004). The median household income in 2004 for San
2 Diego County was \$51,939. This was higher than both the 2004 median household
3 income for the state and the Nation (U.S. Census Bureau 2004).

4
5 San Diego County had a total of 1,113,207 housing units in the 2005 Census (U.S.
6 Census Bureau 2005b). The 2000 homeownership rate for San Diego County was 55.4
7 percent, as compared to the state homeownership rate of 56.9 percent (U.S. Census
8 Bureau 2005b).

9
10 **3.15.2 Environmental Consequences**

11 The CEQA significance thresholds for socioeconomics are:

- 12
- 13 • The action causes a substantial permanent population increase or
14 reduction in local income.
 - 15 • The action causes the vacancy rate for temporary housing to fall, requiring
16 relocation of existing people, construction of replacement housing
17 elsewhere, or destruction of housing or businesses.
 - 18 • The action increases the short or long-term demand for public services in
19 excess of existing and projected capacities.

20
21 **3.15.2.1 No Action Alternative**

22 No impacts to the region's socioeconomic resources would occur under the No Action
23 Alternative, as no construction activities would take place. However, the current level of
24 illegal traffic would continue at its current rate and possibly increase. As a result, illegal
25 traffic and the crimes and social costs associated with it would also be expected to
26 continue or increase; thus, long-term, adverse socioeconomic impacts across the region
27 would be incurred.

28
29 **3.15.2.2 Proposed Action Alternative**

30 Direct beneficial impacts from the Proposed Action Alternative include minor and
31 temporary increases in sales volume, material purchases, and sales taxes. Additionally,
32 implementation of the Proposed Action Alternative would reduce the amount of illegal
33 traffic in the region, which, in turn, would reduce the associated societal and economic

1 costs to the region. These societal and economic costs include, but are not limited to,
2 the costs of removal of trash, overall degradation of property, reduction in property
3 value, and degradation of natural and cultural resources. Consequently, this reduction
4 in illegal traffic would have an indirect beneficial long-term impact to the local economy.

5
6 Indirect adverse impacts could occur to areas outside of the project corridor if illegal
7 pedestrian traffic shifts to other areas of the U.S.-Mexico border. However, it is
8 impossible to determine what those impacts would be, if any, as the direction or lack
9 there of is solely at the discretion of the IAs. As mentioned previously, the primary
10 pedestrian fence would allow the USBP to deploy agents to those areas lacking
11 infrastructure to minimize impacts from any potential shift in IA traffic.

12
13 The Proposed Action Alternative would not affect the region's population or housing
14 markets and would not require an increase demand on public services that exceed
15 current capacity. Therefore, no significant impacts would occur.

16
17 **3.15.2.3 Secure Fence Act Alternative**

18 This alternative would have similar impacts to the Proposed Action Alternative but, the
19 beneficial impacts would be slightly greater due to the additional amount of construction
20 materials and equipment that would be required. The Secure Fence Act Alternative
21 would require more materials, construction crews, and equipment; therefore, the local
22 and regional economy would benefit more than the Proposed Action Alternative.
23 Indirect societal cost benefits would be similar as those discussed in Section 3.15.2. No
24 significant impacts are expected.

25
26 **3.16 ENVIRONMENTAL JUSTICE AND PROTECTION OF CHILDREN**

27
28 **3.16.1 Affected Environment**

29 EO 12898 was signed in February 1994. This order was intended to direct Federal
30 agencies "...to make achieving environmental justice part of its mission by identifying
31 and addressing... disproportionately high and adverse human health or environmental

1 effects of its programs, policies, and activities on minority populations and low-income
2 populations in the U.S....” To comply with the EO, minority and poverty status in the
3 vicinity of the project were examined to determine if any minority and/or low-income
4 communities would incur a disproportionate amount of significant impacts from
5 implementation of the either of the action alternatives. San Diego County has a low
6 proportion of their population claiming to be of Hispanic or Latino origin. Furthermore,
7 San Diego County is above both the National and state median household income and
8 has a smaller percentage of the population living in poverty relative to both the state and
9 the Nation. Two ranch houses exist near the project corridor at the 7 Gates/Railroad
10 project site. These houses are located outside of the project footprint but close enough
11 to be impacted. The only other developed area (*i.e.*, residential/commercial) are located
12 adjacent to the project corridor in Tecate, Mexico.

13
14 EO 13045 requires each Federal agency “to identify and assess environmental health
15 risks and safety risks that may disproportionately affect children”, and “ensure that its
16 policies, programs, activities, and standards address disproportionate risks to children
17 that result from environmental health risks or safety risks”. This EO was prompted by
18 the recognition that children, still undergoing physiological growth and development, are
19 more sensitive to adverse environmental health and safety risks than adults. In San
20 Diego County, 111,422 individuals, or 36 percent of the population below poverty level,
21 are children under the age of 18 (U.S. Census Bureau 2004). The percentage of
22 children under 18 below the poverty level for the State of California is 38.6 percent. The
23 potential for impacts to the health and safety of children is greater where projects are
24 located near residential areas. Although the project corridor is located in remote areas,
25 two residences do exist near one of proposed project site (7 Gates/Railroad).

26

27 **3.16.2 Environmental Consequences**

28 The CEQA significance threshold for environmental justice is:

- 29
- 30 • The action results in any racial, ethnic, or socioeconomic group bearing a
31 disproportionate share of significant adverse project effects.

32

1 **3.16.2.1 No Action Alternative**

2 No direct impacts would be expected as no construction would occur.

4 **3.16.2.2 Proposed Action Alternative**

5 Impacts regarding EO 13045 and EO 12898 from the implementation of the Proposed
6 Action Alternative would be similar to those previously discussed in the DHS 2003 EA
7 and are incorporated herein by reference (DHS 2003). Given the remote location of the
8 proposed project sites, there is no potential for disproportionately significant, adverse
9 impacts to minority populations or low income families. As mentioned before, two
10 residences are located near the 7 Gates/Railroad project site. These residences would
11 experience adverse impacts from construction noise and potentially fugitive dust;
12 however, implementation of mitigation measures would reduce potential impacts to less
13 than significant. In addition, once the construction activities are complete near the
14 residences, no further impacts would occur. The proposed infrastructure would reduce
15 illegal traffic north of the project corridor, making it safer for everyone regardless of
16 race, nationality, age, or income level. No residences or commercial entities would be
17 displaced and no significant impacts have been identified during the preparation of this
18 EA. With the exception of the 7 Gates/Railroad project site, all construction would occur
19 away from residences where the safety of children could become an issue. On-site
20 construction managers and safety officers would implement appropriate measures (e.g.,
21 fencing, signage, monitoring) to ensure the safety of all personnel, including children.
22 Should a child enter the construction zone, the on-site safety office would immediately
23 cease all construction. Therefore, the Proposed Action Alternative would not result in a
24 disproportionate amount of impacts to minority or low-income families, nor increase
25 health and safety risks to children.

27 **3.16.2.3 Secure Fence Act Alternative**

28 The same impacts associated with the Proposed Action Alternative would be expected if
29 this alternative were chosen. No significant impacts would occur.

1 **3.17 SUSTAINABILITY AND GREENING**

2
3 **3.17.1 Affected Environment**

4 In accordance with EO 13423- Strengthening Federal Environmental, Energy, and
5 Transportation Management, USBP would strengthen their environmental, energy, and
6 transportation activities in support of their mission in an environmentally, economically,
7 and fiscally sound, continuously improving, sustainable manner. In doing so,
8 CBP/USBP would incorporate sustainability and greening practices in daily operations
9 through cost-effective waste reduction, recycling of reusable materials and purchase of
10 items produced using recovered materials.

11
12 **3.17.2 Environmental Consequences**

13 The CEQA significance threshold for sustainability and greening is:

- 14
- 15 • The action results in an agency not continuously improving their
16 environmental, transportation, or energy-related activities in support of
17 their mission in an environmentally, economically and fiscally sound,
18 integrated, efficient, and sustainable manner.

19
20 **3.17.2.1 No Action Alternative**

21 The No Action Alternative would not result in any direct or indirect impacts, as no
22 construction activities would take place.

23
24 **3.17.2.2 Proposed Action Alternative**

25 Under the Proposed Action Alternative, USBP would continue to use salvaged or
26 recycled materials to the extent practicable and to improve its environmental,
27 transportation, and energy-related activities in support of their missions through
28 sustainability and greening practices to the greatest extent practicable. No significant
29 impacts are expected to occur as a result of the Proposed Action Alternative.

30
31 **3.17.2.3 Secure Fence Act Alternative**

32 The same impacts as those discussed for the Proposed Action Alternative would occur
33 if this alternative were implemented.

1 **3.18 HUMAN HEALTH AND SAFETY**

2
3 **3.18.1 Affected Environment**

4 There is little potential for anyone other than USBP agents or private contractors to be
5 at risk from a human health and safety aspect. Two houses are located outside of the
6 project corridor but near the 7 Gates/Railroad project site. The remainder of the project
7 sites are located in remote and uninhabited areas.

8
9 **3.18.2 Environmental Consequences**

10 The CEQA significance threshold human health and safety is:

- 11
- 12 • The action would create a health or potential health hazard; or
 - 13 • The action would expose people to existing sources of potential health
14 hazards.

15
16 **3.18.2.1 No Action Alternative**

17 Under the No Action Alternative no construction would occur; therefore, there would be
18 no impacts either beneficial or adverse to human health and safety issues.

19
20 **3.18.2.2 Proposed Action Alternative**

21 If implemented, this alternative has the potential to create human health hazards.
22 However, through BMPs developed for general construction practices (see Section 5.1)
23 and because the residences in question are located outside of the project footprint no
24 significant, long-term, adverse impacts are expected. Furthermore, strict compliance
25 with all Occupational Safety and Health Administration (OSHA) regulations would be
26 achieved to minimize the potential for accidents to occur to USBP agents, private
27 contractors, or other individuals who might occur near the project site(s).

28
29 **3.18.2.3 Secure Fence Act Alternative**

30 This alternative would have similar impacts as the Proposed Action Alternative.
31 However, construction accidents would have a greater chance of occurring due to the
32 increased construction footprint and duration. Still, provided OSHA standards are
33 adhered to, no significant or long-term impacts would be expected.

1 **3.19 GROWTH INDUCING EFFECTS**
2

3 The project area is very remote. The land surrounding the project area is private- and
4 Federal government-owned, and there are no known private or public developments
5 planned for the area. Development on BLM property is not possible in the reasonably
6 foreseeable future. The area surrounding the Rattlesnake Ridge project site was
7 recently (2007) purchased by a private development corporation; however, no plans for
8 development have been disclosed at the time of printing this EA. Neither of the
9 alternatives discussed within this EA would act as a hindrance to nor induce growth.

10
11 **3.20 LOCAL AND SHORT-TERM USE OF THE ENVIRONMENT AND THE**
12 **MAINTENANCE AND ENHANCEMENT OF LONG-TERM ENVIRONMENTAL**
13 **PRODUCTIVITY**
14

15 Benefits derived from the control of IAs into the U.S. and the adverse impacts
16 associated with the construction activities necessary to accomplish this control
17 represent trade-offs between the local, short-term use and the long-term stability and
18 productivity of society's environment. The Proposed Action would reduce the flow of
19 illegal drugs and entrants to the U.S., and consequently, reduce the social costs
20 associated with managing these issues. Short-term, local adverse direct effects
21 resulting from wildlife habitat disturbances would be off-set by long-term regional
22 benefits, including:

- 23
24 • protection of the BLM rangelands from illegal foot traffic,
25 • reduction of accidental fires caused by IAs,
26 • lower costs to the U.S. for health and emergency services,
27 • lower insurance rates for homeowners and businesses north of the border,
28 • reduction in crime near the border, and
29 • reduction in illegal poaching.
30

31 The proposed action would permanently impact approximately 78 acres. Even though
32 most of the project region has been previously disturbed by road construction, public
33 off-road recreational vehicles, private developments, IA traffic and USBP enforcement
34 actions, the project area is so remote that the disturbance is not expected to inhibit

1 wildlife from using the area as suitable habitat. The long-term productivity of these lands
2 would be not change over the life of the proposed project. USBP would make every
3 attempt practicable to avoid disturbances to valuable wildlife habitat (e.g., by using
4 previously disturbed sites for staging areas). Compensation for these losses, if
5 statutorily required, would be coordinated through the appropriate state and Federal
6 resource agencies.

7

8 **3.21 IREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES**

9

10 The proposed action would require the irretrievable commitment of fuel, labor,
11 construction material, and monetary resources.

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SECTION 4.0
CUMULATIVE IMPACTS



1 **4.0 CUMULATIVE IMPACTS**

2
3 This section of the EA addresses the potential cumulative impacts associated with the
4 implementation of the alternatives and other projects/programs that are planned for the
5 region. The CEQ defines cumulative impacts as “the impact on the environment which
6 results from the incremental impact of the action when added to other past, present, and
7 reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or
8 person undertakes such other actions” (40 CFR 1508.7). This section continues,
9 “Cumulative impacts can result from individually minor but collectively significant actions
10 taking place over a period of time.”

11
12 USBP has been conducting law enforcement actions along the border since its
13 inception in 1924 and has continuously transformed its methods as new missions, IA
14 modes of operations, agent needs and national enforcement strategies have evolved.
15 Development and maintenance of training ranges, station and sector facilities, detention
16 facilities, and roads and fences have impacted thousands of acres with synergistic and
17 cumulative impacts to soil, wildlife habitats, water quality, and noise. Beneficial effects,
18 too, have resulted from the construction and use of these roads and fences including,
19 but not limited to, increased employment and income for border regions and its
20 surrounding communities; protection and enhancement of sensitive resources north of
21 the border; reduction in crime within urban areas near the border; increased land value
22 in areas where border security has increased; and increased knowledge of the
23 biological communities and pre-history of the region through numerous biological and
24 cultural resources surveys and studies.

25
26 With continued funding and implementation of CBP’s environmental conservation
27 measures, including environmental education and training of its agents, use of biological
28 and archaeological monitors, wildlife water systems, and restoration activities, adverse
29 impacts due to future and on-going projects would be avoided or minimized. However,
30 recent, on-going and reasonably foreseeable proposed projects will result in cumulative

1 impacts. In particular, within the next 2 years, 225 miles of primary pedestrian fence are
2 scheduled to be completed. The first phase of construction would occur in areas that
3 have already been developed (e.g., currently contains PVB or temporary vehicle
4 barriers) and thus, little or no additional environmental impacts would be expected. The
5 second phase of construction (e.g., the proposed action described herein) would
6 generally occur in more remote areas, and would inevitably result in cumulative impacts.
7 The USBP is currently planning, conducting, or have completed, several projects in the
8 region.

9

10 USBP Projects include:

11

- 12 • Approximately seven road and TI projects which include construction,
13 repair, maintenance and upgrading existing roads and infrastructure within
14 the Brown Field Station AO.
- 15 • Ongoing maintenance of approximately 104 miles of patrol roads
16 throughout the Brown Field, El Cajon, and Campo Stations' AOs. The
17 roads adjacent to or nearest the project area are the Marroon Valley Road
18 (6.6 miles) and Barrett Truck Trail (9.6 miles).
- 19 • USBP is currently constructing a new Campo Border Patrol Station near
20 Kitchen Creek in east San Diego County. The station footprint affected
21 approximately 25 acres, including horse pasture and paddocks, helipad,
22 and buffer zone. Construction is expected to be completed in March
23 2008.
- 24 • CBP/USBP is currently constructing a border infrastructure system along
25 the U.S.-Mexico border within San Diego County. The infrastructure
26 system project spans 14 miles and includes: secondary and tertiary
27 fences, patrol and maintenance roads, lights, and integrated surveillance
28 and intelligence system resources. Approximately 9 miles of the 14-mile
29 project have been completed or, are currently under construction. These
30 projects were addressed under separate EAs as pilot projects for the
31 barrier system. When completed, the infrastructure system would impact
32 approximately 297 acres, consisting of disturbed/developed lands, coastal
33 sage scrub, maritime succulent scrub and grasslands.
- 34 • CBP/USBP is currently considering development of the Pack Trail (see
35 BLM project below) to a patrol road and primary pedestrian fence. This
36 project would connect the southern end of the Puebla Tree Trail to the
37 Monument 250 Road, a total distance of about 3.28 miles. Primary
38 pedestrian fence would be installed along the border as part of this
39 project. Due to the terrain, extensive cut and fill activities would be

1 required, which would adversely impact and encroach onto the Otay
2 Mountain Wilderness Area. An EIS will be required for this project and is
3 currently in preparation.

4
5 USBP might be required to implement other activities and operations that are currently
6 not foreseen or mentioned in this document. These actions could be in response to
7 National emergencies or security events like the terrorist attacks on September 11,
8 2001 or to changes in the mode of operations of the potential IAs.

9
10 In addition, projects are currently being planned by other Federal entities which could
11 affect areas in use by USBP. CBP should maintain close coordination with these
12 agencies to ensure that CBP activities do not conflict with other agency(s) policies or
13 management plans. CBP will consult with applicable state and Federal agencies prior
14 to performing any construction activities and will coordinate operations so that it does
15 not impact the mission of other agencies. The following is a list of projects other
16 Federal agencies and tribes are conducting or have completed within the U.S.-Mexico
17 border region.

18
19 BLM Projects include:

- 20
- 21 • Planned collaborative project for upgrading the Border Pack Trail. The
22 trail runs east-west along the border below the Otay Mountain Wilderness.
23 The wilderness boundary is actually 100 feet north of the edge of the trail.
24 The existing trail is mainly a hiking trail, but ATV's could access the trail at
25 this time with some difficulty. USBP is proposing to upgrade the trail to
26 better accommodate ATVs and larger vehicles safely. This would include
27 widening the trail and constructing turnarounds and pull-outs. The primary
28 obstacle with upgrading the trail is that it supports Quino checkerspot
29 butterfly and habitat.
- 30

31 A summary of the anticipated cumulative impacts relative to the Proposed Action
32 Alternative (*i.e.*, construct and maintain approximately 7 miles of new roads, 10 miles of
33 primary pedestrian fence, and 10 miles of road improvements along the U.S./Mexico
34 international border in eastern San Diego County, California) is presented below.
35 These discussions are presented for each of the resources described previously.

1 **4.1 LAND USE**
2

3 A significant impact would occur if any action is inconsistent with adopted land use
4 plans or an action would substantially alter those resources required for, supporting or
5 benefiting the current use. The Proposed Action Alternative would permanently affect a
6 total 78 acres of which most are located in the Roosevelt Reservation, which was set
7 aside specifically for border control actions. Approximately 27 acres (of the 78 acres
8 total) of private land rangeland would be converted for enforcement and TI uses. The
9 actions within the Roosevelt Reservation are consistent with the authorized land use
10 and, when considered with other potential alterations of private land uses, would not be
11 expected to result in a significant cumulative adverse effect.
12

13 **4.2 GEOLOGY AND SOILS**
14

15 A significant impact to geologic resources would occur if the action occurred on a
16 geologic unit that is unstable or would cause the unit to become unstable, exposed
17 people or structures to the risk of loss, injury, or death, or entirely removing a geologic
18 resource. The Proposed Action Alternative would not create any dangerous or unstable
19 conditions within any geologic unit. The Proposed Action Alternative would not expose
20 people or structures to potential substantial adverse effects. Further, no geologic
21 resource is located exclusively within the project corridor. The impact of the proposed
22 action, when combined with past and proposed projects in the region, would not be
23 considered a significant cumulative adverse impact to geological resources.
24

25 A significant impact would occur if the action exacerbates or promotes long-term
26 erosion, if the soils are inappropriate for the proposed construction and would create a
27 risk to life or property, or if there would be a substantial reduction in agricultural
28 production or loss of prime farmland soils. The proposed action and other USBP
29 actions have not reduced prime farmland soils or agricultural production. Pre- and post-
30 construction SWPPP measures would be implemented to control soil erosion. No
31 inappropriate soil types are located in the project corridor that would present a safety

1 risk. The impact to 78 acres, when combined with past and proposed projects in the
2 region, would not be considered a significant cumulative adverse impact.

3

4 **4.3 VEGETATION**

5

6 The significance threshold for vegetation would include a substantial reduction in
7 ecological process, communities, or populations that would threaten the long-term
8 viability of a species or result in the substantial loss of a sensitive community that could
9 not be off-set or otherwise compensated. Removal of 78 acres of locally and regionally
10 common plant communities would result in insignificant cumulative impacts to
11 vegetation communities due to vast amounts of similar vegetation communities
12 surrounding the project corridor. The long-term viability of species and communities in
13 the project region would not be threatened. The loss of 78 acres, when combined with
14 other ground disturbing or development projects in the ROI, would not result in
15 significant cumulative negative impacts on vegetation communities in the ROI.

16

17 **4.4 WILDLIFE AND AQUATIC RESOURCES**

18

19 The significance threshold for wildlife and aquatic resources would include a substantial
20 reduction in ecological process, communities, or populations that would threaten the
21 long-term viability of a species or result in the substantial loss of a sensitive community
22 that could not be off-set or otherwise compensated. Removal of 78 acres of habitat of
23 would result in insignificant cumulative impacts to vegetation communities and wildlife
24 populations since habitat in the project corridor is considered common, combined with
25 the abundance of similar habitat both locally and regionally. Even after the completion
26 of these segments, there would still be large remote areas along the border, within the
27 San Diego Sector, that do not contain barriers; consequently, there would still be ample
28 opportunities for transboundary migration and exchange of genetic material.
29 Consequently, the long-term viability of species and communities in the project region
30 would not be threatened. The loss of 78 acres of wildlife habitat, when combined with
31 other ground disturbing or development projects in the project region, would not result in
32 significant cumulative negative impacts on the region's biological resources.

1 **4.5 THREATENED AND ENDANGERED SPECIES**
2

3 A significant impact to threatened and endangered species would occur if any action
4 resulted in a jeopardy opinion for any endangered, threatened, or rare species. CBP
5 would complete ESA Section 7 consultation with USFWS for the Quino checkerspot
6 butterfly and coastal California gnatcatcher. As part of the consultation process,
7 conservation measures would be developed to lessen cumulative impacts to protected
8 species to a less than significant level. The same measures would be implemented for
9 other CBP construction projects; therefore, cumulative impacts would not be significant.
10

11 **4.6 HYDROLOGY AND GROUNDWATER**
12

13 The significance threshold for water resources includes any action that substantially
14 depletes groundwater water supplies or interferes with groundwater recharge, or
15 substantially alters drainage patterns. No significant impact to hydrology or groundwater
16 resources would occur as a result of the construction and maintenance of the proposed
17 infrastructure. The required SWPPP and BMPs would reduce erosion and
18 sedimentation during construction to negligible levels and would eliminate post-
19 construction erosion and sedimentation from the sites. The same measures would be
20 implemented for other construction projects; therefore, cumulative impacts would not be
21 significant.
22

23 **4.7 SURFACE WATERS AND WATERS OF THE U.S.**
24

25 The significance threshold for surface water and waters of the U.S. include any action
26 that substantially depletes surface water supplies, substantially alters drainage patterns,
27 or results in the loss of waters of the U.S. that cannot be compensated. No significant
28 impact to surface water resources or waters of the U.S. would occur as a result of the
29 construction and maintenance of the proposed fence and roads. The proposed actions
30 would not substantially alter drainage patterns and compensatory mitigation would be
31 implemented, as appropriate, through the Section 404/401 permit processes. The
32 required SWPPP and BMPs would reduce erosion and sedimentation during

1 construction to negligible levels and would eliminate post-construction erosion and
2 sedimentation from the site. The same measures would be implemented for other
3 construction projects; therefore, cumulative impacts would not be significant.

4
5 **4.8 FLOODPLAINS**
6

7 The significance threshold for floodplains includes any action that substantially reduces
8 flood water storage and results in flooding of adjacent lands. A portion of the proposed
9 action would occur within the 100-year floodplain. However, this reach currently contains
10 road and primary pedestrian fence, which would only be repaired or replaced under the
11 Proposed Action Alternative; therefore, in the long-term the construction would have no
12 effect on the function of the floodplain. Properly designed erosion and sediment controls
13 and storm water management practices would be implemented during construction
14 activities. Therefore, no impediments to flood conveyance or increase in flood flow
15 velocities would occur as a result of the Proposed Action Alternative. Additionally, the
16 Proposed Action Alternative would be in full compliance with EO 11988. Therefore,
17 this action, when combined with other existing and proposed projects in the region,
18 would not result in significant cumulative impacts to floodplains.

19
20 **4.9 AIR QUALITY**
21

22 Impacts to air quality would be considered significant if the action resulted in a violation
23 of air quality standards, obstructs implementation of an air quality plan, or exposes
24 sensitive receptors to substantial pollutant concentrations. The emissions generated
25 during and after the construction of the proposed primary pedestrian fence would be
26 short-term and minor. Although maintenance of the primary pedestrian fence would
27 result in cumulative impacts to the region's airshed, these impacts would not be
28 considered significant even when combined with the other proposed developments in
29 the border region. Deterrence of and improved response time to IAs created by the
30 construction of the primary pedestrian fence would reduce off-road enforcement actions
31 that are currently required by USBP agents.

1 **4.10 NOISE**
2

3 Actions would be considered to cause significant impacts if they permanently increase
4 ambient noise levels over 65 dBA. Most of the noise generated by the proposed action
5 would occur during construction and, thus, would not contribute to cumulative impacts to
6 ambient noise levels. Routine maintenance of the primary pedestrian fence and roads
7 would result in slight temporary increases in noise levels that would continue to
8 sporadically occur over the long-term and would be similar to ongoing PVB and road
9 maintenance within the project corridor. Potential sources of noise from other projects
10 are not enough (temporal or spatial) to increase ambient noise levels above the 65 dBA
11 range at the proposed sites. Thus, the noise generated by the construction and
12 maintenance of the proposed infrastructure, when considered with the other existing
13 and proposed projects in the region, would not be considered a significant cumulative
14 adverse effect.
15

16 **4.11 CULTURAL RESOURCES**
17

18 The proposed action would have no effect on cultural resources, provided mitigation, as
19 described herein, is implemented. Therefore, this action, when combined with other
20 existing and proposed projects in the region, would not result in significant cumulative
21 impacts to historical properties.
22

23 **4.12 AESTHETICS AND VISUAL RESOURCES**
24

25 Actions that cause the permanent loss of the characteristics that make an area visually
26 unique or sensitive would be considered to cause a significant impact. No major
27 impacts to visual resources would occur from implementing the proposed action, due in
28 part to the existing border TI. Construction and maintenance of the proposed primary
29 pedestrian fence and road, when considered with existing and proposed developments
30 in the surrounding area, would not result in a significant cumulative negative impact on
31 the visual quality of the region. Areas north of the border would experience beneficial,
32 indirect cumulative effects by the reduction of trash and debris produced by IAs.

1 **4.13 HAZARDOUS MATERIALS**
2

3 Significant impacts would occur if an action creates a public hazard, the site is
4 considered a hazardous waste site that poses health risks, or if the action would impair
5 the implementation of an adopted emergency response or evacuation plan. Only minor
6 increases in the use of hazardous substances (e.g., POL) would occur as a result of the
7 construction and maintenance of the primary pedestrian fence. No health or safety risks
8 would be created by the Proposed Action. The effects of this Proposed Action, when
9 combined with other on-going and proposed projects in the region, would not be
10 considered a significant cumulative effect.
11

12 **4.14 SOCIOECONOMICS**
13

14 Significance threshold for socioeconomic conditions include displacement or relocation
15 of residences or commercial buildings and increases in long-term demands for public
16 services in excess of existing and projected capacities. Construction of the proposed
17 infrastructure would result in temporary cumulative beneficial impacts to the region's
18 economy. No adverse impacts to the socioeconomic conditions of the region would occur. These
19 effects, when combined with the other currently proposed or on-going projects within the
20 region, would not be considered as significant cumulative impacts.
21

22 **4.15 ENVIRONMENTAL JUSTICE AND PROTECTION OF CHILDREN**
23

24 Significance threshold for Environmental Justice and Protection of Children is being in
25 non-compliance with EO 12898 and EO 13245. Given the remote location of the
26 proposed infrastructure, there is no potential for disproportionately high and adverse
27 impacts to minority populations, protection of children, or low income families,
28 regionally. This proposed project in combination with other USBP projects within El
29 Cajon, Campo, and Boulevard stations' AOs would result in beneficial cumulative
30 impacts due to a reduction of illegal human and drug trafficking, and other crimes within
31 the area further making a safer living environment for both adults and children. No
32 significant adverse cumulative impacts would occur.

1 **4.16 SUSTAINABILITY AND GREENING**

2
3 CBP would implement the Federal sustainability and greening practices to the greatest
4 extent practicable as part of the Proposed Action Alternative. Cost-effective waste
5 reduction and recycling of reusable materials would be implemented as part of the
6 project. Implementation of the Federal sustainability and greening practices would have
7 a cumulative beneficial impact to the environment.

8
9 **4.17 HUMAN HEALTH AND SAFETY**

10
11 Most of the USBP's proposed projects occur in areas that lack residential or commercial
12 areas as the border throughout the southwest U.S. is often in rugged and rough terrain.
13 Typically, USBP construction activities are completed by National Guard Units, USBP
14 agents, or private contractors, who are all well trained and cognizant of all required
15 safety measures. The Proposed Action Alternative in conjunction with other USBP and
16 other agencies actions would not have significant cumulative impacts regarding human
17 health and safety issues due to the remote locations of the projects and personnel used
18 for construction purposes.

19
20 **4.18 CEQA FINDING OF SIGNIFICANCE**

21
22 The following discussions are presented relative to the CEQA significance thresholds
23 that were previously identified in this section. As mentioned previously, significance
24 thresholds under CEQA and NEPA are not the same. It should also be noted that since
25 CEQA does not require the same level of analyses for all viable alternatives, the
26 following discussions focus only on the Proposed Action Alternative.

27
28 **4.18.1 Significance Determination**

29 Table 4-1 provides a summary of the CBP's determination of significance under the
30 CEQA threshold criteria. The significant impacts identified in this table are all
31 unavoidable, even though the engineering designs have been refined to reduce the
32 magnitude of the impacts. The following subsections will describe the significant

1 impacts and the mitigation proposed to reduce these impacts to a less than significant
 2 level.

3

4 **4.18.2 Significant Impacts to be Mitigated**

5 While impacts to resources are expected to be less than significant, various mitigation
 6 measures would be implemented to reduce the chance and magnitude of unavoidable
 7 impacts. Significant impacts would occur to protected species and critical habitat and
 8 would require implementation of conservation measures or compensatory mitigation to
 9 offset these impacts and reduce the impact to less than significant. As indicated
 10 previously, consultation with the USFWS is on-going. Examples of potential mitigation
 11 measures are included in Section 5.5.

12

13 **4.18.3 Less-than-Significant Impacts**

14 The new road and primary pedestrian fence construction, including associated drainage
 15 structures would not result in significant impacts to land use, aesthetics, unique or
 16 sensitive areas, soils, water resources, vegetation communities, wildlife, air quality,
 17 ambient noise levels, hazardous materials, cultural resources, social and economic
 18 resources, and agricultural lands or uses. The project would not result in significant
 19 growth-inducing impacts.

20

21

Table 4-1. CEQA Significance Determination

Resource	Direct Impacts	Cumulative Impacts
Land Use	Less Than Significant	Less Than Significant
Aesthetics	Less Than Significant	Less Than Significant
Unique or Sensitive Areas	Less Than Significant	Less Than Significant
Soils	Less Than Significant	Less Than Significant
Water Resources	Less Than Significant	Less Than Significant
Vegetation Communities	Less Than Significant	Less Than Significant
Wildlife	Less Than Significant	Less Than Significant
Protected Species and Critical Habitat	Significant	Less Than Significant
Air Quality	Less Than Significant	Less Than Significant
Noise	Less Than Significant	Less Than Significant
Hazardous Materials	Less Than Significant	Less Than Significant
Cultural Resources	Less Than Significant	Less Than Significant
Socioeconomics	Less Than Significant	Less Than Significant
Growth Inducing Impacts	Less Than Significant	Less Than Significant

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SECTION 5.0
MITIGATION MEASURES



1 **5.0 MITIGATION MEASURES**

2
3 This chapter describes those measures that would be implemented to reduce or
4 eliminate potential adverse impacts to the human and natural environment. Many of
5 these measures have been incorporated as standard operating procedures by USBP on
6 past projects. Mitigation measures are presented for each resource category that would
7 be potentially affected. It should be emphasized that these are general mitigation
8 measures; development of specific mitigation measures would be required for certain
9 activities implemented under the action alternatives. The proposed mitigation measures
10 would be coordinated through the appropriate agencies and land managers or
11 administrators, as required.

12
13 It is CBP's policy to reduce impacts through the sequence of avoidance, minimization,
14 mitigation, and finally, compensation. Mitigation varies and includes activities such as
15 restoration of habitat in other areas, acquisition of lands, implementation of BMPs, and
16 is typically coordinated with USFWS and other appropriate Federal and state resource
17 agencies.

18
19 **5.1 GENERAL CONSTRUCTION ACTIVITIES**

20
21 BMPs would be implemented as standard operating procedures during all construction
22 activities, and would include proper handling, storage, and/or disposal of hazardous
23 and/or regulated materials. To minimize potential impacts from hazardous and
24 regulated materials, all fuels, waste oils and solvents would be collected and stored in
25 tanks or drums within a secondary containment system that consists of an impervious
26 floor and bermed sidewalls capable of containing the volume of the largest container
27 stored therein. The refueling of machinery would be completed following accepted
28 industry guidelines, and all vehicles would have drip pans during storage to contain
29 minor spills and drips. Although it would be unlikely for a major spill to occur, any spill
30 of reportable quantities would be contained immediately within an earthen dike, and the

1 application of an absorbent (e.g., granular, pillow, sock, etc.) would be used to absorb
2 and contain the spill. Pursuant to compliance with 40 CFR, Part 112, Oil Pollution
3 Prevention, a SPCCP would be in place prior to the start of operations and all personnel
4 would be briefed on the implementation and responsibilities of this plan. All spills would
5 be reported to the designated USBP point of contact for the project. Furthermore, a spill
6 of any petroleum liquids (e.g., fuel) or material listed in 40 CFR 302 Table 302.4 of a
7 reportable quantity must be cleaned up and reported to the appropriate Federal and
8 state agencies. Reportable quantities of those substances listed on 40 CFR 302 Table
9 302.4 would be included as part of the SPCCP.

10

11 All waste oil and solvents would be recycled. All non-recyclable hazardous and
12 regulated wastes would be collected, characterized, labeled, stored, transported, and
13 disposed of in accordance with all Federal, state, and local regulations, including proper
14 waste manifesting procedures.

15

16 Solid waste receptacles would be maintained at staging areas. Non-hazardous solid
17 waste (trash and waste construction materials) would be collected and deposited in on-
18 site receptacles. Solid waste would be collected and disposed of by a local waste
19 disposal contractor.

20

21 **5.2 SOILS**

22

23 Vehicular traffic associated with the construction activities and operational support
24 activities would remain on established roads. Areas with highly erodible soils would be
25 given special consideration when designing the proposed project to ensure
26 incorporation of various erosion control techniques such as, straw bales (weed seed
27 free), silt fencing, aggregate materials, wetting compounds, and rehabilitation, where
28 possible, to decrease erosion. Rehabilitation would include re-vegetating or the
29 distribution of organic (i.e., cacti skeletons and other woody debris) and geological
30 materials (i.e., boulders and rocks) over the disturbed area to reduce erosion while
31 allowing the area to naturally vegetate. In addition, erosion control measures and

1 appropriate BMPs, as required and promulgated through the SWPPP and engineering
2 designs, would be implemented before, during, and after construction activities.

3

4 Road maintenance shall avoid, to the extent practicable making wind rows with the soils
5 once grading activities are completed. Any excess soils would be used on-site to raise
6 and shape the road surface.

7

8 **5.3 VEGETATION**

9

10 Construction equipment would be cleaned, using a high pressure water system, prior to
11 entering and departing the project corridor to minimize the spread and establishment of
12 non-native invasive plant species. Soil disturbances in temporary impact areas would
13 be rehabilitated. Rehabilitation would include re-vegetating or the distribution of organic
14 and geological materials over the disturbed area to reduce erosion while allowing the
15 area to naturally vegetate. Rehabilitation methods would be developed in coordination
16 with and approved by BLM. Native seeds or plants, which are compatible with the
17 enhancement of protected species, would be used to the extent practicable, as required
18 under Section 7(a)(1) of the ESA.

19

20 Disturbed and restored areas would be monitored for the spread and eventual
21 eradication of non-native invasive plant species as part of periodic maintenance
22 activities. Monitoring would occur annually for a period of 5 years. To minimize
23 vegetation impacts, travel would be restricted to the existing access roads and
24 temporary construction areas.

25

26 **5.4 WILDLIFE**

27

28 Numerous migratory birds could nest in the project corridor. The MBTA requires that
29 Federal agencies coordinate with USFWS if a construction activity would result in the
30 take of a migratory bird. If construction activities would result in the take of a migratory
31 bird, then coordination with USFWS and CDFG would be conducted prior to

1 construction activities. Bird surveys would not be required if clearing and grubbing
2 occur outside of the nesting season (typically February 15 through September 1).

3

4 **5.5 PROTECTED SPECIES**

5

6 During the development of this EA, USFWS and USBP consulted on various issues
7 regarding protected species and developed potential mitigation measures that would be
8 implemented as part of the proposed project. These include:

9

- 10 • To mitigate for loss of habitat for the gnatcatcher and Quino checkerspot
11 butterfly at the Cetus Hill and Brickyard to Gunsight project sites, USBP
12 would abandon and rehabilitate two sections of Humphrey's Road, north
13 of Cetus Hill and north of Gunsight Hill; at the Ag Loop project site, USBP
14 would abandon and rehabilitate some of the existing roads in the area to
15 mitigate for gnatcatcher and Quino checkerspot butterfly habitat loss.
- 16 • Within the Bell Valley project site, live oaks would not be removed in the
17 Bell Valley drainage proper.
- 18 • To mitigate for loss of habitat for the Quino checkerspot butterfly at the
19 West and East Smith Canyon project sites, USBP would abandon and
20 rehabilitate roads. The road immediately north of the West Smith Canyon
21 as well as the existing access road at the west end of the existing primary
22 pedestrian fence near East Smith Canyon project site would be
23 abandoned and rehabilitated.

24

25 However, final mitigation measures would be developed through consultation with
26 USFWS under Section 7 of the ESA in order to offset impacts to the coastal California
27 gnatcatcher and Quino checkerspot butterfly as a result of the proposed action. The
28 final conservation measures would be outlined in a Biological Opinion.

29

30 **5.6 CULTURAL RESOURCES**

31

32 All construction would be kept within previously surveyed areas. If any cultural material
33 is discovered during the construction efforts, then all activities shall halt until a qualified
34 archeologist assesses the cultural remains. If cultural material is discovered on BLM
35 land, the Palm Springs-South Coast Field Office would be notified and all work in the

1 area would cease until authorization to proceed is provided by BLM. Buffers would be
2 established and delineated with fences around the two historic objects that lie within the
3 proposed construction corridor in order to avoid any effects to these significant cultural
4 resources. Construction activities near the monuments would be monitored to ensure
5 avoidance. Additionally, USBP would complete the Section 106 process prior to the
6 start of any construction activities.

7

8 **5.7 WATER RESOURCES**

9

10 Standard construction procedures would be implemented to minimize the potential for
11 erosion and sedimentation during construction. All work shall cease during heavy rains
12 and would not resume until conditions are suitable for the movement of equipment and
13 material. All fuels, waste oils, and solvents would be collected and stored in tanks or
14 drums within a secondary containment area consisting of an impervious floor and
15 bermed sidewalls capable of holding the volume of the largest container stored therein.
16 The refueling of machinery would be completed following accepted guidelines, and all
17 vehicles would have drip pans during storage to contain minor spills and drips. No
18 refueling or storage would take place within 100 feet of drainage. Other mitigation
19 measures would be implemented such as straw bales (weed and seed free), silt
20 fencing, aggregate materials, wetting compounds, and re-vegetation with native plant
21 species, where possible, to decrease erosion and sedimentation. Furthermore, a
22 SWPPP and all applicable Section 404/401 permit procedures would be completed
23 before construction would be initiated within jurisdictional WUS.

24

25 **5.8 AIR QUALITY**

26

27 Mitigation measures would be incorporated to ensure that PM-10 emission levels do not
28 rise above the minimum threshold as required per 40 CFR 51.853(b)(1). Measures
29 would include dust suppression methods to minimize airborne particulate matter that
30 would be created during construction activities. Standard construction BMPs such as
31 routine watering of the construction site as well as and access roads to the site would

1 be used to control fugitive dust during the construction phases of the proposed project.
2 Additionally, all construction equipment and vehicles would be required to be kept in
3 good operating condition to minimize exhaust emissions.

4

5 **5.9 NOISE**

6

7 During the construction phase, short term noise impacts are anticipated. All OSHA
8 requirements would be followed. The blasting contractor would provide further analysis
9 of blasting techniques and measures to be taken to ensure negligible impacts would
10 occur via the blasting. On-site activities would be restricted to daylight hours near the 7
11 Gates/Railroad project site. Construction equipment would possess properly working
12 mufflers and would be maintained properly tuned to reduce backfires. Implementation
13 of these measures would reduce the expected short term noise impacts to an
14 insignificant level in and around the construction site.

SECTION 6.0
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SECTION 7.0
LIST OF PREPARERS



1 **7.0 LIST OF PREPARES**

2

NAME	AGENCY/ORGANIZATION	DISCIPLINE/EXPERTISE	EXPERIENCE	ROLE IN PREPARING EA
Charles McGregor	USACE, ECSO	NEPA	10 years Environmental Management and Review	ECSO Project Manager, EA review and coordination
Suna Adam Knaus	Gulf South Research Corporation	Forestry/Wildlife	17 years, natural resources	EA review
Eric Webb, Ph.D.	Gulf South Research Corporation	Ecology/Wetlands	15 years experience in natural resources and NEPA studies	EA technical review
Chris Ingram	Gulf South Research Corporation	Biology/ Ecology	30 years EA/EIS studies	Project Coordinator/EA technical review
Josh McEnany	Gulf South Research Corporation	Forestry/Wildlife	7 years, natural resources and NEPA studies	Project Manager
Sharon Newman	Gulf South Research Corporation	GIS/graphics	11 years, GIS/graphics experience	GIS/graphics
Shanna McCarty	Gulf South Research Corporation	Forestry	3 years natural resources	EA preparation (socioeconomics)
Joanna Cezniak	Gulf South Research Corporation	Wildlife	9 years natural resources	EA preparation (wildlife, protected species, vegetation, and land use)
Steve Kolian	Gulf South Research Corporation	Environmental Science	10 years environmental resources experience	EA Preparation (air quality)
John Lindemuth	Gulf South Research Corporation	Archeology	13 years professional archeologist/cultural resources	EA preparation (cultural resources)

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APPENDIX A
Detailed Project Maps and Fence Designs

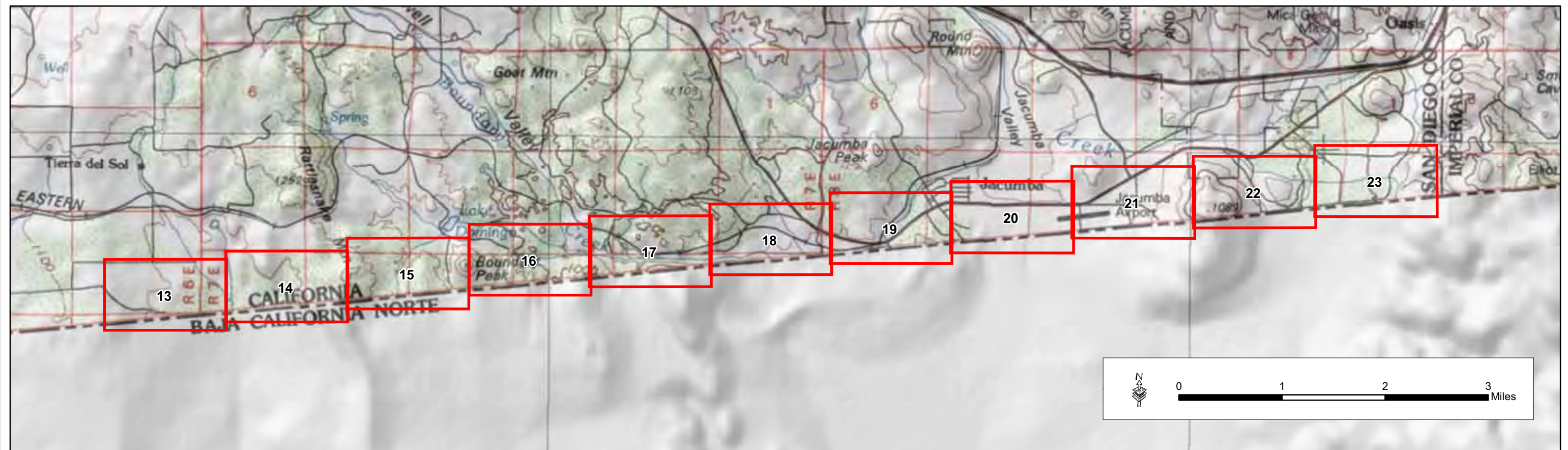
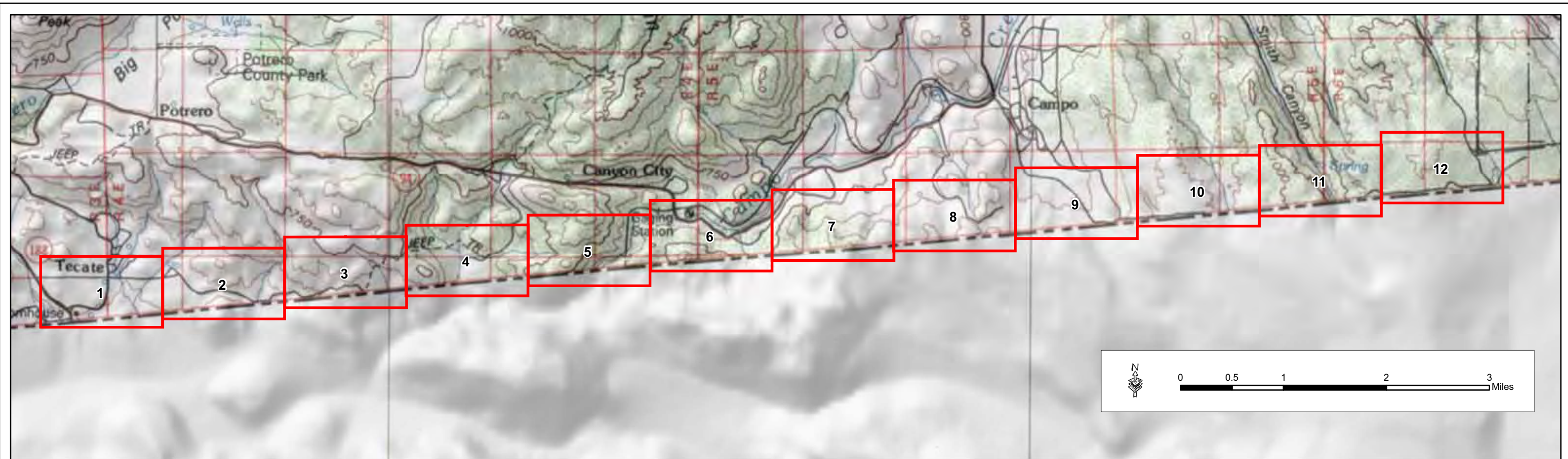
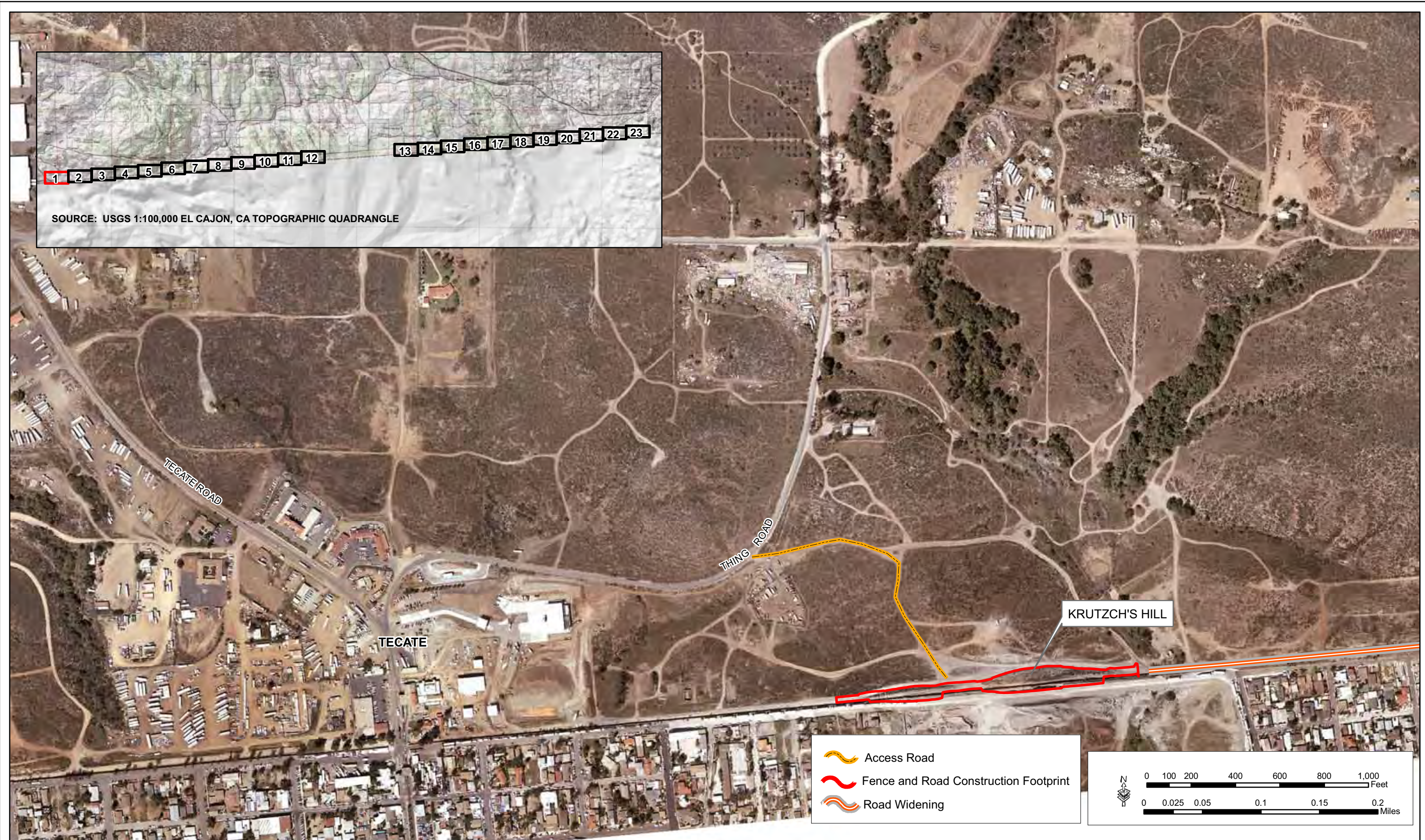
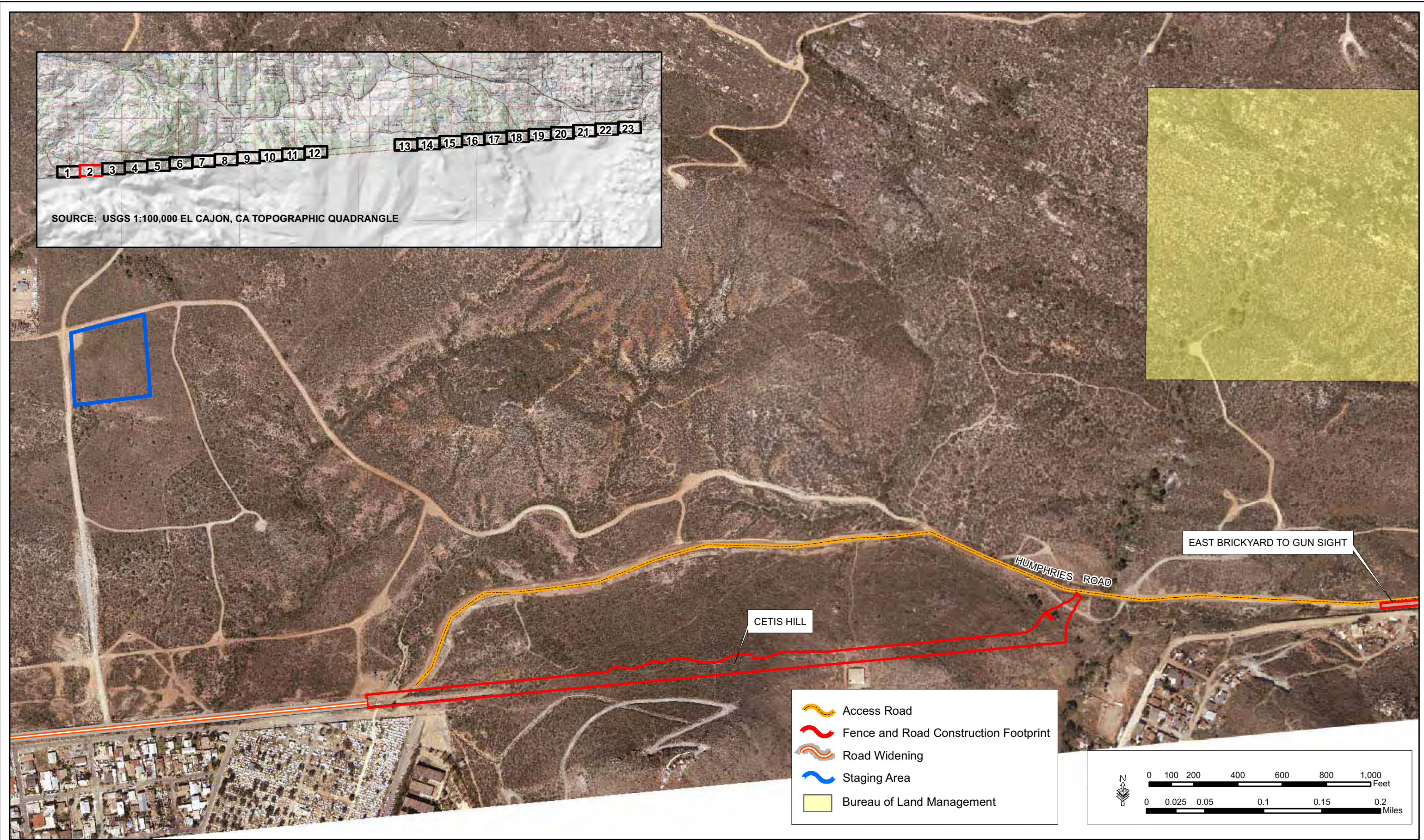


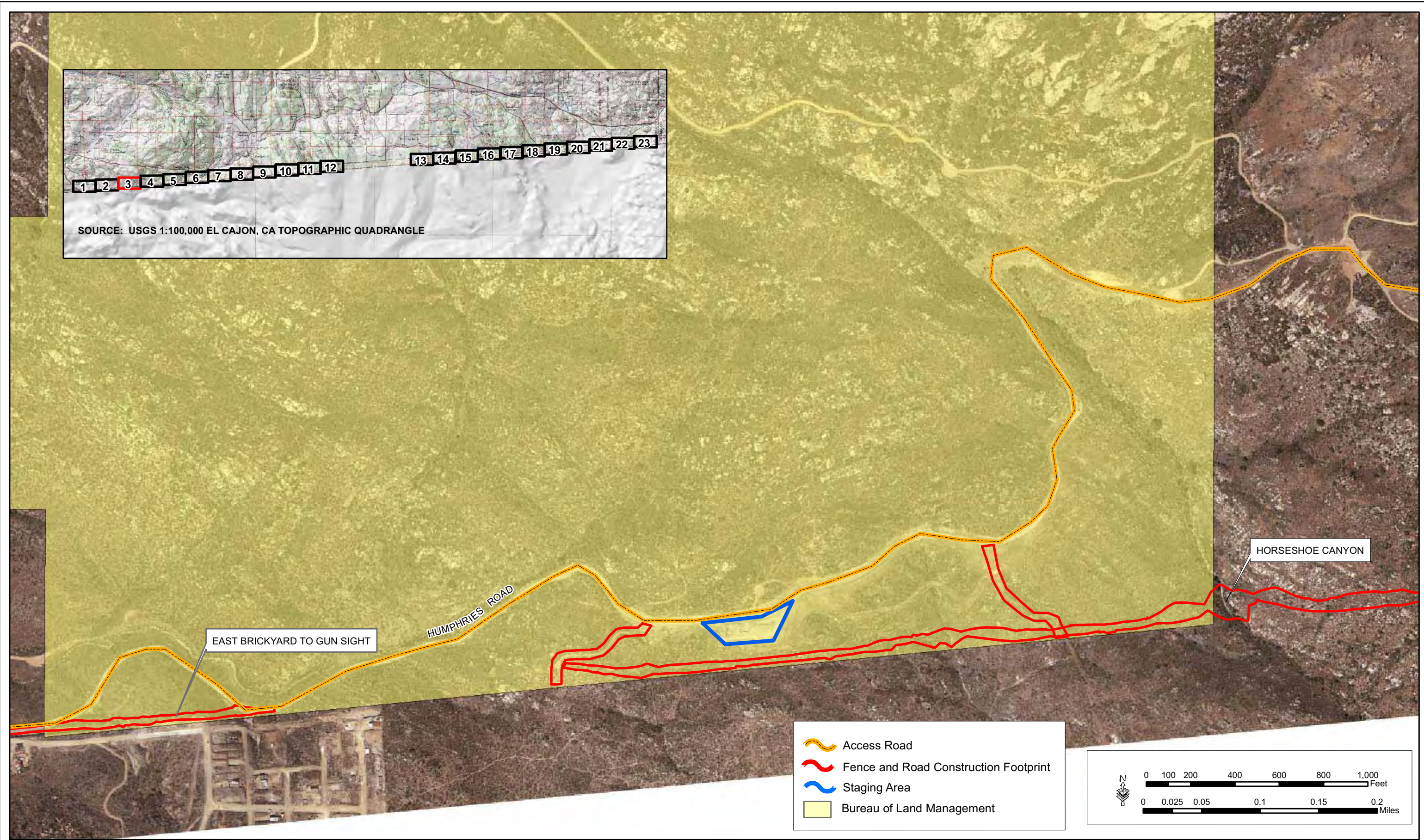
Figure 2-1: Index Map



Map 1 - Krutzch's Hill, Road Widening, and Access Road

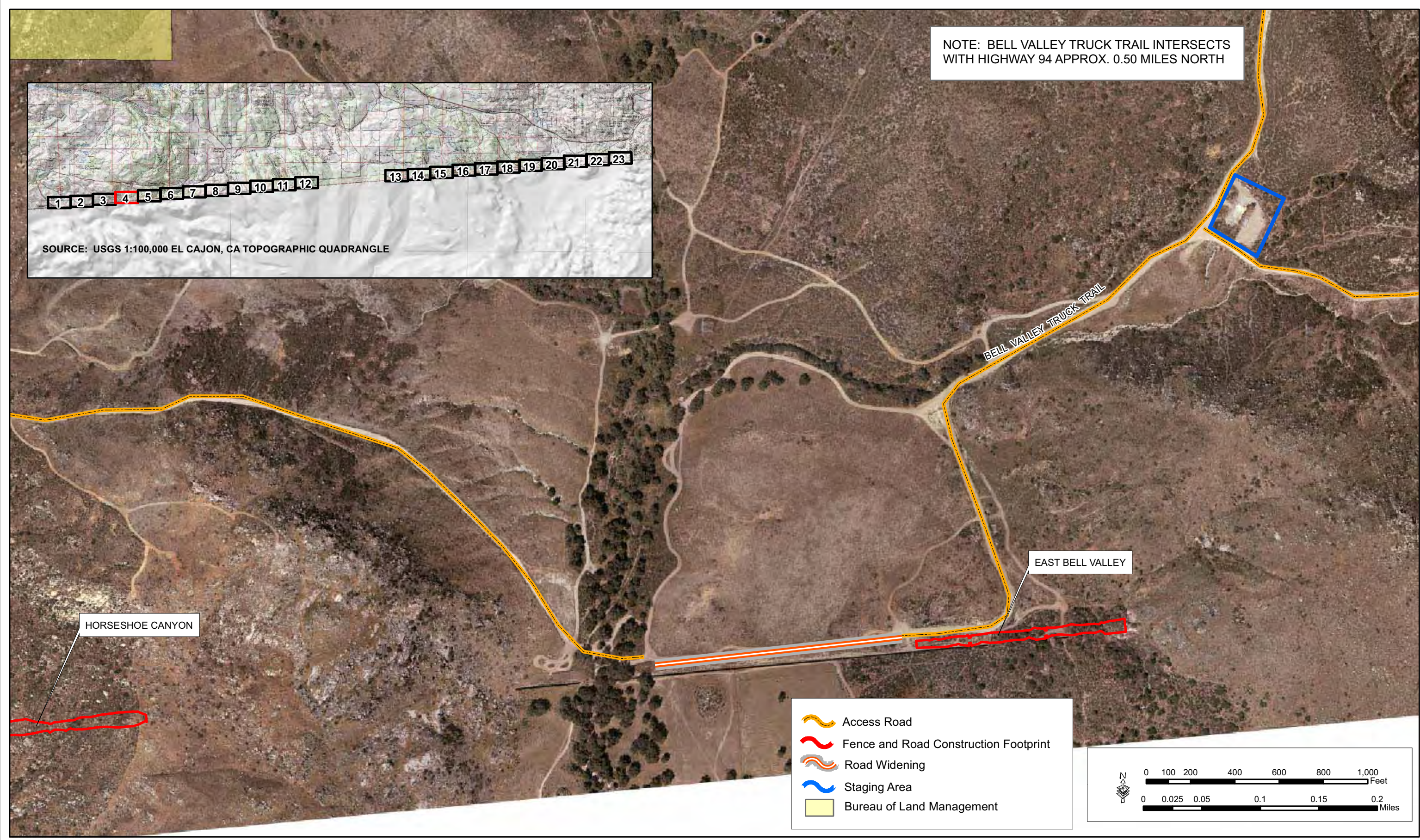
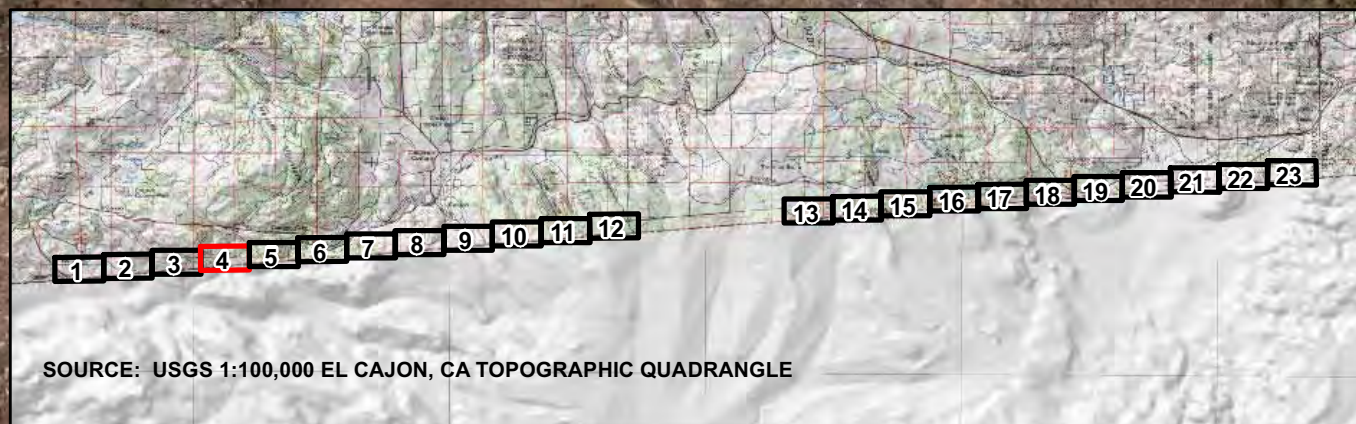


Map 2 - Cetus Hill, Road Widening, Staging Area, and Access Road



Map 3 - East Brickyard to Gun Sight, Horseshoe Canyon, Staging Area and Access Road

NOTE: BELL VALLEY TRUCK TRAIL INTERSECTS WITH HIGHWAY 94 APPROX. 0.50 MILES NORTH

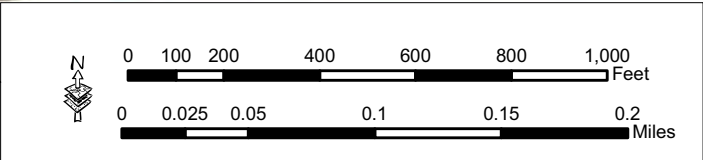


HORSESHOE CANYON

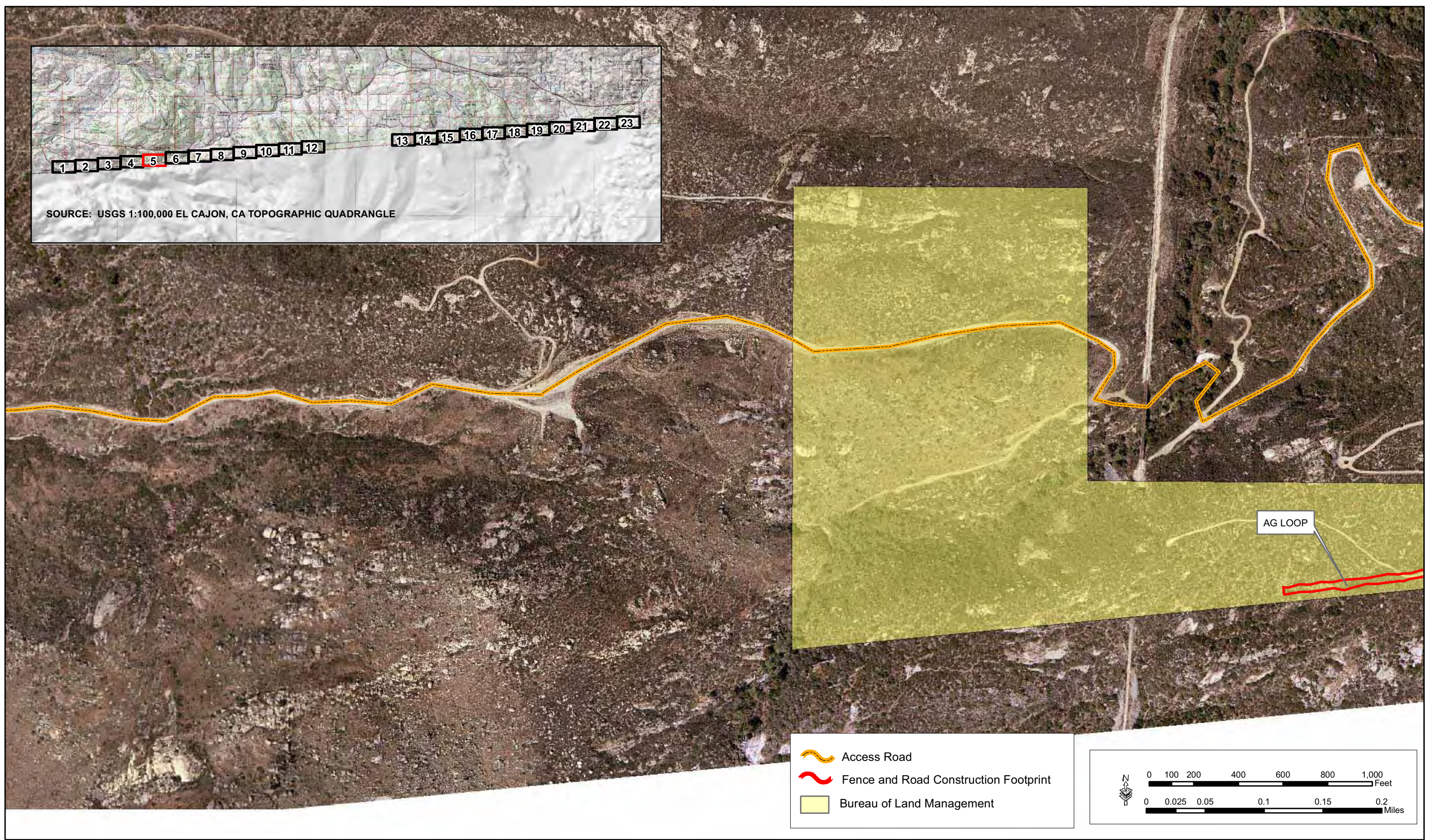
BELL VALLEY TRUCK TRAIL

EAST BELL VALLEY

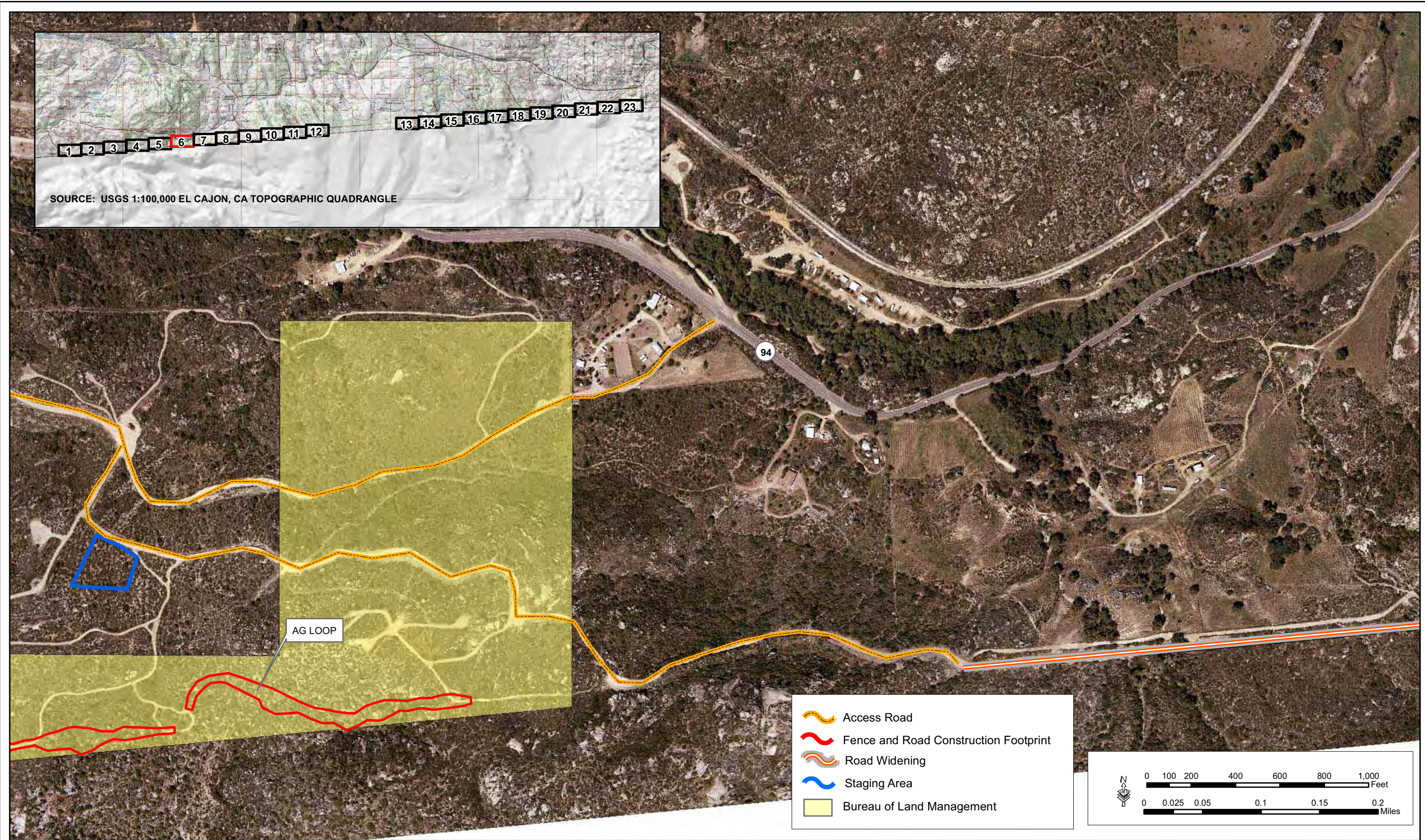
- Access Road
- Fence and Road Construction Footprint
- Road Widening
- Staging Area
- Bureau of Land Management



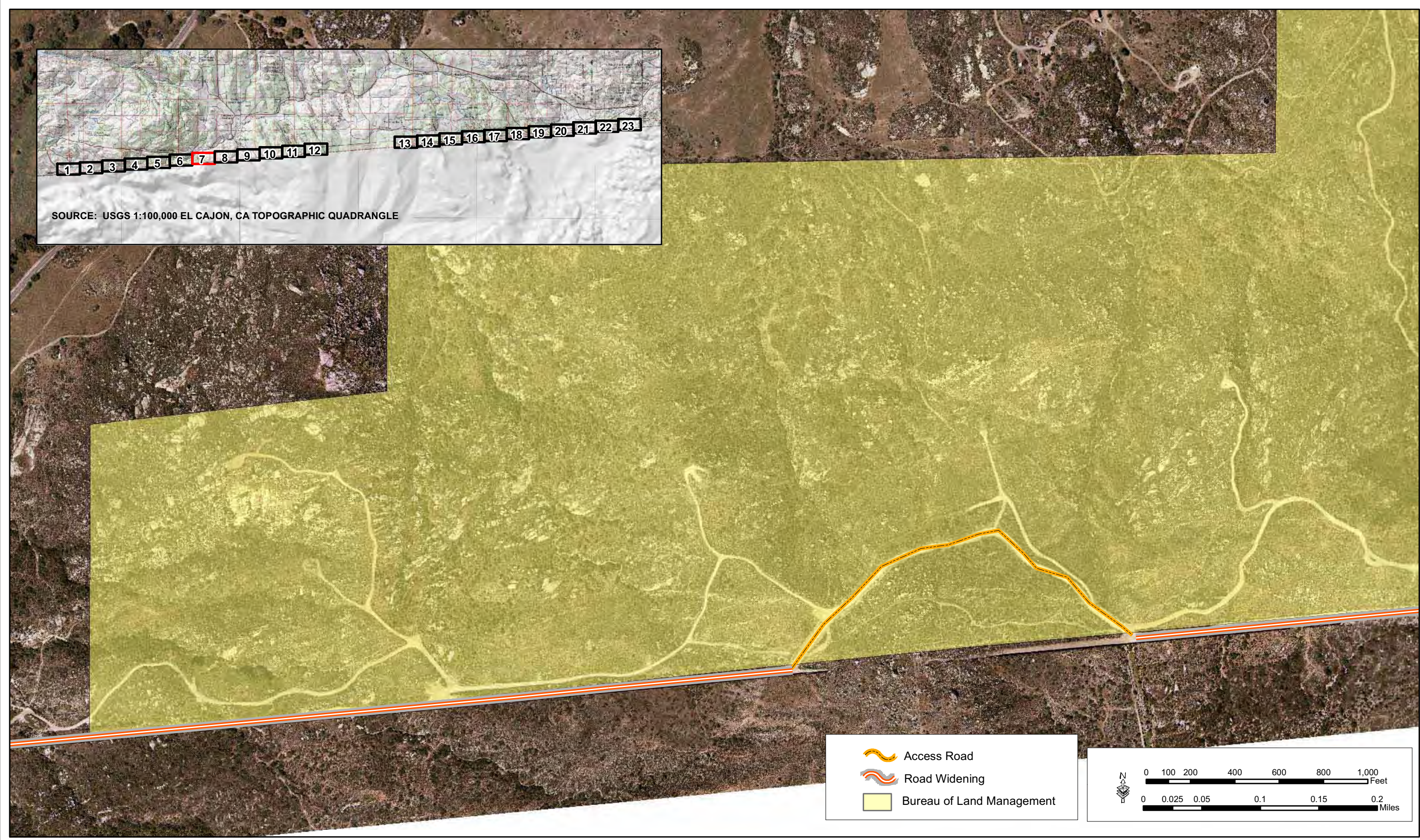
Map 4 - Horseshoe Canyon, East Bell Valley, Road Widening, Staging Area, and Access Roads






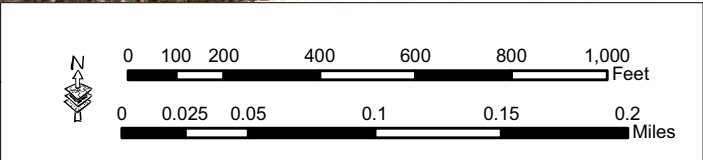
Map 5 - Ag Loop and Access Road



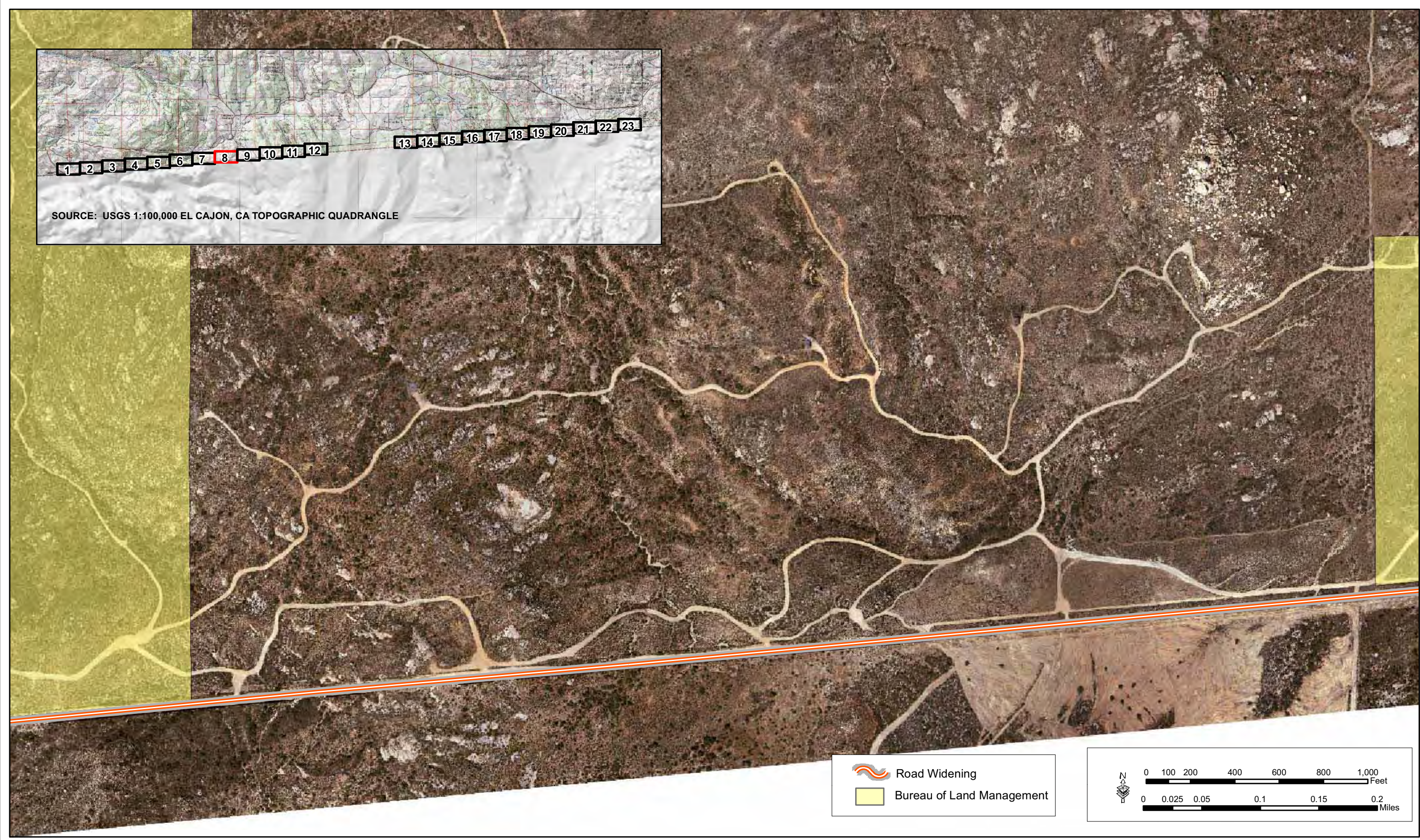
Map 6 - Ag Loop, Road Widening, Staging Area, and Access Road





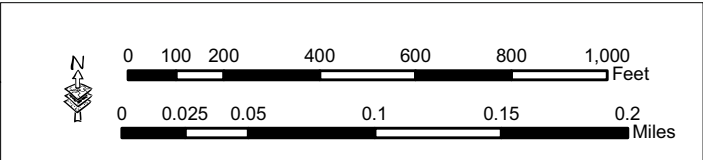
-  Access Road
-  Road Widening
-  Bureau of Land Management



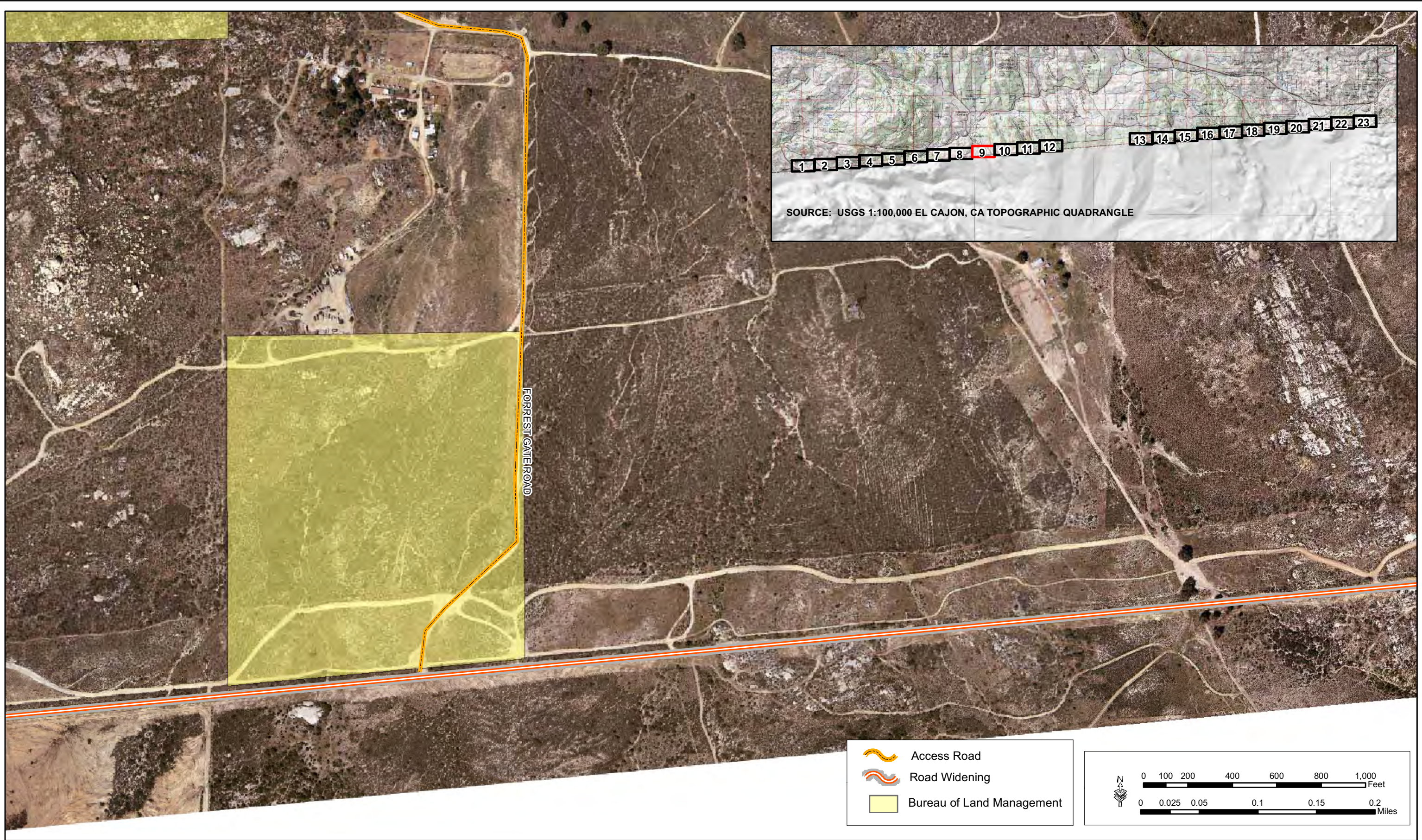
Map 7 - Road Widening and Access Road



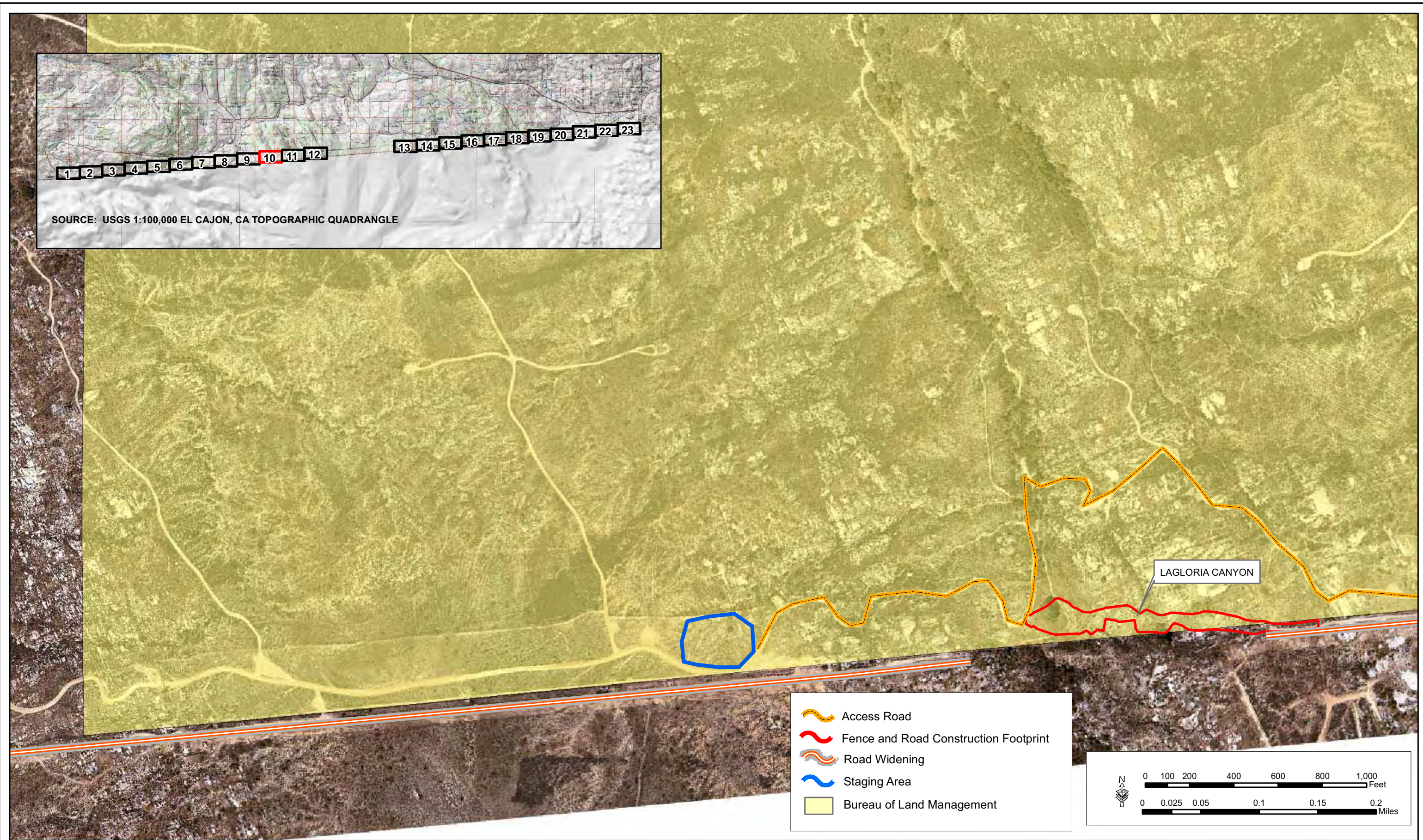
 Road Widening
 Bureau of Land Management



Map 8 - Road Widening








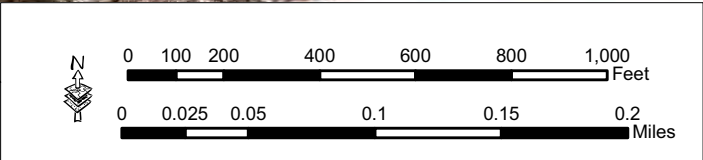
Map 9 - Road Widening and Access Road



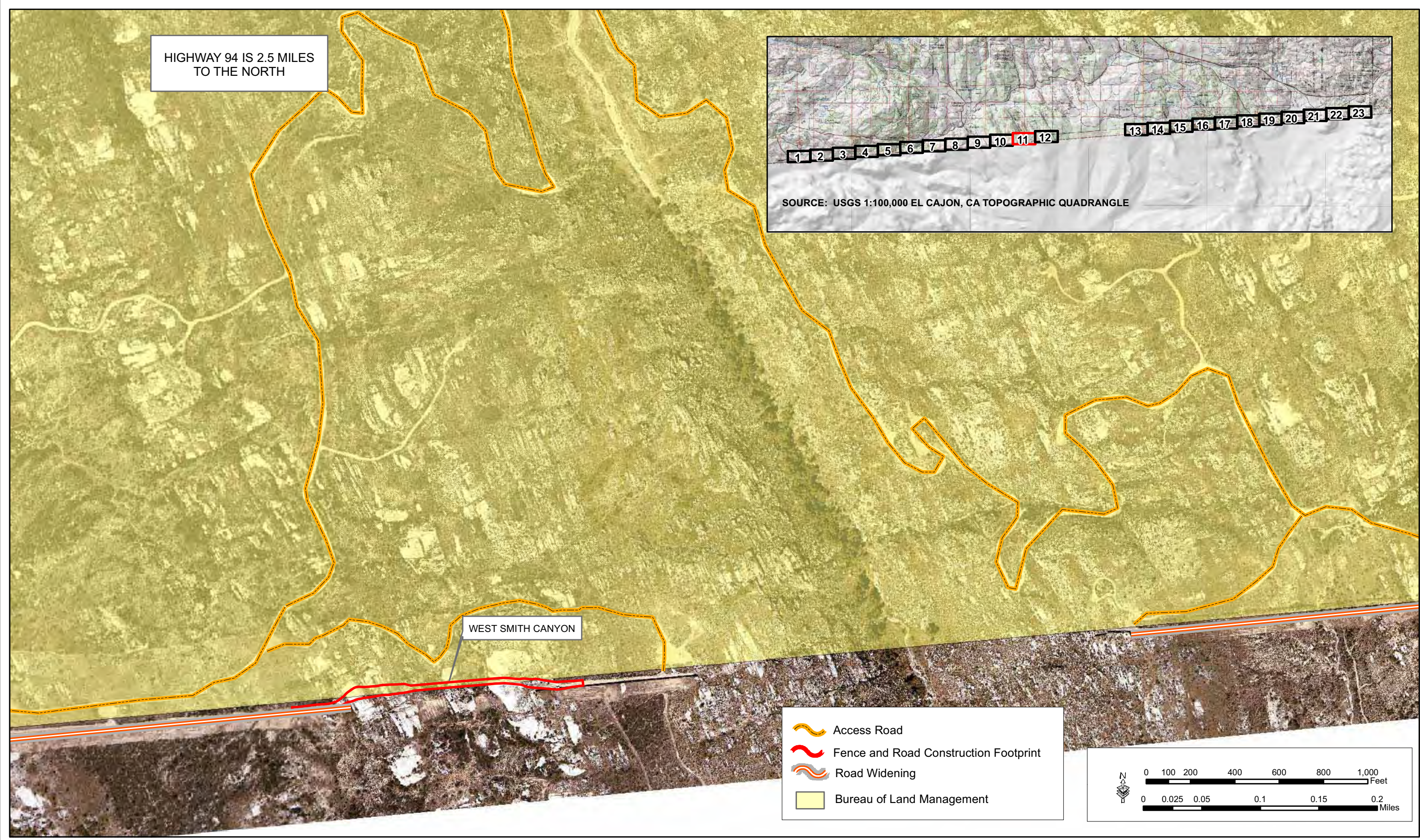
SOURCE: USGS 1:100,000 EL CAJON, CA TOPOGRAPHIC QUADRANGLE

LAGLORIA CANYON

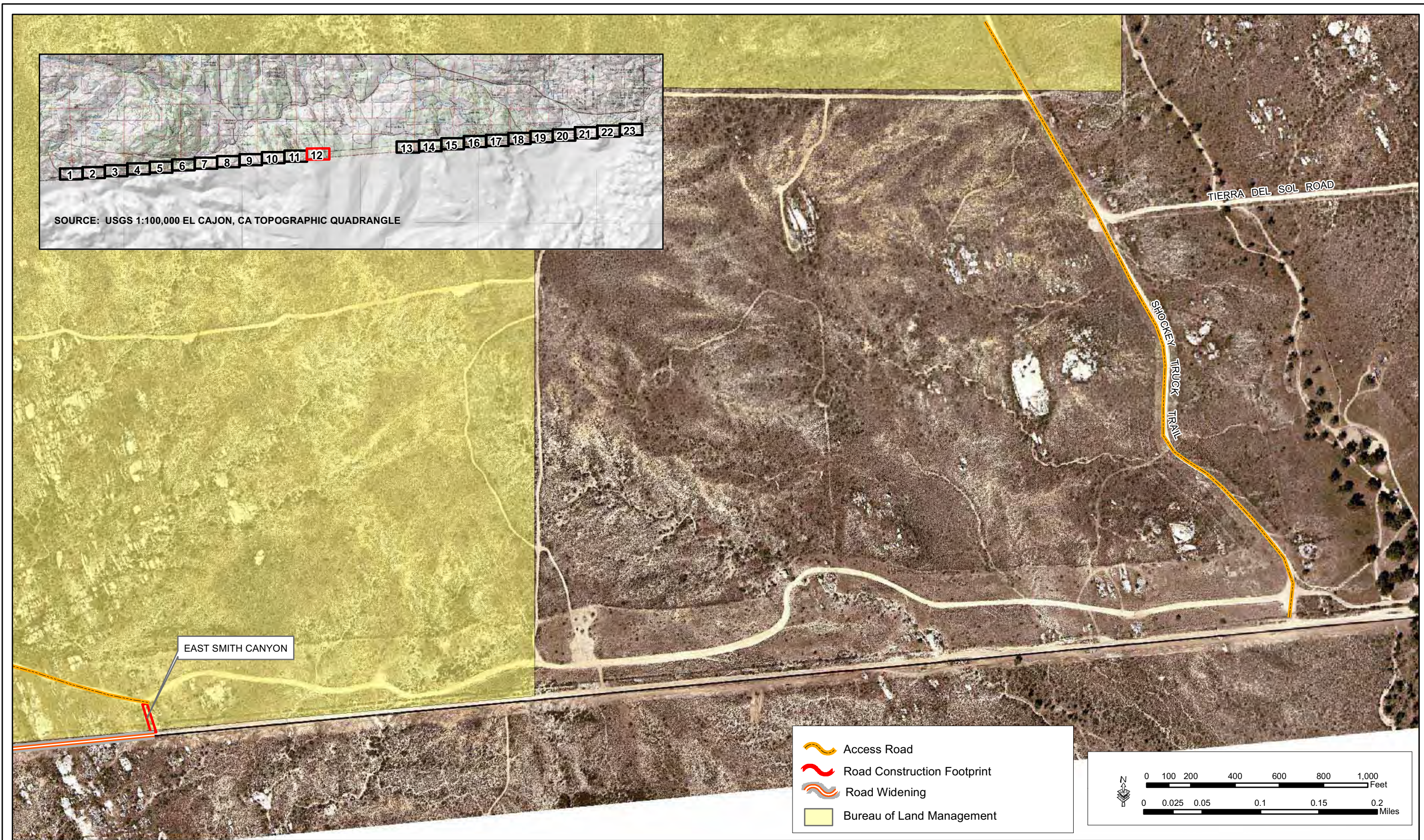
-  Access Road
-  Fence and Road Construction Footprint
-  Road Widening
-  Staging Area
-  Bureau of Land Management



Map 10 - LaGloria Canyon, Road Widening, Staging Area, and Access Road

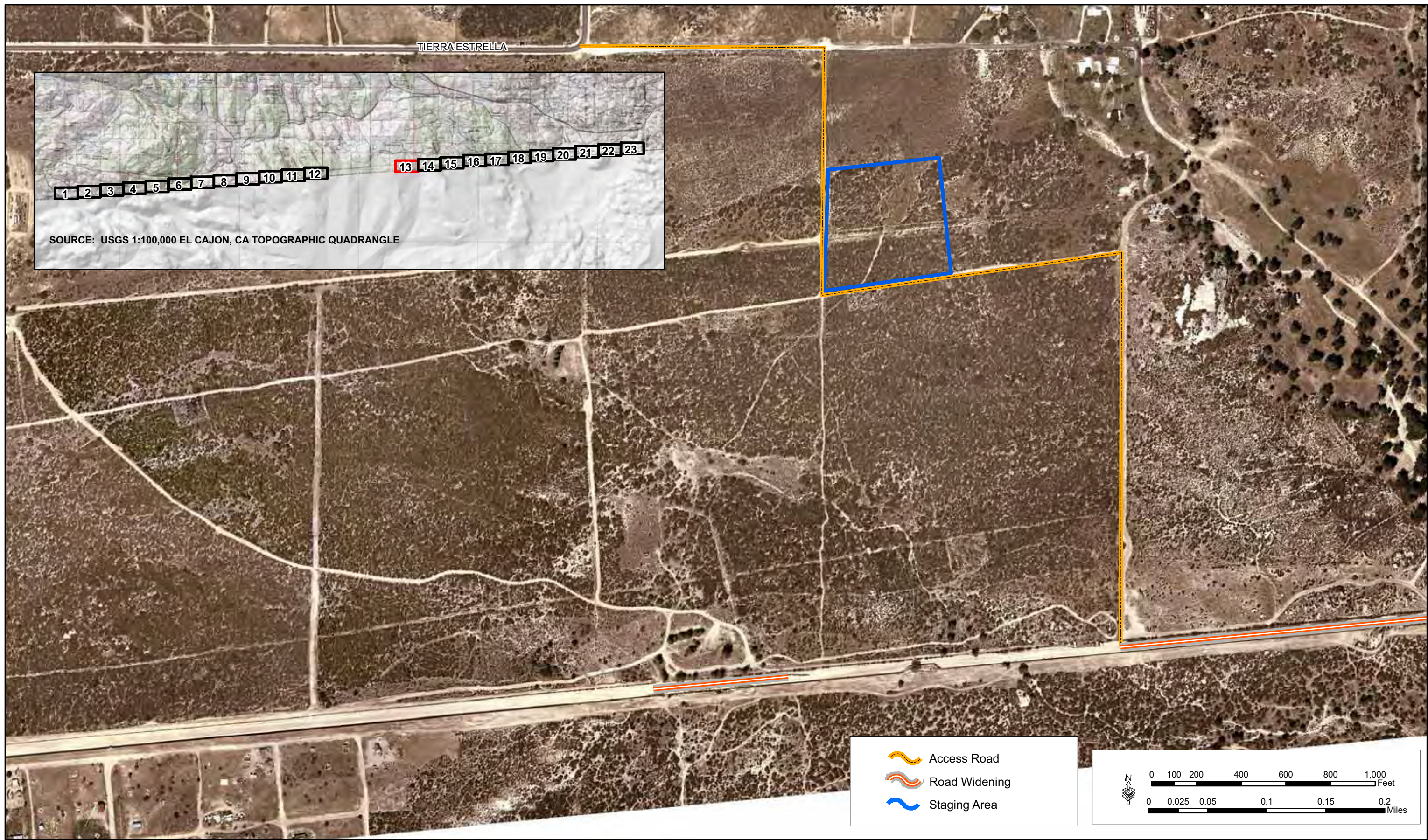
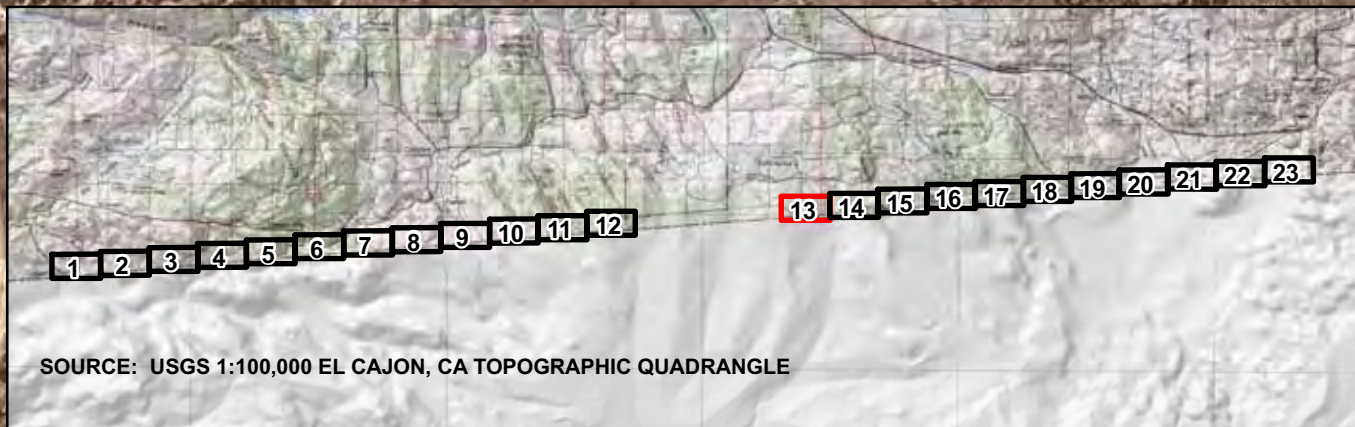





Map 11 - West Smith Canyon, Road Widening, Staging Area, and Access Roads

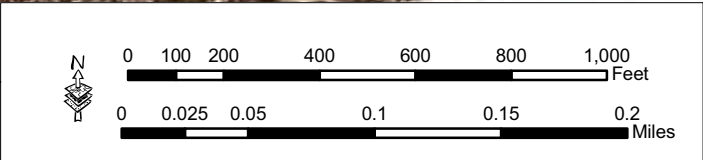


Map 12 - East Smith Canyon, Road Widening, and Access Road

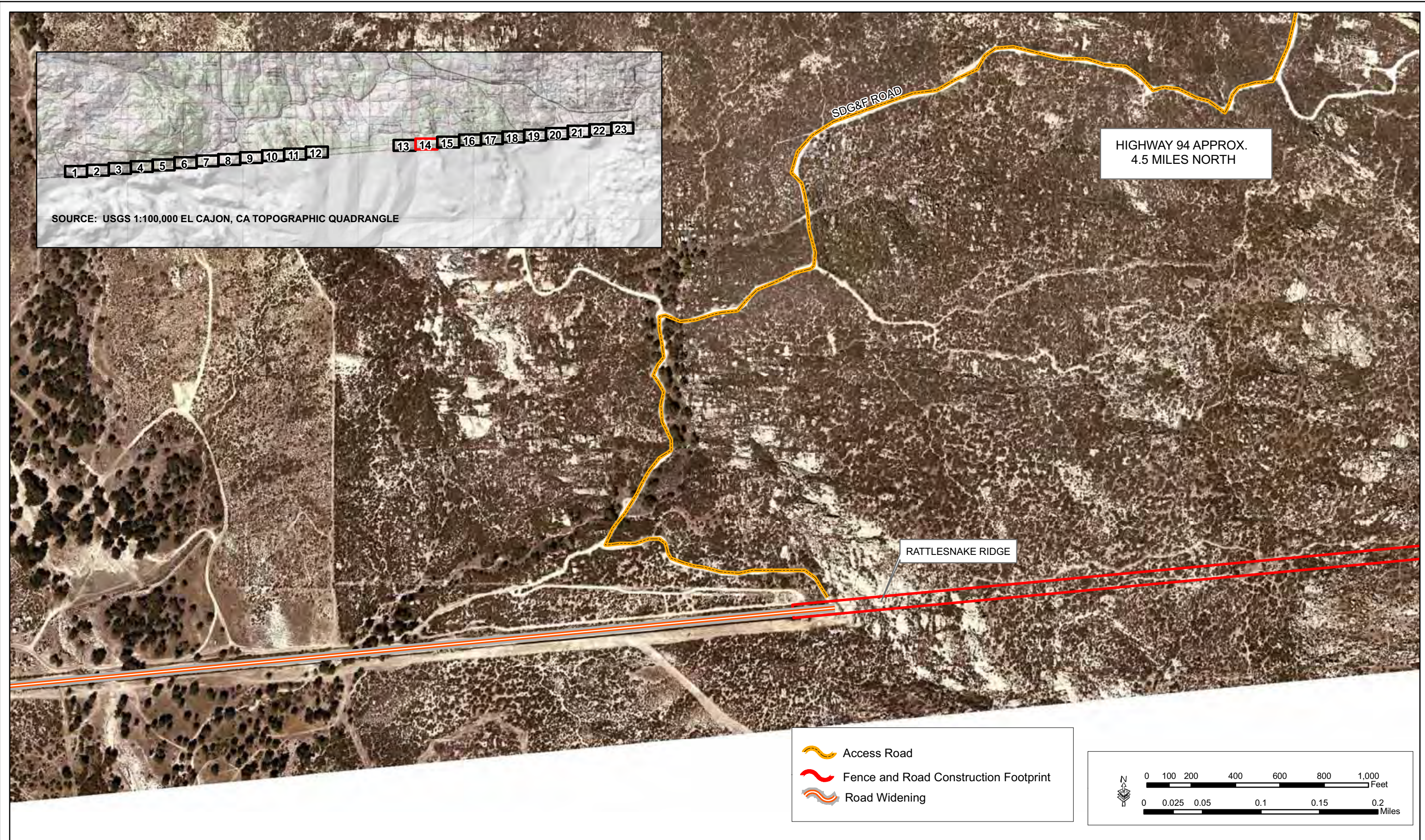
TIERRA ESTRELLA



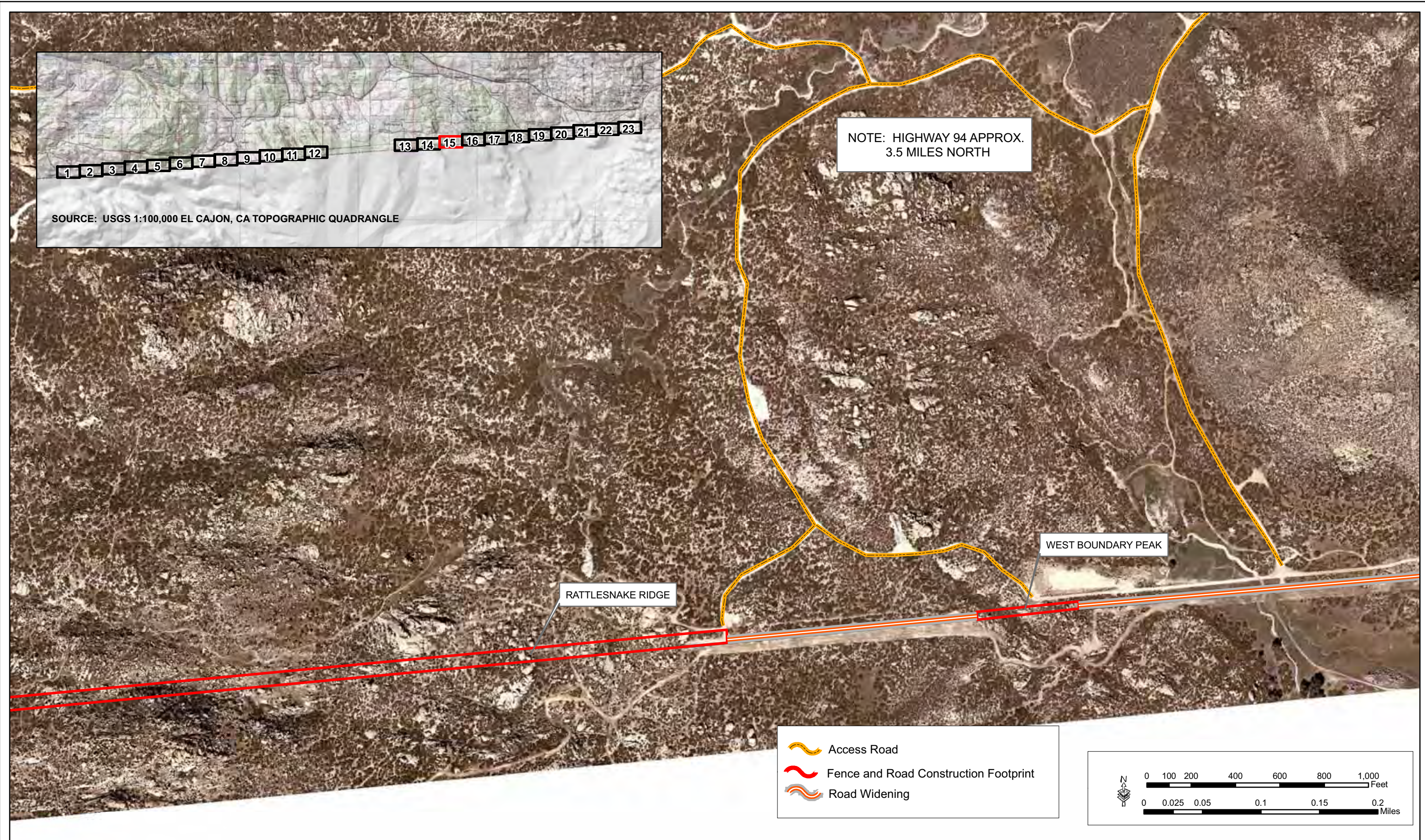
-  Access Road
-  Road Widening
-  Staging Area



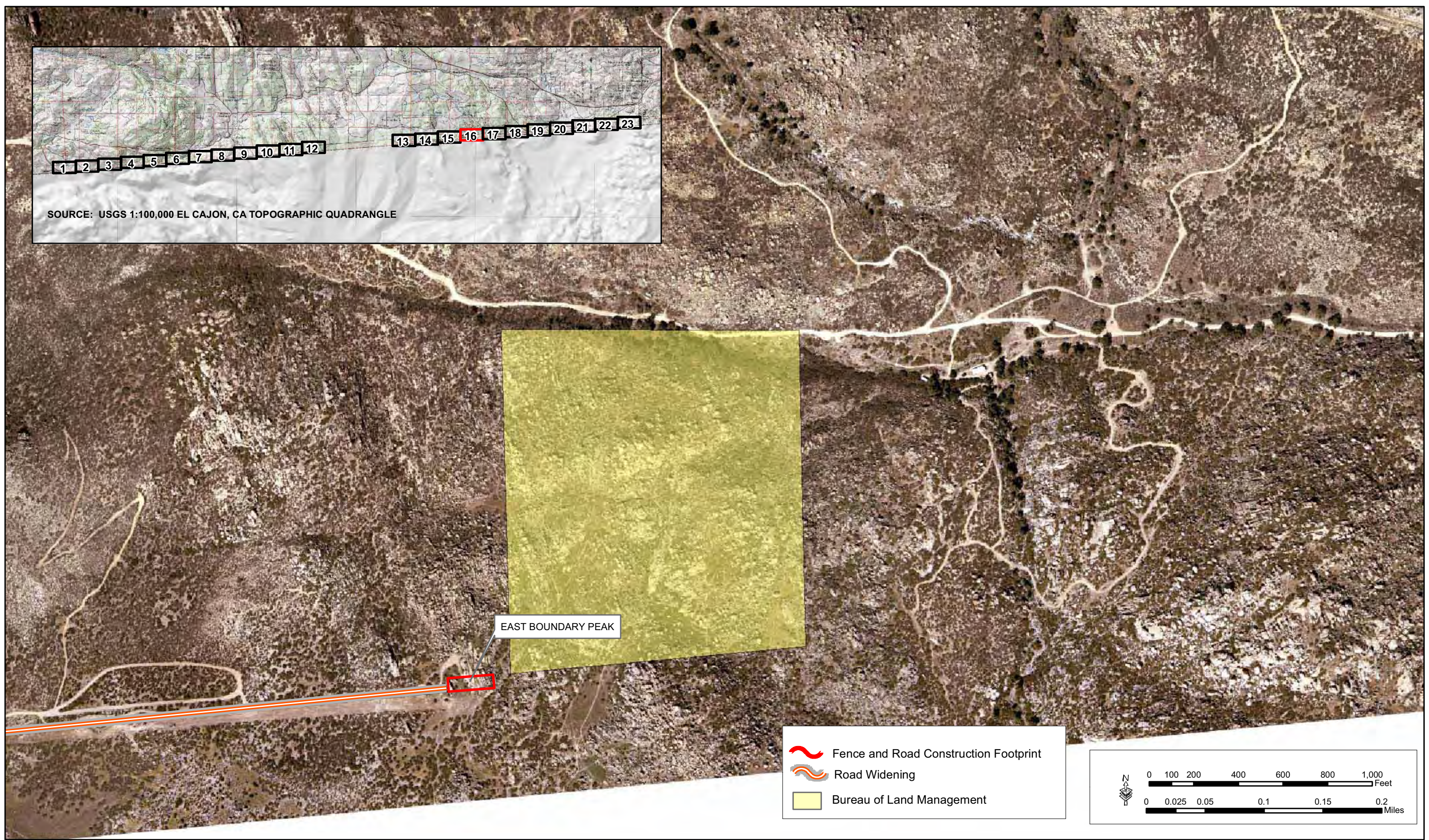
Map 13 - Road Widening, Staging Area, and Access Road



Map 14 - Rattlesnake Ridge, Road Widening, and Access Road

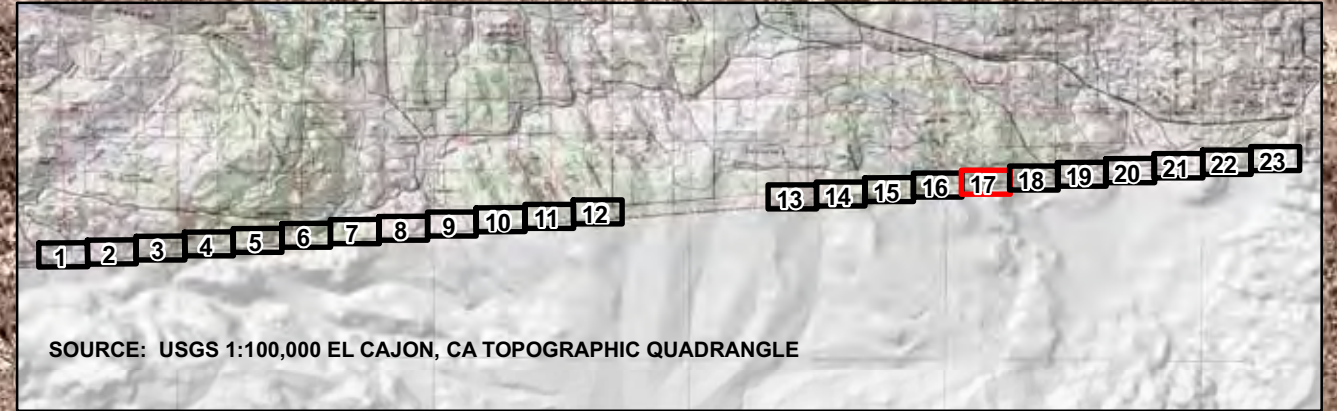


Map 15 - Rattlesnake Ridge, West Boundary Peak, Road Widening, and Access Roads




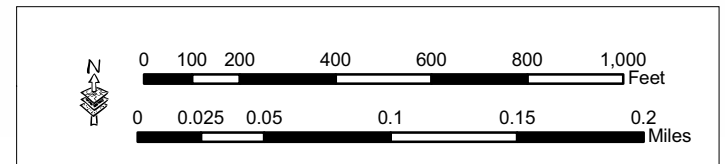
Map 16 - East Boundary Peak and Road Widening

NOTE: OLD HIGHWAY 80 APPROX.
3.0 MILES NORTH

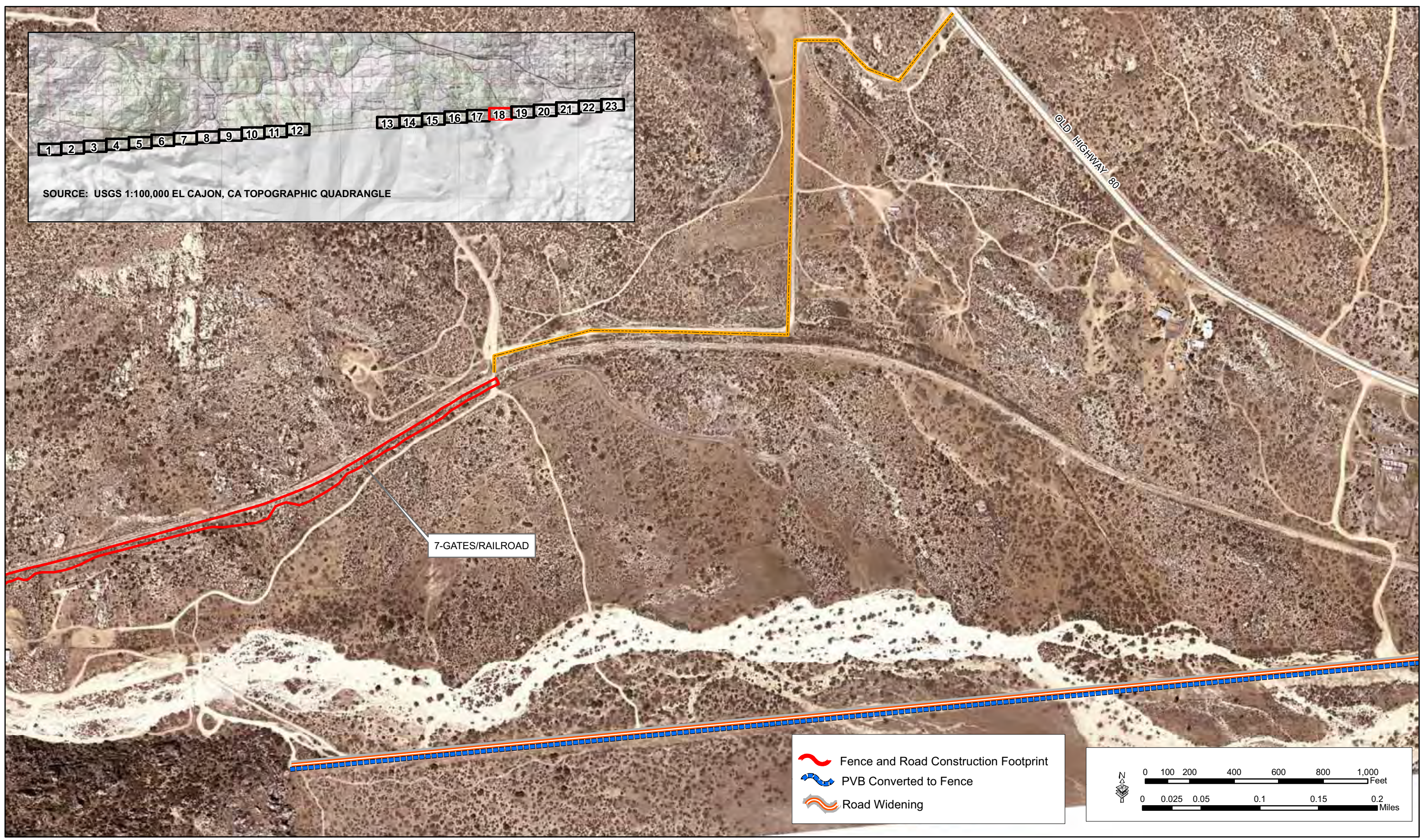


7-GATES/RAILROAD

 Road Construction Footprint






Map 17 - 7-Gates/Railroad and PVB Converted to Fence

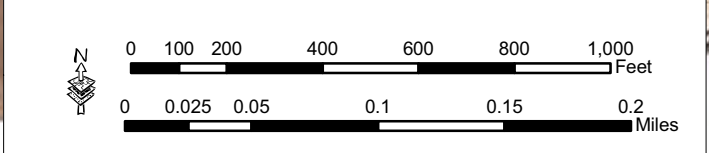


SOURCE: USGS 1:100,000 EL CAJON, CA TOPOGRAPHIC QUADRANGLE

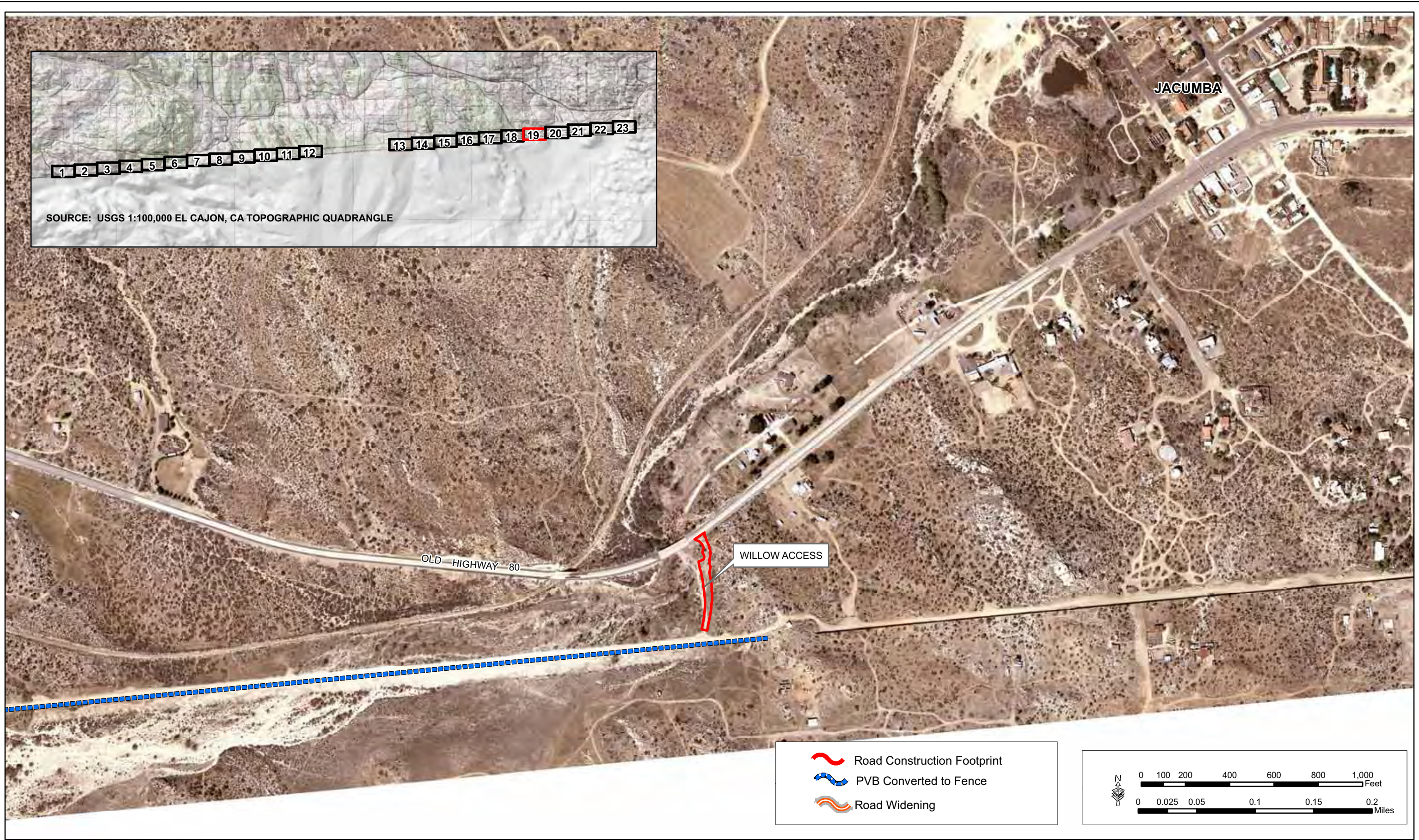
7-GATES/RAILROAD

OLD HIGHWAY 80

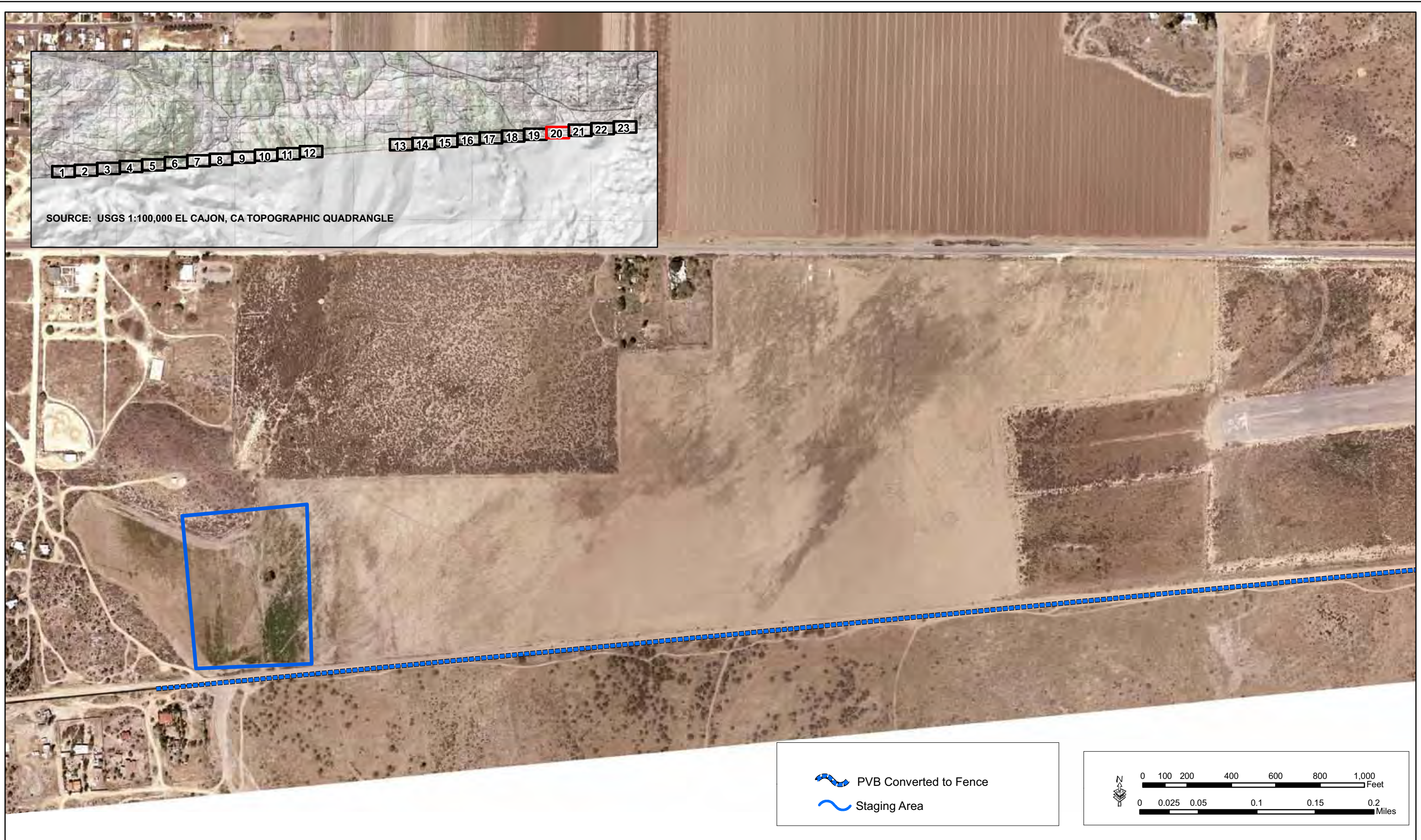
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-  PVB Converted to Fence
-  Road Widening



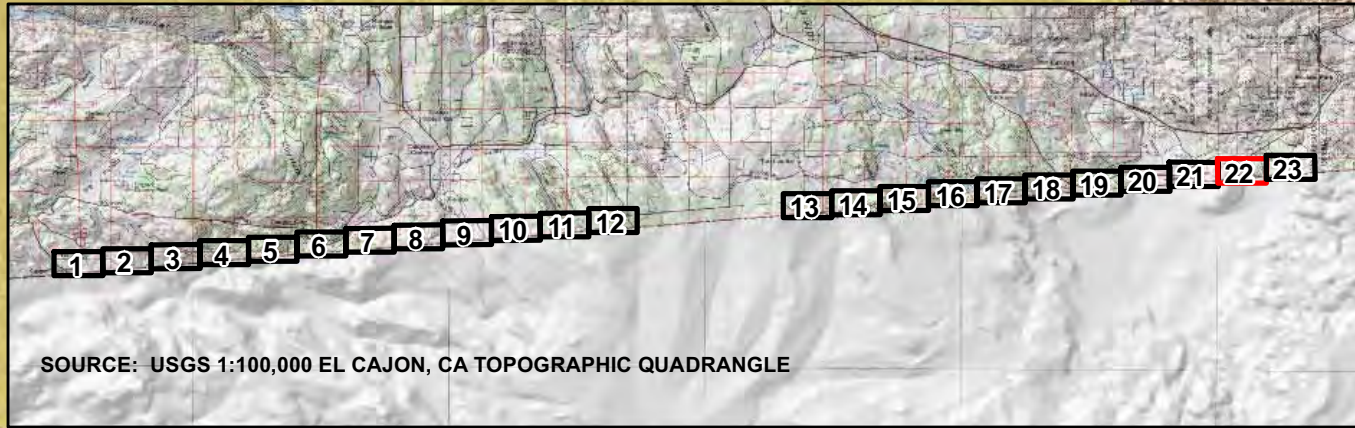
Map 18 - 7-Gates Railroad, Road Widening, and PVB Converted to Fence





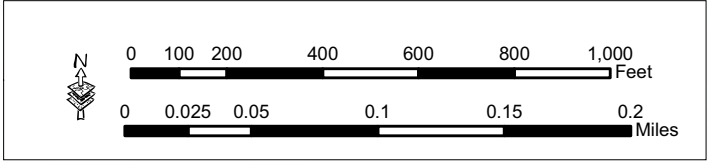
Map 19 - Willow Access, Road Widening, and PVB Converted to Fence



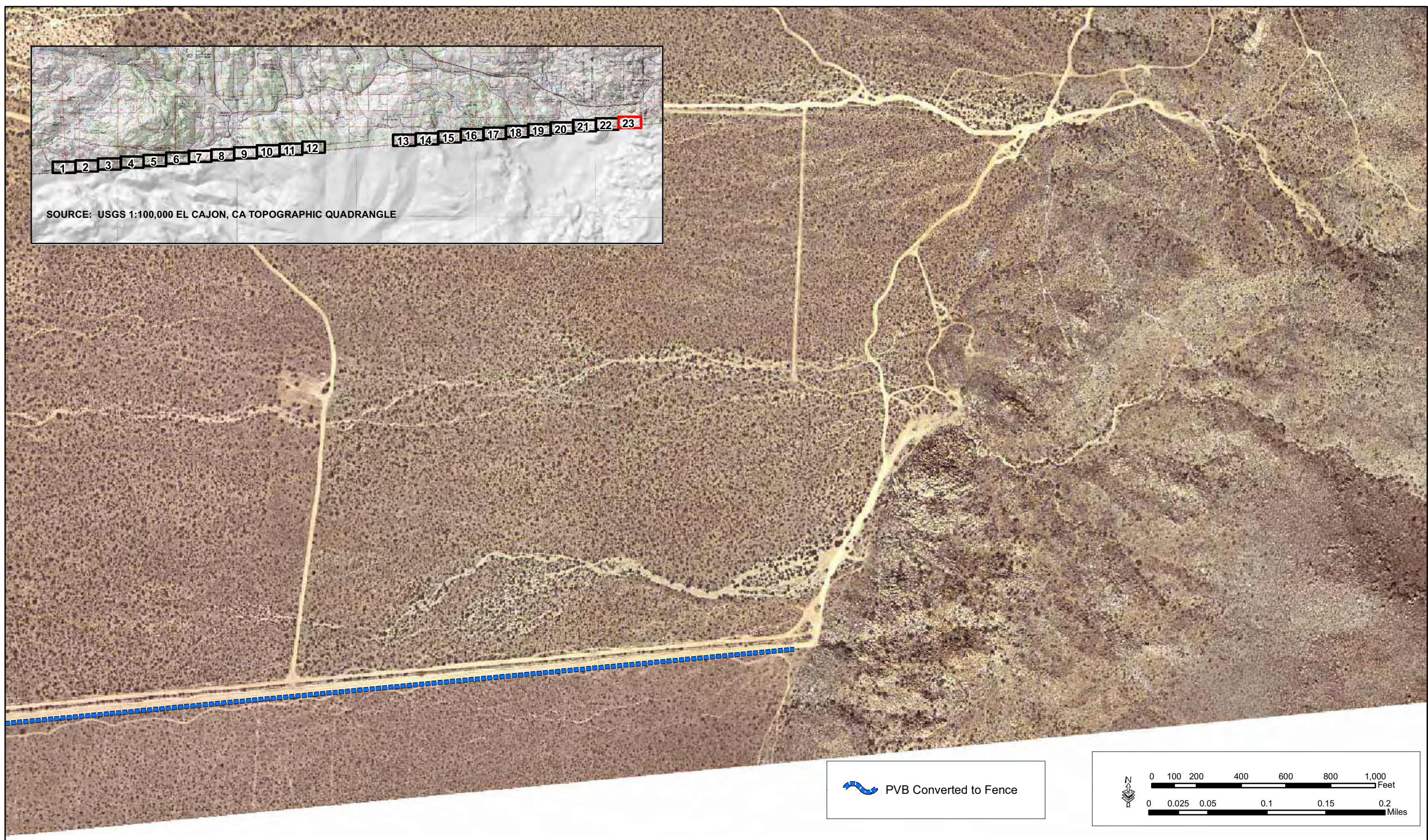
Map 20 - Staging Area and PVB Converted to Fence




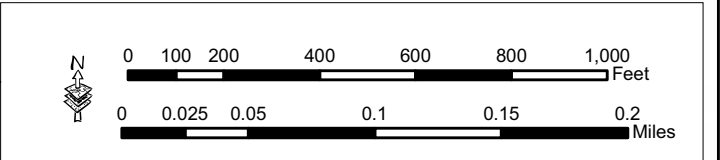
 PVB Converted to Fence
 Bureau of Land Management



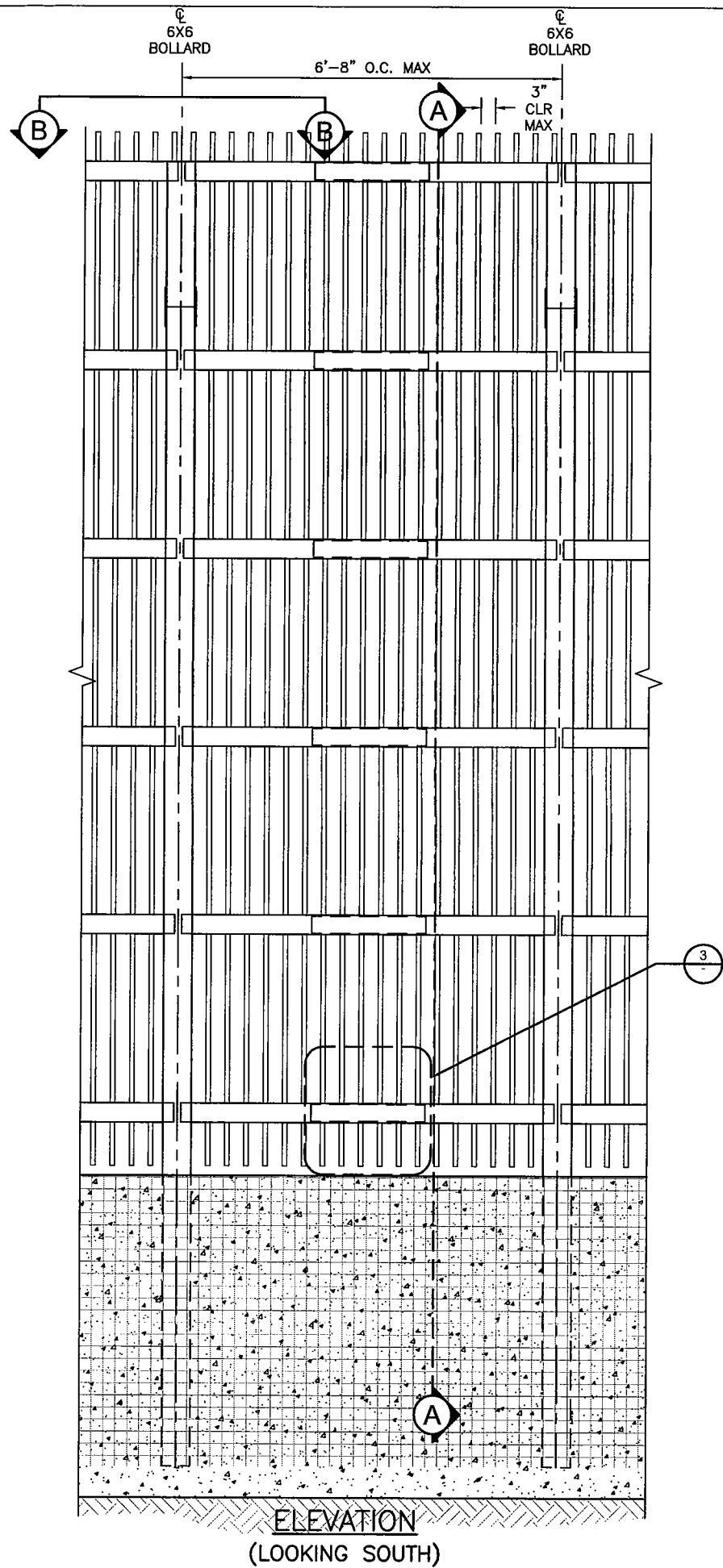
Map 22 - PVB Converted to Fence



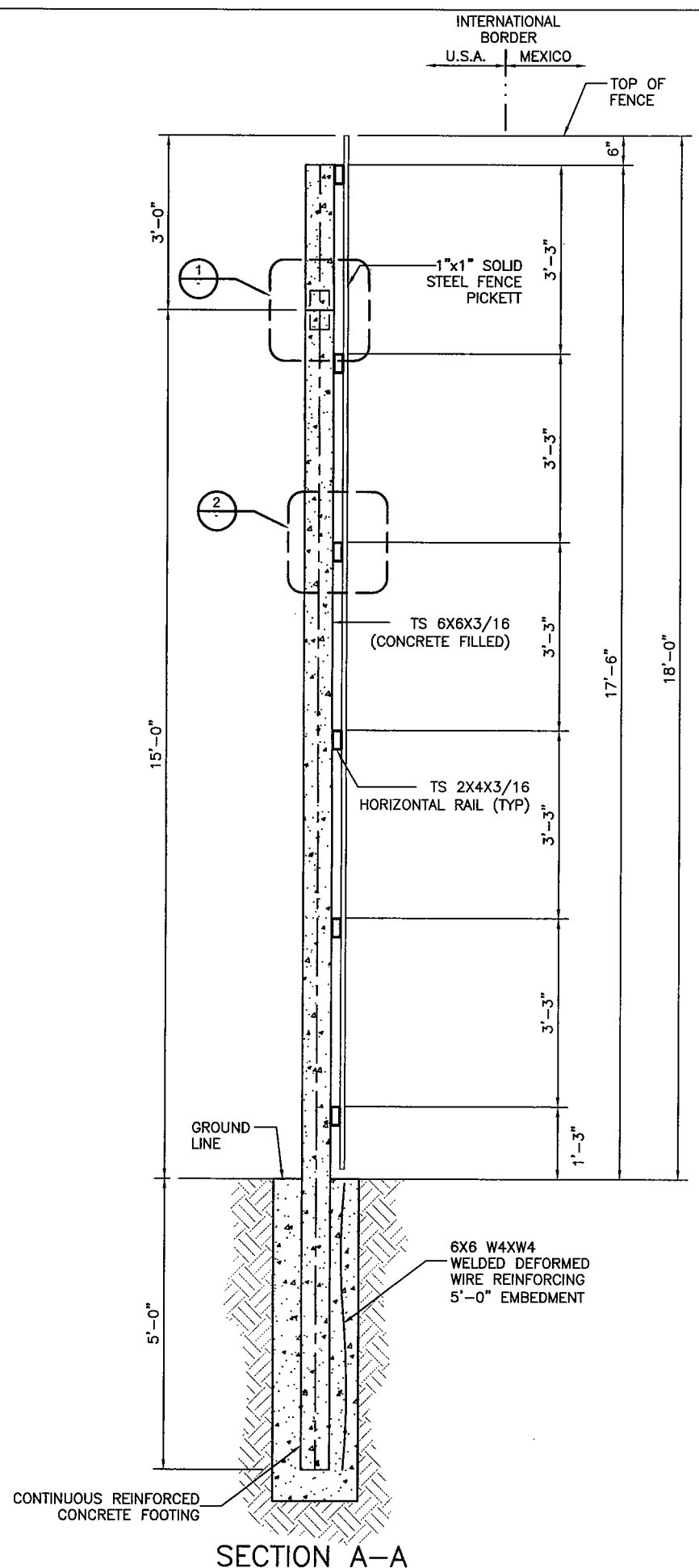
 PVB Converted to Fence



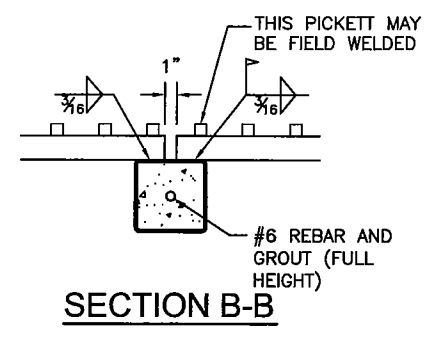
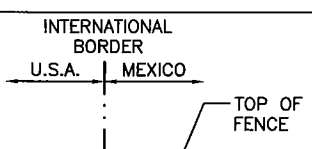
Map 23 - PVB Converted to Fence



ELEVATION
(LOOKING SOUTH)

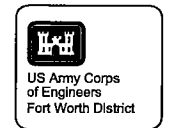


SECTION A-A



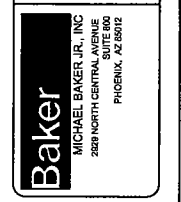
SECTION B-B

NOTE:
 1. VALID FOR 90 MPH WIND
 2. FOUNDATION DETAILS SHOWN REPRESENT MINIMUM DIMENSIONAL REQUIREMENTS AND MAY NEED INCREASED BASED ON FOUNDATION DESIGN.



Rev.	Date	Description

SCHEMATIC NOT FOR CONSTRUCTION

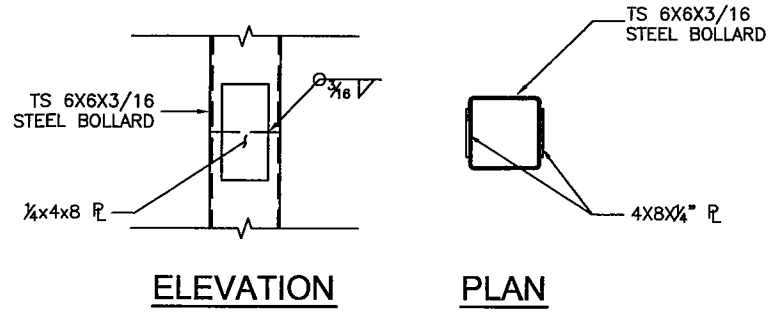


Designed by: KAS	Checked by: JW/B	Date:	Rev.
Dwn by: JN/KAS	Reviewed by: TQ	Submitted by: Michael Baker Jr., Inc.	Plot date: 11/18/07
Project No.: 112319		Baker Project No.:	

PF225 CONCEPTUAL FENCE DESIGNS

PERSONNEL TYPE 1

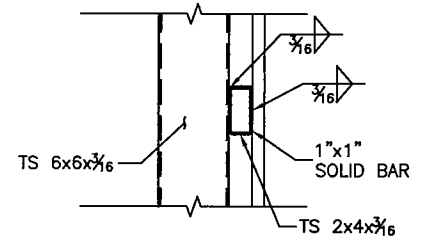
SHEET NUMBER P-1



ELEVATION PLAN

DETAIL 1

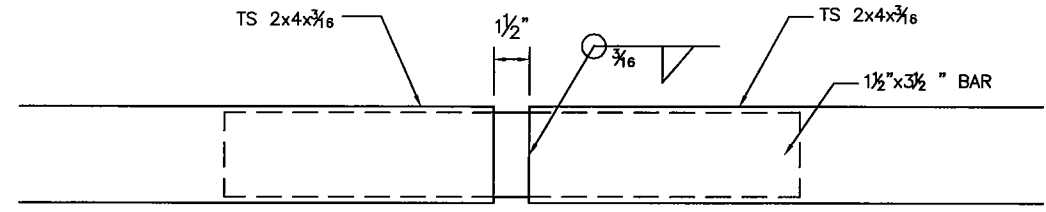
OPTIONAL POST SPLICE



DETAIL 2

PICKETT & RAIL

ATTACHMENT



DETAIL 3


HORIZONTAL RAIL

EXPANSION JOINTS

(36' MAX SPACING)

Mark	Description	Date	Appr.

SCHEMATIC NOT FOR CONSTRUCTION



 MICHAEL BAKER JR., INC.

 205 NORTH CENTRAL AVENUE, SUITE 800

 PHOENIX, AZ 85012

Designed by: KAS	Date:	Rev.
Dwn by: JN/KAS	Submitted by: Michael Baker Jr., Inc.	
Reviewed by: TQ	Plot date: 11/18/07	Baker Project No: 112319

PF225

CONCEPTUAL

FENCE

DESIGNS

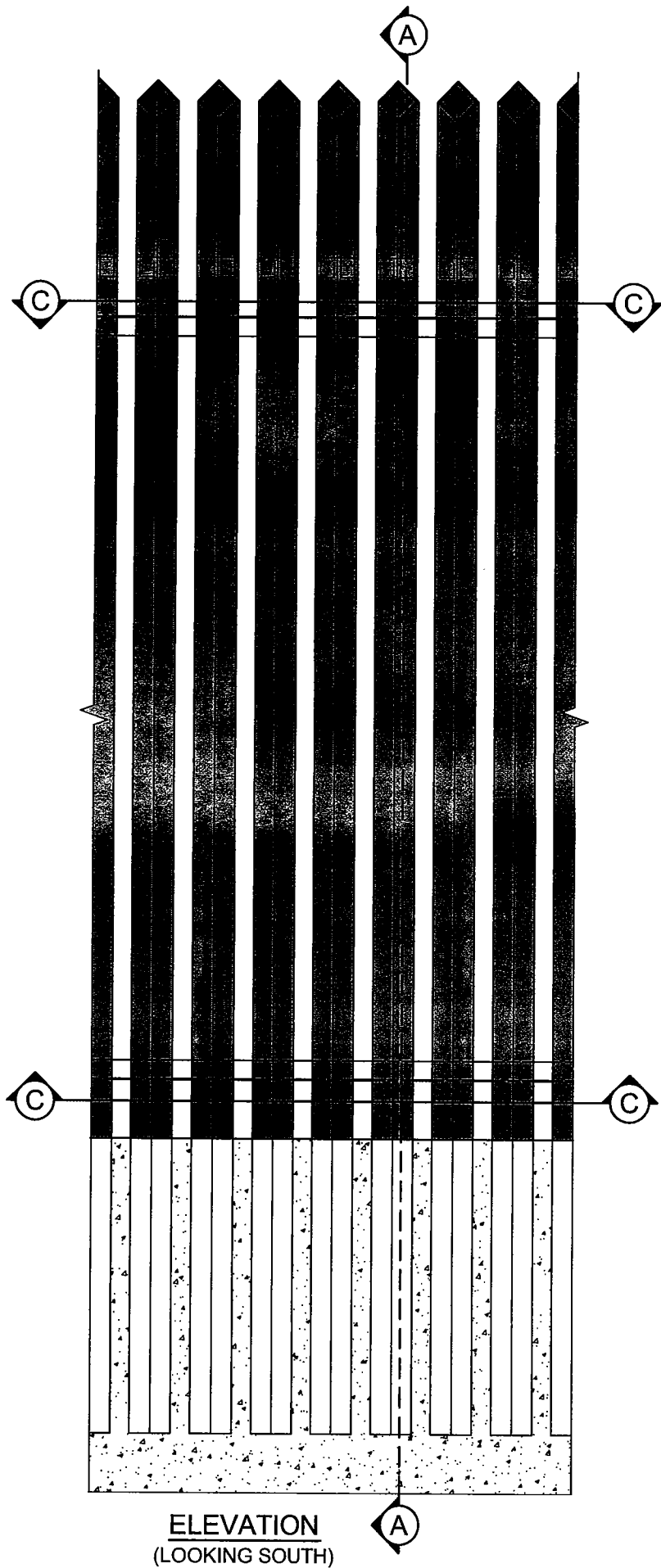
PERSONNEL

TYPE 1

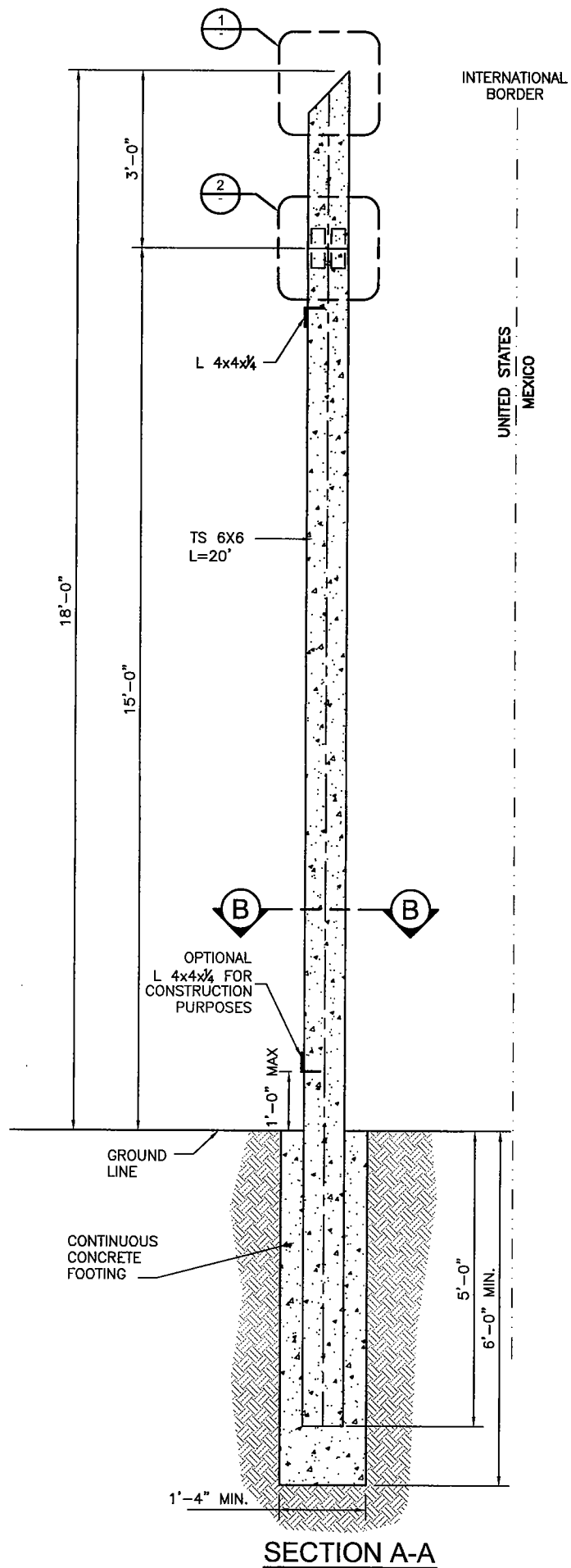
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NUMBER

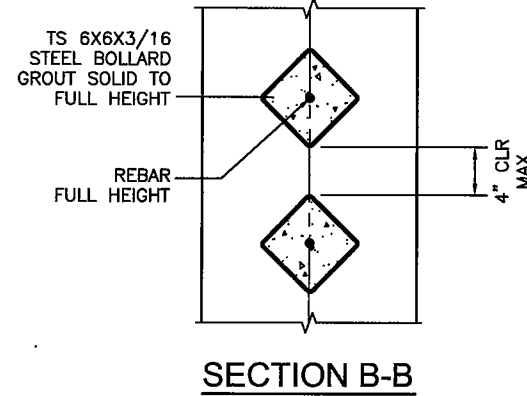
P-1



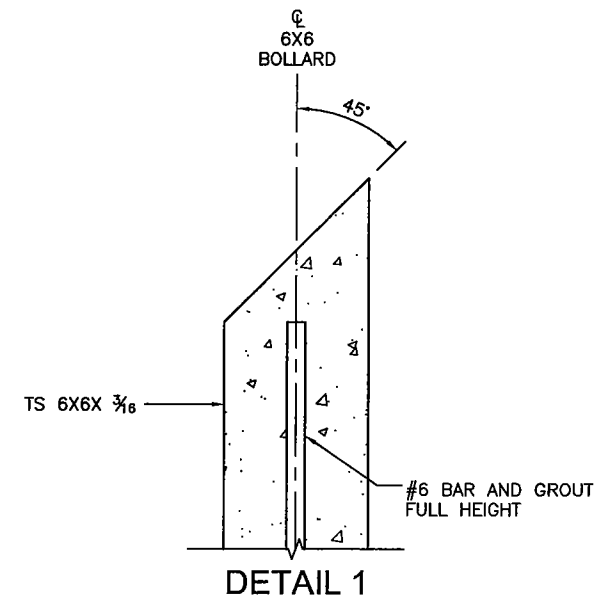
ELEVATION
(LOOKING SOUTH)



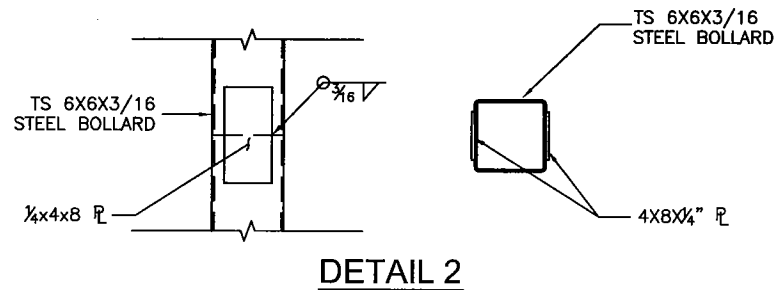
SECTION A-A



SECTION B-B



DETAIL 1



DETAIL 2

NOTE:
 1. VALID FOR 140 MPH WIND
 2. FOUNDATION DETAILS SHOWN REPRESENT MINIMUM DIMENSIONAL REQUIREMENTS AND MAY NEED TO BE INCREASED BASED ON FINAL DESIGN.

Rev.	Date	Description

SCHMATIC NOT FOR CONSTRUCTION

Designed by: KAS	Date:	Rev.
Dwn by: MC	Submitted by: Michael Baker Jr., Inc.	
Reviewed by: TQ	Plot date: 11/19/07	Baker Project No: 112319

PF225
 CONCEPTUAL
 FENCE
 DESIGNS

PERSONNEL
 TYPE 2

Rev.	Date	Appr.

SCHEMATIC
NOT FOR
CONSTRUCTION

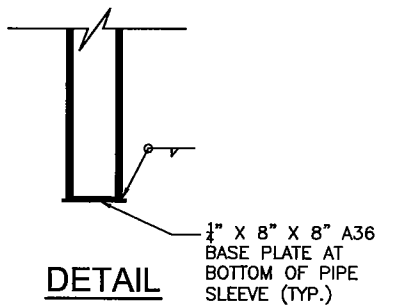
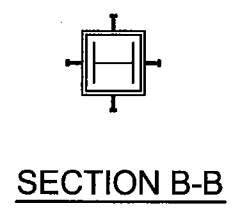
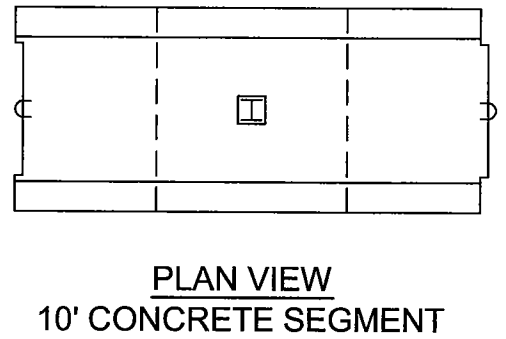
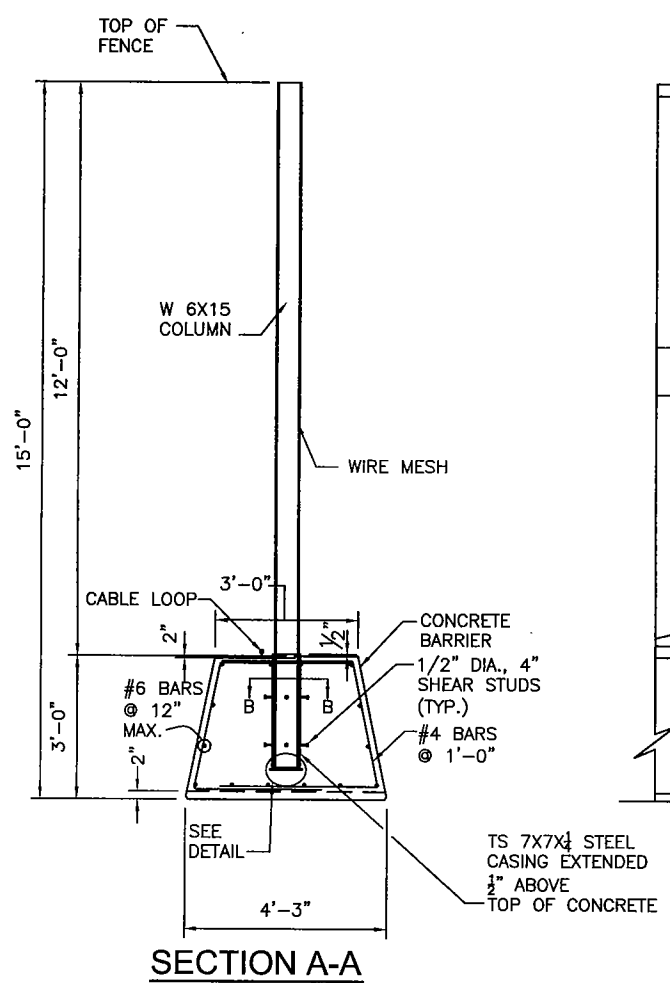
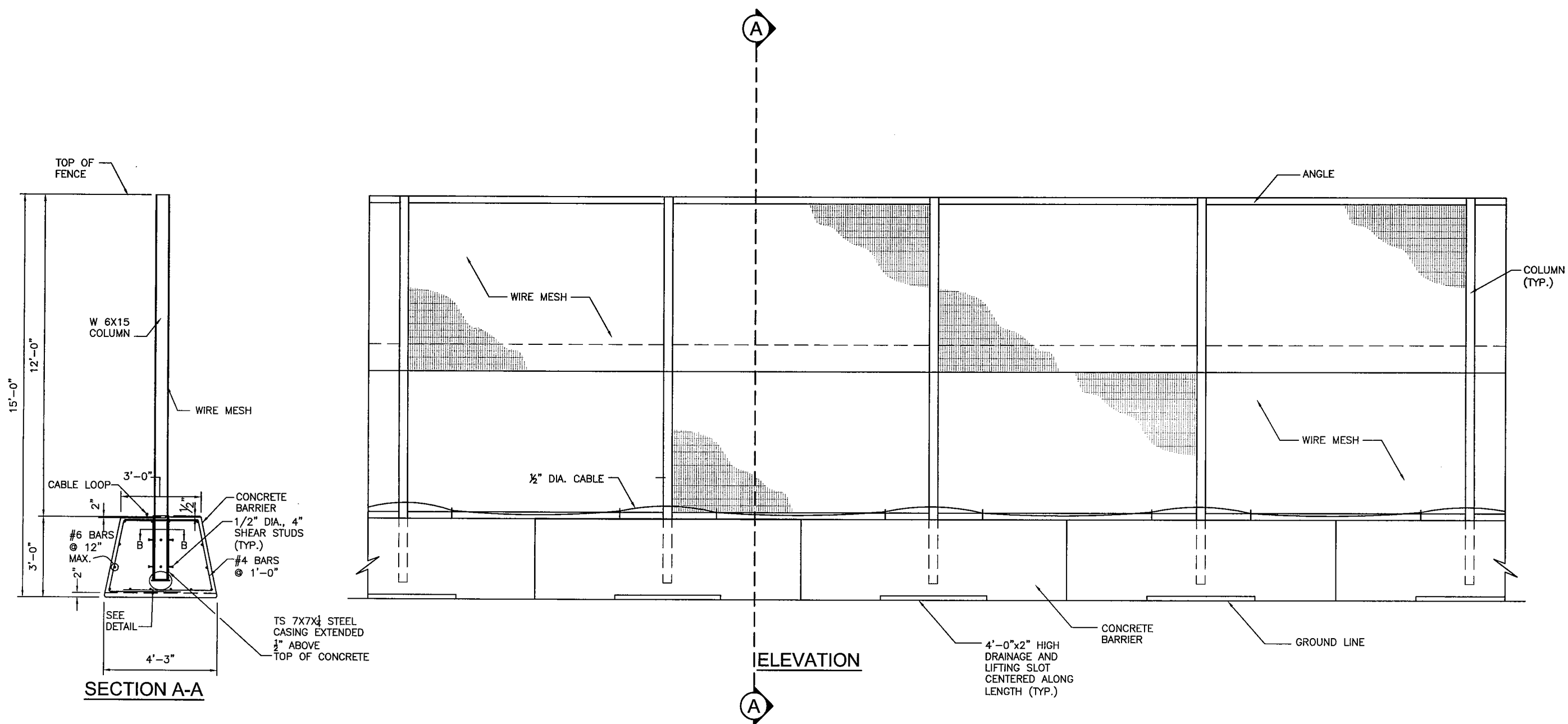
Baker
MICHAEL BAKER JR., INC.
2629 NORTH CENTRAL AVENUE
PHOENIX, AZ 85012

Designed by: KAS	Date:	Rev.
Drawn by: JN/KAS	Submitted by: Michael Baker Jr., Inc.	

PF225
CONCEPTUAL
FENCE
DESIGNS

PERSONNEL
TYPE 3-15

3-15
P-3-15



NOTE:
1. VALID FOR 90 MPH WIND
2. THIS FENCE CONSTRUCTION IS INTENDED TO BE DISMANTLED READILY. COORDINATE WITH BORDER CONTROL ON LOCATION AND NUMBER OF LOCK POINTS FOR 1/2" CABLE.

Rev.	Date	Appr.

SCHEMATIC NOT FOR CONSTRUCTION

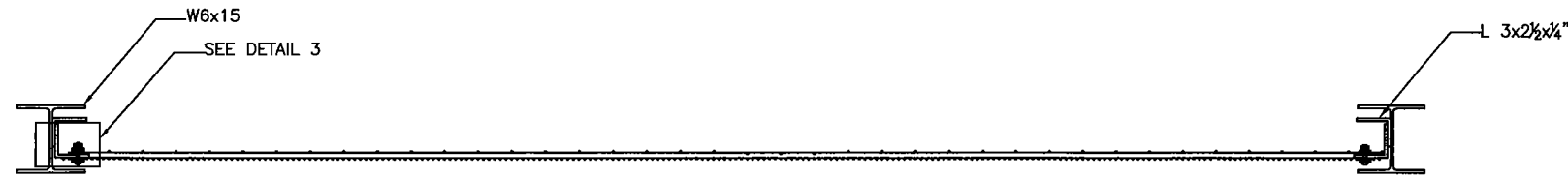
Baker
MICHAEL BAKER JR., INC.
2020 NORTH CENTRAL AVENUE
PHOENIX, AZ 85012

Designed by: RB	Date:	Rev.
Dwn by: JN	Submitted by: Michael Baker Jr., Inc.	
	TEQ	
Reviewed by: D.J.L.	Plot date: 11/16/07	Baker Project No: 112319

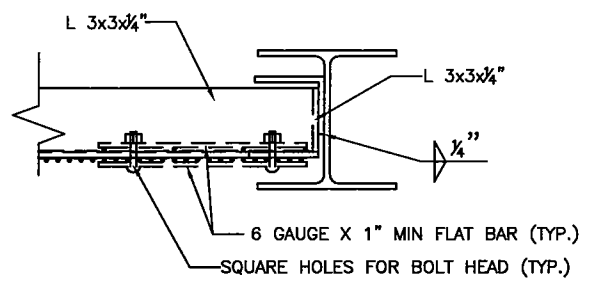
**PF225
CONCEPTUAL
FENCE
DESIGNS**

**PERSONNEL
TYPE 3-15**

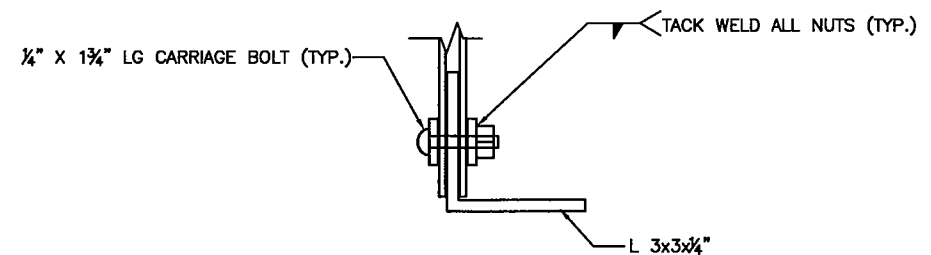
P-3-15



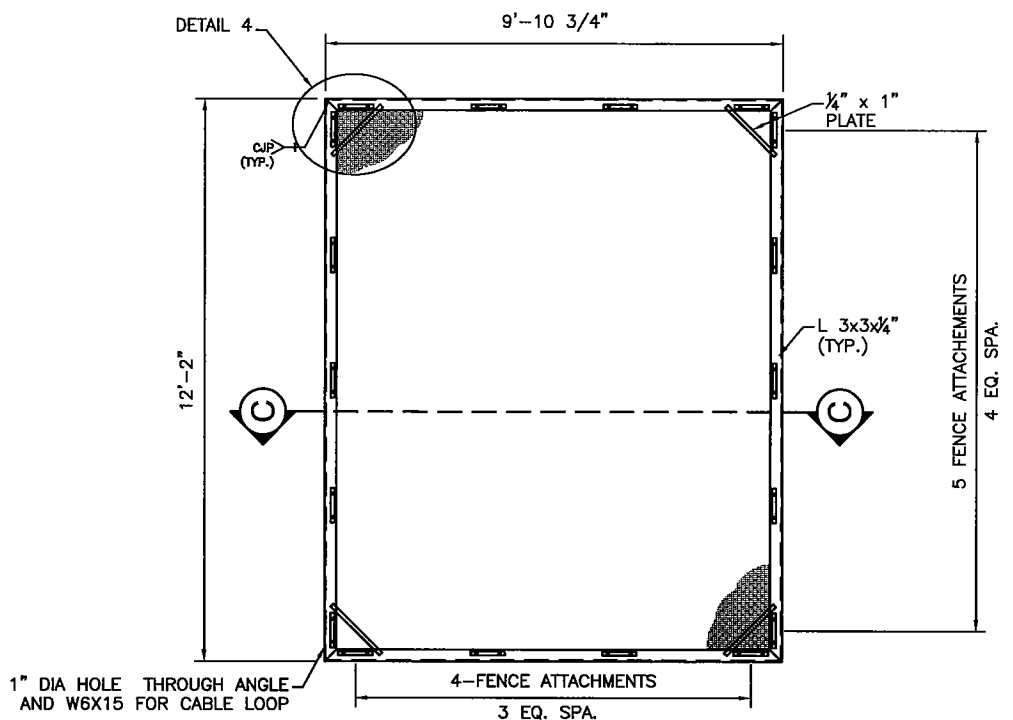
SECTION C-C



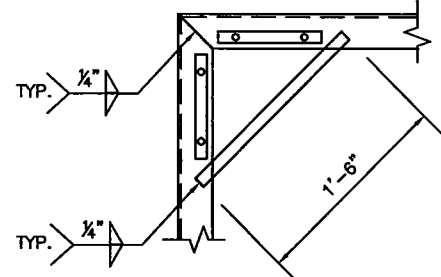
**DETAIL 2
FENCE FABRIC ATTACHMENT**



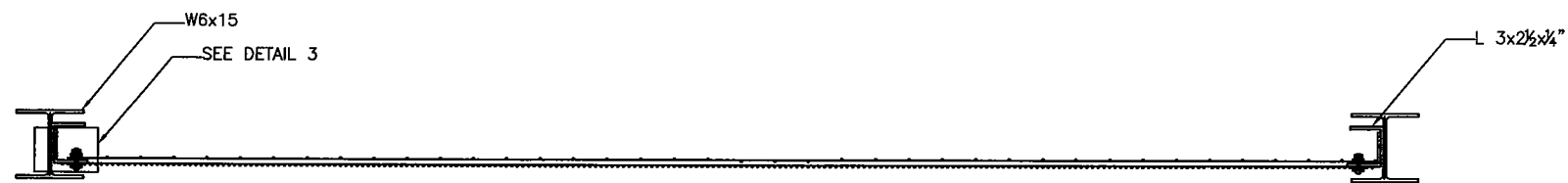
DETAIL 3



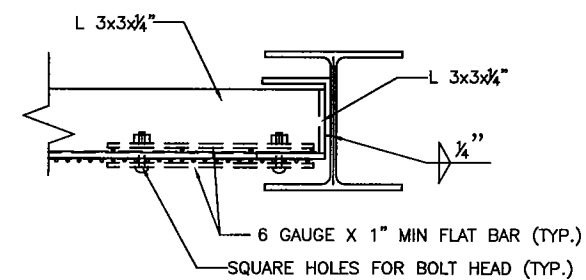
STANDARD FENCE PANEL



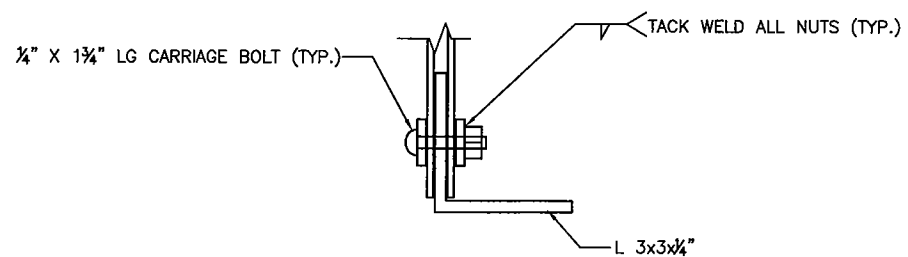
DETAIL 4



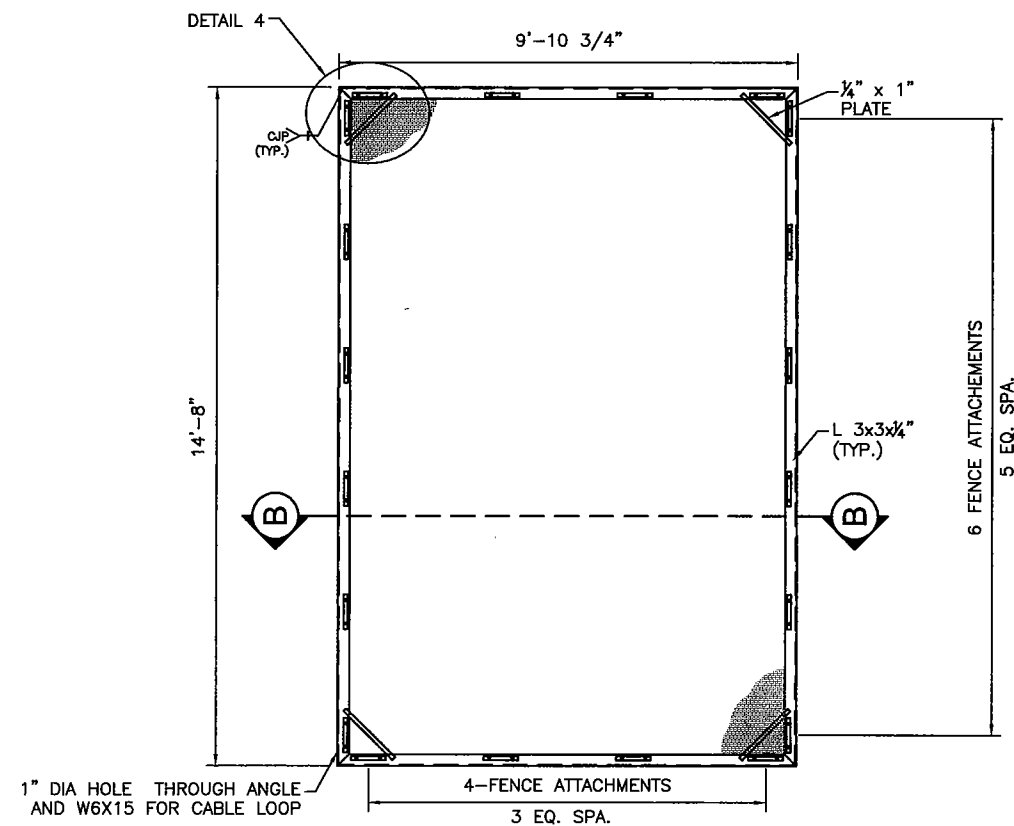
SECTION B-B



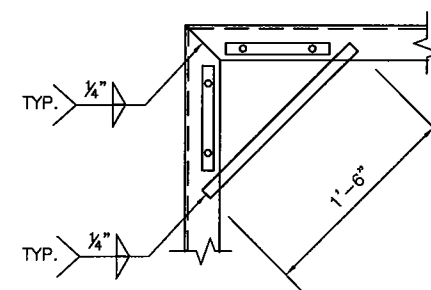
**DETAIL 2
FENCE FABRIC ATTACHMENT**



DETAIL 3



STANDARD FENCE PANEL



DETAIL 4



US Army Corps
of Engineers
Fort Worth District

Rev.	Date	Description

SCHMATIC
NOT FOR
CONSTRUCTION

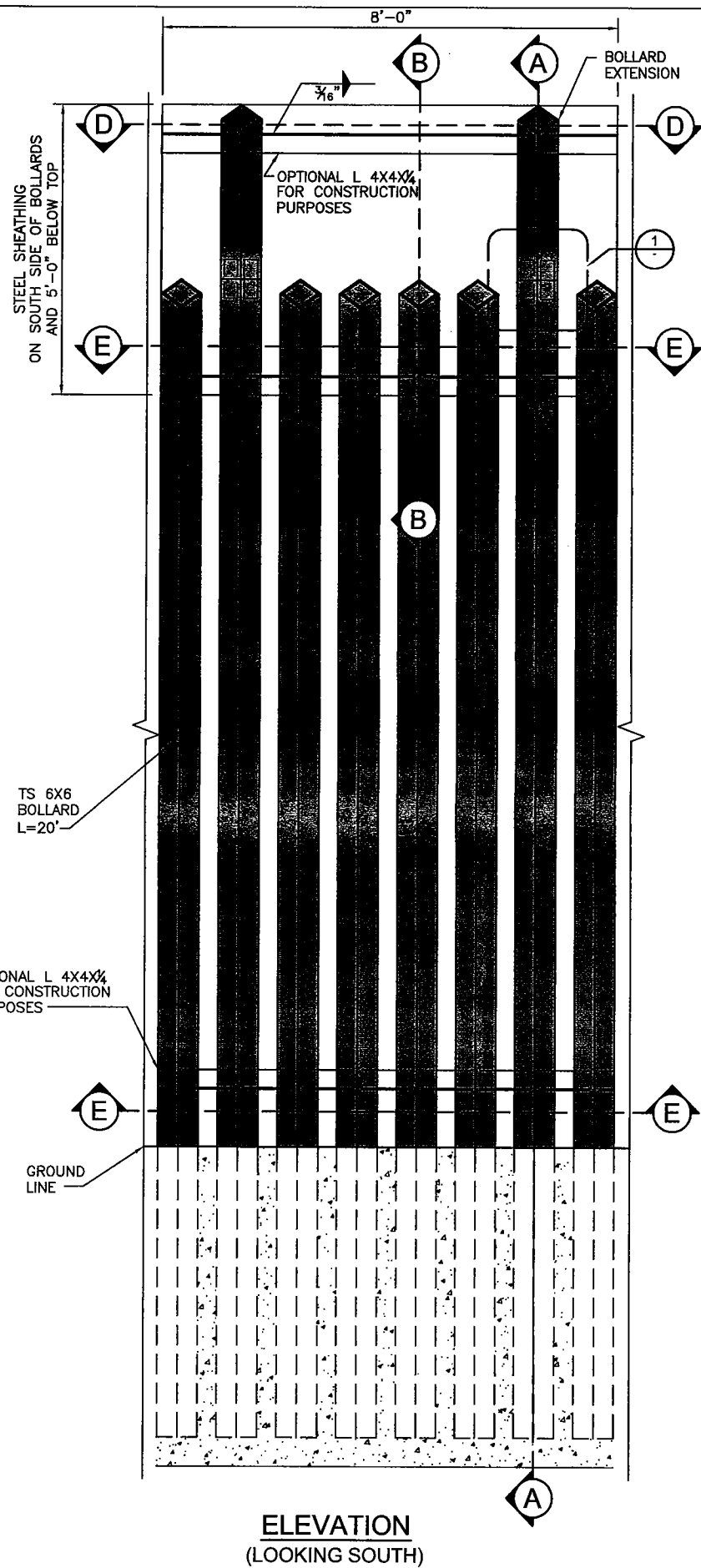
Baker
MICHAEL BAKER JR., INC.
2809 NORTH CENTRAL AVENUE
PHOENIX, AZ 85012

Designed by:	Checked by:	Submitted by:	Date:	Rev.
KAS	KAS	Michael Baker Jr., Inc.	11/18/07	112319
Drawn by:	Reviewed by:	Plot date:	Baker Project No:	
JWB	TQ	11/18/07	112319	

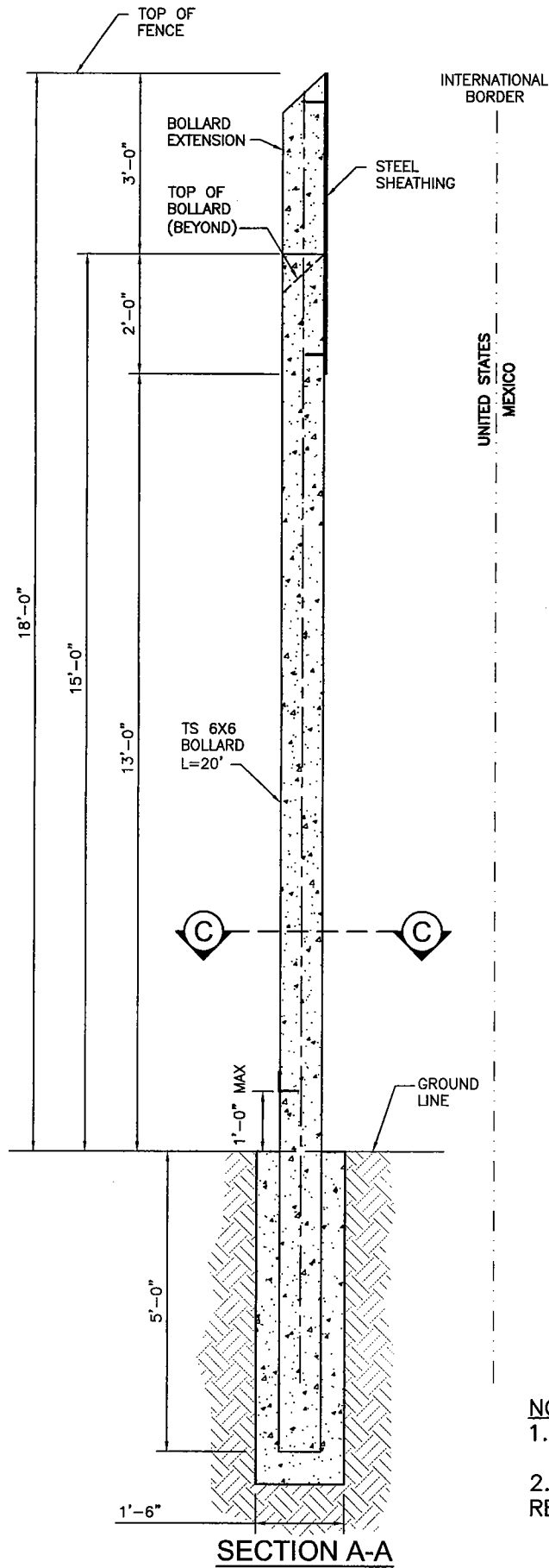
**PF225
CONCEPTUAL
FENCE
DESIGNS**

**PERSONNEL
TYPE 3-18**

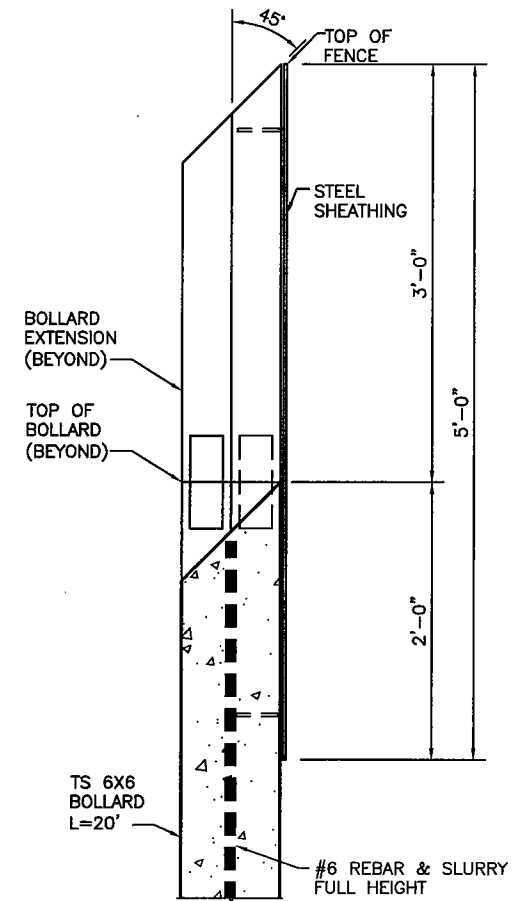
P-3-18



ELEVATION
(LOOKING SOUTH)



SECTION A-A



SECTION B-B

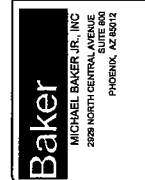
NOTE:

1. VALID FOR 90 MPH WIND
2. FOUNDATION DETAILS SHOWN REPRESENT MINIMUM DIMENSIONAL REQUIREMENTS AND MAY NEED TO BE INCREASED BASED ON FINAL DESIGN.



Rev.	Date	By	Check	Drawn	Scale

SCHEMATIC
NOT FOR
CONSTRUCTION

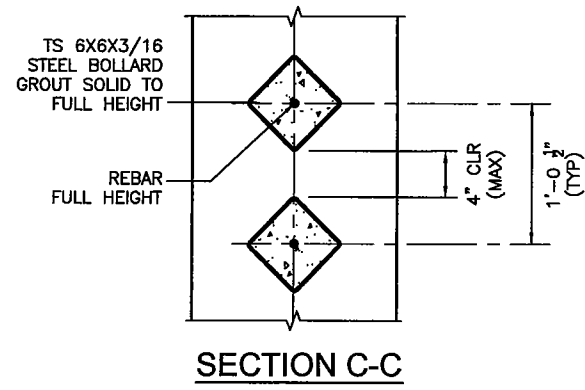


Designed by:	KAS	Checked by:	JWB
Drawn by:	MCJ/MKB	Reviewed by:	TQ
Date:		Submitted by:	Michael Baker Jr., Inc.
Plot date:	11/18/07	Baker Project No.:	112319

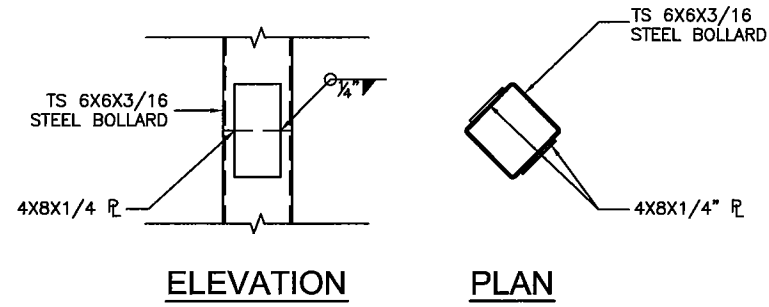
**PF225
CONCEPTUAL
FENCE
DESIGNS**

**PERSONNEL -
VEHICLE
TYPE 1**

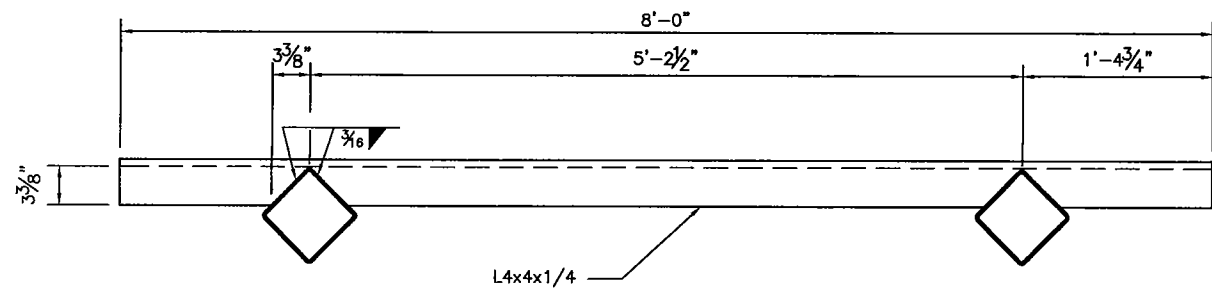
PV-1



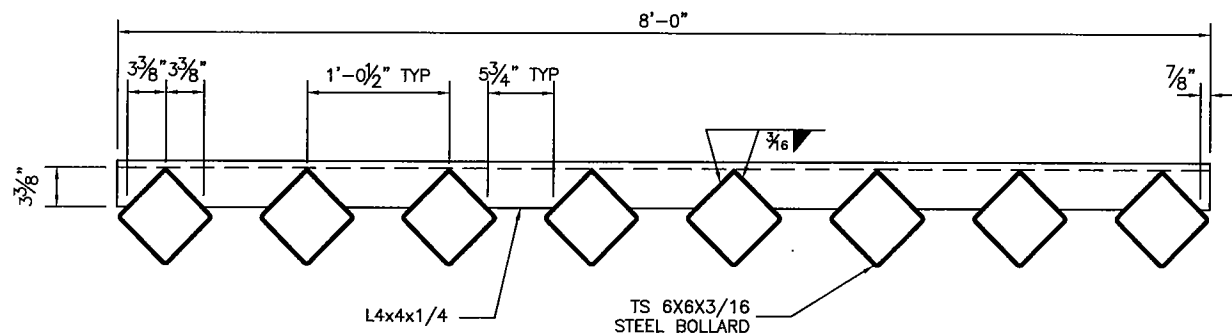
SECTION C-C



DETAIL 1
OPTIONAL SPLICE



SECTION D-D



SECTION E-E



Mark	Description	Date	Appr.

SCHEMATIC NOT FOR CONSTRUCTION

Baker
MICHAEL BAKER JR., INC.
300 NORTH CENTRAL AVENUE
PHOENIX, AZ 85012

Designed by:	Date:	Rev.
KAS		
Submitted by:		
Michael Baker Jr., Inc.		
Checked by:		
MC		
Reviewed by:		
TQ		
Plot date:		
Baker Project No:		

PF225
CONCEPTUAL
FENCE
DESIGNS

PERSONNEL-
VEHICLE
TYPE 1

PV-1

Rev.	Date	Description	Mark

SCHEMATIC
NOT FOR
CONSTRUCTION

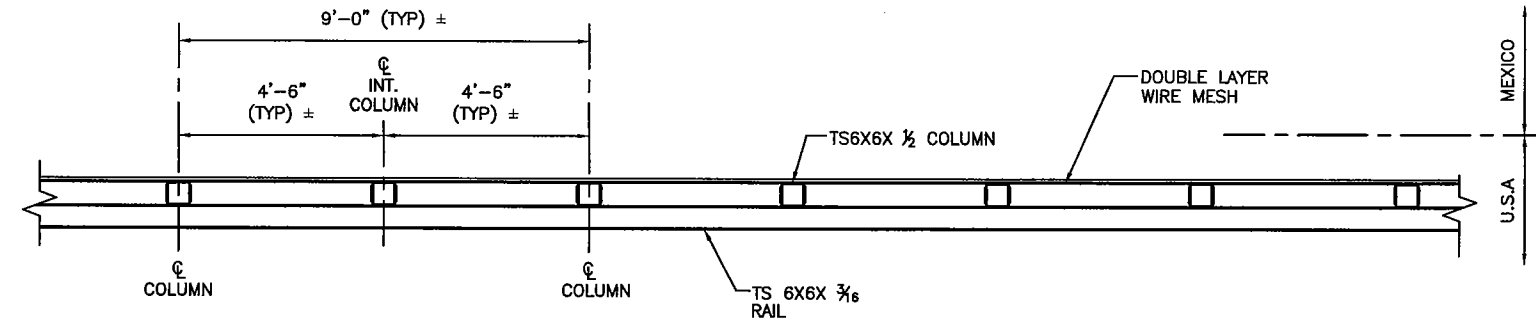
Baker
MICHAEL BAKER JR., INC.
228 NORTH CENTRAL AVENUE
PHOENIX, AZ 85012

Designed by:	KAS
Drawn by:	KAS/MC
Checked by:	JWB
Reviewed by:	TQ
Date:	
Submitted by:	Michael Baker Jr., Inc.
Plot date:	Baker Project No. 11/18/07 112319

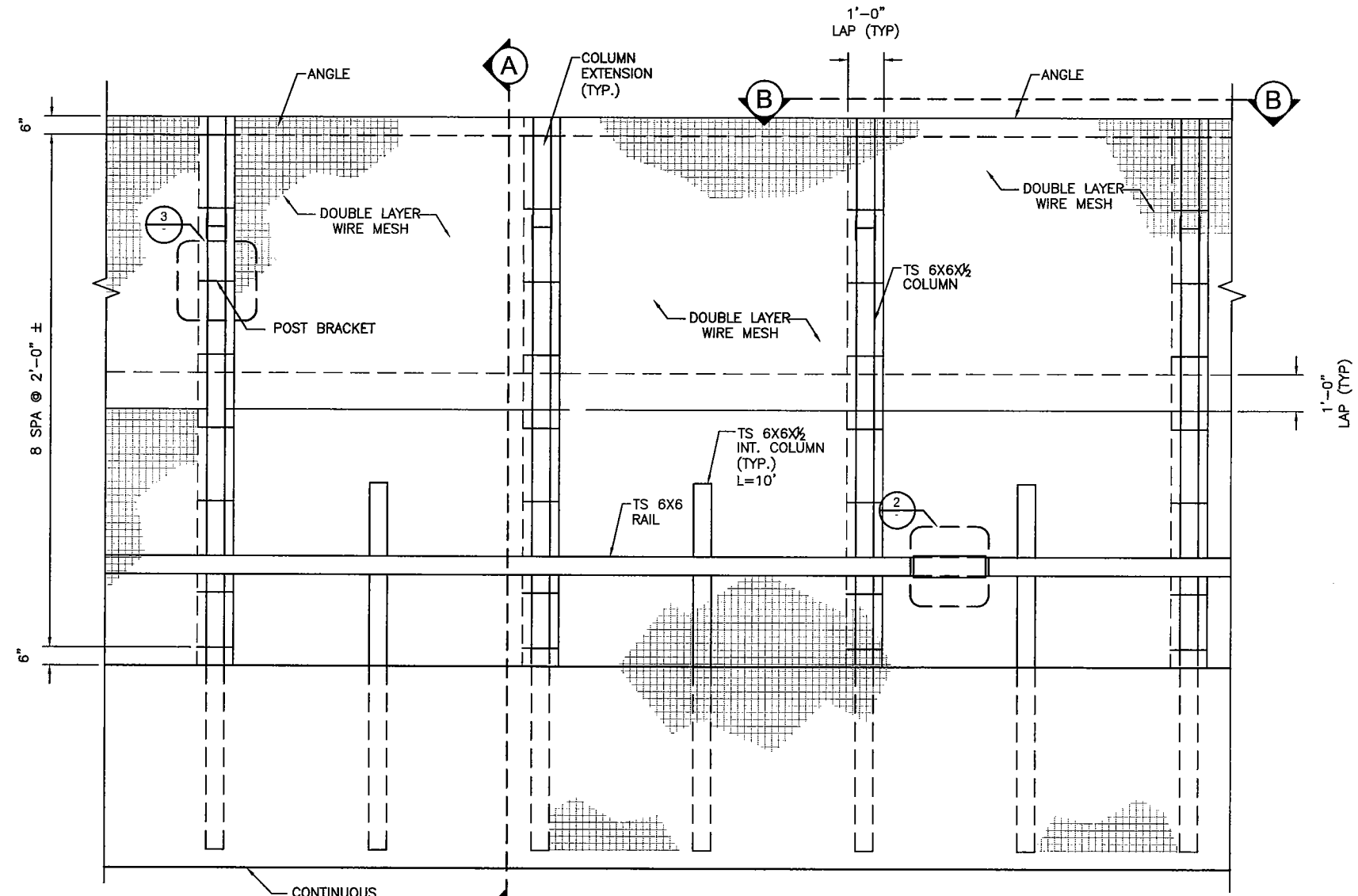
**PF225
CONCEPTUAL
FENCE
DESIGNS**

PERSONNEL -
VEHICLE
TYPE 2A

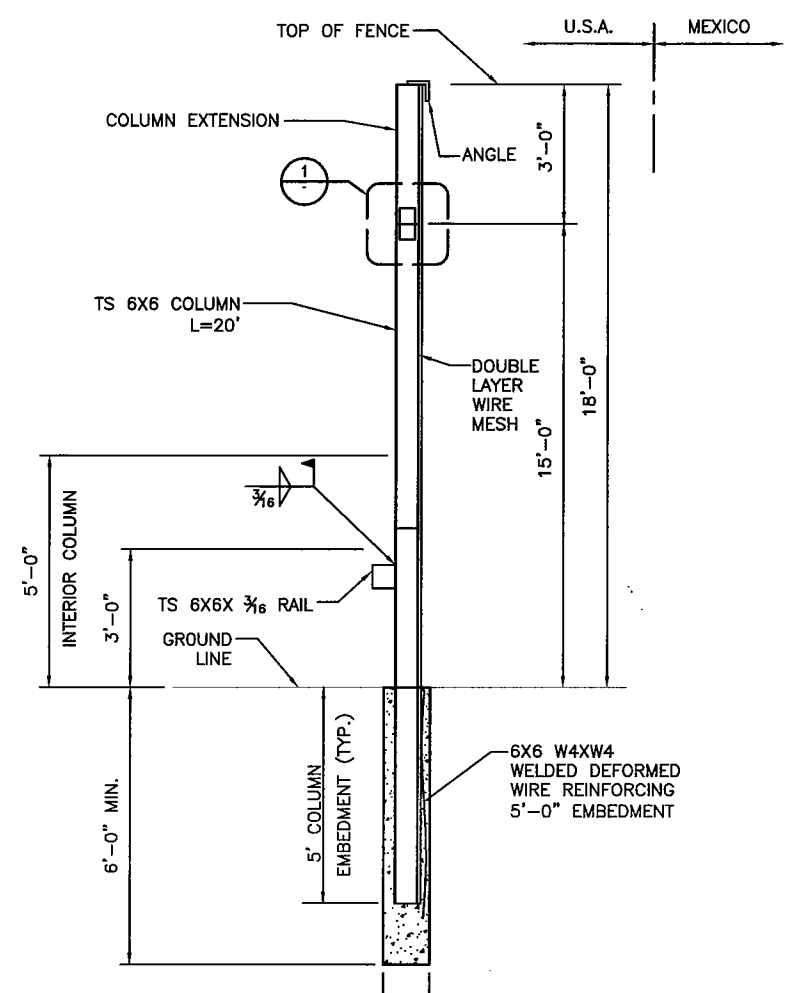
PV-2A



PLAN VIEW

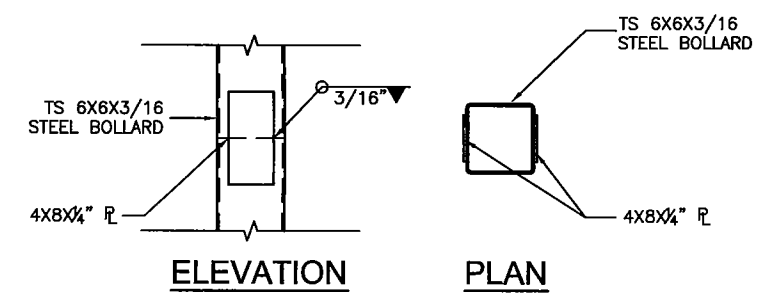


**ELEVATION
(LOOKING SOUTH)**

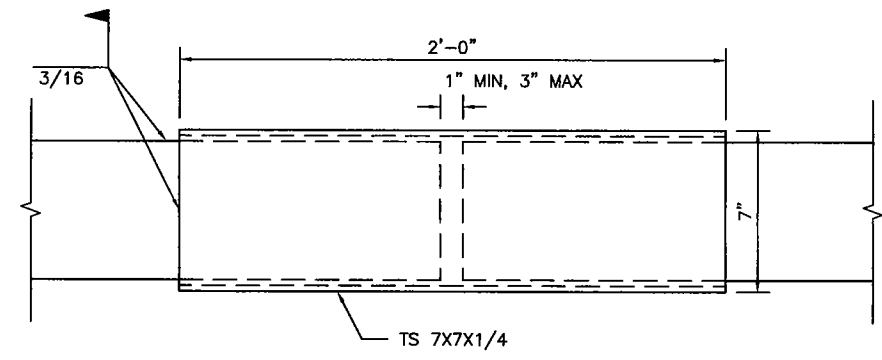


SECTION A-A

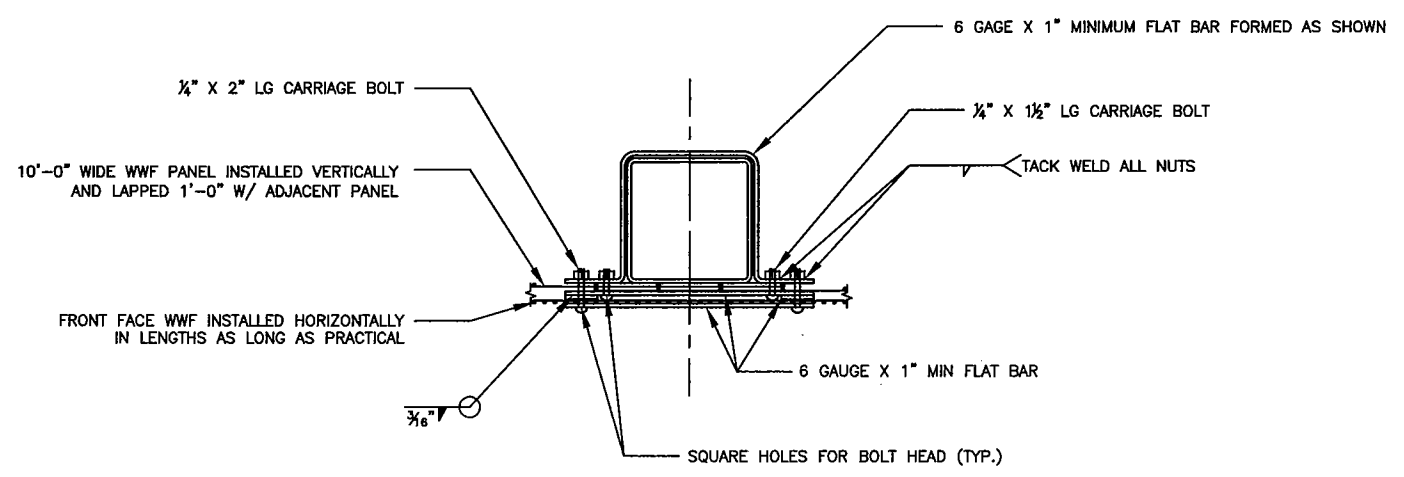
- NOTES:**
1. VALID FOR 90 MPH WIND.
 2. FOUNDATION DETAILS SHOWN REPRESENT MINIMUM DIMENSIONAL REQUIREMENTS AND SHALL BE INCREASED IF NECESSARY BASED ON FOUNDATION DESIGN.



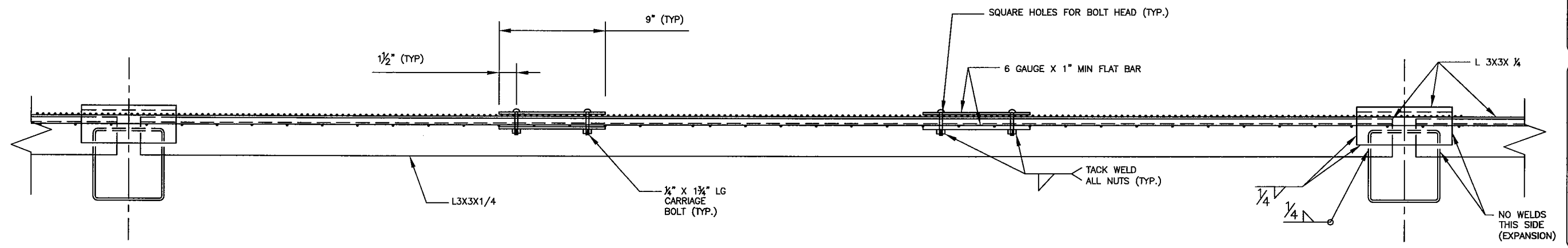
DETAIL 1
OPTIONAL SPLICE



DETAIL 2
RAIL SPLICE (36' MAX SPACE)



DETAIL 3
POST BRACKET



SECTION B-B
TOP HORIZONTAL RAIL DETAIL

NO.	REV.	DATE	BY	CHKD	APP'D

SCHEMATIC
NOT FOR
CONSTRUCTION

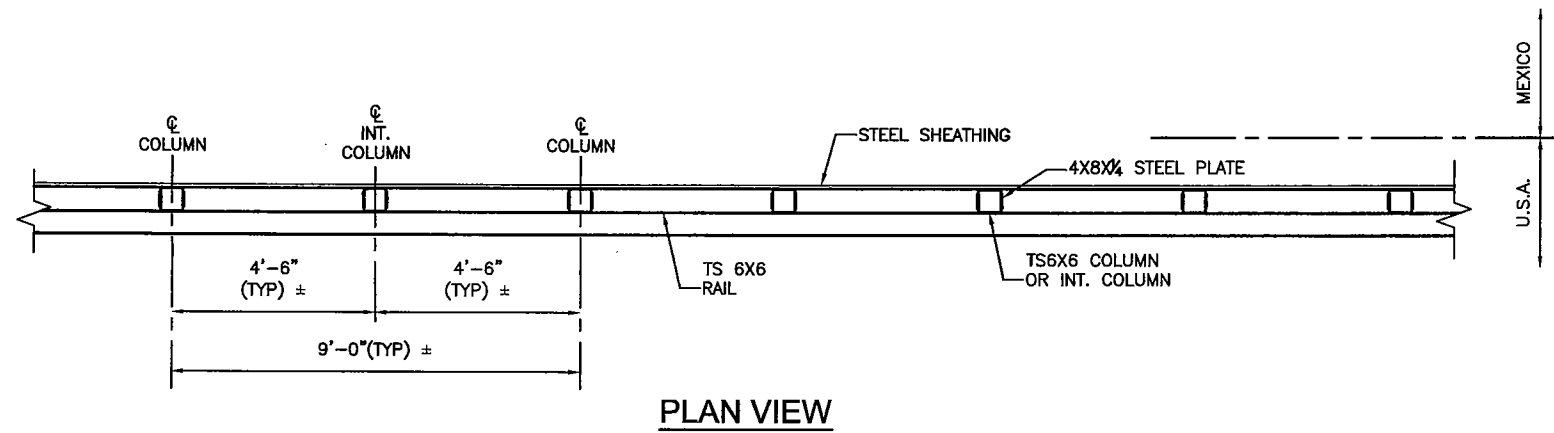
Baker
MICHAEL BAKER JR., INC.
2500 NORTH CENTRAL AVENUE
PHOENIX, AZ 85012

Designed by:	KAS	Checked by:	JWB	Reviewed by:	TQ
Submitted by:	Michael Baker Jr., Inc.	Plot date:	11/18/07	Baker Project No.:	112319

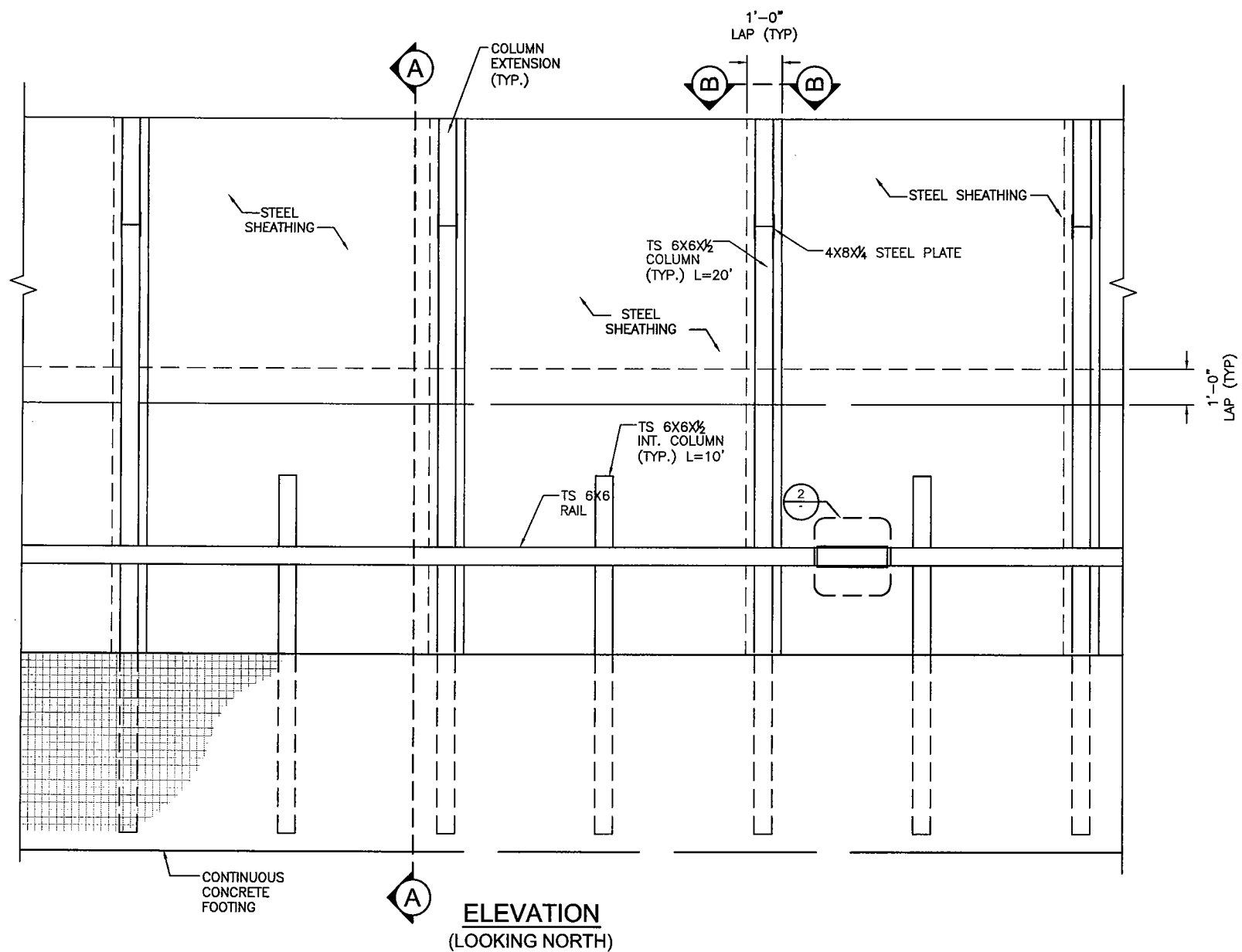
PF225
CONCEPTUAL
FENCE
DESIGNS

PERSONNEL -
VEHICLE
TYPE 2A

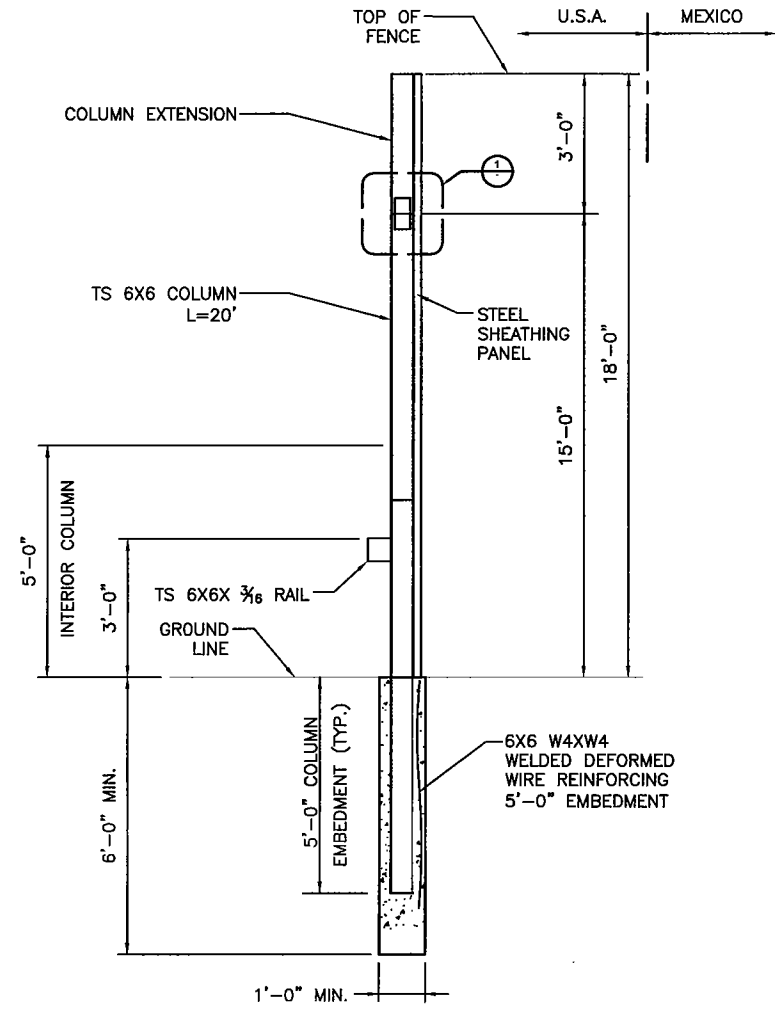
PV-2A



PLAN VIEW



ELEVATION
(LOOKING NORTH)



SECTION A-A

NOTE:
 1. VALID FOR 90 MPH WIND
 2. FOUNDATION DETAIL REQUIREMENTS SHOWN REPRESENT MINIMUM DIMENSIONS. FOUNDATION DESIGN REQUIRED BASED ON SITE SPECIFIC SOIL PROPERTIES.



NO.	DESCRIPTION	DATE

SCHEMATIC NOT FOR CONSTRUCTION

Baker
 MICHAEL BAKER JR., INC.
 250 NORTH CENTRAL AVENUE
 PHOENIX, AZ 85012

Designed by:	KAS	Date:	Rev.
Drawn by:	MC	Submitted by:	Michael Baker Jr., Inc.
Checked by:	JWB	Plot date:	Baker Project No: 11/18/07 112319
Reviewed by:	TQ		

PF225 CONCEPTUAL FENCE DESIGNS

PERSONNEL - VEHICLE TYPE 2B

PV-2B

Rev.	Date	Description

SCHEMATIC
NOT FOR
CONSTRUCTION

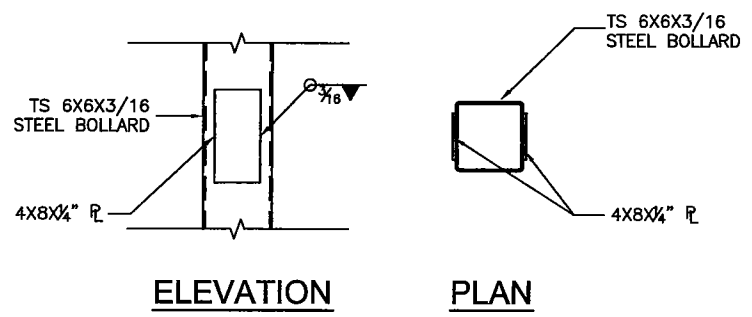
Baker
MICHAEL BAKER JR., INC.
2528 NORTH CENTRAL AVENUE
PHOENIX, AZ 85012

Designed by:	KAS	Checked by:	JWB	Reviewed by:	TQ
Submitted by:	Michael Baker Jr., Inc.	Date:	11/18/07	Project No.:	112319

**PF225
CONCEPTUAL
FENCE
DESIGNS**

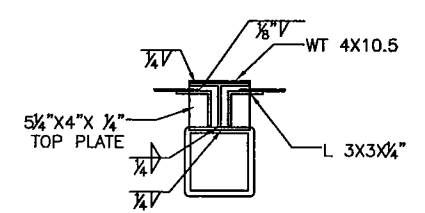
**PERSONNEL -
VEHICLE
TYPE 2B**

**SHEET
REFERENCE
NUMBER
PV-2B**

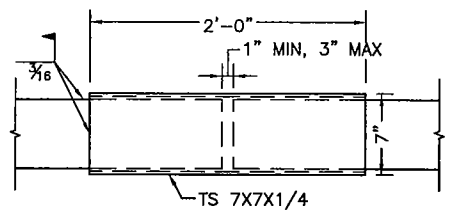


ELEVATION **PLAN**

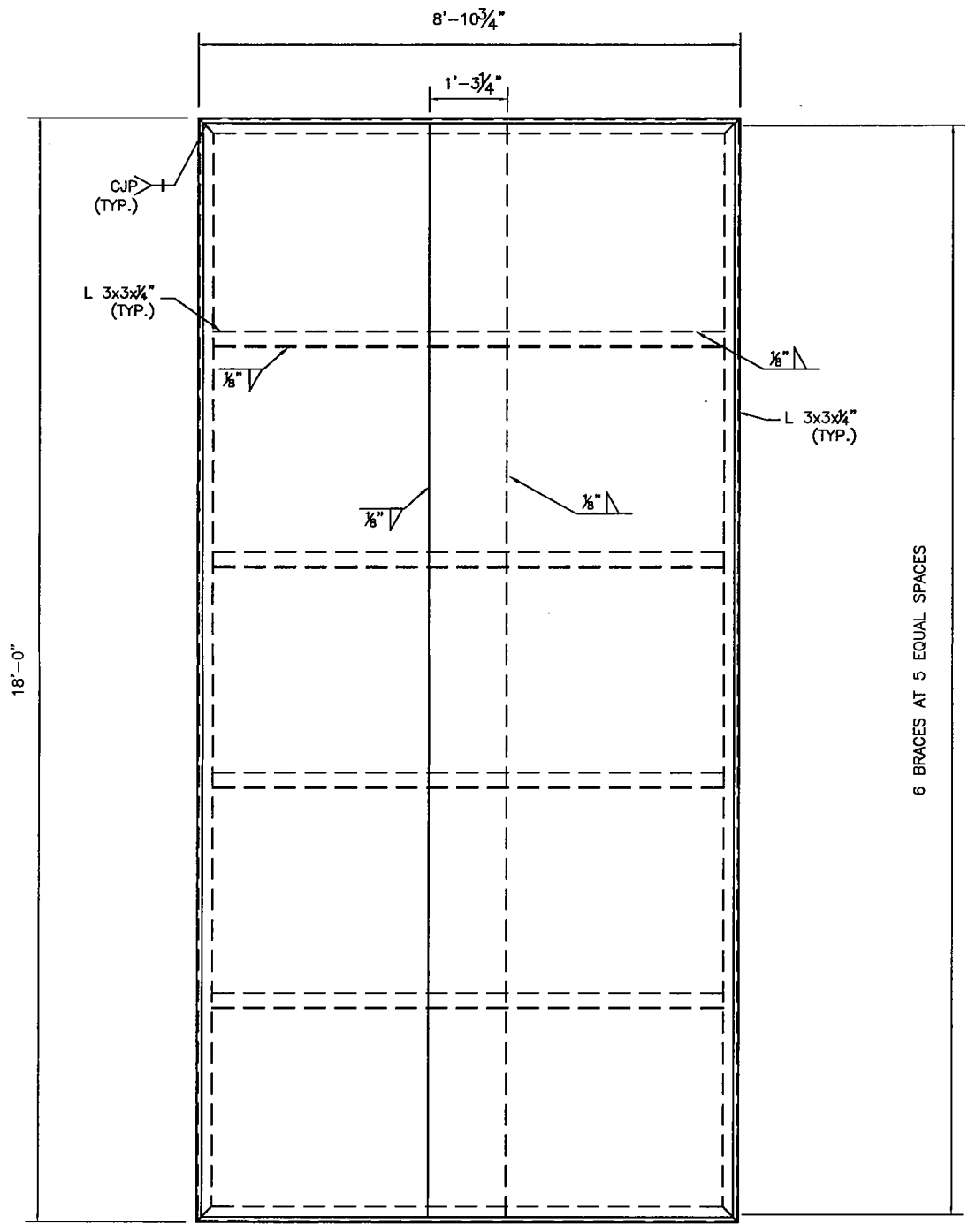
**DETAIL 1
OPTIONAL SPLICE**



SECTION B-B

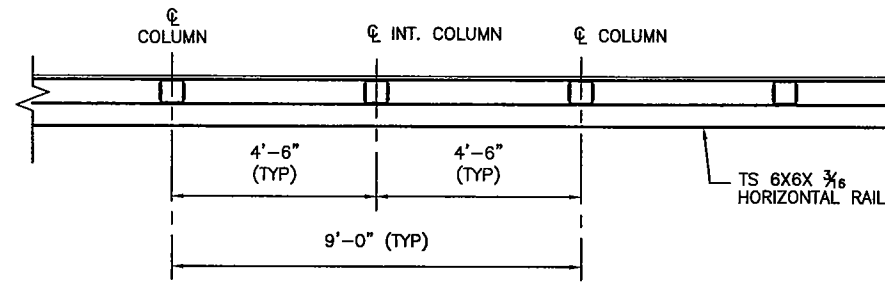


**DETAIL 2
RAIL SPLICE (36' MAX SPACE)**

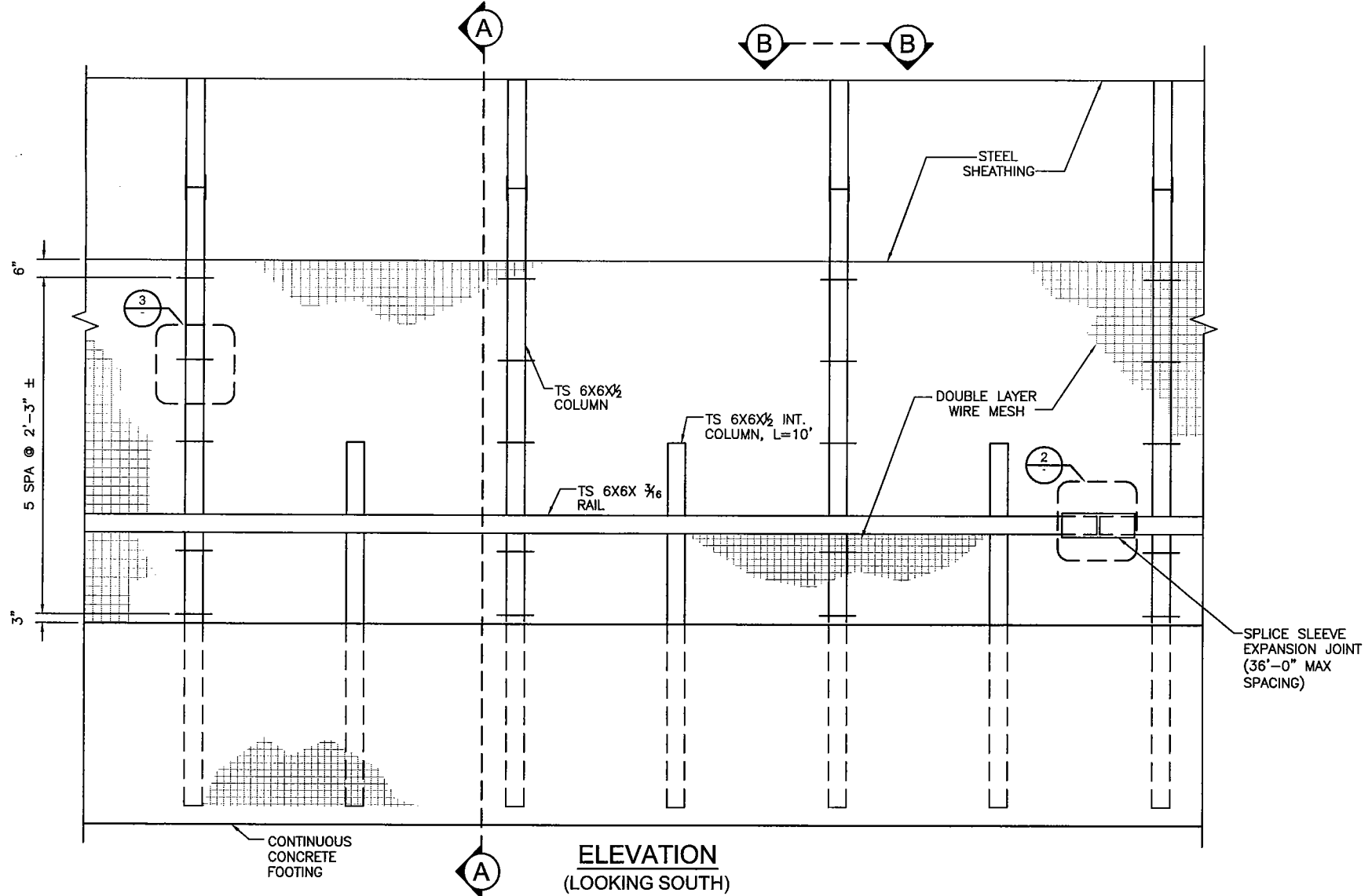


STANDARD STEEL SHEATHING PANEL

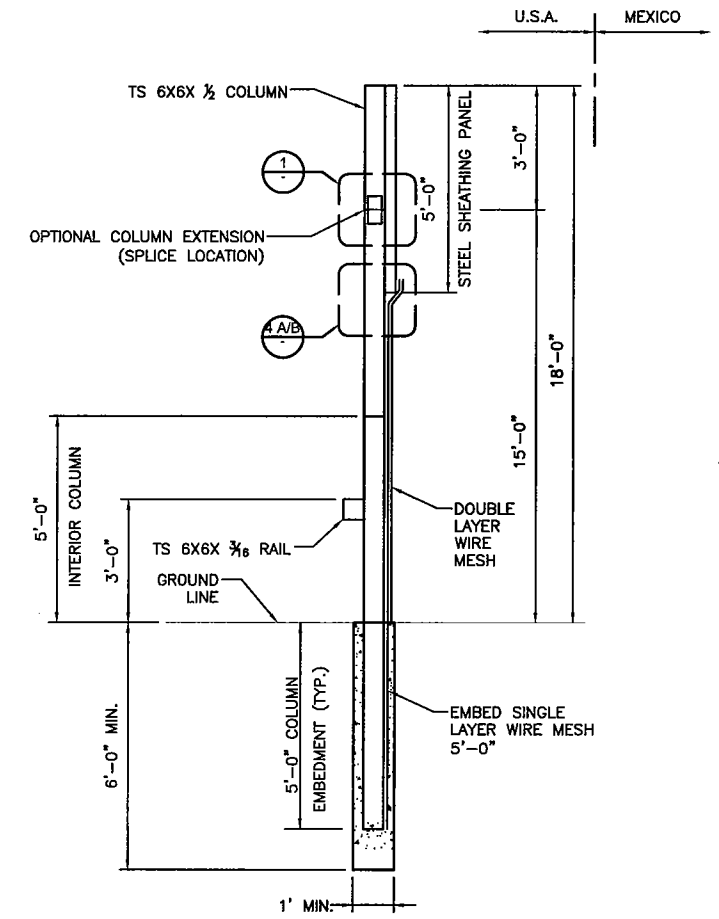
6 BRACES AT 5 EQUAL SPACES



PLAN VIEW



ELEVATION
(LOOKING SOUTH)



SECTION A-A

NOTE:
 1. DESIGN VALID FOR 90 MPH WIND
 2. FOUNDATION DETAIL REQUIREMENTS SHOWN REPRESENT MINIMUM DIMENSIONS AND MAY NEED INCREASED BASED ON FOUNDATION DESIGN.



Rev.	Date	Description

SCHEMATIC
NOT FOR
CONSTRUCTION

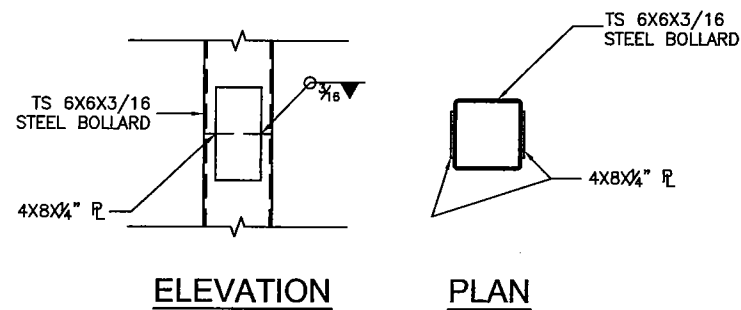
Baker
 MICHAEL BAKER JR., INC.
 2929 NORTH CENTRAL AVENUE
 PHOENIX, AZ 85012

Designed by:	Rev.	Date:	Rev.
RB			
Drawn by:	Submitted by:		
JN	Michael Baker Jr., Inc.		
	TEC	Plot date:	Baker Project No:
		11/18/07	112319
Reviewed by:			
D.J.L.			

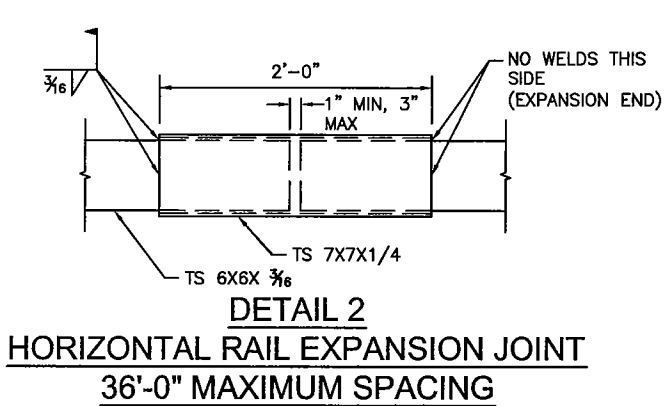
**PF225
CONCEPTUAL
FENCE
DESIGNS**

**PERSONNEL -
VEHICLE
TYPE 2C**

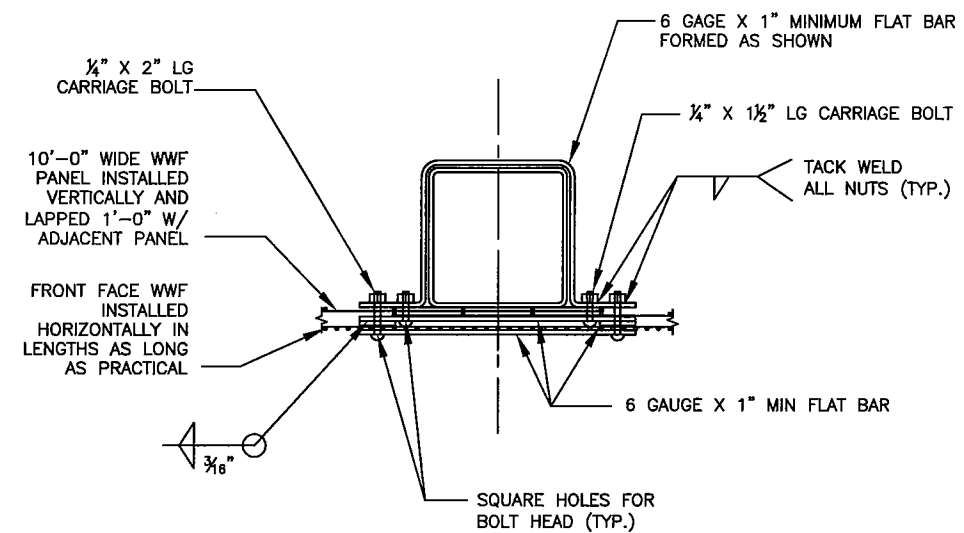
PV-2C



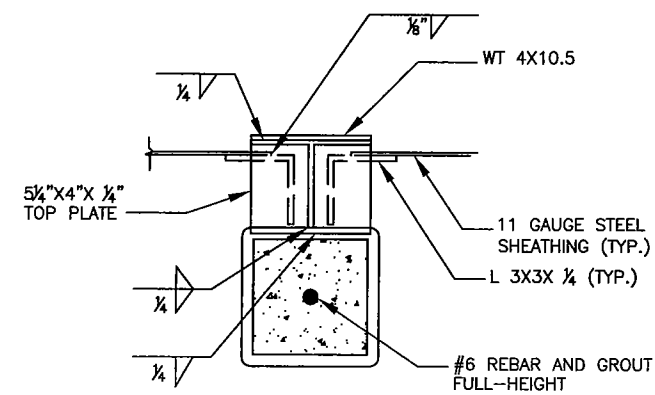
DETAIL 1
OPTIONAL COLUMN SPLICE



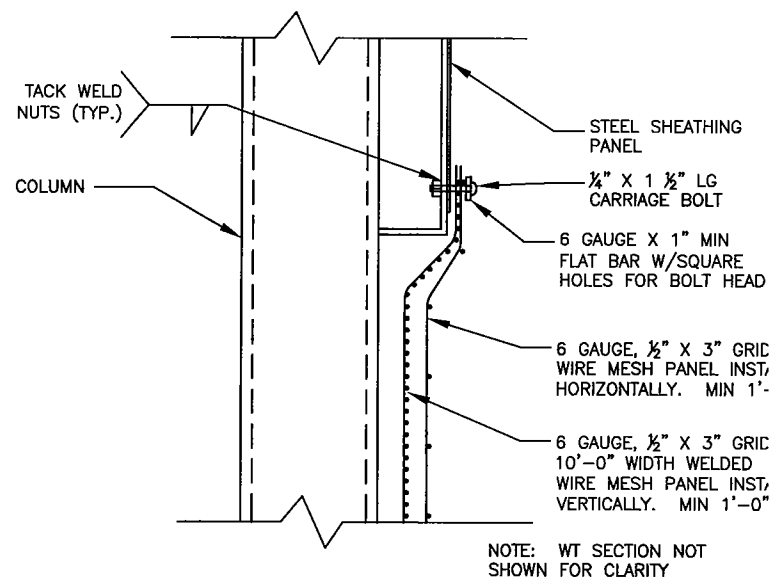
DETAIL 2
HORIZONTAL RAIL EXPANSION JOINT
36'-0" MAXIMUM SPACING



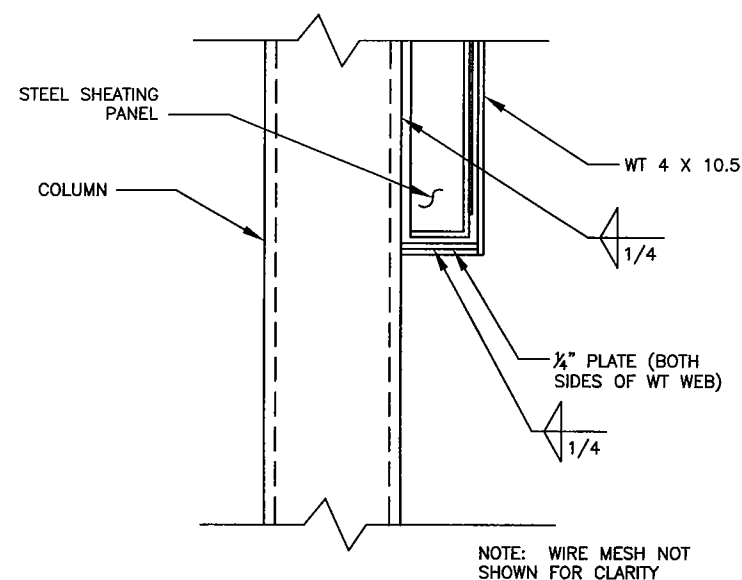
DETAIL 3
POST BRACKET



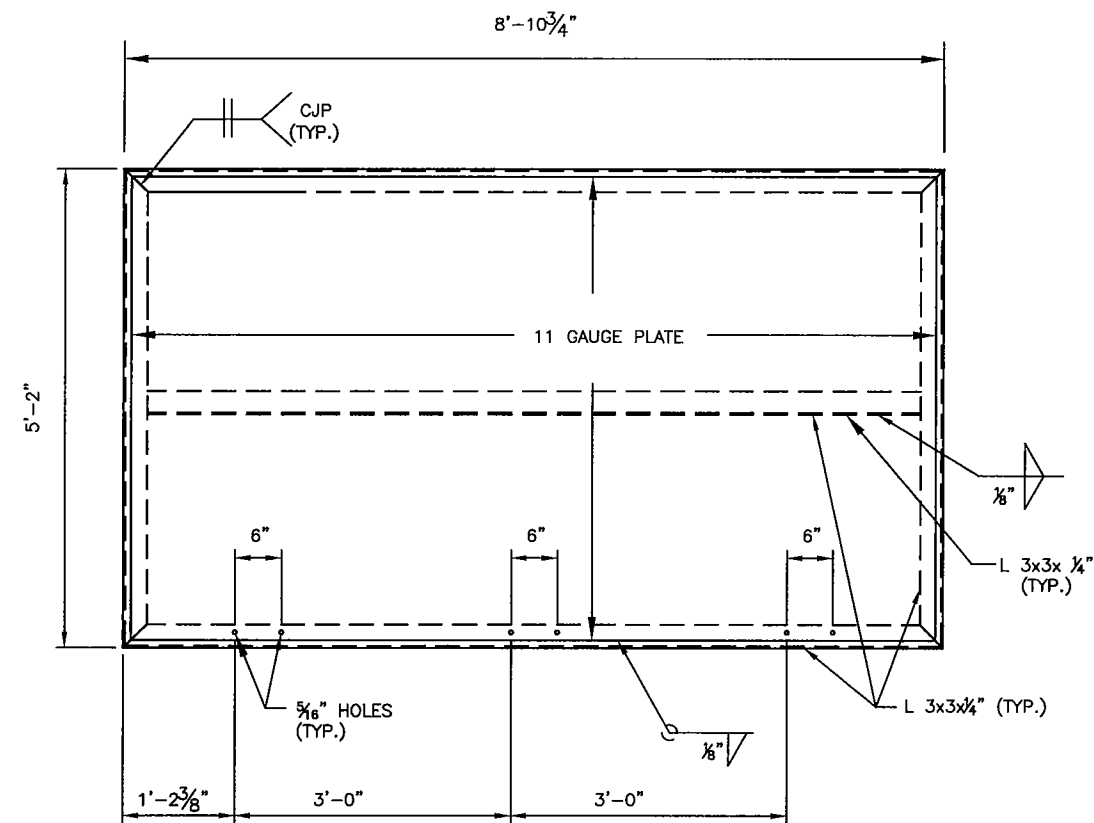
SECTION B-B



DETAIL 4 (A)
MESH - STEEL SHEATHING PANEL
ATTACHMENT BETWEEN COLUMNS



DETAIL 4 (B)
STEEL SHEATHING PANEL SUPPORT
(AT COLUMNS)



STEEL SHEATHING PANEL DETAIL



Rev.	Date	By	Appr.

SCHEMATIC
NOT FOR
CONSTRUCTION



Designed by:	RB	Date:	
Drawn by:	JN	Submitted by:	Michael Baker Jr., Inc.
Checked by:	TEQ	Plot date:	11/18/07
Reviewed by:	D.J.L.	Baker Project No.:	112319

PF225
CONCEPTUAL
FENCE
DESIGNS

PERSONNEL -
VEHICLE
TYPE 2C

SHEET
REFERENCE
NUMBER:
PV-2C

Rev.	Date	Description

SCHMATIC
NOT FOR
CONSTRUCTION

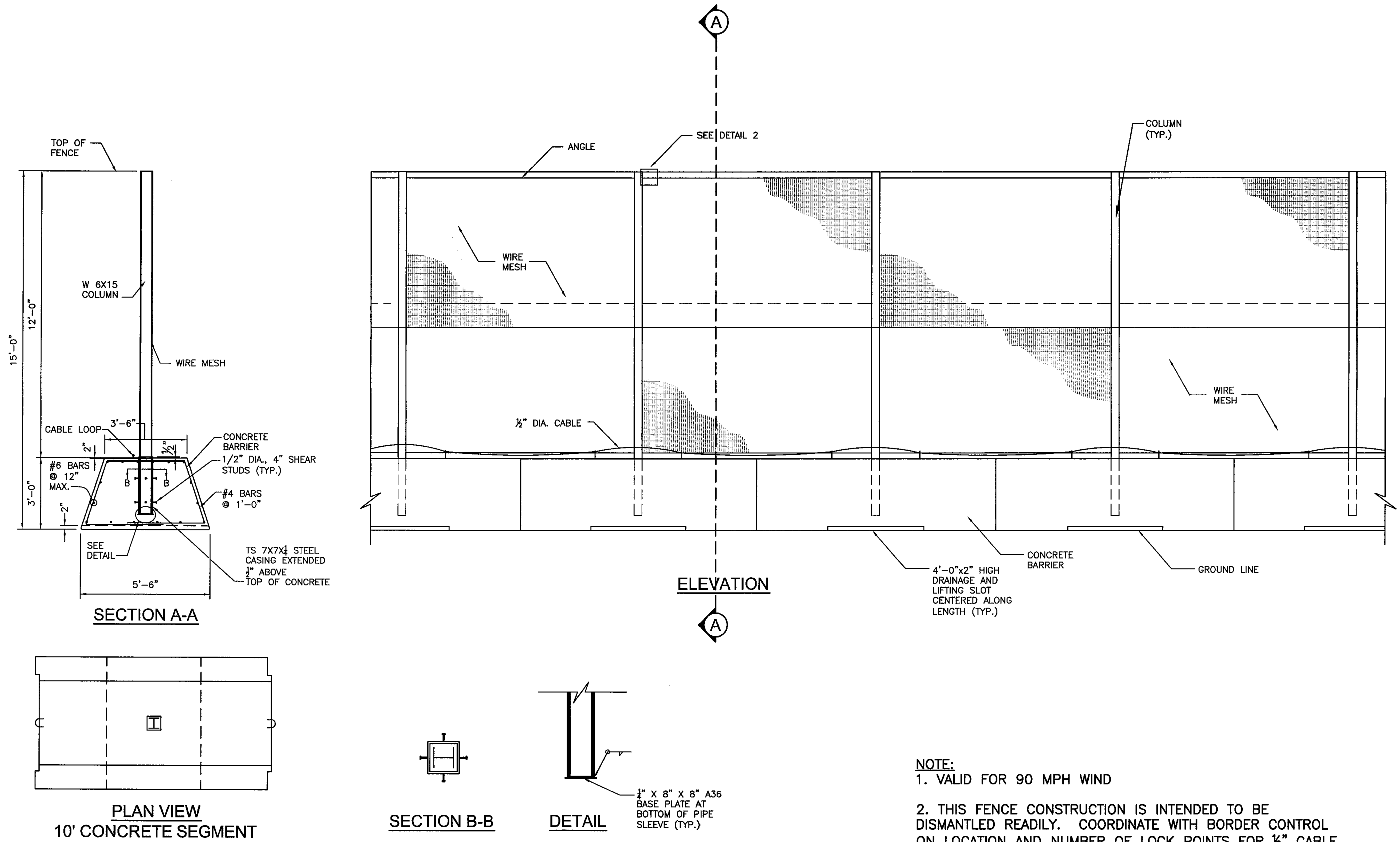
Baker
MICHAEL BAKER JR., INC.
260 NORTH CENTRAL AVENUE
PHOENIX, AZ 85012

Designed by:	KAS	Checked by:	Michael Baker Jr., Inc.
Drawn by:	KAS/KNB	Reviewed by:	TQ
Date:		Submitted by:	Michael Baker Jr., Inc.
Plot date:	11/18/07	Project No.:	112319

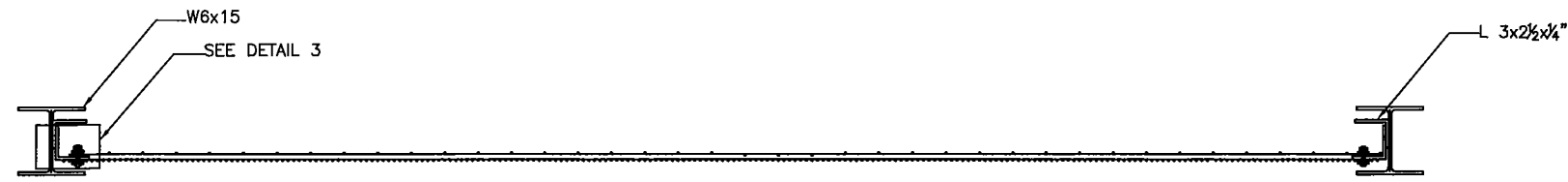
PF225
CONCEPTUAL
FENCE
DESIGNS

PERSONNEL -
VEHICLE
TYPE 3A

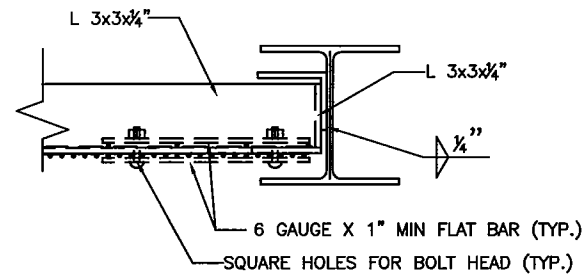
SHEET
NO. 3A
PV-3A



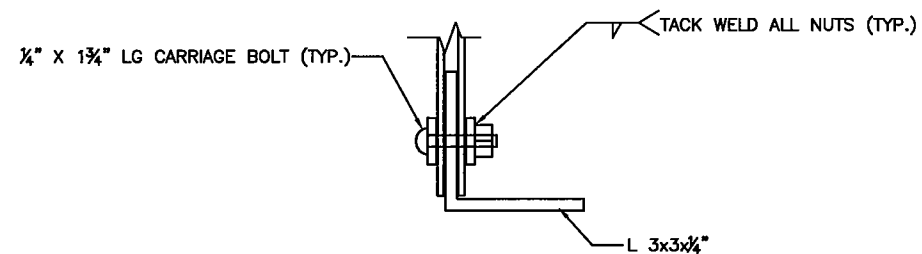
NOTE:
1. VALID FOR 90 MPH WIND
2. THIS FENCE CONSTRUCTION IS INTENDED TO BE
DISMANTLED READILY. COORDINATE WITH BORDER CONTROL
ON LOCATION AND NUMBER OF LOCK POINTS FOR 1/2" CABLE.



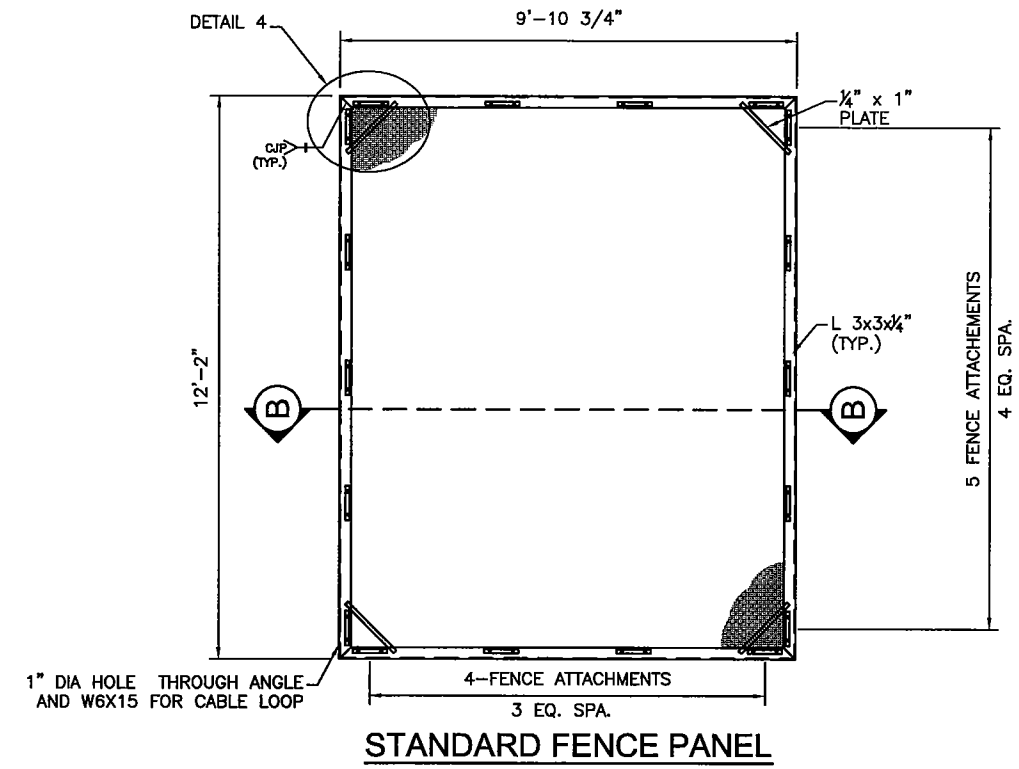
SECTION B-B



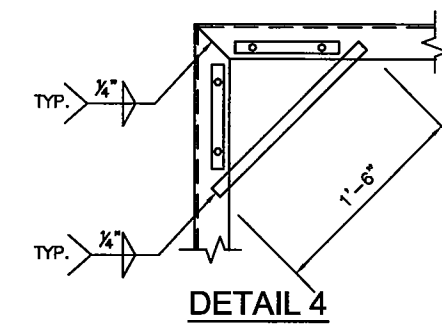
**DETAIL 2
FENCE FABRIC ATTACHMENT**



DETAIL 3



STANDARD FENCE PANEL



DETAIL 4



Rev.	Date	Description

SCHMATIC NOT FOR CONSTRUCTION

Baker
MICHAEL BAKER JR., INC.
288 NORTH CENTRAL AVENUE
PHOENIX, AZ 85012

Designed by: RB	Date:	Rev.
Drawn by: JN	Submitted by: Michael Baker Jr., Inc.	
Checked by: TEQ	Plot date:	Baker Project No:
Reviewed by: DJL	11/16/07	112319

**PF225
CONCEPTUAL
FENCE
DESIGNS**

**PERSONNEL -
VEHICLE
TYPE 3A**

PV-3A

Rev.	Date	Description

SCHMATIC
NOT FOR
CONSTRUCTION

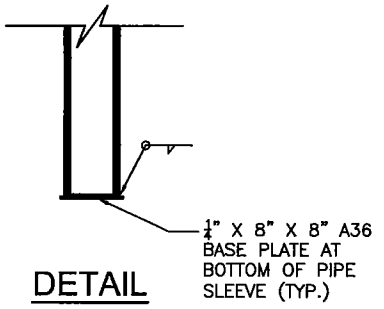
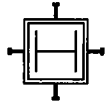
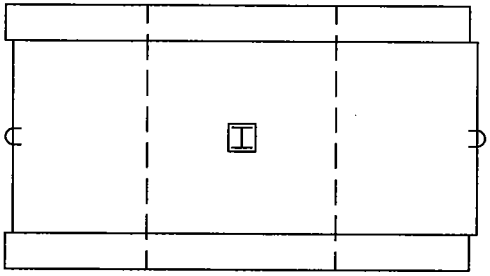
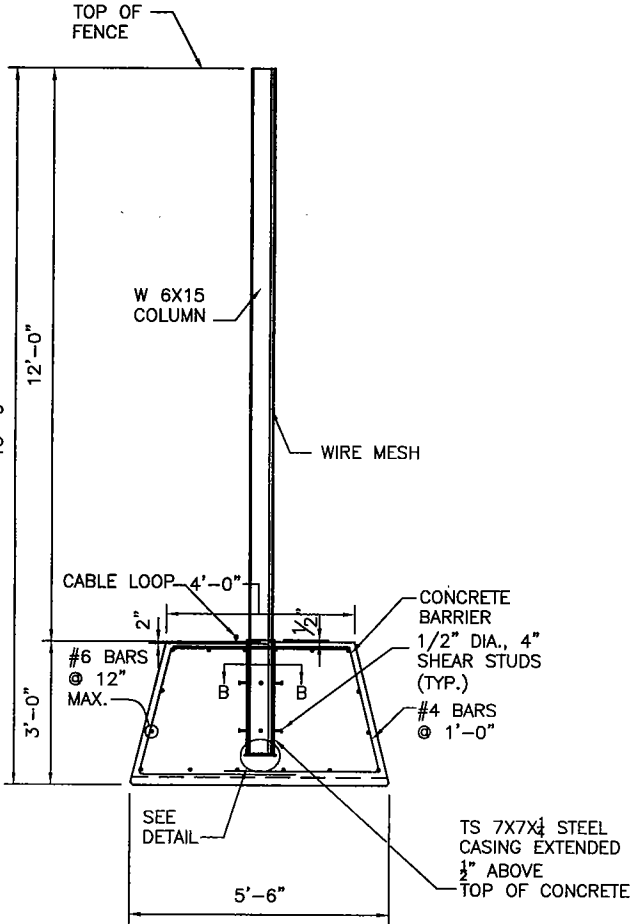
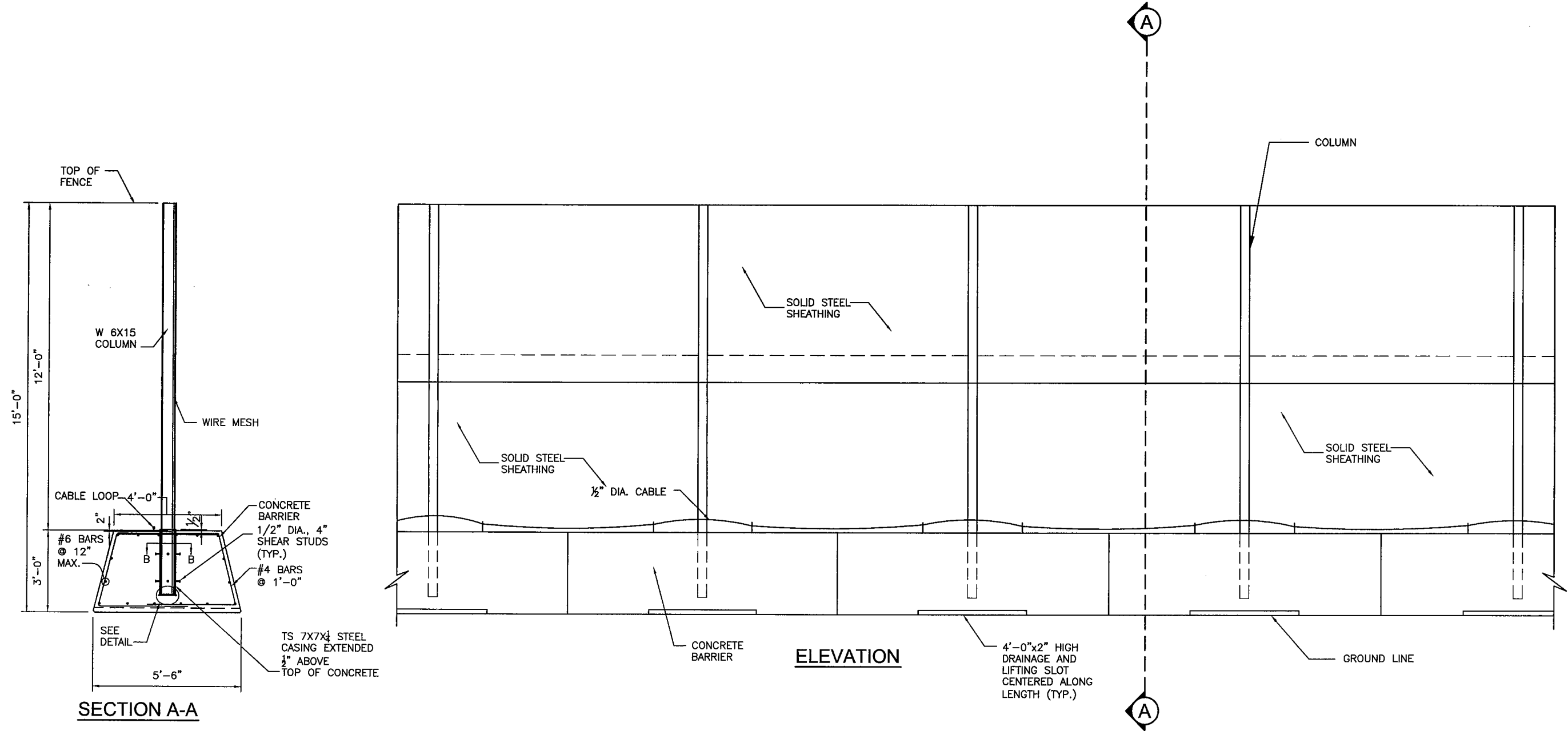
Baker
MICHAEL BAKER JR., INC.
2225 NORTH CENTRAL AVENUE
PHOENIX, AZ 85012

Designed by:	KAS	Date:		Rev:	
Dwn by:	KAS/KNB	Submitted by:	Michael Baker Jr., Inc.	Plot date:	11/19/07
Reviewed by:	TQ	Project No.:	Baker Project No: 112319		

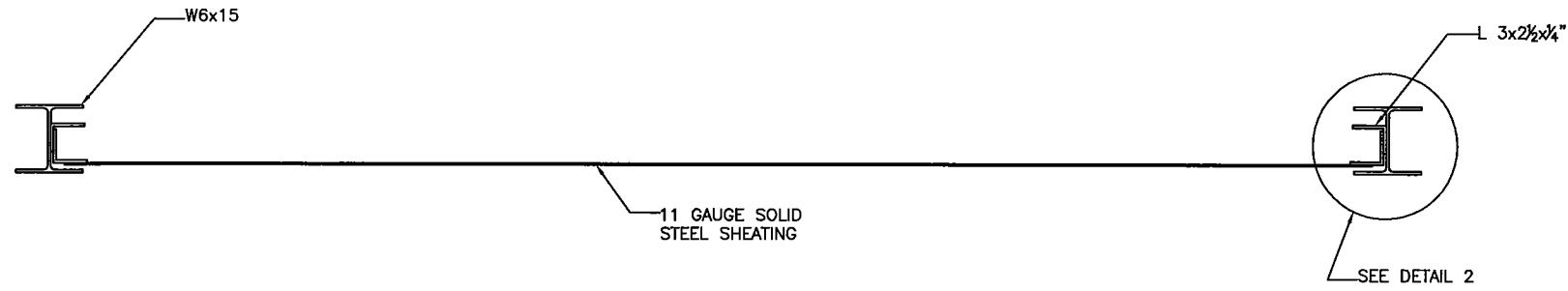
**PF225
CONCEPTUAL
FENCE
DESIGNS**

**PERSONNEL -
VEHICLE
TYPE 3B**

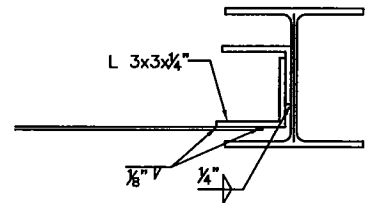
PV-3B



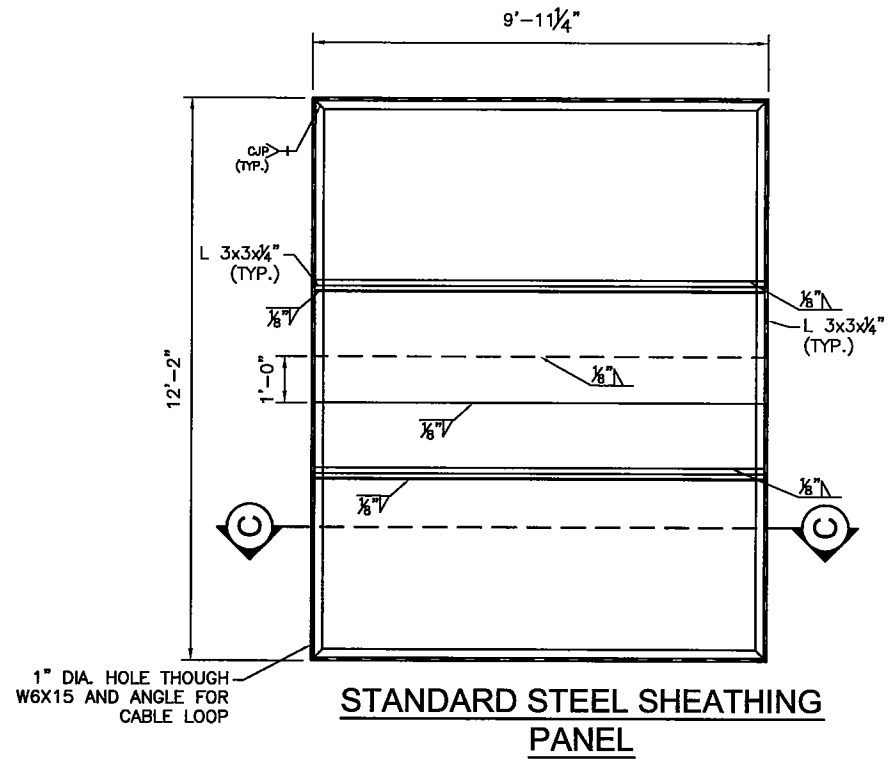
NOTE:
1. VALID FOR 90 MPH WIND
2. THIS FENCE CONSTRUCTION IS INTENDED TO BE
DISMANTLED READILY. COORDINATE WITH BORDER CONTROL
ON LOCATION AND NUMBER OF LOCK POINTS FOR 1/2" CABLE.



SECTION C-C



DETAIL 2



STANDARD STEEL SHEATHING PANEL

Rev.	Description	Date	Appr.

SCHEMATIC NOT FOR CONSTRUCTION

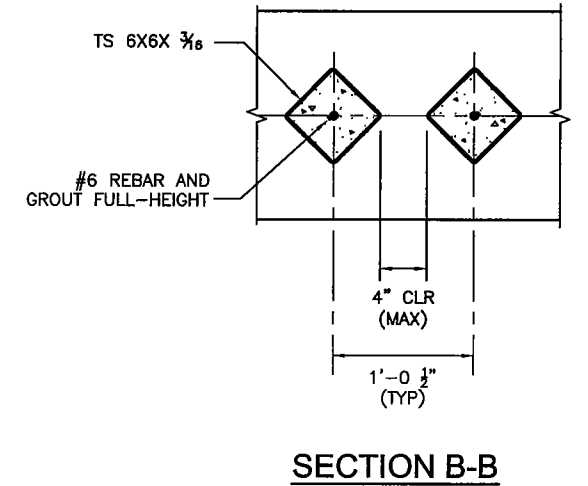
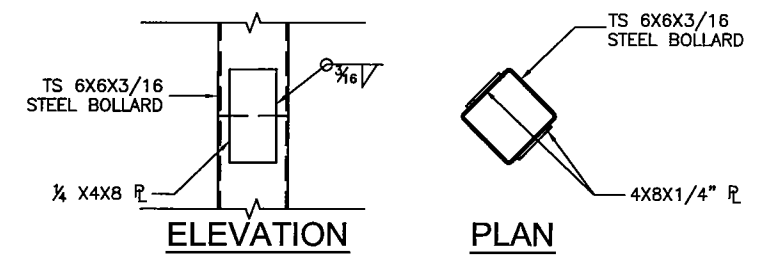
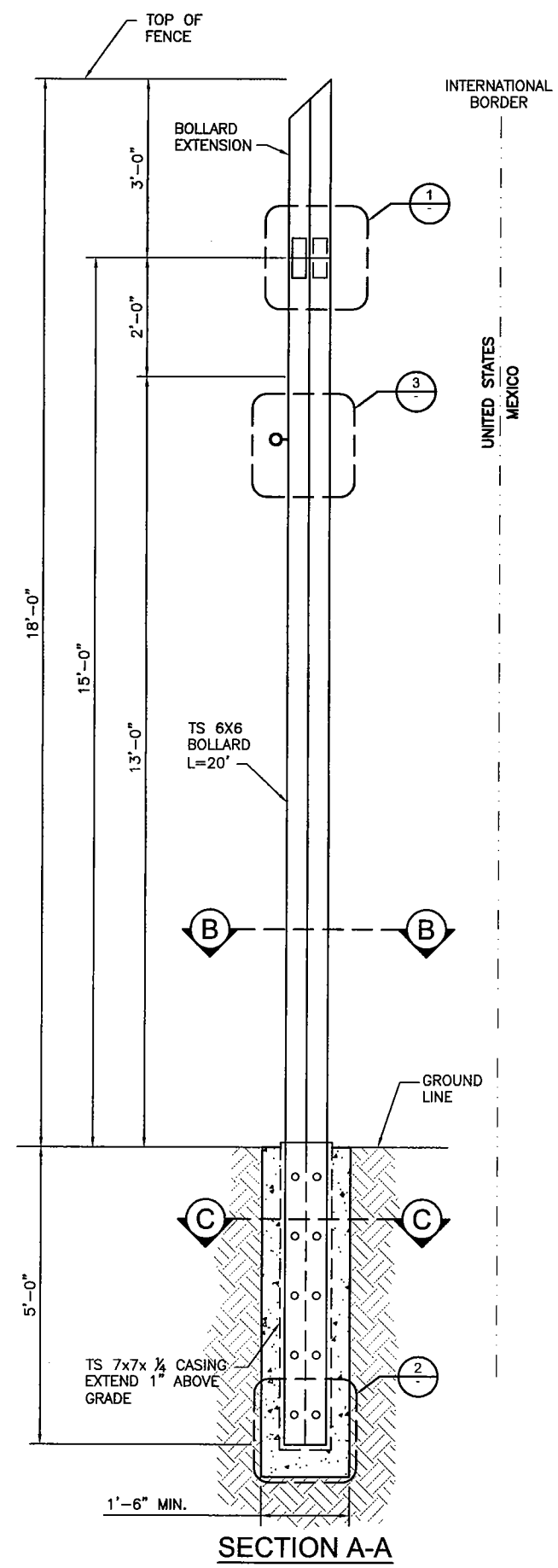
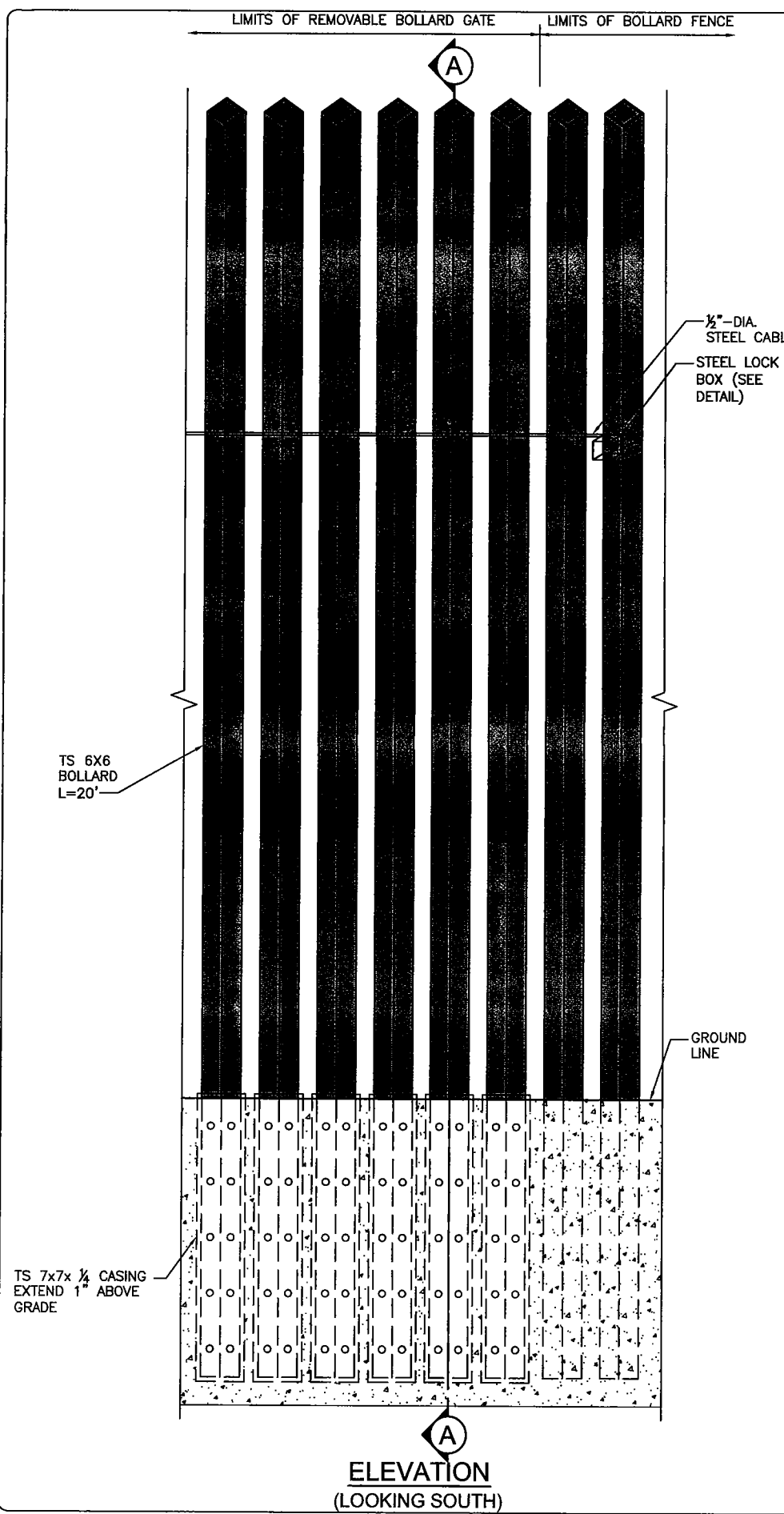
Baker
 MICHAEL BAKER JR., INC.
 2020 NORTH CENTRAL AVENUE
 PHOENIX, AZ 85016

Designed by: RB	Cred by: TEQ	Date:	Rev.
Drawn by: JN	Reviewed by: DUL	Submitted by: Michael Baker Jr., Inc.	Plot date: 11/16/07
Project No.:		112319	

**PF225
 CONCEPTUAL
 FENCE
 DESIGNS**

**PERSONNEL -
 VEHICLE
 TYPE 3B**

PV-3B



NOTES

1. FOUNDATION DETAILS SHOWN REPRESENT MINIMUM DIMENSIONAL REQUIREMENTS AND SHALL BE INCREASED IF NECESSARY BASED ON FINAL DESIGN.
2. VALID FOR 140 MPH WIND SPEED.
3. EYE BOLTS, LOCKBOX, AND CABLE ARE USED TO TIE BOLLARDS AND MUST BE LOCATED ON U.S. SIDE.
4. TYPICAL REMOVABLE LENGTH IS 20 FEET.



Rev.	Date	Description

SCHEMATIC
NOT FOR
CONSTRUCTION

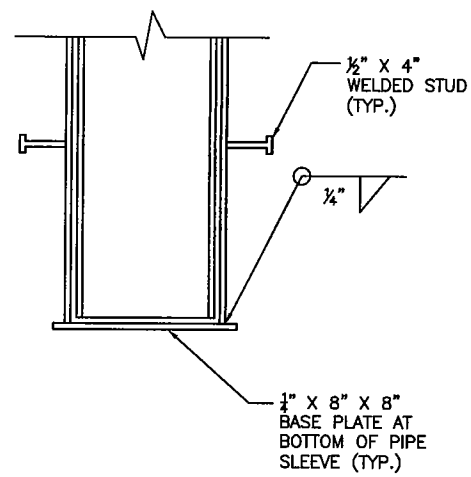
Baker
MICHAEL BAKER JR., INC.
200 NORTH CENTRAL AVENUE
PHOENIX, AZ 85012

Designed by: KAS	Submitted by: Michael Baker Jr., Inc.	Rev.
Dwn by: MKB	CHK'd by: JWB	Date:
Reviewed by: TQ	Plct date: 11/19/07	Project No: 112319

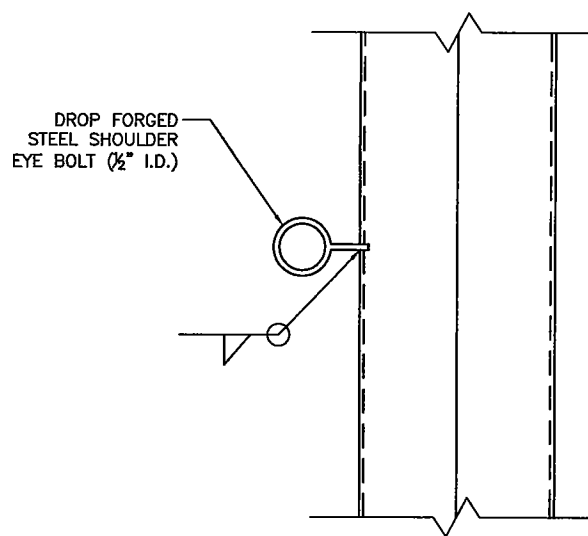
**PF225
CONCEPTUAL
FENCE
DESIGNS**

**PERSONNEL -
VEHICLE
20' - GATE**

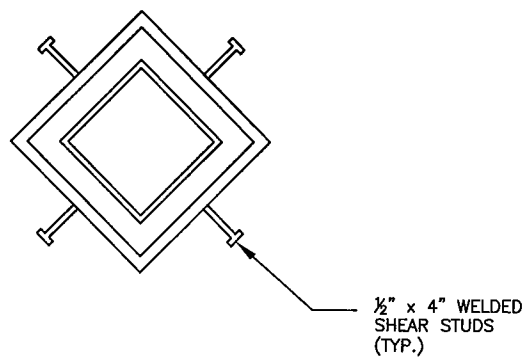
SHEET
REFERENCE
NUMBER
G-1



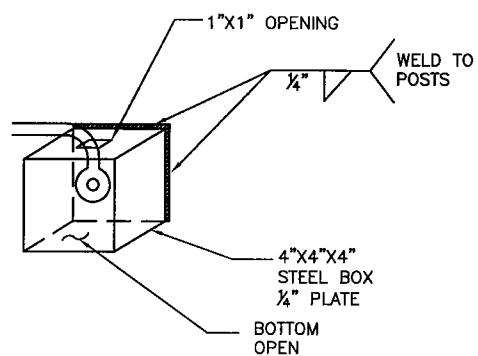
DETAIL 2



DETAIL 3



SECTION C-C



LOCK BOX DETAIL



Rev.	Date	Description

SCHEMATIC
NOT FOR
CONSTRUCTION

Baker
MICHAEL BAKER JR., INC.
200 NORTH CENTRAL AVENUE
PHOENIX, AZ 85012

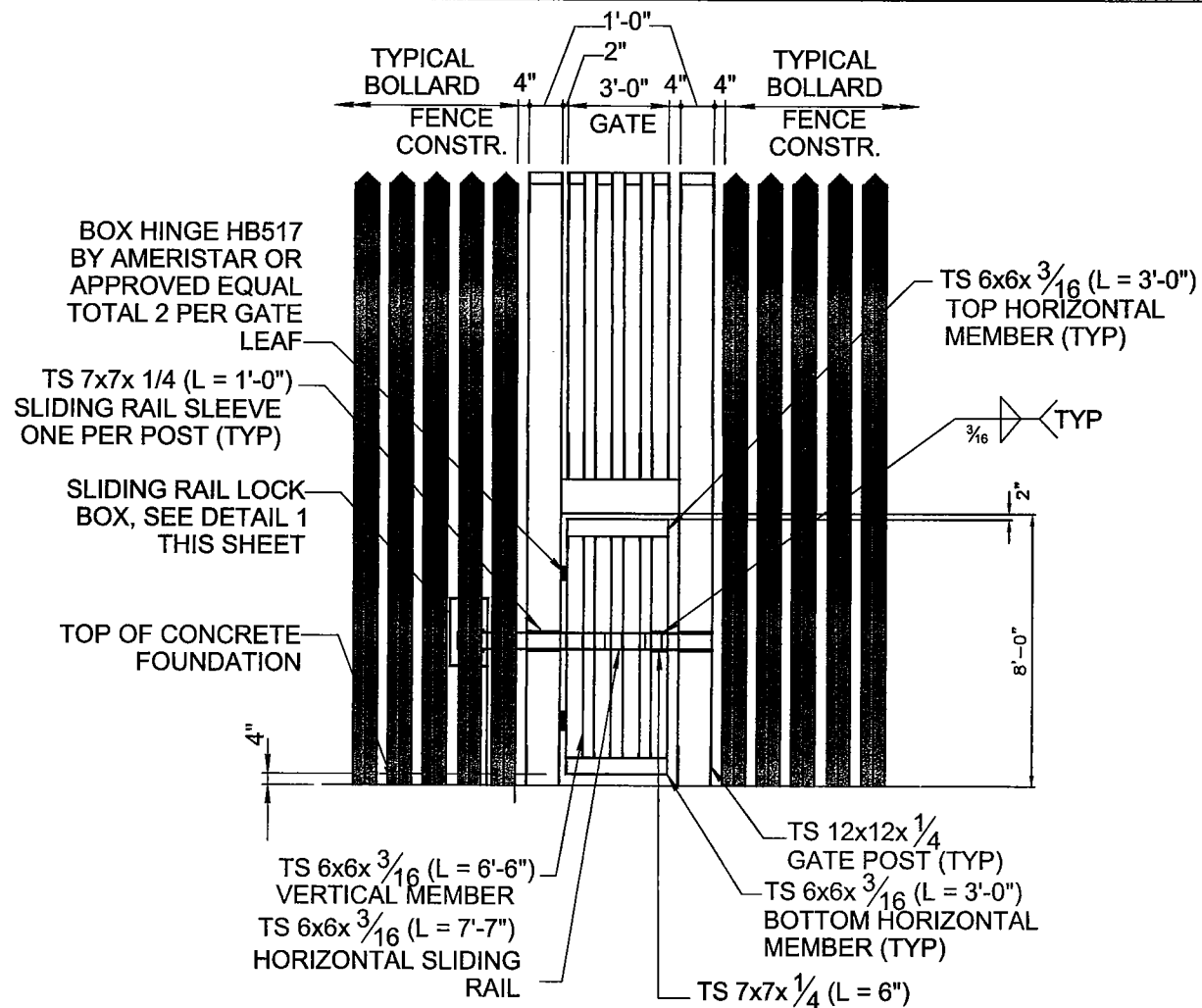
Designed by:	Date:	Rev.
Drawn by:	Submitted by:	
Checked by:	Michael Baker Jr., Inc.	
Reviewed by:	Plot date:	Project No:
KAS	11/18/07	112319
MKB		
TQ		

**PF225
CONCEPTUAL
FENCE
DESIGNS**

**PERSONNEL -
VEHICLE
20' - GATE**

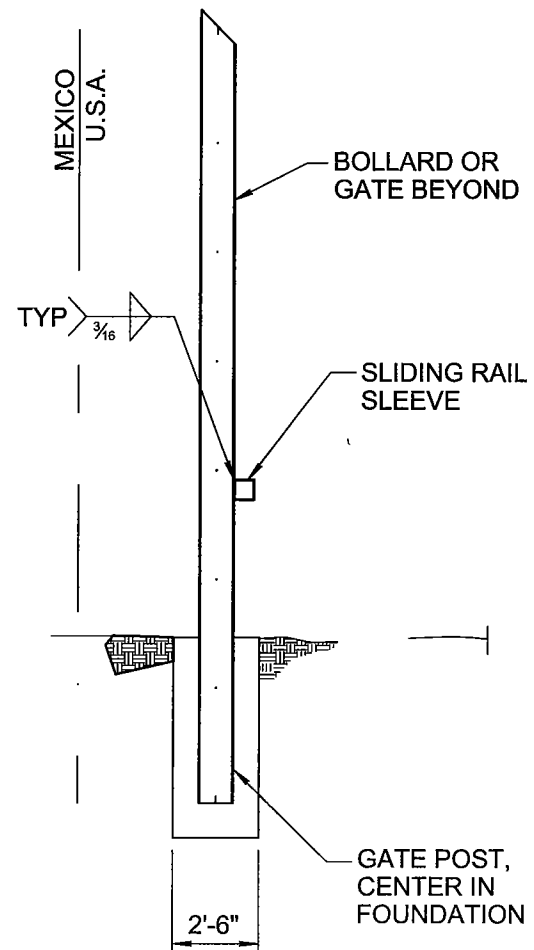
**SHEET
NUMBER
G-1**

\\project\usa\pf225\drawings\lead_2008\gate - 20 ft - bellarts.dwg



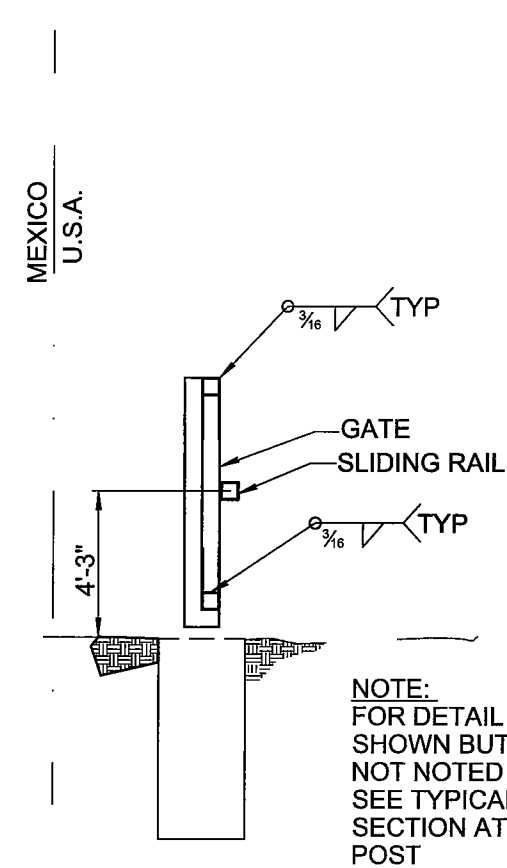
TYPICAL ELEVATION - BOLLARD FENCE GATE

SCALE: $\sim \frac{3}{16}'' = 1'-0''$



TYPICAL SECTION AT POST

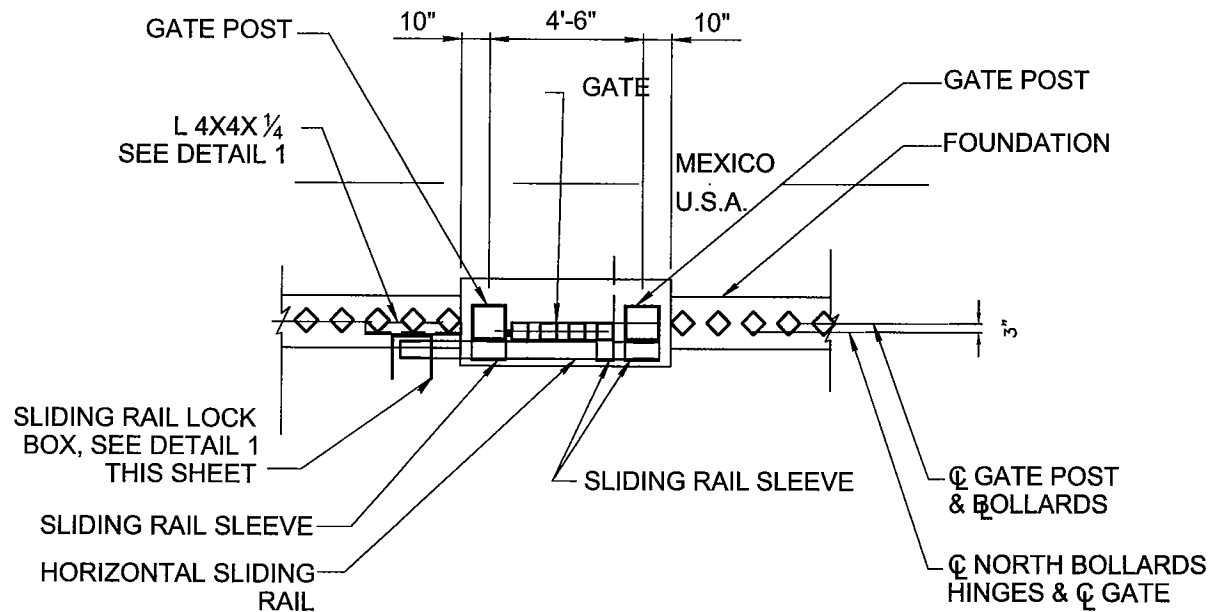
SCALE: $\sim \frac{3}{16}'' = 1'-0''$



TYPICAL SECTION AT LEAF

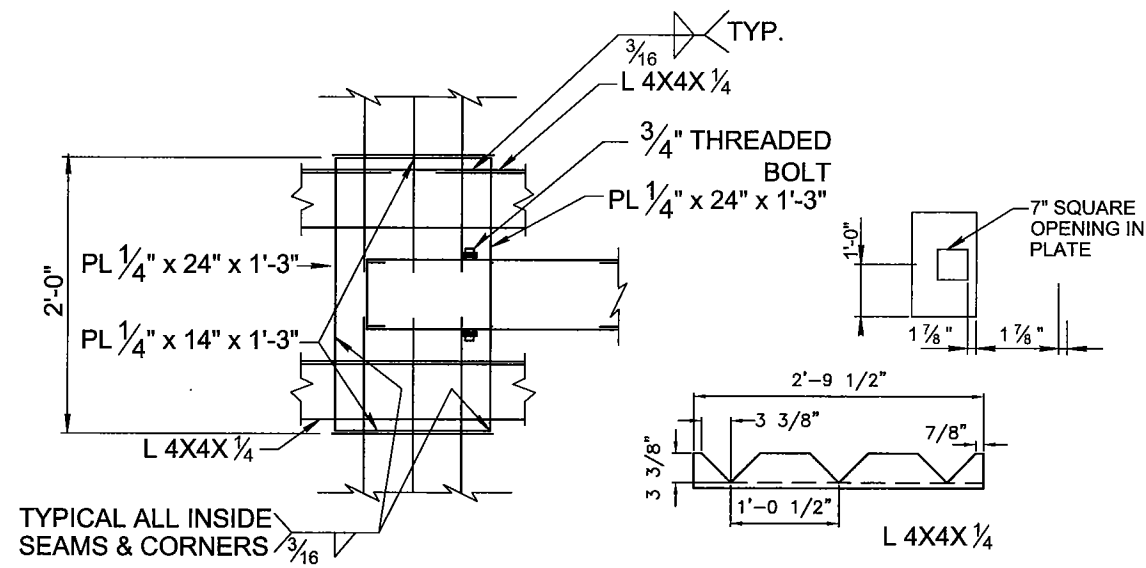
SCALE: $\sim \frac{3}{16}'' = 1'-0''$

NOTE:
FOR DETAIL NOT SHOWN BUT NOT NOTED SEE TYPICAL SECTION AT POST



TYPICAL PLAN - BOLLARD FENCE GATE

SCALE: $\sim \frac{3}{16}'' = 1'-0''$



DETAIL 1 - LOCK BOX

NO SCALE:



Rev.	Date	Description

SCHEMATIC
NOT FOR
CONSTRUCTION



Designed by: KAS	Submitted by: Michael Baker Jr., Inc.	Rev.
Drawn by: MKB	Checked by: JWB	Date:
Reviewed by: TQ	Plot date: 11/18/07	Baker Project No: 112319

**PF225
CONCEPTUAL
FENCE
DESIGNS**

**PERSONNEL
GATE
DETAIL**

SHEET
NO. 2
OF 2
G-2

APPENDIX B
Correspondence





DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF

July 2, 2007

Planning, Environmental and Regulatory Division

SUBJECT: Proposed Environmental Assessment for the East San Diego County Gapfiller Project, San Diego Sector of the Office of Border Patrol

U.S. Fish and Wildlife Service
Carlsbad Ecological Services Field Office
ATTN: Jim Bartel, Field Supervisor
6010 Hidden Valley Road
Carlsbad, CA 92011

Dear Mr. Bartel:

On behalf of U.S. Customs and Border Protection and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE) intends to prepare an Environmental Assessment (EA) for construction and improvements of roads and fences from Tecate to the San Diego-Imperial County line, in the Office of Border Patrol (OBP) San Diego Sector. The EA will analyze the potential for significant impacts of the proposed construction of new roads at 10 locations across the project corridor and road improvements along the entire 32-mile project corridor, including the placement of low water crossings or some similar drainage structures at some stream crossings. A total of 4.4 miles of new roads would be constructed in these 10 locations. The longest road segment would be 1.1 miles long.

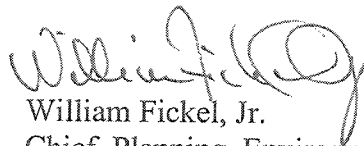
Additionally, where the existing border road is immediately parallel to the border, it would be widened to encompass the entire 60-foot Roosevelt Reservation and would be surfaced to be an all-weather road. These areas are already disturbed by previous road and fence construction. Widening would be required to remove small strips of vegetation or large boulders that provide concealment opportunities for illegal aliens (IAs) and create unnecessary risks to OBP agents' health and safety. These activities would occur at various locations along the 32-mile corridor and would encompass a total of 6 miles.

New fence construction and the conversion of permanent vehicle barriers to fence would also occur across 6.5 miles of the project corridor, in addition to the areas where the new road construction would occur. Most of these areas currently contain permanent vehicle barriers and a border road. Because of recent changes in IA traffic and legislative mandates, it has become necessary to convert these PVBs to pedestrian fences. Military units (Joint Task Force – North or California Army National Guard units), OBP maintenance staff, or private contractors would perform the construction activities.

Enclosed is a map showing the location of the project area for the EA. We are currently in the process of gathering the most current information available regarding Federally and state listed species potentially occurring within this area. The USACE respectfully requests that your agency provide input regarding protected species, designated critical habitat, descriptions of the sensitive resources (*e.g.*, rare or unique plant communities, threatened and endangered and candidate species), and unique or environmentally sensitive areas that you believe may be affected by the proposed OBP activities. We intend to provide your agency with a copy of the Draft EA once completed. Please let us know if additional copies are needed.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Glen Bixler at (817) 886-1533.

Sincerely,

A handwritten signature in cursive script, appearing to read "William Fickel, Jr.", written in dark ink.

William Fickel, Jr.
Chief, Planning, Environmental and
Regulatory Division

Enclosure



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF

July 2, 2007

Planning, Environmental and Regulatory Division

SUBJECT: Proposed Environmental Assessment for the East San Diego County Gapfiller Project, San Diego Sector of the Office of Border Patrol

California Department of Fish and Game
South Coast Region
ATTN: Larry Eng, Regional Manager
4949 Viewridge Avenue
San Diego, CA 92123

Dear Mr. Eng:

On behalf of U.S. Customs and Border Protection and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE) intends to prepare an Environmental Assessment (EA) for construction and improvements of roads and fences from Tecate to the San Diego-Imperial County line, in the Office of Border Patrol (OBP) San Diego Sector. The EA will analyze the potential for significant impacts of the proposed construction of new roads at 10 locations across the project corridor and road improvements along the entire 32-mile project corridor, including the placement of low water crossings or some similar drainage structures at some stream crossings. A total of 4.4 miles of new roads would be constructed in these 10 locations. The longest road segment would be 1.1 miles long.


Additionally, where the existing border road is immediately parallel to the border, it would be widened to encompass the entire 60-foot Roosevelt Reservation and would be surfaced to be an all-weather road. These areas are already disturbed by previous road and fence construction. Widening would be required to remove small strips of vegetation or large boulders that provide concealment opportunities for illegal aliens (IAs) and create unnecessary risks to OBP agents' health and safety. These activities would occur at various locations along the 32-mile corridor and would encompass a total of 6 miles.

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Enclosed is a map showing the location of the project area for the EA. We are currently in the process of gathering the most current information available regarding Federally and state listed species potentially occurring within this area. The USACE respectfully requests that your agency provide input regarding protected species, designated critical habitat, descriptions of the sensitive resources (*e.g.*, rare or unique plant communities, threatened and endangered and candidate species), and unique or environmentally sensitive areas that you believe may be affected by the proposed OBP activities. We intend to provide your agency with a copy of the Draft EA once completed. Please let us know if additional copies are needed.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Glen Bixler at (817) 886-1533.

Sincerely,


William Fickel, Jr,
Chief, Planning, Environmental and
Regulatory Division

Enclosure



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF

July 2, 2007

Planning, Environmental and Regulatory Division

SUBJECT: Proposed Environmental Assessment for the East San Diego County Gapfiller Project, San Diego Sector of the Office of Border Patrol

Janaye Byergo, South Coast Project Manager
c/o Cleveland National Forest
10845 Rancho Bernardo Road, Suite 200
San Diego, CA 92127

Dear Ms. Byergo:

On behalf of U.S. Customs and Border Protection and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE) intends to prepare an Environmental Assessment (EA) for construction and improvements of roads and fences from Tecate to the San Diego-Imperial County line, in the Office of Border Patrol (OBP) San Diego Sector. The EA will analyze the potential for significant impacts of the proposed construction of new roads at 10 locations across the project corridor and road improvements along the entire 32-mile project corridor, including the placement of low water crossings or some similar drainage structures at some stream crossings. A total of 4.4 miles of new roads would be constructed in these 10 locations. The longest road segment would be 1.1 miles long.

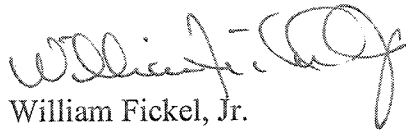
Additionally, where the existing border road is immediately parallel to the border, it would be widened to encompass the entire 60-foot Roosevelt Reservation and would be surfaced to be an all-weather road. These areas are already disturbed by previous road and fence construction. Widening would be required to remove small strips of vegetation or large boulders that provide concealment opportunities for illegal aliens (IAs) and create unnecessary risks to OBP agents' health and safety. These activities would occur at various locations along the 32-mile corridor and would encompass a total of 6 miles.

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Enclosed is a map showing the location of the project area for the EA. Some of these areas are contained on Bureau of Land Management areas. USACE Real Estate Specialists will be in contact with your agency soon to obtain rights of entry for survey and other investigation services. We are currently in the process of gathering the most current information available regarding Federally and state listed species potentially occurring within this area. The USACE respectfully requests that your agency provide input regarding protected species, designated critical habitat, descriptions of the sensitive resources (*e.g.*, rare or unique plant communities, threatened and endangered and candidate species), and unique or environmentally sensitive areas that you believe may be affected by the proposed OBP activities. We intend to provide your agency with a copy of the Draft EA once completed. Please let us know if additional copies are needed.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Glen Bixler at (817) 886-1533.

Sincerely,

A handwritten signature in black ink, appearing to read "William Fickel, Jr.", written in a cursive style.

William Fickel, Jr.
Chief, Planning, Environmental and
Regulatory Division

Enclosure



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

July 2, 2007

Planning, Environmental and Regulatory Division

SUBJECT: Proposed Environmental Assessment for the East San Diego County Gapfiller Project, San Diego Sector of the Office of Border Patrol

USIBWC

ATTN: Dion McMicheaux, Project Manager
2225 Dairy Market Road
San Ysidro, CA 92173-2840

Dear Mr. McMicheaux:

On behalf of U.S. Customs and Border Protection and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE) intends to prepare an Environmental Assessment (EA) for construction and improvements of roads and fences from Tecate to the San Diego-Imperial County line, in the Office of Border Patrol (OBP) San Diego Sector. The EA will analyze the potential for significant impacts of the proposed construction of new roads at 10 locations across the project corridor and road improvements along the entire 32-mile project corridor, including the placement of low water crossings or some similar drainage structures at some stream crossings. A total of 4.4 miles of new roads would be constructed in these 10 locations. The longest road segment would be 1.1 miles long.

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Enclosed is a map showing the location of the project area for the EA. The USACE respectfully requests that your agency provide input regarding border monument and international drainage issues, relative to this project. We intend to provide your agency with a copy of the Draft EA once completed. Please let us know if additional copies are needed.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Glen Bixler at (817) 886-1533.

Sincerely,

A handwritten signature in black ink, appearing to read "William Fickel, Jr.", written in a cursive style.

William Fickel, Jr.
Chief, Planning, Environmental and
Regulatory Division

Enclosure



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

July 2, 2007

Planning, Environmental and Regulatory Division

SUBJECT: Proposed Environmental Assessment for the East San Diego County Gapfiller Project, San Diego Sector of the Office of Border Patrol

California Regional Water Quality Control Board
San Diego Region
ATTN: John Robertus, Executive Officer
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

Dear Mr. Robertus:

On behalf of U.S. Customs and Border Protection and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE) intends to prepare an Environmental Assessment (EA) for construction and improvements of roads and fences from Tecate to the San Diego-Imperial County line, in the Office of Border Patrol (OBP) San Diego Sector. The EA will analyze the potential for significant impacts of the proposed construction of new roads at 10 locations across the project corridor and road improvements along the entire 32-mile project corridor, including the placement of low water crossings or some similar drainage structures at some stream crossings. A total of 4.4 miles of new roads would be constructed in these 10 locations. The longest road segment would be 1.1 miles long.

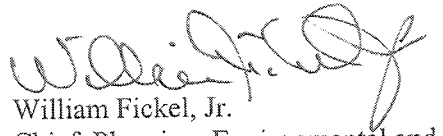
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Enclosed is a map showing the location of the project area analyzed in the EA. The USACE respectfully requests that your agency provide input regarding water quality concerns and unique or sensitive water resources that you believe may be affected by the proposed construction and improvement of roads and fences.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Glen Bixler at (817) 886-1533.

Sincerely,



William Fickel, Jr.
Chief, Planning, Environmental and
Regulatory Division

Enclosure



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF

July 2, 2007

Planning, Environmental and Regulatory Division

SUBJECT: Proposed Environmental Assessment for the East San Diego County Gapfiller Project, San Diego Sector of the Office of Border Patrol

California Environmental Protection Agency
ATTN: Ricardo Martinez, Assistant Secretary for Border Affairs
1001 I Street
P.O. Box 2815
Sacramento, CA

Dear Mr. Martinez:

On behalf of U.S. Customs and Border Protection and the Department of Homeland Security, the U.S. Army Corps of Engineers (USACE) intends to prepare an Environmental Assessment (EA) for construction and improvements of roads and fences from Tecate to the San Diego-Imperial County line, in the Office of Border Patrol (OBP) San Diego Sector. The EA will analyze the potential for significant impacts of the proposed construction of new roads at 10 locations across the project corridor and road improvements along the entire 32-mile project corridor, including the placement of low water crossings or some similar drainage structures at some stream crossings. A total of 4.4 miles of new roads would be constructed in these 10 locations. The longest road segment would be 1.1 miles long.

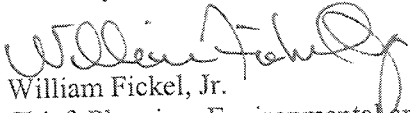
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Enclosed is a map showing the location of the project area analyzed in the EA. The USACE respectfully requests that your agency provide input regarding water quality concerns and unique or sensitive resources that you believe may be affected by the proposed construction and improvement of roads and fences.

Your prompt attention to this request would be greatly appreciated. If you have any questions, please call Mr. Glen Bixler at (817) 886-1533.

Sincerely,


William Fickel, Jr.
Chief, Planning, Environmental and
Regulatory Division

Enclosure



**U.S. Customs and
Border Protection**

OCT 25 2007

Honorable Bobby L. Barrett, Chairman
Viejas Band of Mission Indians
P.O. Box 908
Alpine, California 91903

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Barrett:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure to include primary pedestrian fence and access and patrol roads in 14 segments along the U.S./Mexico international border. Individual segments would range from approximately 0.09 mile to 4.0 miles in length. A map presenting the proposed project sites is enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EA does not necessarily mean the 9.86 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Bobby L. Barrett
Page 2

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Sincerely,

A handwritten signature in black ink, appearing to read "RFJ", with a long horizontal line extending to the right. Below the signature, the name "For R. Janson" is written in a smaller, cursive hand.

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure

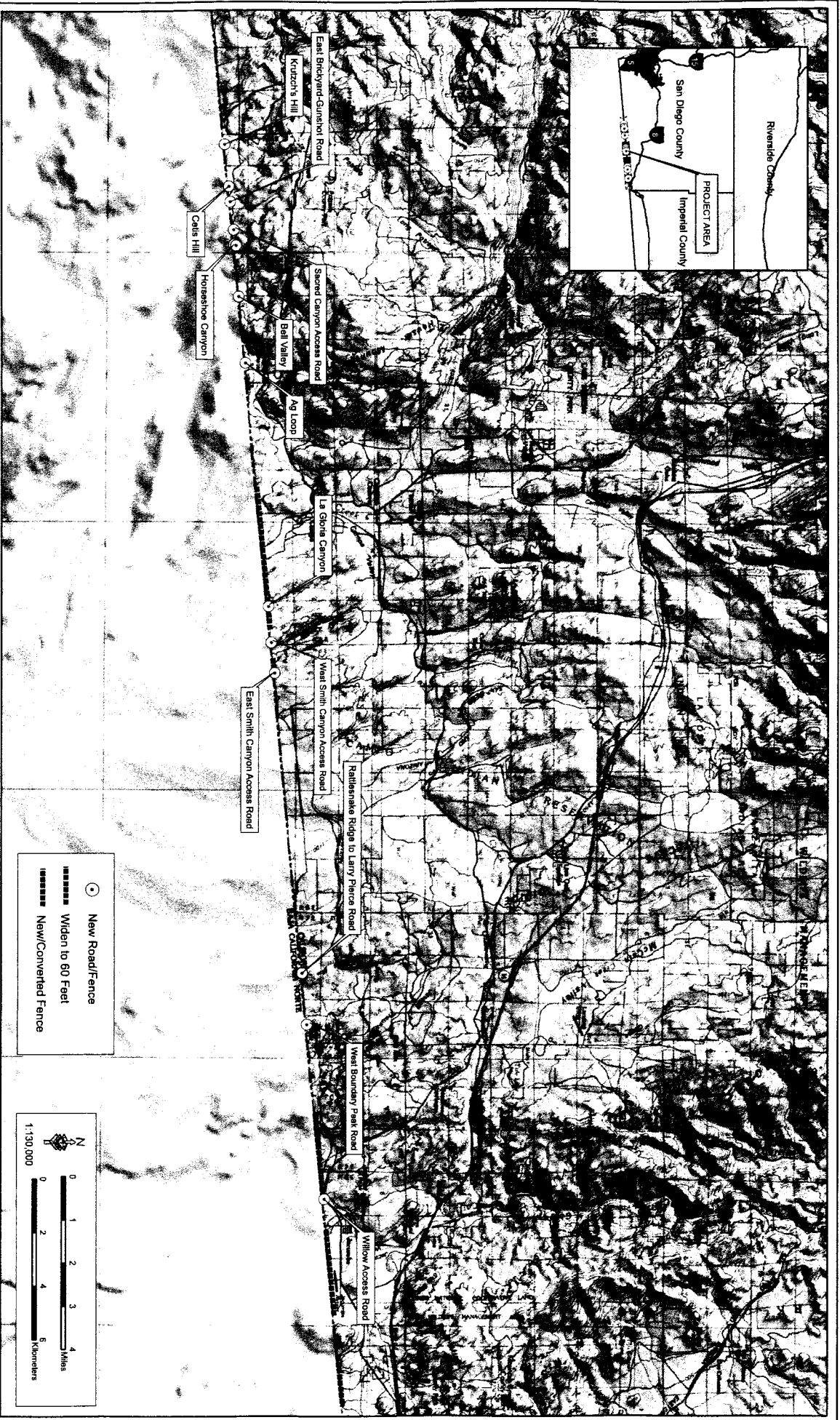


Figure 1: Proposed Action



**U.S. Customs and
Border Protection**

OCT 25 2007

Honorable H. Paul Cuero, Jr., Chairman
Campo Band of Kumeyaay Indians
36190 Church Road, Suite 1
Campo, California 91906

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Cuero:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.


To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure to include primary pedestrian fence and access and patrol roads in 14 segments along the U.S./Mexico international border. Individual segments would range from approximately 0.09 mile to 4.0 miles in length. A map presenting the proposed project sites is enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EA does not necessarily mean the 9.86 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable H. Paul Cuero
Page 2

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Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

Honorable Leroy Elliott, Chairman
Manzanita Band of Mission Indians
P.O. Box 1302
Boulevard, California 91905

OCT 25 2009

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Elliott:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

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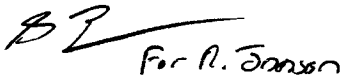
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Honorable Leroy Elliott

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Sincerely,

Handwritten signature of Robert F. Janson, consisting of the initials 'RFJ' followed by a horizontal line and the name 'For R. Janson' written below it.

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

OCT 25 2007

Honorable Johnny Hernandez, Spokesman
Santa Ysabel Band of Mission Indians
P.O. Box 130
Santa Ysabel, California 92070

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Hernandez:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

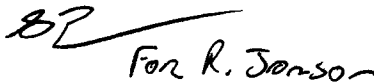
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Honorable Johnny Hernandez
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Sincerely,

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Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

OCT 25 2007

Honorable John James, Chairman
Cabazon Band of Mission Indians
84-245 Indio Springs Pkwy
Indio, California 92203

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. James:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

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Honorable John James

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Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

Honorable Allen E. Lawson, Spokesman
San Pasqual Band of Mission Indians
27458 No. Lake Wolford Rd. Level #3
Valley Center, California 92082

OCT 25 2007

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Lawson:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

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Honorable Allen E. Lawson

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Sincerely,


For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

Honorable Howard Maxcy, Chairman
Mesa Grande Band of Mission Indians
P.O. Box 270
Santa Ysabel, California 92070

OCT 25 2007

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Maxcy:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

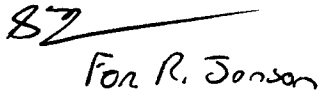
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Honorable Howard Maxcy
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Sincerely,

A handwritten signature in black ink, appearing to read "R. Janson", with a long horizontal line extending to the right.

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

Honorable Richard Milanovich, Chairperson
Agua Caliente Band of Cahuilla Indians
600 East Tahquitz Canyon Way
Palm Springs, California 92262

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Milanovich:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

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Honorable Richard Milanovich

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Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

Honorable Gwendolyn Parada, Chairperson
La Posta Band of Mission Indians
1048 Crestwood Road
Boulevard, California 92905

OCT 25 2007

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Ms. Parada:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

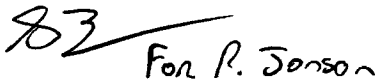
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Honorable Gwendolyn Parada
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Sincerely,

A handwritten signature in black ink, appearing to read "R. Janson" with a stylized flourish above the name.

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

Honorable Harlan Pinto, Chairman
Cuyapaipe Band of Mission Indians
4054 Willows Road
Alpine, California 91903-2250

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Pinto:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

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Honorable Harlan Pinto
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Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

027 0 5 0000

Honorable Catherine Saubel, Spokeswoman
Los Coyotes Band of Mission Indians
2300 Camino San Ignacio
Warner Springs, California 92086

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Ms. Saubel:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.


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Honorable Catherine Saubel
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Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

OCT 25 2007

Honorable Rhonda Welch-Sealco, Chairwoman
Barona Band of Mission Indians
1095 Barona Road
Lakeside, California 92040

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Ms. Welch-Sealco:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure to include primary pedestrian fence and access and patrol roads in 14 segments along the U.S./Mexico international border. Individual segments would range from approximately 0.09 mile to 4.0 miles in length. A map presenting the proposed project sites is enclosed.


Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EA does not necessarily mean the 9.86 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Rhonda Welch-Sealco

Page 2

We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EA for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office, P.O Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Assistant Chief Patrol Agent David Sitchler USBP San Diego Sector at (619) 478-8650.

Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

Honorable Daniel J. Tucker, Chairman
Sycuan Band of Mission Indians
5459 Dehesa Road
El Cajon, California 92019

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Tucker:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

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Honorable Daniel J. Tucker

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Sincerely,

A handwritten signature in black ink, appearing to read "RFJanson", with a long horizontal flourish extending to the right.

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

OCT 25 2007

Honorable Leon Acebedo, Chairman
Jamul Band of Mission Indians
13910 Lyons Valley Road
Jamul, California 91935

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Acebedo:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.


To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure to include primary pedestrian fence and access and patrol roads in 14 segments along the U.S./Mexico international border. Individual segments would range from approximately 0.09 mile to 4.0 miles in length. A map presenting the proposed project sites is enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EA does not necessarily mean the 9.86 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Leon Acebedo
Page 2

We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EA for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office, P.O Box 17300, Forth Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Assistant Chief Patrol Agent David Sitchler USBP San Diego Sector at (619) 478-8650.

Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

OCT 25 2007

Mr. Milford Wayne Donaldson, FAIA
California State Historic Preservation Officer
ATTN: Michael McGuirt
Office of Historic Preservation
1416 9TH Street, Room 1442-7
Sacramento, CA 95814

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Donaldson:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate consultation with your office.


To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure to include primary pedestrian fence and access and patrol roads in 14 segments along the U.S./Mexico international border. Individual segments would range from approximately 0.09 mile to 4.0 miles in length. A map presenting the proposed project sites is enclosed.

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Mr. Milford Wayne Donaldson
Page 2

We welcome your comments on this undertaking and look forward to hearing any concerns your office may have. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EA for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office, P.O Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Assistant Chief Patrol Agent David Sitchler USBP San Diego Sector at (619) 478-8650.

Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

OCT 25 2007

Honorable Bobby L. Barrett, Chairman
Viejas Band of Mission Indians
P.O. Box 908
Alpine, California 91903

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Barrett:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

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Honorable Bobby L. Barrett
Page 2

We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EA for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office, P.O Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Assistant Chief Patrol Agent David Sitchler USBP San Diego Sector at (619) 478-8650.

Sincerely,

A handwritten signature in black ink, appearing to read "RFJ", with a long horizontal line extending to the right. Below the signature, the text "For R. Janson" is written in a smaller, cursive hand.

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure

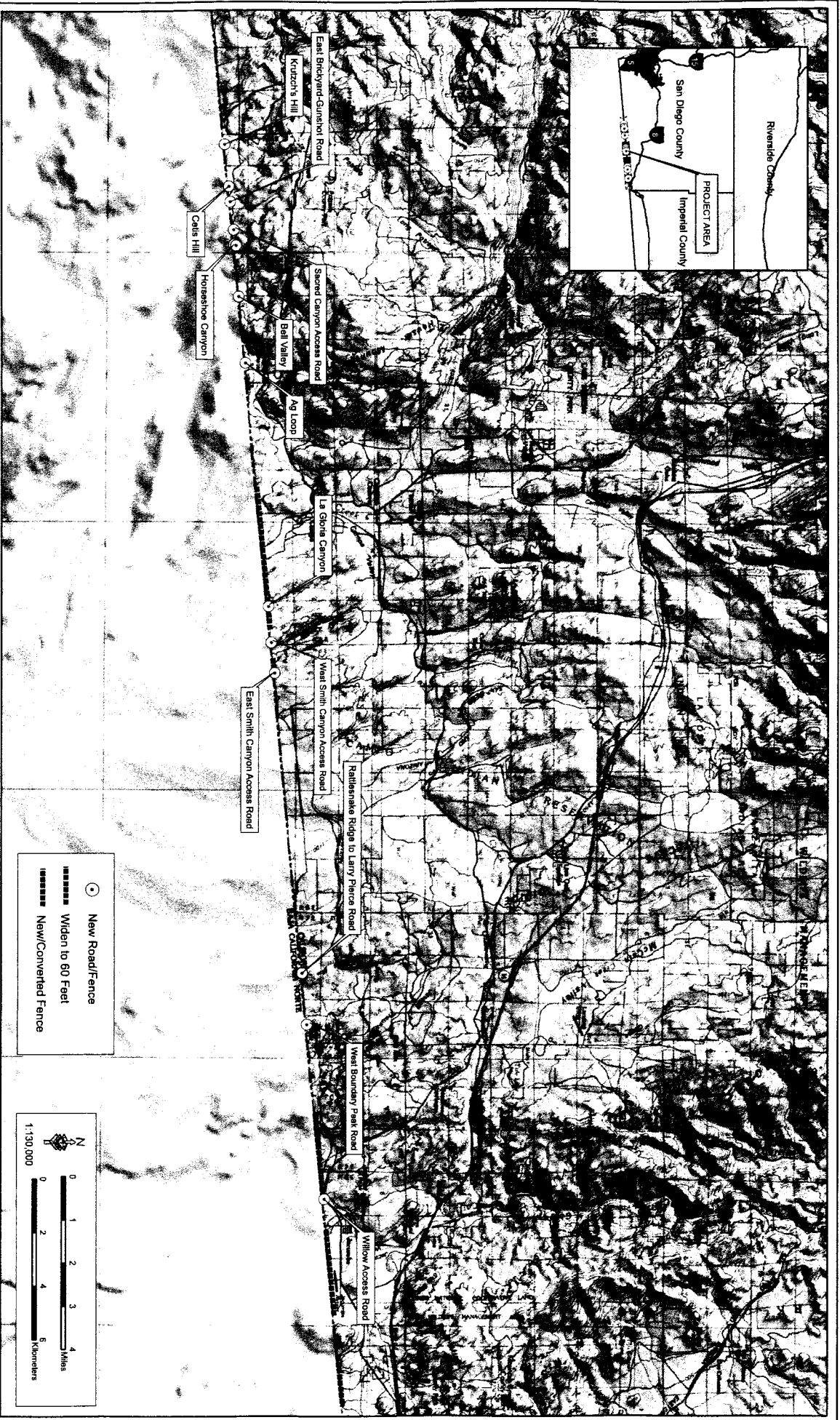


Figure 1: Proposed Action



**U.S. Customs and
Border Protection**

OCT 25 2007

Honorable H. Paul Cuero, Jr., Chairman
Campo Band of Kumeyaay Indians
36190 Church Road, Suite 1
Campo, California 91906

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Cuero:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.


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Honorable H. Paul Cuero
Page 2

We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EA for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office, P.O Box 17300, Fort Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Assistant Chief Patrol Agent David Sitchler USBP San Diego Sector at (619) 478-8650.

Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

OCT 25 2009

Honorable Leroy Elliott, Chairman
Manzanita Band of Mission Indians
P.O. Box 1302
Boulevard, California 91905

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Elliott:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

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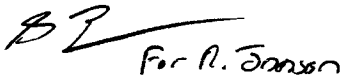
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Honorable Leroy Elliott

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Sincerely,

A handwritten signature in black ink, appearing to read "RFJ" followed by a horizontal line and "For R. Janson".

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

OCT 25 2007

Honorable Johnny Hernandez, Spokesman
Santa Ysabel Band of Mission Indians
P.O. Box 130
Santa Ysabel, California 92070

**Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and
Operation of Tactical Infrastructure, U.S. Department of Homeland Security,
U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector**

Dear Mr. Hernandez:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

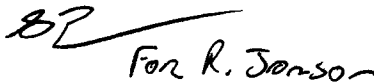
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Honorable Johnny Hernandez
Page 2

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Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

OCT 25 2007

Honorable John James, Chairman
Cabazon Band of Mission Indians
84-245 Indio Springs Pkwy
Indio, California 92203

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. James:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

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Honorable John James

Page 2

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Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

OCT 25 2007

Honorable Allen E. Lawson, Spokesman
San Pasqual Band of Mission Indians
27458 No. Lake Wolford Rd. Level #3
Valley Center, California 92082

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Lawson:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

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Honorable Allen E. Lawson

Page 2

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Sincerely,


For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

Honorable Howard Maxcy, Chairman
Mesa Grande Band of Mission Indians
P.O. Box 270
Santa Ysabel, California 92070

OCT 25 2007

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Maxcy:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

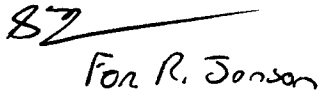
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Honorable Howard Maxcy
Page 2

We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EA for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office, P.O Box 17300, Forth Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Assistant Chief Patrol Agent David Sitchler USBP San Diego Sector at (619) 478-8650.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Janson", with a long horizontal line extending to the right.

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

Honorable Richard Milanovich, Chairperson
Agua Caliente Band of Cahuilla Indians
600 East Tahquitz Canyon Way
Palm Springs, California 92262

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Milanovich:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

To assist USBP in gaining and maintaining operational control of the border, CBP proposes to construct, maintain, and operate tactical infrastructure to include primary pedestrian fence and access and patrol roads in 14 segments along the U.S./Mexico international border. Individual segments would range from approximately 0.09 mile to 4.0 miles in length. A map presenting the proposed project sites is enclosed.

Based on Congressional and Executive mandates, CBP and USBP are assessing operational requirements and land issues along the entire Southwest border. Preparing the EA does not necessarily mean the 9.86 miles of tactical infrastructure will be installed within USBP San Diego Sector. Rather, this effort is a prudent part of the planning process needed to assess any environmental concerns in accordance with the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), the Clean Water Act (CWA), and other applicable environmental laws and regulations.

Honorable Richard Milanovich

Page 2

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Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

Honorable Gwendolyn Parada, Chairperson
La Posta Band of Mission Indians
1048 Crestwood Road
Boulevard, California 92905

OCT 25 2007

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Ms. Parada:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

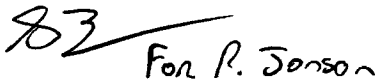
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Honorable Gwendolyn Parada
Page 2

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Sincerely,

A handwritten signature in black ink, appearing to read "R. Janson" with a stylized flourish above the name.

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

Honorable Harlan Pinto, Chairman
Cuyapaipe Band of Mission Indians
4054 Willows Road
Alpine, California 91903-2250

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Pinto:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

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Honorable Harlan Pinto
Page 2

We welcome your comments on this undertaking and look forward to hearing any concerns you may have regarding known sacred sites or other traditional cultural properties within the proposed project area. A cultural resources survey is currently being conducted on the project corridor, and we will provide you a copy of the cultural resources report for your review and comment once it has been prepared. We will also provide a copy of the EA for your review and comment. If you have any questions, please contact Mr. Charles McGregor by mail at USACE, Fort Worth District, Engineering Construction Support Office, P.O Box 17300, Forth Worth, Texas 76102-0300 or by telephone at (817) 886-1585 or by contacting Assistant Chief Patrol Agent David Sitchler USBP San Diego Sector at (619) 478-8650.

Sincerely,

A handwritten signature in black ink, appearing to read "RJ" followed by a long horizontal stroke, and then "for R. Janson" written below it.

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

007 015 0000

Honorable Catherine Saubel, Spokeswoman
Los Coyotes Band of Mission Indians
2300 Camino San Ignacio
Warner Springs, California 92086

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Ms. Saubel:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.


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Honorable Catherine Saubel
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Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

OCT 25 2007

Honorable Rhonda Welch-Sealco, Chairwoman
Barona Band of Mission Indians
1095 Barona Road
Lakeside, California 92040

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Ms. Welch-Sealco:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

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Honorable Rhonda Welch-Sealco

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Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

Honorable Daniel J. Tucker, Chairman
Sycuan Band of Mission Indians
5459 Dehesa Road
El Cajon, California 92019

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Tucker:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.

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Honorable Daniel J. Tucker

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Sincerely,

A handwritten signature in black ink, appearing to read "RFJ" followed by "For R. Janson". The signature is written in a cursive, somewhat stylized font.

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

OCT 25 2007

Honorable Leon Acebedo, Chairman
Jamul Band of Mission Indians
13910 Lyons Valley Road
Jamul, California 91935

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Acebedo:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate its consultation process with appropriate federally-recognized tribes who historically used this region and/or continue to use the area.


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Honorable Leon Acebedo
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Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



**U.S. Customs and
Border Protection**

OCT 25 2007

Mr. Milford Wayne Donaldson, FAIA
California State Historic Preservation Officer
ATTN: Michael McGuirt
Office of Historic Preservation
1416 9TH Street, Room 1442-7
Sacramento, CA 95814

Subject: Environmental Assessment (EA) for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector

Dear Mr. Donaldson:

While no final decisions on the fence locations have been made, U.S. Customs and Border Protection (CBP), U.S. Border Patrol (USBP), a component of the Department of Homeland Security, is preparing an Environmental Assessment (EA) to address the potential environmental impacts and feasibility of constructing, maintaining, and operating tactical infrastructure in segments totaling approximately 9.86 miles in length within USBP San Diego Sector, California. In preparing the EA, CBP will be working directly with the United States Army Corps of Engineers, Fort Worth District (USACE), who will provide technical expertise and other support to CBP. At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, CBP wishes to initiate consultation with your office.


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Mr. Milford Wayne Donaldson
Page 2

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Sincerely,



For R. Janson

Robert F. Janson
Acting Executive Director
Asset Management
U.S. Customs and Border Protection

Enclosure



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Palm Springs-South Coast Field Office
690 West Garnet Avenue
P.O. Box 581260
North Palm Springs, CA 92258-1260
(760) 251-4800 Fax (760) 251-4899



Visit us on the Internet at
www.blm.gov/ca/palmsprings/

IN REPLY REFER TO:
2800P
CA660.02

NOV 02 2007

Charles McGregor
Engineering Construction Support Office
Fort Worth District, Corps of Engineers
P.O. Box 17300
Fort Worth, Texas 76102-0300

Subject: PF225 Border Project Cooperating Agency

Dear Mr. McGregor:

This letter is in response to the U.S. Army Corps of Engineers (USACE), on behalf of the U.S. Customs and Border Protection-Border Patrol, regarding the Bureau of Land Management (BLM), Palm Springs-South Coast Field Office participation in the PF225 border fence project. The BLM retains sole decision-making authority for the lands and resources it administers. For this reason, we request full cooperator status in the development of NEPA analysis documents pertaining to the PF225 border fence projects in San Diego County, California.

A cooperating agency assists the lead Federal agency in developing an Environmental Assessment (EA) or Environmental Impact Statement (EIS). The CEQ regulations implementing NEPA define a cooperating agency as any agency that has jurisdiction by law or special expertise for proposals covered by NEPA (See CEQ Regulations for Implementing NEPA, 40 CFR:1501.6).

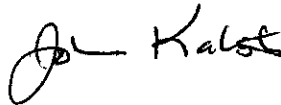
As cooperating agency, we agree to:

- Assist in the NEPA analysis at the earliest possible time.
- Participate in the scoping process, which helps define and frame the issues to be addressed in the NEPA document.
- Share freely any information and data relevant to the NEPA analysis, thereby facilitating rational, fact-based decision making.
- Defer all SHPO, Native American Consultation and Section 7 Consultation with U.S. Fish and Wildlife Service to USACE.
- BLM will issue its own decision for the EIS and FONSI for the EA.

Janaye Byergo, South Coast Project Manager, is designated as BLM's project coordinator for this effort. We request that our coordinator be kept apprised of project schedules as well as meetings with other agencies and consultants pertaining to these NEPA analyses. She can be contacted at 858-451-1767 or by email Janaye_Byergo@ca.blm.gov. In addition, please provide the BLM with all correspondence for Native American and SHPO consultation, biological and survey reports, and all correspondence with the U.S. Fish and Wildlife Service. We request that reasonable time be provided for review and comment on individual resource reports, administrative review copies of draft and final EAs or EISs, and any analysis of comments received on draft EAs or EISs.

As lead and cooperating agencies, we look forward to producing a thorough analysis sufficient for us to base our decisions.

Sincerely,

A handwritten signature in black ink, appearing to read "John Kalish". The signature is fluid and cursive, with the first name "John" written in a larger, more prominent script than the last name "Kalish".

John Kalish
Field Manager

Cc: Oscar Pena
USBP



INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

OFFICE OF THE COMMISSIONER
UNITED STATES SECTION

November 5, 2007

Mr. Charles McGregor
United States Army Corps of Engineers
Fort Worth District
Engineering Construction Support Office
P.O. Box 17300
Fort Worth, TX 76102-0300

Dear Mr. McGregor:

Reference is made to various letters dated October 18, 2007, from Mr. Robert F. Janson, U.S. Customs and Border Protection, requesting us to become a cooperating agency with regard to the development of National Environmental Policy Act (NEPA) environmental documentation for the proposed construction, maintenance, and operation of tactical infrastructure throughout the international boundary. According to the letters, the following projects are being considered:

- 1) Environmental Impact Statement for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector;
- 2) Environmental Assessment for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol San Diego Sector;
- 3) Environmental Assessment for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol El Centro Sector;
- 4) Environmental Assessment for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol Yuma Sector;
- 5) Supplemental Environmental Assessment for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol El Paso Sector;
- 6) Environmental Assessment for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol Marfa Sector;

- 7) Environmental Assessment for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol Del Rio Sector; and
- 8) Environmental Impact Statement for Proposed Construction, Maintenance, and Operation of Tactical Infrastructure, U.S. Department of Homeland Security, U.S. Customs and Border Protection, U.S. Border Patrol Rio Grande Valley Sector.

The United States Section, International Boundary and Water Commission (USIBWC) accepts your request to become a cooperating agency in the NEPA process. We look forward to working with you on issues related to the international boundary, specifically international treaties and agreements, issues related to USIBWC jurisdiction, and USIBWC real property. Due to the overwhelming list of Border Patrol initiatives along the international boundary, I have designated Mr. Richard Peace, Division Engineer, Operations and Maintenance Division, as the agency single point of contact for matters related to these projects. Mr. Peace can be reached at (915) 832-4158 for overall project coordination. If you have any questions feel free to contact me at (915) 832-4101.

Sincerely,



Carlos Mañin, P.E.
Commissioner

APPENDIX C
Memorandum of Understanding



**Memorandum of Understanding
Among
U. S. Department of Homeland Security
and
U. S. Department of the Interior
and
U. S. Department of Agriculture
Regarding
Cooperative National Security and Counterterrorism
Efforts on Federal Lands along the United States' Borders**

I. Purpose and Scope

A. This Memorandum of Understanding (MOU) is made and entered into by the Department of Homeland Security (DHS), including and on behalf of its constituent bureau U.S. Customs and Border Protection (CBP) and the CBP Office of Border Patrol (CBP-BP); the Department of the Interior (DOI), including and on behalf of its constituent bureaus, the National Park Service (NPS), U.S. Fish and Wildlife Service (FWS), Bureau of Indian Affairs (BIA), Bureau of Land Management (BLM), and the Bureau of Reclamation (BOR); and the Department of Agriculture (USDA), including and on behalf of its constituent agency the U.S. Forest Service (USFS). Throughout this MOU, these three Departments, including their constituent agencies, may be referred to as “the Parties.” Any reference to a bureau, agency, or constituent component of a Party shall not be deemed to exclude application to any appropriate bureau or constituent component of that Party. DHS recognizes that the BIA enters into this agreement only on its own behalf and not on behalf of any Indian tribe.

B. The geographic and jurisdictional scope of this MOU is nationwide. The Parties recognize the national security and counterterrorism significance of preventing illegal entry into the United States by cross-border violators (CBVs), including but not limited to the following: drug and human smugglers and smuggling organizations, foreign nationals, and terrorists and terrorist organizations. The Parties further recognize that damage to DOI and USDA-managed lands and natural and cultural resources is often a significant consequence of such illegal entry. The Parties are committed to preventing illegal entry into the United States, protecting Federal lands and natural and cultural resources, and - where possible - preventing adverse impacts associated with illegal entry by CBVs.

C. This MOU is intended to provide consistent goals, principles, and guidance related to border security, such as law enforcement operations; tactical infrastructure installation; utilization of roads; minimization and/or prevention of significant impact on or impairment of natural and cultural resources; implementation of the Wilderness Act, Endangered Species Act, and other related environmental law, regulation, and policy across land management agencies; and provide for coordination and sharing information

on threat assessments and other risks, plans for infrastructure and technology improvements on Federal lands, and operational and law enforcement staffing changes. This MOU provides guidance in the development of individual agreements, where appropriate, between CBP and land management agencies to further the provisions contained herein.

D. This MOU is entered into pursuant to the governing statutory authorities of each of the Parties.

E. The Parties acknowledge that CBP operation and construction within the sixty-foot "Roosevelt Reservation" of May 27, 1907 (along the US-Mexico border) and the sixty-foot "Taft Reservation" of May 3, 1912 (along the US-Canada border) is consistent with the purpose of those reservations and that any CBP activity (including, but not limited to, operations and construction) within the sixty-foot reservations is outside the oversight or control of Federal land managers.

F. This MOU supersedes any conflicting provision of any prior MOU or Memorandum of Agreement between the Parties or their subordinate bureaus or components.

II. Background

A. DHS, through its constituent bureaus (including CBP and its CBP-BP), is statutorily mandated to control and guard the Nation's borders and boundaries, including the entirety of the northern and southern land and water borders of the United States.

B. DOI and USDA, through their constituent bureaus, are statutorily charged as managers of Federal lands throughout the United States, including DOI and USDA lands in the vicinity of international borders that are administered as wilderness areas, conservation areas, national forests, wildlife refuges, units/irrigation projects of the Bureau of Reclamation, and/or units of the national park system. Tribal governments have primary management roles over tribal lands; however, the United States, through the BIA, may also have a stewardship or law enforcement responsibility over these lands. Many of these Federal and tribal lands contain natural and cultural resources that are being degraded by activities related to illegal cross-border movements.

C. The volume of CBVs can and has, in certain areas, overwhelmed the law enforcement and administrative resources of Federal land managers. In order to more effectively protect national security, respond to terrorist threats, safeguard human life, and stop the degradation of the natural and cultural resources on those lands, DOI and USDA land managers will work cooperatively with CBP to benefit from the enforcement presence, terrorist and CBV interdiction, and rescue operations of CBP.

III. Common Findings and Affirmation of the Parties

A. The Parties to this MOU recognize that CBP-BP access to Federal lands can facilitate rescue of CBVs on Federal lands, protect those lands from environmental damage, have a role in protecting the wilderness and cultural values and wildlife resources of these lands, and is necessary for the security of the United States. Accordingly, the Parties understand that CBP-BP, consistent with applicable Federal laws and regulations, may access public lands and waterways, including access for purposes of tracking, surveillance, interdiction, establishment of observation points, and installation of remote detection systems.

B. The Parties recognize that DOI and USDA have responsibility for enforcing Federal laws relating to land management, resource protection, and other such functions on Federal lands under their jurisdiction.

IV. Responsibilities and Terms of Agreement

A. The Parties Agree to the Following Common Goals, Policies, and Principles:

1. The Parties enter into this MOU in a cooperative spirit with the goals of securing the borders of the United States, addressing emergencies involving human health and safety, and preventing or minimizing environmental damage arising from CBV illegal entry on public lands;
2. The Parties will strive to both resolve conflicts at and delegate resolution authority to the lowest field operational level possible while applying the principles of this MOU in such manner as will be consistent with the spirit and intent of this MOU;
3. The Parties will develop and consistently utilize an efficient communication protocol respecting the chain of command for each of the Parties that will result in the consistent application of the goals, policies, and principles articulated in this MOU, and provide a mechanism that will, if necessary, facilitate the resolution of any conflicts among the Parties. If resolution of conflict does not occur at the local level, then the issue will be elevated first to the regional/sector office; if not resolved at the regional/sector level, then the issue will be elevated to the headquarters level for resolution;
4. The Parties will cooperate with each other to complete, in an expedited manner, all compliance that is required by applicable Federal laws not otherwise waived in furtherance of this MOU. If such activities are authorized by a local agreement as described in sub-article IV.B below, then the DOI, USDA, and CBP will complete the required compliance before executing the agreement;

5. The Parties will cooperate with each other to identify methods, routes, and locations for CBP-BP operations that will minimize impacts to natural, cultural, and wilderness resources resulting from CBP-BP operations while facilitating needed CBP-BP access;
6. The Parties will, as necessary, plan and conduct joint local law enforcement operations consistent with all Parties' legal authorities;
7. The Parties will establish a framework by which threat assessments and other intelligence information may be exchanged, including intelligence training to be conducted by all parties so that the intelligence requirements of each may be identified and facilitated;
8. The Parties will establish forums and meet as needed at the local, regional, and national levels to facilitate working relationships and communication between all Parties;
9. The Parties will develop and share joint operational strategies at the local, regional, and national levels, including joint requests for infrastructure and other shared areas of responsibility;
10. The Parties will share the cost of environmental and cultural awareness training unless otherwise agreed; and
11. The Parties will, as appropriate, enter into specific reimbursable agreements pursuant to the Economy Act, 31 U.S.C. §1535 when one party is to furnish materials or perform work or provide a service on behalf of another party.

B. Responsibilities and Terms Specific to DOI and USDA. The DOI and the USDA hereby recognize that, pursuant to applicable law, CBP-BP is authorized to access the Federal lands under DOI and USDA administrative jurisdiction, including areas designated by Congress as wilderness, recommended as wilderness, and/or wilderness study areas, and will do so in accordance with the following conditions and existing authorities:

1. CBP-BP agents on foot or on horseback may patrol, or pursue, or apprehend suspected CBVs off-road at any time on any Federal lands administered by the Parties;
2. CBP-BP may operate motor vehicles on existing public and administrative roads and/or trails and in areas previously designated by the land management agency for off-road vehicle use at any time, provided that such use is consistent with presently authorized public or administrative use. At CBP-BP's request, the DOI and the USDA will provide CBP-BP with keys, combinations, or other means necessary to

access secured administrative roads/trails. CBP-BP may drag existing public and administrative roads that are unpaved for the purpose of cutting sign, subject to compliance with conditions that are mutually agreed upon by the local Federal land manager and the CBP-BP Sector Chief. For purposes of this MOU, "existing public roads/trails" are those existing roads/trails, paved or unpaved, on which the land management agency allows members of the general public to operate motor vehicles, and "existing administrative roads/trails" are those existing roads/trails, paved or unpaved, on which the land management agency allows persons specially authorized by the agency, but not members of the general public, to operate motor vehicles;

- 3 CBP-BP may request, in writing, that the land management agency grant additional access to Federal lands (for example, to areas not previously designated by the land management agency for off-road use) administered by the DOI or the USDA for such purposes as routine patrols, non-emergency operational access, and establishment of temporary camps or other operational activities. The request will describe the specific lands and/or routes that the CBP-BP wishes to access and the specific means of access desired. After receiving a written request, the local Federal land manager will meet promptly with the CBP-BP Sector Chief to begin discussing the request and negotiating the terms and conditions of an agreement with the local land management agency that authorizes access to the extent permitted by the laws applicable to the particular Federal lands. In each agreement between CBP-BP and the local land management agency, the CBP-BP should be required to use the lowest impact mode of travel and operational setup reasonable and practicable to accomplish its mission. The CBP-BP should also be required to operate all motorized vehicles and temporary operational activities in such a manner as will minimize the adverse impacts on threatened or endangered species and on the resources and values of the particular Federal lands. However, at no time should officer safety be compromised when selecting the least impactful conveyance or operational activity. Recognizing the importance of this matter to the Nation's security, the CBP-BP Sector Chief and the local Federal land manager will devote to this endeavor the resources necessary to complete required compliance measures in order to execute the local agreement within ninety (90) days after the Federal land manager has received the written request for access. Nothing in this paragraph is intended to limit the exercise of applicable emergency authorities for access prior to the execution of the local agreement. The Secretaries of the Interior, Agriculture, and Homeland Security expect that, absent compelling justification, each local agreement will be executed within that time frame and provide the maximum amount of access requested by the CBP-BP and allowed by law;

4. Nothing in this MOU is intended to prevent CBP-BP agents from exercising existing exigent/emergency authorities to access lands, including authority to conduct motorized off-road pursuit of suspected CBVs at any time, including in areas designated or recommended as wilderness, or in wilderness study areas when, in their professional judgment based on articulated facts, there is a specific exigency/emergency involving human life, health, safety of persons within the area, or posing a threat to national security, and they conclude that such motorized off-road pursuit is reasonably expected to result in the apprehension of the suspected CBVs. Articulated facts include, but are not limited to, visual observation; information received from a remote sensor, video camera, scope, or other technological source; fresh “sign” or other physical indication; canine alert; or classified or unclassified intelligence. For each such motorized off-road pursuit, CBP-BP will use the least intrusive or damaging motorized vehicle readily available, without compromising agent or officer safety. In accordance with paragraph IV.C.4, as soon as practicable after each such motorized off-road pursuit, CBP-BP will provide the local Federal land manager with a brief report;
5. If motorized pursuits in wilderness areas, areas recommended for wilderness designation, wilderness study areas, or off-road in an area not designated for such use are causing significant impact on the resources, or if other significant issues warrant consultation, then the Federal land manager and the CBP-BP will immediately meet to resolve the issues subject to paragraphs IV.A.2 and IV.A.3 of this MOU;
6. CBP may request, in writing, that the land management agency authorize installation or construction of tactical infrastructure for detection of CBVs (including, but not limited to, observation points, remote video surveillance systems, motion sensors, vehicle barriers, fences, roads, and detection devices) on land under the local land management agency’s administrative jurisdiction. In areas not designated as wilderness, the local Federal land manager will expeditiously authorize CBP to install such infrastructure subject to such terms and conditions that are mutually developed and articulated in the authorization issued by the land management agency. In areas designated or managed as wilderness, the local Federal land manager, in consultation with CBP, will promptly conduct a “minimum requirement,” “minimum tool,” or other appropriate analysis. If supported by such analysis, the local Federal land manager will expeditiously authorize CBP to install such infrastructure subject to such terms and conditions that are mutually developed and articulated in the authorization issued by the land management agency;

7. The DOI and USDA will provide CBP-BP agents with appropriate environmental and cultural awareness training formatted to meet CBP-BP operational constraints. The DOI and USDA will work with CBP-BP in the development and production of maps for use or reference by CBP-BP agents including, as appropriate, site-specific and resource-specific maps that will identify specific wildlife and environmentally or culturally sensitive areas;
8. The DOI and USDA will, as applicable, provide CBP-BP with all assessments and studies done by or on behalf of DOI or USDA on the effects of CBVs on Federal lands and native species to better analyze the value of preventative enforcement actions;
9. The DOI and USDA will assist CBP-BP in search and rescue operations on lands within the respective land managers' administration when requested;
10. The CBP-BP and land management agencies may cross-deputize or cross-designate their agents as law enforcement officers under each other agency's statutory authority. Such cross-deputation or cross-designation agreements entered into by the local land management agency and the field operations manager for the CBP-BP shall be pursuant to the policies and procedures of each agency; and
11. DOI and USDA will work at the field operations level with affected local CBP-BP stations to establish protocols for notifying CBP-BP agents when DOI or USDA law enforcement personnel are conducting law enforcement operations in an area where CBP-BP and DOI/USDA operations can or will overlap.

C. Responsibilities and Terms Specific to the CBP. DHS hereby agrees as follows:

1. Consistent with the Border Patrol Strategic Plan, CBP-BP will strive to interdict CBVs as close to the United States' international borders as is operationally practical, with the long-term goal of establishing operational control along the immediate borders;
2. If the CBP-BP drag any unpaved roads for the purpose of cutting sign under provision IV.B.2 above, then CBP-BP will maintain or repair such roads to the extent that they are damaged by CBP-BP's use or activities;
3. If CBP-BP agents pursue or apprehend suspected CBVs in wilderness areas or off-road in an area not designated for such use under

paragraph IV.B.5, then the CBP-BP will use the lowest impact mode of travel practicable to accomplish its mission and operate all motorized vehicles in such a manner as will minimize the adverse impacts on threatened or endangered species and on the resources and values of the particular Federal lands, provided officer safety is not compromised by the type of conveyance selected;

4. CBP-BP will notify the local Federal land manager of any motorized emergency pursuit, apprehension, or incursion in a wilderness area or off-road in an area not designated for such use as soon as is practicable. A verbal report is sufficient unless either CBP-BP or the land managing agency determines that significant impacts resulted, in which case a written report will be necessary;
5. If motorized pursuits in wilderness areas, areas recommended for wilderness designation, wilderness study areas, or off-road in an area not designated for such use are causing significant impact on the resources as determined by a land manager, or if other significant issues warrant consultation, then the CBP-BP and Federal land manager will immediately meet to resolve the issues subject to paragraphs IV.A.2 and IV.A.3 of this MOU;
6. CBP will consult with land managers to coordinate the placement and maintenance of tactical infrastructure, permanent and temporary video, seismic and other remote sensing sites in order to limit resource damage while maintaining operational efficiency;
7. CBP-BP will ensure that current and incoming CBP-BP agents attend environmental and cultural awareness training to be provided by the land management agencies;
8. CBP-BP will provide land management agencies with appropriate and relevant releasable statistics of monthly CBV apprehensions, search and rescue actions, casualties, vehicles seized, drug seizures and arrests, weapons seizures and arrests, and other significant statistics regarding occurrences on the lands managed by the land manager;
9. CBP-BP will consult with land managers in the development of CBP-BP's annual Operational-Requirements Based Budgeting Program to ensure affected land managers can provide input and are, in the early stages of planning, made aware what personnel, infrastructure, and technology the CBP-BP would like to deploy along the border within their area of operation; and
10. CBP-BP will work at the field operations manager level with affected local land management agencies to establish protocols for notifying

land management agency law enforcement officers when BP is conducting special operations or non-routine activities in a particular area.

V. Miscellaneous Provisions

A. Nothing in this MOU may be construed to obligate the agencies or the United States to any current or future expenditure of funds in advance of the availability of appropriations, nor does this MOU obligate the agencies or the United States to spend funds for any particular project or purpose, even if funds are available.

B. Nothing in this MOU will be construed as affecting the authority of the Parties in carrying out their statutory responsibilities.

C. This MOU may be modified or amended in writing upon consent of all Parties, and other affected Federal agencies may seek to become a Party to this MOU.

D. The Parties shall retain all applicable legal responsibility for their respective personnel working pursuant to this MOU with respect to, *inter alia*, pay, personnel benefits, injuries, accidents, losses, damages, and civil liability. This MOU is not intended to change in any way the individual employee status or the liability or responsibility of any Party under Federal law.

E. The Parties agree to participate in this MOU until its termination. Any Party wishing to terminate its participation in this MOU shall provide sixty (60) days written notice to all other Parties.

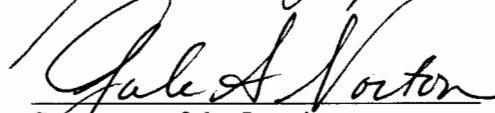
F. This document is an intra-governmental agreement among the Parties and does not create or confer any rights, privileges, or benefits upon any person, party, or entity. This MOU is not and shall not be construed as a rule or regulation.

In witness whereof, the Parties hereto have caused this Memorandum of Understanding to be executed and effective as of the date of the last signature below.

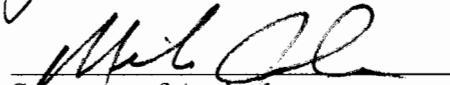
Date: 3/24/06


Secretary of Homeland Security

Date: 3/31/06


Secretary of the Interior

Date: 3/29/06


Secretary of Agriculture

APPENDIX D
Hydrology Report



NYMAN & ASSOCIATES

3168 Sherry Drive

Baton Rouge, LA 70816-5009

March 3, 2003

Kate Koske Roussel
Natural Resources
Gulf South Research Corporation
7602 GSRI Avenue
Baton Rouge, Louisiana 70820

Subject: Environmental assessment of proposed INS wells in the Smith/La Gloria canyon areas along the U.S./Mexico border, San Diego County, California.

Dear Ms. Roussel:

As you requested, I have made a thorough study of the hydrologic literature that included southeastern San Diego County, California, for the purpose of writing an environmental assessment for the areas of interest to the Immigration and Naturalization Service (INS). The literature search was done to estimate the environmental impact that two water wells, each producing about 50,000 gallons/year, would have on the general hydrology of the area. Geologic maps from the California Department of Conservation (Geological Survey), the San Diego County Water Authority, and several theses on hydrogeology written by students at San Diego State University have provided a good insight toward answering this question. Total recharge for the 2001 recharge season (late winter and spring) was estimated for the Campo Creek basin using stream-hydrograph separation and pro-rated for the Smith/La Gloria canyon watersheds on a unit-recharge basis (recharge/mile²) and compared to 30 years of past streamflow.

Purpose and Location of Investigation

The INS plans to have two wells installed along the U.S./Mexico border in Smith and La Gloria canyons, San Diego County, California. Smith and La Gloria canyons are located about 1.0 to 2.5 miles east of the town of Campo (Figure 1). The INS plans to have a well drilled near the national border in each canyon. Each well would be drilled in granite (crystalline rock), each well is expected to be pumped at the rate of 1.0 to 1.5 gal/min, and would be used to maintain a 10,000-gal holding tank needed to support the INS activities in each canyon (Figure 2).

Regional Hydrogeology

San Diego County lies within the Peninsular Range geomorphic province, the mountains of which are largely composed of granitic (crystalline) rocks of the Southern California Batholith, which was emplaced during the Cretaceous period of geologic time. Regional uplift resulted in the erosion of most of the overlying rocks and currently this batholith is exposed over most of southern San Diego County (Figure 1) from elevations of 500 ft to more than 6,000 ft (NGVD)(Pollock, 1991, p.53).

Groundwater movement is primarily through pore spaces developed by weathering and decomposition of the crystalline rocks and through granular alluvium, as well as through fractures in the bedrock. Regional groundwater movement in crystalline rock is preferentially along lineaments and associated fracture zones (Lower, 1977, p. 173).

Lineaments

Lineaments are linear topographic features that are geologically controlled and are most obvious from studies of high-altitude imagery that shows unusually straight valleys, river courses, and other topographic features. In San Diego County, according to Lower (1977, p. 11), lineaments formed because of zones of weakness in crystalline rocks as the rocks cooled and were uplifted as the Peninsular Ranges. Lineaments are topographic features created because of the weathering and erosion of this zone of weakness (frequent jointing and shear zones). The most common trends for lineaments are N 20°W and N 20°E, although north-south and east-west trends are also present. Minor faults in the Southern California Batholith may also have the same trends (Figures 1, 3).

Lineaments are hydrologically important because they provide major avenues for groundwater movement and storage in crystalline rock. Lineaments are often the upstream limit of etchbasins (shallow intermountain basins that contain valley fill) (Lower, 1977, p.39) and large etchbasins are often formed where lineaments cross from two different directions. Etchbasins are important because they store water from surface runoff and groundwater flow from connecting lineaments (Lower, 1977, p.44).

Smith and La Gloria canyons both fit the description of lineaments because they are reasonably straight and are oriented N 20°W in this area. Many of the faults in this area also have an approximately N 20°W trend (Figures 2,3), suggesting that Smith and La Gloria canyons may be fault controlled but may not be indicated as such because they have not been studied in detail. Campo Valley is probably a large etchbasin that is the beneficiary of surface and groundwater flow from Smith and La Gloria canyons, and other adjacent canyons.

Water Availability in Crystalline Rocks

There is considerable literature regarding water wells in crystalline rock. Domestic water supplies in many parts of the U.S., and in other countries, are dependent on such wells because there is no other groundwater source available. Crystalline rocks include all classes of igneous and metamorphic rocks, which include granitic rocks, schist, and gneiss. All of these types of rock, for all practical purposes, have essentially no primary permeability, i.e. the minerals that constitute crystalline rocks are essentially impermeable (pass an insignificant amount of water). However, there is secondary permeability (permeability created after the original rock was emplaced) created by fractures, joints, and shearing that can provide useful amounts of groundwater to wells.

Shallow fractures in crystalline rock are often created by stress relief due to unloading of overlying rocks because of erosion. Tectonically produced fractures adjacent to fault zones and areas of intense folding can occur at any depth (Nommensen, 1989, p.15). According to Nommensen (1989, p.14), the weathering of crystalline rock is primarily a near-surface phenomenon that is generally restricted to a zone within about 300 feet of the earth's surface.

Availability of Water from Crystalline Rocks in San Diego County

According to Nommensen, (1989, p.21), wells in the Southern California Batholith range from 95 to 1,950 feet in depth and have a median depth of about 410 feet and most have casing cemented to a depth of 50 feet or more. Well yields averaged as much as 39.5 gal/min (p.32).

Pollock (1991, p.54), investigated the relationship between well depth and well yield in the fractured crystalline rocks of San Diego County. His investigation was based on 2,618 wells completed in the Southern California Batholith in San Diego County. The well records are on file at the Department of Health Services. Of these records a subset of 146 wells was selected because the records included well location, total depth, total yield, static water level, and included the continuous monitoring of yield with depth.

Records for 91 "valley" wells were studied statistically and it was found that wells less than 100 ft deep had average yields ranging from 0 to about 1.5 gal/min/20-ft of saturated depth, wells 200 ft deep had average yields ranging from about 0.5 to nearly 2.0 gal/min/20-ft of saturated depth, wells to 300 ft deep had average yields ranging from 0.5 to nearly 2.5 gal/min/20-ft of saturated depth (Pollock, 1991, Fig.10, p.67). The average yield of all valley wells is about 1.0 gal/min/20-ft of saturated depth to a depth of about 600 ft. In other words, a 600-ft well with a static water level 100 ft below land surface therefore may yield about 25 gal/min. The average yield per 20-foot depth interval for wells on hillsides and hilltops ranges from 0 to 1.0 and 0 to 0.5 gal/min/20-ft of saturated depth, respectively. According to Pollack (1991, p.95), the relatively high yields in the valleys may be the result of (1) valleys tend to form along structurally weak zones that may contain fractured rocks, and (2) groundwater recharge from streams and the presence of residuum and alluvium probably increase yields in valleys. (3) Erosion in upland areas exposes relatively unweathered rock thus reducing the yield to wells on hillsides and hilltops, and (4) fractures on the hills and hillsides collect water that drains toward the valleys.

Static water levels in valley topography in San Diego County generally range from 0 to 50 ft below land surface (Pollock, 1991, p.66). According to Mower and Nace (1957), the presence of cottonwood trees indicates a water table about 4 to 5 feet below land surface, the presence of willow indicates a water table within about 2 feet of land surface.

Phreatic Water Consumption

According to Lower (1977, p.13), vegetation in San Diego County at the higher elevations generally consists of coniferous and mixed forest trees. Mature pine and oak trees in this class annually transpire up to 1.8 acre-feet of water per acre of trees (Todd, 1970). At lower elevations the vegetation consists of scrub oak and shrubs constituting chaparral and mixed

chaparral. According to Todd (1970) chaparral growths are reported to transpire up to 1.7 acre-feet of water per acre annually (p. 14). Flora around springs and along streams in canyon floors often consist of live oak, cottonwood, willow, alder, and maple, and these trees can transpire from 2.7 to 4.5 acre-ft of water per acre annually (p.16).

Groundwater Recharge

Groundwater recharge is the replenishment of the zone of saturation with water derived from sources above the earth's surface (Meinzer, 1942). It is the most important parameter of the groundwater system (Lower, 1977, p 53) because it is required to maintain the groundwater system. Recharge involves three steps (1) infiltration into the soil or other openings, (2) percolation downward through the unsaturated zone, and (3) recharge—the movement of some of the soil water to the saturated zone (water table) to become part of the groundwater system (Lower, 1977, p. 53). Recharge calculations by Lower (1977, p. 61) indicate that recharge near the village of Mount Laguna, 20 miles north of Campo, occurred primarily from February through April, during his studies from October 1973 to May 1976. Based on stream flow data during this period, bedrock recharge contributed 0.23 acre-ft/acre annually of groundwater to stream channels along lineaments in the Mount Laguna area. Based on spring discharge data during this period, annual recharge of 0.19 acre-foot/acre was related to crystalline rock and etchbasins (Lower, 1977, p.172). Decomposed roots and animal borings augment infiltration in etchbasins. When the rate of rainfall exceeds the infiltration rate surface runoff is created and this water is lost to the groundwater system. Snowfall accounted for 43% of the total annual precipitation at Mount Laguna and snow is very desirable from a recharge point of view because snow generally melts slowly continually wetting the soil thus providing continual infiltration. In the fractured crystalline rocks, groundwater percolates through open fractures to the zone of saturation. Chemical weathering of the bedrock also occurs, slowly enlarging the fractures. Percolation to the zone of saturation continues unless the water is intercepted by plants and is removed by evapotranspiration. Because plants are most active during the spring and summer most of the recharge occurs during the winter and early spring months.

Blain (1981, p.70) established eight rain gages at different elevations at Honey Springs Ranch (Figure 1), about 18 miles WNW of Campo, estimated the relationship between elevation and the amount of precipitation for an area ranging in elevation from 1,145 to 1,900 feet. A plot of average rainfall at the eight stations indicated a linear trend and suggested a 25% increase in rainfall for each 500-foot rise in elevation (Fig. 16, p.71). Blain (p.87, 90, 359) also concluded that the water table rose following wet periods not because of infiltration through the soil but by infiltration and drainage through highly permeable near-surface fractures in the exposed crystalline rock areas nearby. Smith and La Gloria canyons are incised about 1,000 ft into the Southern California Batholith.

Recharge in the Campo Creek Basin

The soils in the Campo Creek Basin are mostly decomposed crystalline rock and are therefore very granular and highly permeable--6.3 to 20 inches/hr on the hilltops and hillsides (Tollhouse soils) and greater than 20 inches/hr in the valley bottoms (Mottsville soil) (USDA, 1973, p.56, 58)—however, because of steep slopes runoff may also be very rapid. The

distribution of these soils are mapped as MvC (Mottsville) and ToG and ToE2 (Tollhouse) as shown in Figure 5. When such soils become saturated these highly permeable soils facilitate the movement of recharging rainwater to the water table and subsurface fractures.

It would be very useful to be able to calculate the volume of water in storage in the soils and fractures in the crystalline rock. A commonly used method of determining total recharge is by observing the water-table rise following a rain event (Lerner, 1997, p.142). Because of the lack of monitor wells and the irregularity of the volume in fractures and pore spaces calculating the volume of water represented by the water-table rise is uncertain in this area.

Another method of estimating the total recharge over a whole catchment area (river basin) is based on the analysis of river hydrographs (Lerner, 1997, p.143). The basic equation is:

$$\text{Recharge} = \text{baseflow} + \text{withdrawals (stresses)} + \text{rate of storage depletion}$$

Baseflow is streamflow maintained by natural groundwater discharge (springs and seepage from the surrounding aquifer). Baseflow is the flow after a storm surge has passed when streamflow is maintained by groundwater discharge from the soil and surrounding bedrock. Withdrawals and depletion of aquifer storage can be avoided here because the Bureau of Land Management restricts anthropogenic development in Smith and La Gloria canyons and recharge occurs primarily in the later winter and early spring when vegetative stress is minimal on the groundwater system (Lower, 1977). The method for estimating groundwater recharge from streamflow records has been thoroughly tested and described by Rutledge and Daniel (1994). The volume of recharge is calculated for each individual rainfall event. The basic equation is:

$$R = \frac{2(Q2 - Q1)(K)}{2.3026}$$

where:

R = total volume of recharge (in cfs, ft³/sec);

Q1 = groundwater discharge (cfs) at the critical time (days) as extrapolated from the streamflow recession preceding the peak;

Q2 = groundwater discharge (cfs) at critical time (days) as extrapolated from the streamflow recession following the peak; and

K = the time (days) required for groundwater discharge to decline through one log cycle and is determined by extending the trend line of the rate of recession across a log cycle.

The method also requires the calculation of the critical time period (T_c , days), which is:

$$T_c = 0.2144K$$

This graphical analysis is shown in Figure 6 for the gauging station Campo Creek near Campo for the period January through April 2001. The station is operated by the U.S. Geological Survey and these average daily discharge readings are available from their internet website (USGS, 2001). The results for two calculations are shown on Figure 6. There was one large event (3.4 cfs, 3/7/2001), and six small events (0.46, 0.32, 0.44, 0.65, 0.57, 0.58, on 1/11, 1/28, 2/13, 3/1, 4/12, and 4/21, respectively). The calculations indicate that during the large event about 11.67 cfs (7.54 Mgal) of recharge had entered the groundwater system. On each of the small events about 6.25 cfs (4.04 Mgal) of recharge had entered the groundwater system. A total of about 24 Mgal had entered the groundwater system during the six small events and the total recharge was therefore about 32 Mgal for the Campo Creek Basin during the late winter and spring of 2001.

According to the USGS, the gauging station near Campo monitors a drainage area of 85 square miles (mi^2) (Appendix A). A unit recharge area can therefore be calculated indicating 0.38 Mgal/ mi^2 . Smith and La Gloria canyons constitute about 4 mi^2 (Figure 7) of the 85 mi^2 in the Campo Creek basin. The available recharge to the well sites was therefore estimated to be about 1.5 Mgal during the late winter and spring of 2001. Although the amount of recharge varies from year to year it should be noted that rain events have been reasonably persistent since the late 1970s (Figure 8). Figure 8 shows that there was very little flow in Campo Creek from 1970 to 1977, but since then there have been rather regular rain events during the recharge season that have replenished the groundwater system from year to year. Figure 8 is based on average monthly discharge recorded at the Campo Creek near Campo gage (Appendix A) and monthly rainfall at Campo (from the Western Regional Climate Center, Appendix B).

Environmental Assessment

The studies in San Diego County mentioned above quantify at their location that there is significant recharge and groundwater contribution to springs, rivers, and crystalline rocks. When Campo Creek is at baseflow the flow represents the excess of groundwater after the deep groundwater system has been essentially filled. The two wells proposed for Smith and La Gloria Canyons would each supply the INS about 50,000 gal/yr, or 100,000gal/yr total. The recharge to the groundwater system in the canyons was about 1.5 Mgal during the recharge season of 2001 and there have been repeated significant rain events each year during the recharge season for the past 20 years (Figure 8). The amount of water that is to be pumped by these two INS wells is insignificant compared to the amount of water removed from the natural system by river and spring flow, and the thousands of acres of forest surrounding Smith and La Gloria canyons.

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Hydrogeologist

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- USGS, 2001, Daily and monthly streamflow data for Campo Creek near Campo, Calif: at internet address: http://waterdata.usgs.gov/nwis/monthly/?site_no=11012500&agency_cd=USGS

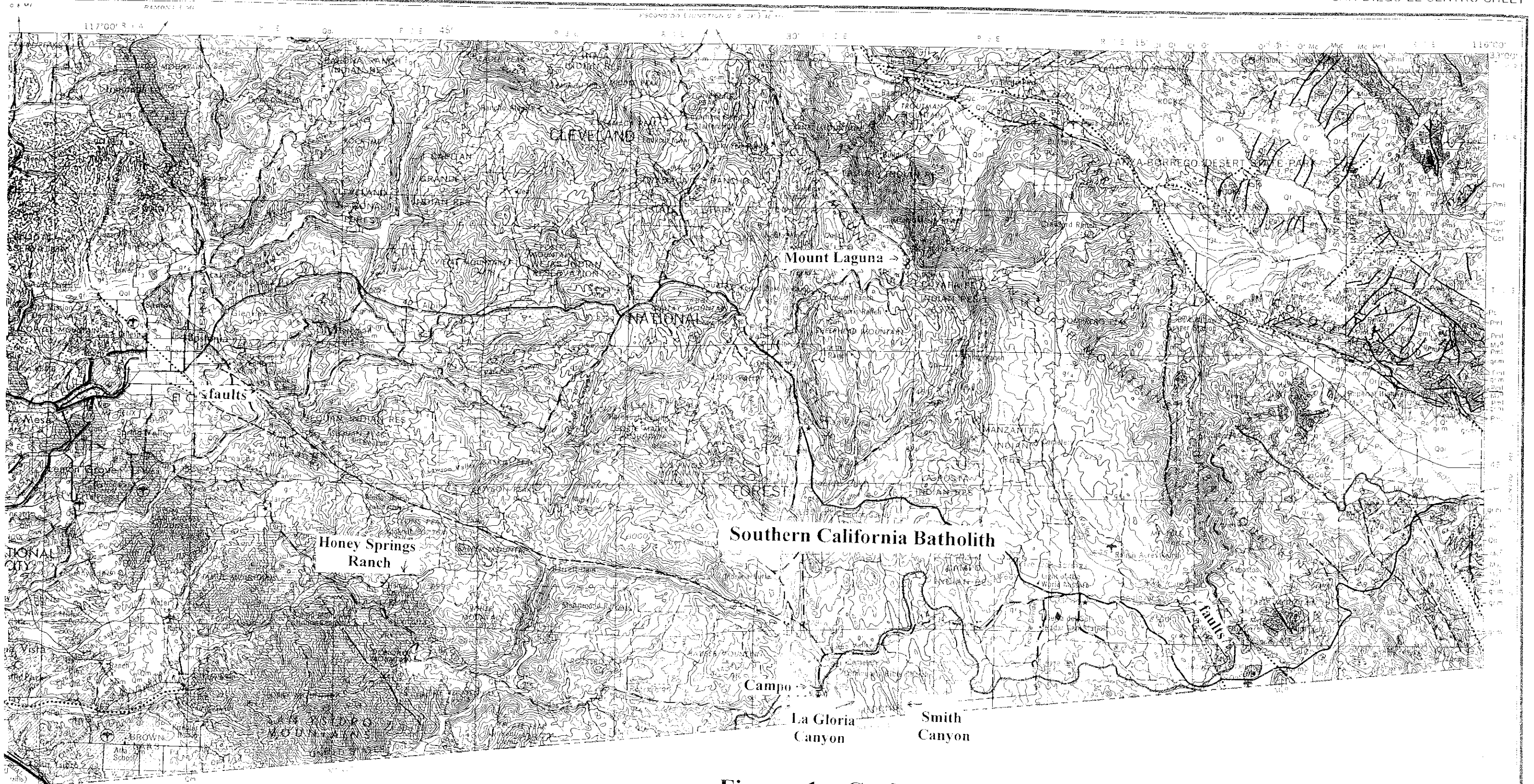


Figure 1. Geologic Map of California, San Diego-El Centro Sheet
[compiled by R.G. Strand, 1962]

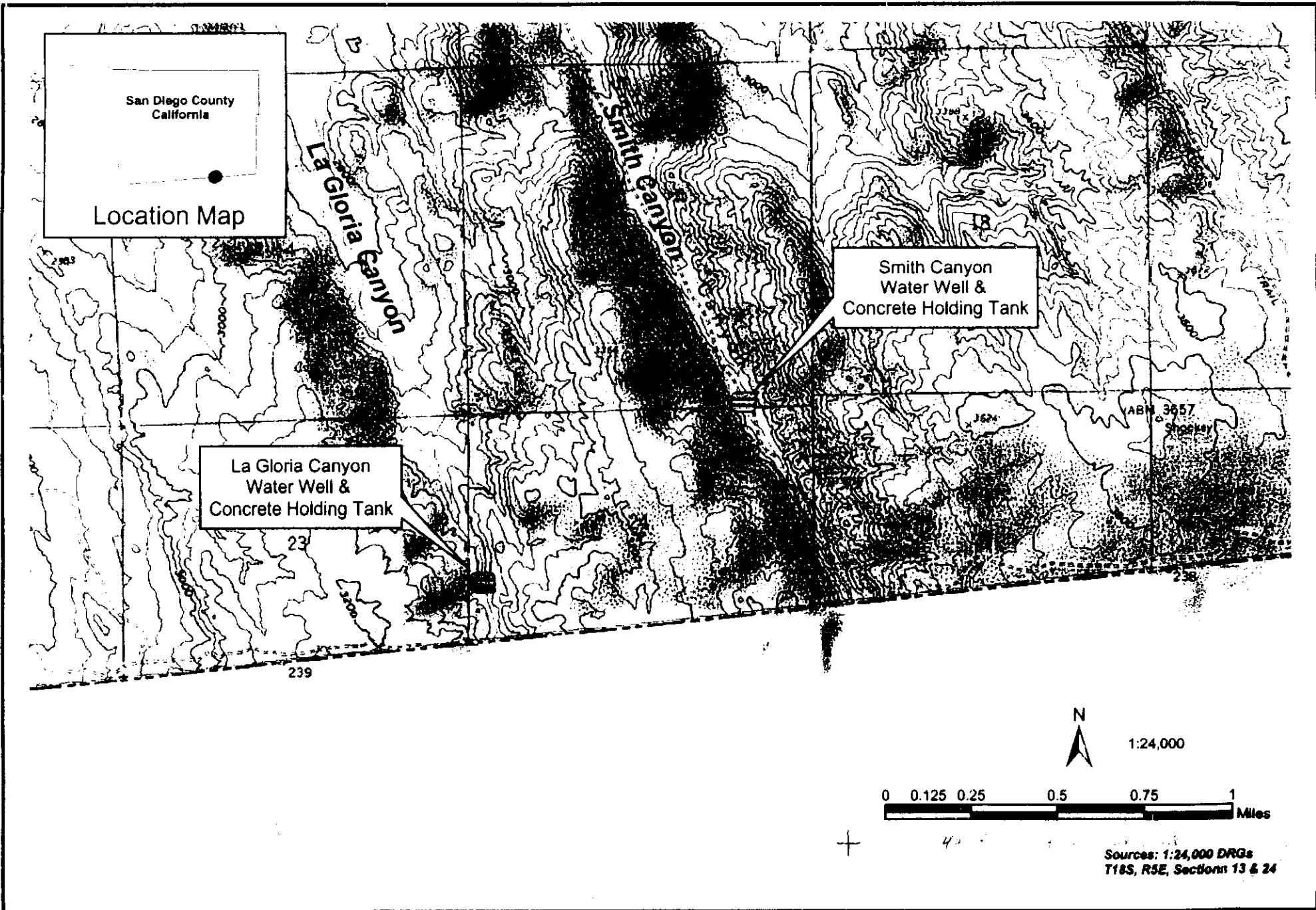


Figure 2 : Proposed Water Wells and Concrete Holding Tanks

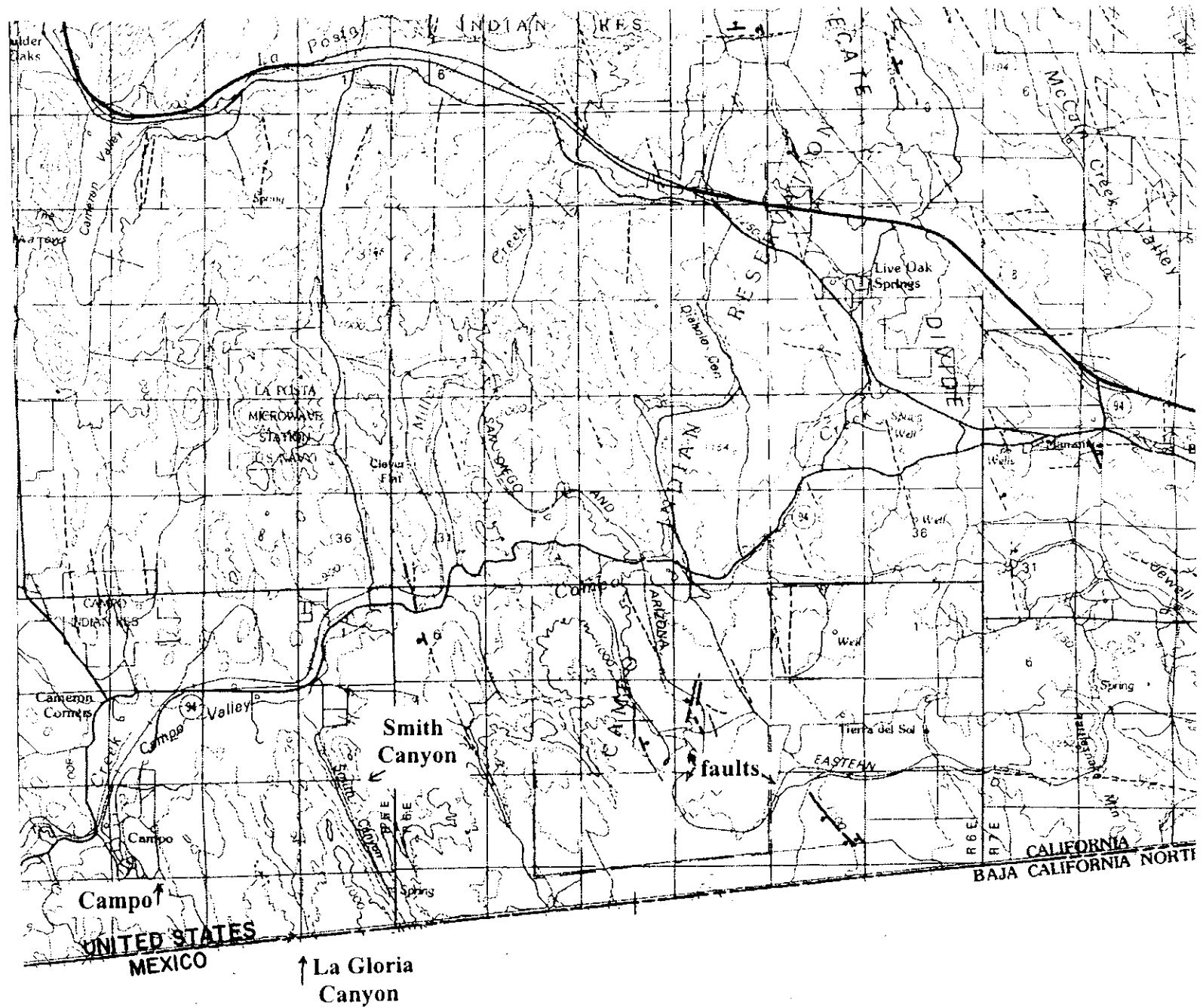
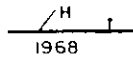
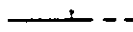
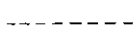
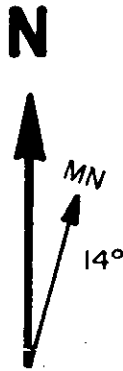


Figure 3. Map of Quaternary Faults and Lineaments in San Diego County [from DMG Open-File Report 88-6, by J.E. Kahle, 1985]

-EXPLANATION-

	Holocene fault	Fault with most recent displacement in Holocene time (past 10,000 years). Trace marked by scarps or other physiographic features identified on aerial photographs and inspected in the field or compiled from published sources. Historic movement indicated by date adjacent to trace; may be due to movement on other near by faults. Bar and ball on downdropped side.
	Pleistocene fault	Fault with most recent displacement in Pleistocene time (past 2,000,000 years). Trace marked by eroded scarps, displaced older alluvium, or other physiographic features identified on aerial photographs. Most were inspected in the field or compiled from published sources. Most are late Pleistocene in age of most recent displacement, but some may be Holocene. Dashed line indicates inferred fault. Bar and ball on downdropped side.
	Lineament	Trace characterized by aligned vegetation and scarps which appear to displace sediments or surfaces of Quaternary age. Not field checked. May represent movement along joints or bedding planes. Only those which appear to have significant movement are shown.



SCALE 1:100,000

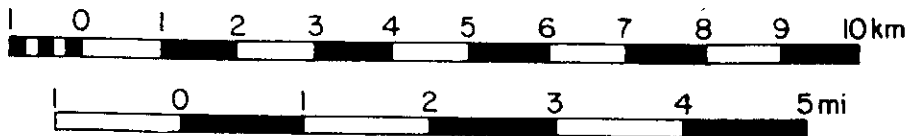


Figure 4. Explanation to Figure 3.



This map is one of a set of 76 compiled 1969-70 by the Soil Conservation Service.

FIGURE 5. Soil associations in the Campo area, California (USDA, 1973)

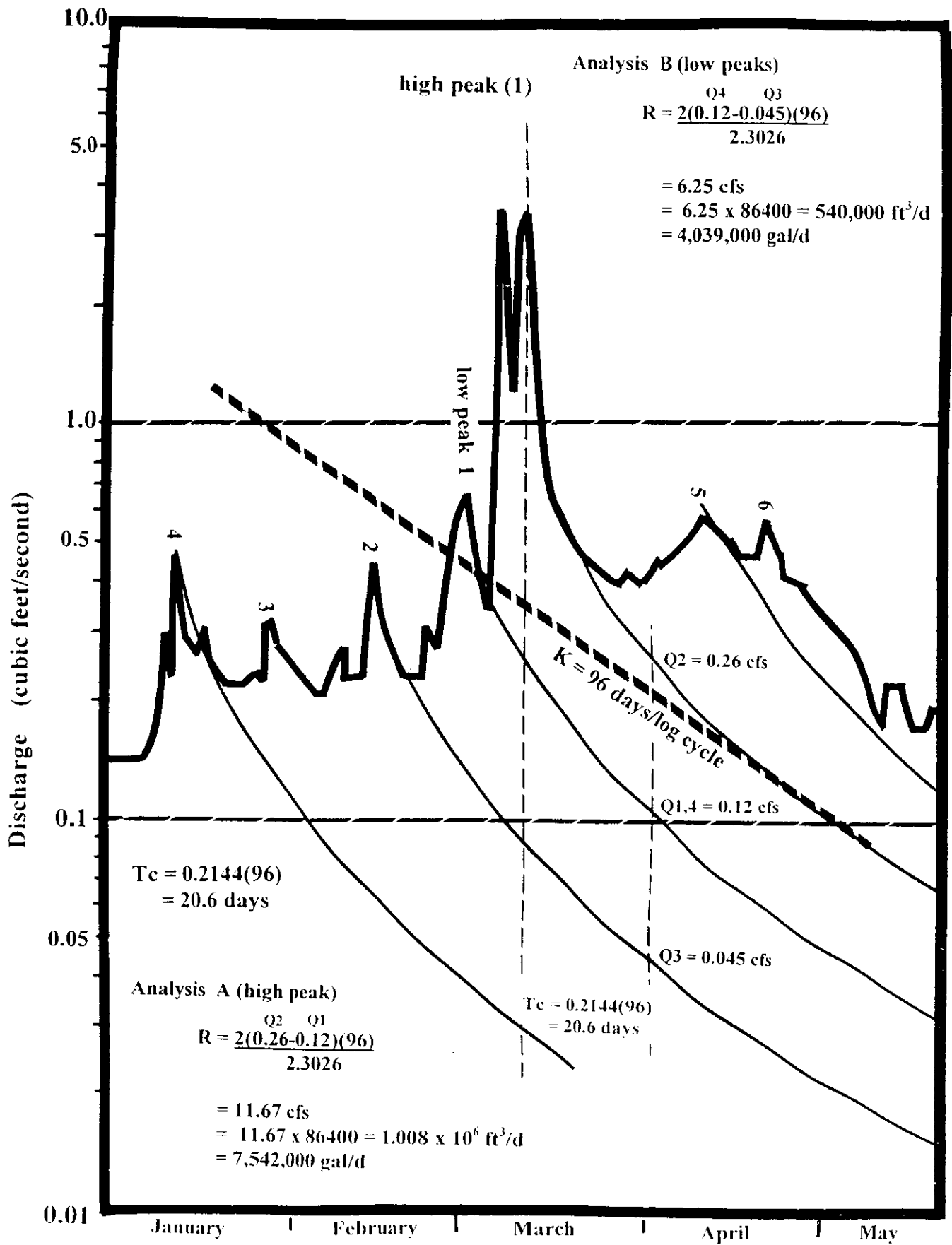


Figure 6. Graphical analyses of recharge in the Campo Creek basin during the late winter and spring of 2001, based on U.S.G.S. streamflow data.

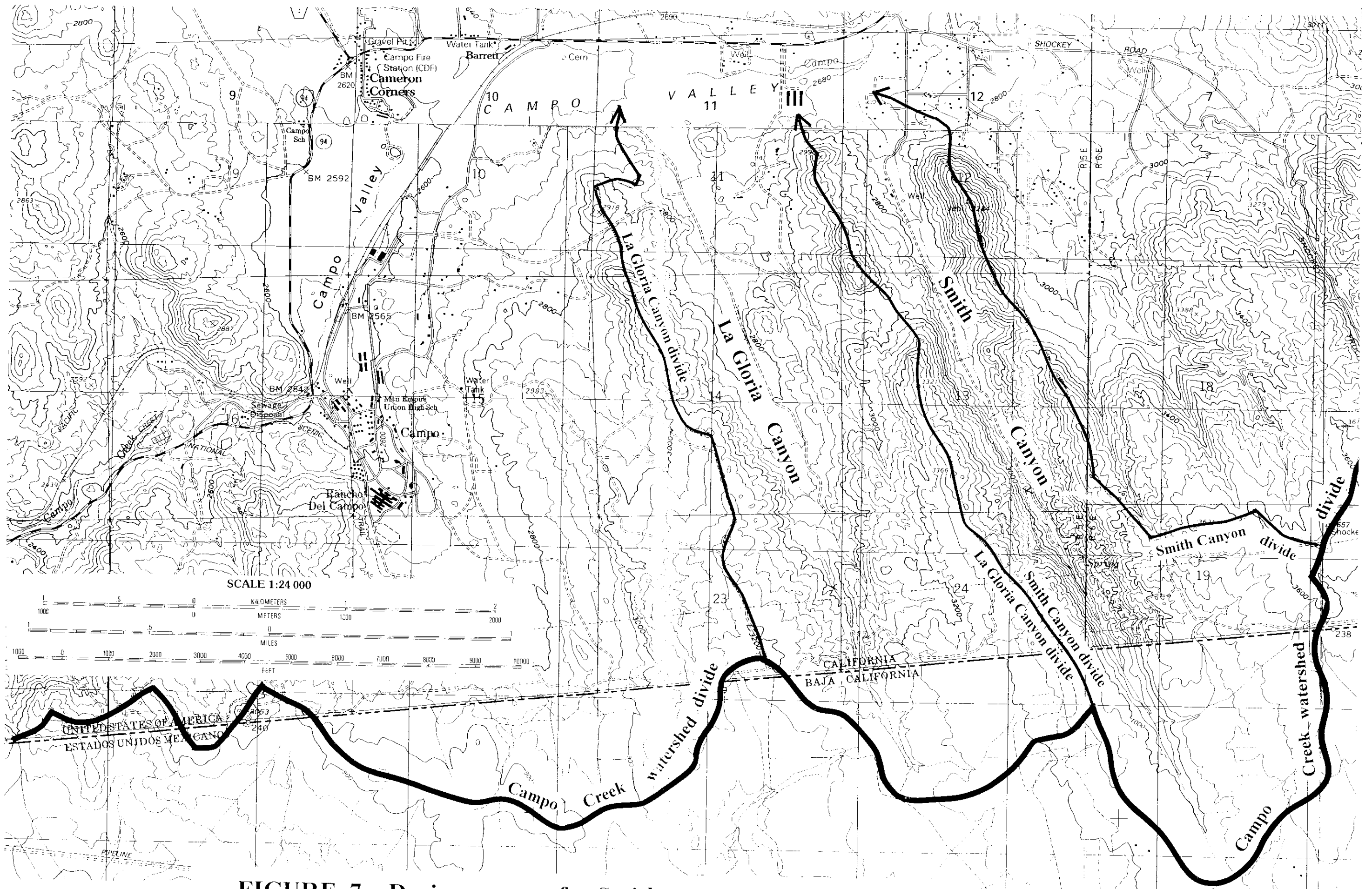


FIGURE 7. Drainage areas for Smith and La Gloria canyons.

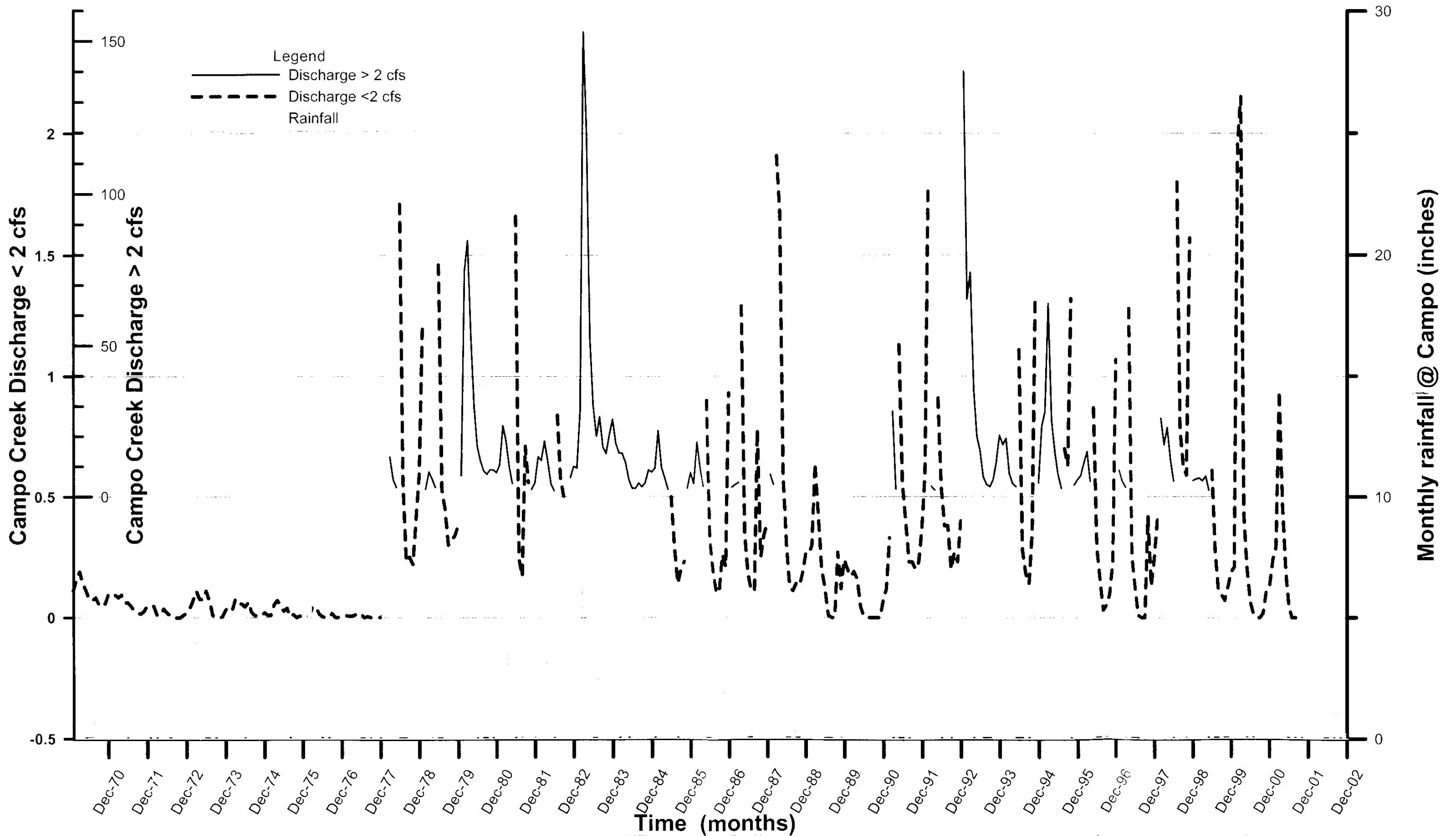


FIGURE 8. Rainfall and average monthly discharge hydrographs, Campo Creek nr. Campo, California

**Appendix A. Monthly streamflow for the USGS gaging station
Campo Creek near Campo, 1970 to 2001 used in Figure 8**

Monthly Streamflow Statistics for the Nation

USGS 11012500 CAMPO C NR CAMPO CA

Available data for this site

San Diego County, California Hydrologic Unit Code 18070305 Latitude 32°35'28", Longitude 116°31'29" NAD27 Drainage area 85.0 square miles Gage datum 2,179.08 feet above sea level NGVD29	Output formats <input type="button" value="HTML table of all data"/> <input type="button" value="Tab-separated data"/> <input type="button" value="Reselect output format"/>
---	--

YEAR	Monthly mean streamflow, in ft ³ /s											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1936										.000	.10	.47
1937	1.24	31.2	19.5	14.3	6.35	2.26	.56	.21	.10	.16	.91	5.21
1938	4.37	11.3	38.4	10.6	7.22	2.56	.56	.19	.10	.12	.73	7.97
1939	10.8	19.1	12.5	7.85	3.30	.46	.20	.13	1.29	.87	1.61	2.62
1940	4.75	9.69	4.43	5.44	.90	.27	.068	.058	.090	.19	.24	8.95
1941	3.78	9.74	32.8	54.6	25.1	12.1	5.86	5.23	4.43	8.83	9.12	13.1
1942	14.7	12.4	12.4	9.15	5.42	1.91	.34	.074	.093	.24	1.22	3.01
1943	14.4	10.8	15.1	10.3	2.95	1.09	.31	.18	.16	.42	.70	3.24
1944	5.26	26.7	17.3	8.73	4.29	2.43	.58	.10	.097	.40	6.23	5.17
1945	6.77	7.36	17.1	7.24	2.36	.79	.22	.65	.27	.38	.68	9.50
1946	7.07	5.59	5.64	4.22	1.06	.070	.013	.000	.18	.084	.86	1.30
1947	1.29	1.54	.80	.24	.094	.030	.000	.000	.000	.000	.043	.17
1948	.14	.17	.17	.12	.058	.020	.000	.000	.000	.068	.000	.000
1949	.15	.73	.89	.42	.17	.027	.000	.000	.000	.000	.000	.003
1950	.14	.17	.12	.083	.035	.000	.000	.000	.000	.000	.000	.000
1951	.010	.018	.12	.12	.045	.000	.000	.000	.000	.000	.000	.000
1952	.48	.15	12.5	3.60	1.52	.63	.49	.052	.000	.042	.19	.25
1953	.23	.22	.67	.35	.14	.063	.000	.000	.000	.000	.000	.087
1954	.25	.17	.91	.24	.10	.003	.000	.000	.000	.000	.000	.094
1955	.20	.14	.11	.10	.097	.000	.35	.071	.000	.000	.000	.003
1956	.13	.097	.000	.077	.052	.000	.000	.000	.000	.000	.000	.000

1957	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1958	.000	.000	.000	1.04	.039	.000	.000	.000	.000	.000	.000	.000
1959	.000	.046	.10	.053	.016	.000	.000	.000	.000	.000	.000	.000
1960	.000	.000	.000	.013	.029	.000	.000	.000	.000	.000	.000	.000
1961	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1962	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1963	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1964	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003
1965	.000	.004	.003	.010	.000	.000	.000	.000	.000	.000	.013	.006
1966	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003
1967	.000	.000	.068	.087	.077	.000	.000	.000	.000	.000	.000	.000
1968	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1969	.006	.32	.92	.89	.72	.42	.20	.20	.20	.071	.084	.090
1970	.11	.16	.19	.14	.11	.077	.072	.083	.054	.046	.059	.098
1971	.088	.094	.083	.094	.062	.063	.047	.029	.020	.016	.027	.051
1972	.051	.047	.011	.012	.037	.020	.010	.001	.000	.000	.010	.018
1973	.039	.071	.11	.077	.075	.11	.071	.010	.000	.000	.004	.032
1974	.042	.031	.077	.058	.057	.045	.065	.023	.009	.010	.007	.021
1975	.010	.010	.054	.071	.046	.027	.039	.003	.013	.000	.007	.000
1976	.000	.010	.044	.045	.015	.004	.000	.000	.017	.001	.001	.001
1977	.010	.006	.005	.010	.020	.014	.000	.004	.000	.000	.000	.001
1978	.011	.040	13.1	5.52	3.10	1.71	.56	.23	.25	.22	.40	.59
1979	1.21	2.49	8.25	5.87	3.19	1.46	.53	.45	.30	.32	.34	.38
1980	7.01	74.5	84.6	53.6	30.5	16.8	11.8	8.60	7.40	8.97	8.87	7.97
1981	10.4	23.6	18.6	10.1	4.38	1.66	.24	.17	.71	.56	2.43	4.68
1982	13.2	12.0	18.4	11.9	4.11	2.04	.84	.57	.50	.51	6.32	10.0
1983	9.49	28.5	153	121	52.2	30.4	20.1	26.5	16.5	14.3	20.7	25.7
1984	17.7	14.5	14.4	11.2	5.69	2.82	2.79	4.50	3.30	4.63	8.81	8.16
1985	9.45	21.8	9.70	6.32	2.49	.50	.29	.14	.20	.23	2.79	7.97
1986	4.25	18.1	9.45	3.38	.90	.32	.19	.10	.12	.26	.21	.93
1987	3.06	3.89	4.56	1.29	.35	.18	.11	.11	.078	.25	.34	.39
1988	7.27	4.08	1.91	1.68	.60	.31	.13	.11	.14	.13	.18	.26
1989	.26	.30	.64	.43	.20	.12	.009	.000	.000	.027	.12	.24
1990	.20	.17	.19	.16	.046	.007	.000	.000	.000	.000	.000	.069
1991	.12	.33	28.3	2.53	1.13	.56	.40	.23	.23	.20	.23	.37
1992	.59	1.77	3.37	2.21	.91	.55	.38	.38	.20	.27	.23	.40
1993	140	65.3	74.1	35.7	19.9	15.2	6.54	4.00	3.30	5.54	11.4	20.3
1994	17.2	19.3	7.73	4.33	3.37	1.11	.28	.18	.14	.35	1.31	4.48

1995	23.3	28.2	63.8	25.5	15.0	7.45	2.73	.70	.63	1.32	3.85	5.63
1996	6.98	11.3	14.9	5.11	.87	.29	.15	.030	.050	.095	.22	1.07
1997	8.79	5.10	3.12	1.28	.25	.12	.009	.000	.000	.042	.13	.25
1998	.42	25.9	17.2	22.9	12.3	5.14	1.80	.78	.63	.59	1.57	5.33
1999	5.83	6.13	5.22	6.78	2.20	.61	.27	.11	.094	.072	.13	.19
2000	.21	1.96	2.15	.43	.20	.066	.017	.000	.000	.018	.11	.13
2001	.24	.29	.94	.48	.20	.047	.000	.000	.000			
Mean of monthly streamflows	5.60	7.96	11.6	7.39	3.49	1.77	.93	.85	.64	.78	1.44	2.57

Questions about data h2oteam@usgs.gov
 Feedback on this website gs-w_support_nwisweb@usgs.gov
 Surface Water data for USA: Monthly Streamflow Statistics
<http://waterdata.usgs.gov/nwis/monthly?>

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**Appendix B. Monthly rainfall data for Campo, California,
for 1970 to 2001 used in Figure 8
(provided by the Western Regional Climate Center)**

1971 - 2000

- Daily Temp. & Precip.
 - Daily Tabular data (~23 KB)
 - Monthly Tabular data (~1 KB)
 - NCDC 1971-2000 Normals (~3 KB)
-

1961 - 1990

- Daily Temp. & Precip.
 - Daily Tabular data (~23 KB)
 - Monthly Tabular data (~1 KB)
 - NCDC 1961-1990 Normals (~3 KB)
-

Period of Record

- Station Metadata
- Station Metadata Graphics

General Climate Summary Tables

- Temperature
- Precipitation
- Heating Degree Days
- Cooling Degree Days
- Growing Degree Days

Temperature

- Daily Extremes and Averages
- Spring 'Freeze' Probabilities
- Fall 'Freeze' Probabilities
- 'Freeze Free' Probabilities
- Monthly Temperature Listings
 - Average
 - Average Maximum
 - Average Minimum

Precipitation

- Monthly Average
- Daily Extreme and Average
- Daily Average
- Precipitation Probability by Duration.
- Precipitation Probability by Quantity.
- Monthly Precipitation Listings
 - Monthly Totals

Snowfall

- [Daily Extreme and Average](#)
- [Daily Average](#)
- [Monthly Snowfall Listings](#)
[Monthly Totals](#)

Snowdepth

- [Daily Extreme and Average](#)
- [Daily Average](#)

Heating Degree Days

- [Daily Average](#)

Cooling Degree Days

- [Daily Average](#)

Period of Record Data Tables

- [Daily Summary Stats \(~55 KB\)](#)
 - [Monthly Tabular data \(~2 KB\)](#)
-

*Western Regional Climate Center,
wrcc@dri.edu*

CAMPO, CALIFORNIA

Monthly Total Precipitation (inches)

(041424)

File last updated on Nov 21, 2002

*** Note *** Provisional Data *** After Year/Month 200208

a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,

z = 26 or more days missing, A = Accumulations present

Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.

MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5

Individual Months not used for annual or monthly statistics if more than 5 days are missing.

Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR (S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1948	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00	0.00	0.22	1.10	0.00	2.56	3.88
1949	4.33	2.24	1.39	0.11	0.41	0.00	0.00	0.00	0.00	0.77	1.09	2.42	12.76
1950	2.74	1.19	1.68	0.48	0.01	0.00	0.10	0.00	0.22	0.00a	0.41	0.34	7.17
1951	4.00	1.39	1.12	3.57	0.27	0.00	0.44	1.34	0.01	1.09	0.82	7.19	21.24
1952	5.05	0.95	8.40	1.62	0.00	0.00	1.24	0.00	0.00	0.00	2.85	3.13	23.24
1953	1.04	1.05	2.28	1.24	0.49	0.01	0.04	0.01	0.00	0.00	1.14	0.18	7.48
1954	4.89	2.49	6.45	0.16	0.18	0.05	1.42	0.03	0.13	0.00	0.68	0.75	17.23
1955	3.85	1.23	0.68	0.52	1.95	0.00	0.82	1.90	0.00	0.00	1.14	1.77	13.86
1956	1.70	1.75	0.00	2.36	0.45	0.00	0.65	0.00	0.00	0.07	0.00	0.40	7.38
1957	7.05	0.78	1.57	1.09	2.60	0.28	0.01	0.65	0.44	2.17	0.84	1.34	18.82
1958	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00z	0.00
1959	1.12	5.61	0.00	0.17	0.14	0.00	0.03	0.16	0.34	0.50	0.13	2.93	11.13
1960	2.97	4.10	0.45	1.95	0.49	0.00	0.17	0.03	1.59	0.16	1.67	0.07	13.65
1961	1.09	0.16	2.28	0.00	0.02	0.00	0.00	0.62	0.00	0.37	0.77	2.08	7.39
1962	3.61	4.53	2.12	0.00	0.90	0.11	0.00	0.00	0.00	0.07	0.00	0.65	11.99
1963	0.18g	3.03	1.72	1.86	0.00	0.13	0.00	0.63	2.45	1.35	1.77	0.31	13.25
1964	2.12	1.34	3.22	0.95	0.67	0.00	0.00	0.03	0.07	0.39	1.88	1.83	12.50
1965	0.80	0.00z	1.20	6.03	0.05	0.00	0.36	0.13	0.00z	0.00	9.03	4.31	21.91
1966	1.35	1.40	1.16	0.05	0.07	0.22	0.39	0.19	0.20	0.46	0.83	0.00z	6.32
1967	1.42	0.00	1.03	3.54	0.48	0.06	0.34	0.49	0.82	0.00	3.65	4.23	16.06
1968	0.58	0.73	2.19	0.85	0.28	0.03	1.88	0.06	0.00	0.05	0.72	1.66	9.03
1969	8.30	5.67	1.96	0.10	0.43	0.12	0.01	0.00	0.20	0.02	1.85	0.26	18.92
1970	0.85	0.96	3.95	1.18	0.00	0.03	0.03	2.66	0.08	0.12	1.28	2.66	13.80
1971	1.12	1.22	0.40	1.46	0.67	0.00	0.07	1.00	0.25	1.18	0.05	3.60	11.02
1972	0.00	0.18	0.00	0.24	0.14	0.31	0.00	0.04	0.14	1.87	2.60	2.55	8.07
1973	1.70	3.13	5.24	0.29	0.09	0.00	0.00	0.09	0.00	0.05	1.69	0.11	12.39
1974	4.29	0.07	1.24	0.24	0.16	0.00	1.28	0.13	0.31	2.32	0.39	1.24	11.67
1975	0.40	1.02	3.40	1.58	0.11	0.12	0.09	0.00	0.18	0.07	2.15	0.63	9.75
1976	0.07	5.47	1.81	1.85	0.06	0.00	0.61	0.00	2.85	0.24	1.02	0.76	14.74

1977	3.10	0.35	0.85	0.19	1.15	0.00	0.00	1.18	0.00	0.88	0.25	0.00z	7.95
1978	7.79	5.38	5.45	1.48	0.53	0.00	0.00	0.01	0.16	0.06	3.05	4.45	28.36
1979	3.99	1.95	4.88	0.03	0.19	0.00	0.00	0.16	0.04	0.82	0.26	0.69	13.01
1980	11.82	8.82	3.72	1.87	0.80	0.00	0.55	0.00	0.00	0.28	0.00	0.54	28.40
1981	0.91	2.64	4.22	0.80	0.10	0.00	0.05	0.03	0.31	0.19	1.35	0.03	10.63
1982	5.14	2.15	4.30	0.82	0.12	0.00	0.33	0.56	0.37	0.13	4.42	3.44	21.78
1983	2.23	4.82	9.92	2.23	0.19	0.00	0.01	4.05	0.68	1.16	2.45	3.20c	30.94
1984	0.12	0.00	0.04	0.24	0.00	0.55	1.51	2.29	0.67	0.18	1.43	4.25	11.28
1985	0.00z	1.59	1.46	0.27	0.04	0.09	1.74	0.00	0.33	0.69	4.53	1.76	12.50
1986	0.75	3.53	3.47	0.28	0.01	0.00	0.35	0.06	1.32	2.12	0.57	0.72	13.18
1987	1.66	2.55	2.58	0.31	0.08	0.01	0.00	0.65	0.48	3.13	2.48	1.82	15.75
1988	3.49	1.94	0.72	2.48	0.36	0.00	0.02	1.65	0.00	0.00	1.08	2.12	13.86
1989	1.05	1.18	1.65	0.21	0.13	0.00	0.00	0.00	0.17	0.36	0.03	0.29	5.07
1990	3.06	1.78	0.70	0.99	0.23	0.22	0.11	0.18	0.62	0.04	0.56	1.30	9.79
1991	1.35	2.23	0.00z	0.05	0.00	0.00z	0.62	0.00	0.35	0.58	0.30	2.83	8.31
1992	3.24a	5.05	4.94	0.68	0.23	0.00	0.75	2.05	0.00	0.24	0.06	4.04	21.28
1993	18.61	6.51	1.53	0.00	0.12	0.16a	0.00	0.00	0.00	0.30	1.49	1.16	29.88
1994	1.70	4.14	3.14	1.35	0.00	0.00	0.00	1.22	0.00	0.19	0.68	0.97	13.39
1995	10.12	3.28	6.63	1.26	1.10	0.48	0.06	0.64	0.28	0.00	0.08	0.57	24.50
1996	1.54	3.20	2.76	0.53	0.07	0.00	0.00	0.07	0.03	1.56	0.92	1.98	12.66
1997	4.33	1.53	0.02	0.22	0.00	0.00z	0.00z	0.07	1.93	0.16	1.75	4.21	14.22
1998	1.60	10.37	4.40	2.35d	1.17	0.02	0.10	0.20	0.20	0.03	1.17	1.42	23.03
1999	1.66	0.83	0.62	3.31	0.00	0.46	0.00z	0.00	0.14	0.00	0.00	0.21	7.23
2000	0.75	4.20	1.47	0.46	0.00	0.21	0.00	0.13	0.30	0.65	0.39	0.04	8.60
2001	2.92	4.12	1.76	1.45	0.03	0.00	0.12	0.00	0.24	0.00	1.11	1.02	12.77
2002	0.40	0.12	1.12	0.39	0.00	0.00	0.19	0.00	1.06a	0.00c	0.26j	0.00z	3.28

Period of Record Statistics

MEAN	3.13	2.61	2.49	1.09	0.34	0.07	0.32	0.47	0.38	0.52	1.34	1.82	14.99
S.D.	3.37	2.24	2.18	1.17	0.50	0.13	0.49	0.82	0.61	0.72	1.54	1.55	6.57
SKEW	2.49	1.32	1.36	1.86	2.63	2.16	1.78	2.38	2.54	1.77	2.75	1.06	0.89
MAX	18.61	10.37	9.92	6.03	2.60	0.55	1.88	4.05	2.85	3.13	9.03	7.19	30.94
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	5.07
NO YRS	51	52	52	53	53	51	52	54	53	54	53	51	44

APPENDIX E
Threatened and Endangered Species List

Scientific Name	Common Name	Lead	Status	R.P.	CH	LA	O	SB	Riv	SD	Imp	Fed R
PLANTS												
<i>Acanthomintha ilicifolia</i>	San Diego thornmint	CFWO	T							X		63:549
<i>Allium munzii</i>	Munz's onion	CFWO	E		D-05				X			63:549
<i>Ambrosia pumila</i>	San Diego ambrosia	CFWO	E						X	X		64:725
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i>	Del Mar manzanita	CFWO	E							X		61:523
<i>Arenaria paludicola</i>	marsh sandwort	VFO	E	F 98		X		X				58:413
<i>Arenaria ursina</i>	Bear Valley sandwort	CFWO	T					X				63:490
<i>Astragalus albens</i>	Cushenbury milk-vetch	CFWO	E	D2	D-02			X				59:436
<i>Astragalus brauntonii</i>	Braunton's milk-vetch	VFO	E	F 99		X	X					62:417
<i>Astragalus lentiginosus</i> var. <i>coachellae</i>	Coachella Valley milk-vetch	CFWO	E		P-04				X			63:535
<i>Astragalus magdalenae</i> var. <i>peirsonii</i>	Peirson's milk-vetch	CFWO	T		D-04					X	X	63:535
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i>	Ventura marsh milk-vetch	VFO	E		D-04	X	X					66:279
<i>Astragalus tener</i> var. <i>titi</i>	coastal dunes milk-vetch	VFO	E	D		X				X		63:431
<i>Astragalus tricarinatus</i>	triple-ribbed milk-vetch	CFWO	E					X	X			63:535
<i>Atriplex coronata</i> var. <i>notatior</i>	San Jacinto Valley crownscale	CFWO	E		P-04				X			63:549
<i>Baccharis vanessae</i>	Encinitas baccharis	CFWO	T							X		61:523
<i>Berberis nevinii</i>	Nevin's barberry	CFWO	E			X		X	X	X		63:549
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	CFWO	T		P-04	X	X	X	X	X		63:549
<i>Castilleja cinerea</i>	ash-gray Indian paintbrush	CFWO	T					X				63:490
<i>Castilleja grisea</i>	San Clemente Island Indian paintbrush	CFWO	E	F 84		X						42:406
<i>Ceanothus ophiochilus</i>	Vail Lake ceanothus	CFWO	T						X			63:549
<i>Cercocarpus traskiae</i>	Catalina Island mountain-mahogany	CFWO	E			X						62:426
<i>Chorizanthe orcuttiana</i>	Orcutt's spineflower	CFWO	E							X		61:523
<i>Chorizanthe parryi</i> var. <i>fernandina</i>	San Fernando Valley spineflower	VFO	C			X	X	X				64:575
<i>Cordylanthus maritimus</i> ssp. <i>maritimus</i>	salt marsh bird's beak	CFWO	E	F 85		X	X			X		43:448
<i>Deinandra (Hemizonia) conjugens</i>	Otay tarplant	CFWO	T	D 03	D-02					X		63:549
<i>Delphinium variegatum</i> ssp. <i>kinkiense</i>	San Clemente Island larkspur	CFWO	E	F 84		X						42:406
<i>Dodecahema leptoceras (Centrostegia L.)</i>	slender-horned spineflower	CFWO	E	D		X		X	X			52:362
<i>Dudleya cymosa</i> ssp. <i>ovatifolia</i>	Santa Monica Mountains dudleya	VFO	T	F 99		X	X					62:417
<i>Dudleya stolonifera</i>	Laguna Beach live-forever	CFWO	T				X					63:549
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	Santa Ana River woolly-star	CFWO	E	D			X	X	X			52:362
<i>Erigeron parishii</i>	Parish's daisy	CFWO	T	D2	D-02			X	X			59:436

<i>Eriogonum kennedyi</i> var. <i>austromontanum</i>	southern mountain wild buckwheat	CFWO	T					X			63:490
<i>Eriogonum ovalifolium</i> var. <i>vineum</i>	Cushenbury buckwheat	CFWO	E	D2	D-02			X			59:436
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button celery	CFWO	E	F 98					X	X	58:413
<i>Fremontodendron mexicanum</i>	Mexican flannelbush	CFWO	E							X	63:549
<i>Hazardia orcuttii</i>	Orcutt's hazardia	CFWO	C							X	69:248
<i>Helianthemum greenii</i>	Island rush-rose	VFO	T	F 00			X				62:409
<i>Lesquerella kingii</i> ssp. <i>bernardina</i>	San Bernardino Mountains bladderpod	CFWO	E	D2	D-02			X			59:436
<i>Lithophragma maximum</i>	San Clemente Island woodland star	CFWO	E	F 84			X				62:426
<i>Lotus dendroideus</i> var. <i>traskiae</i>	San Clemente Island lotus	CFWO	E	F 84			X				42:406
<i>Malacothamnus clementinus</i>	San Clemente Island bush mallow	CFWO	E	F 84			X				42:406
<i>Monardella linoides</i> ssp. <i>viminea</i>	willowy monardella	CFWO	E							X	63:549
<i>Navarretia fossalis</i>	spreading navarretia	CFWO	T	F 98	P-04		X		X	X	63:549
<i>Orcuttia californica</i>	California Orcutt grass	CFWO	E	F 98			X		X	X	58:413
<i>Oxytheca parishii</i> var. <i>goodmaniana</i>	Cushenbury oxytheca	CFWO	E	D2	D-02			X			59:436
<i>Pentachaeta lyonii</i>	Lyon's pentachaeta	VFO	E	F 99			X				62:417
<i>Phacelia stellaris</i>	Brand's phacelia	CFWO	C				X		X	X	69:248
<i>Poa atropurpurea</i>	San Bernardino bluegrass	CFWO	E					X		X	63:490
<i>Pogogyne abramsii</i>	San Diego mesa mint	CFWO	E	F 98						X	43:448
<i>Pogogyne nudiuscula</i>	Otay mesa mint	CFWO	E	F 98						X	58:413
<i>Rorippa gambellii</i>	Gambel's watercress	VFO	E	F 98			X	X	X	X	58:413
<i>Sibara filifolia</i>	Santa Cruz Island rock-cress	CFWO	E				X				62:426
<i>Sidalcea hickmanii</i> ssp. <i>parishii</i>	Parish's checkerbloom	VFO	C					X			
<i>Sidalcea pedata</i>	pedate checker-mallow	CFWO	E	F 98				X			49:344
<i>Taraxacum californicum</i>	California taraxacum	CFWO	E					X			63:490
<i>Thelypodium stenopetalum</i>	slender-petaled mustard	CFWO	E	F 98				X			49:344
<i>Trichostema austromontanum compactum</i>	Hidden Lake bluecurls	CFWO	T						X		63:490
<i>Verbesina dissita</i>	big-leaved crown beard	CFWO	T					X			61:523

INVERTEBRATES

<i>Branchinecta lynchii</i>	vernal pool fairy shrimp	SAC	T		D-03				X		59:481
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	CFWO	E	F 98	RP		X			X	62:492
<i>Euphilotes battoides allyni</i>	El Segundo blue butterfly	CFWO	E	F 98			X				41:220
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	CFWO	E	F 03	D-02		X	X	X	X	62:231
<i>Glaucopsyche lygdamus palosverdensis</i>	Palos Verdes blue butterfly	CFWO	E	F 84	D		X				45:449

<i>Pyrgus ruralis lagunae</i>	Laguna Mountains skipper	CFWO	E							X		62:231
<i>Rhaphiomidas terminatus abdominalis</i>	Delhi Sands flower-loving fly	CFWO	E	F 97				X	X			58:498
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	CFWO	E	F 98	D-05	X	X		X	X		58:413

FISH

<i>Catostomus santaanae</i>	Santa Ana sucker	CFWO	T		D-05	X	X	X	X			65:196
<i>Cyprinodon macularius</i>	desert pupfish	R02	E	F 93	D				X	X	X	51:108
<i>Eucyclogobius newberryi</i>	tidewater goby	VFO	E	D 04	D		X			X		59:549
<i>Gasterosteus aculeatus williamsoni</i>	unarmored threespine stickleback	VFO	E	F 85		X		X		X		35:160
<i>Gila bicolor mohavensis</i>	Mohave tui chub	VFO	E	F 84				X				35:160
<i>Gila elegans</i>	bonytail chub	R06	E	F 90	D			X	X		X	45:277
<i>Oncorhynchus mykiss</i>	southern steelhead	R09	E			X	X			X		62:439
<i>Ptychocheilus lucius</i>	Colorado squawfish	R06	E	F 91				X	X		X	50:301
<i>Xyrauchen texanus</i>	razorback sucker	R06	E		D			X	X		X	56:549

AMPHIBIANS

<i>Batrachoseps aridus</i>	desert slender salamander	CFWO	E	F 82					X			38:146
<i>Bufo californicus</i>	arroyo toad	VFO	E	F 99	D-05	X	X	X	X	X		59:648
<i>Rana aurora draytoni</i>	California red-legged frog	SAC	T	F 02	RP-04	X	X	X	X	X		61:258
<i>Rana muscosa</i>	mountain yellow-legged frog	CFWO	E		P-05	X		X	X			64:717

REPTILES

<i>Gopherus agassizii</i>	desert tortoise	VFO	T	F 94	D			X	X		X	55:121
<i>Uma inornata</i>	Coachella Valley fringe-toed lizard	CFWO	T	F 85	D				X			45:638
<i>Xantusia riversiana</i>	island night lizard	CFWO	T	F 84		X						42:406

BIRDS

<i>Amphispiza belli clementeae</i>	San Clemente sage sparrow	CFWO	T	F 84			X					42:406
<i>Brachyramphus marmoratus</i>	marbled murrelet	POR	T	F 97	D	X						57:453
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	SAC	T	D 01	D-05	X	X				X	58:128
<i>Charadrius montanus</i>	mountain plover	R02	W*			X	X	X	X	X	X	64:758
<i>Coccyzus americanus</i>	yellow-billed cuckoo	SAC	C			X	X	X	X	X	X	66:386
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	R02	E	D	RP-04	X	X	X	X	X	X	60:107
<i>Gymnogyps californianus</i>	California condor	VFO	E	F 96		X		X				61:540

<i>Haliaeetus leucocephalus</i>	bald eagle	R03	T	F 86		X	X	X	X	X	X	60:360
<i>Lanius ludovicianus mearnsi</i>	San Clemente loggerhead shrike	CFWO	E	F 84		X						42:406
<i>Pelecanus occidentalis</i>	brown pelican	VFO	E	F 83		X	X	X	X	X	X	50:494
<i>Phoebastria albatrus</i>	short-tailed albatross	JFO	E			X	X			X		65:466
<i>Polioptila californica californica</i>	coastal California gnatcatcher	CFWO	T*		RP	X	X	X	X	X	X	58:167
<i>Rallus longirostris levipes</i>	light-footed clapper rail	CFWO	E	F 85		X	X			X		35:160
<i>Rallus longirostris yumanensis</i>	Yuma clapper rail	R02	E						X		X	32:400
<i>Sterna antillarum browni</i>	California least tern	CFWO	E	F 85		X	X		X	X	X	35:845
<i>Vireo bellii pusillus</i>	least Bell's vireo	CFWO	E	D 98	D	X	X	X	X	X	X	51:164

MAMMALS

<i>Dipodomys merriami parvus</i>	San Bernardino kangaroo rat	CFWO	E		D-02	X		X	X			63:510
<i>Dipodomys stephensi</i>	Stephens' kangaroo rat	CFWO	E	D 97				X	X	X		53:384
<i>Enhydra lutris nereis</i>	southern sea otter	VFO	T/X*	D 00		X	X			X		52:297
<i>Ovis canadensis</i>	peninsular bighorn sheep	CFWO	E	F 00	D-01				X	X	X	63:131
<i>Panthera onca</i>	jaguar	R02	E						X		X	62:391
<i>Perognathus longimembris pacificus</i>	Pacific pocket mouse	CFWO	E	F 98		X	X			X		59:497
<i>Spermophilus tereticaudus chlorus</i>	Palm Springs ground squirrel	CFWO	C						X			64:575
<i>Urocyon littoralis catalinae</i>	Santa Catalina Island Fox	CFWO	E			X						69:103

E: Listed as a federally endangered species

T: Listed as a federally threatened species

XN: Experimental population; * southern sea otter first listed as threatened Jan. 14, 1977 42:2968

PE: Proposed as federally endangered

PT: Proposed as federally threatened

C: Federal candidate species

R.P.: Recovery Plan, F= Final, D= Draft, those lacking date are in progress

CH: Critical Habitat **P**-Proposed; **D**-Designated

R: Remanded

RV: Remanded and CH designation vacated; RVp = partially vacated

RP: CH Remanded and now repropoed

T*: Proposed DPS

W* = was proposed as threatened but withdrawn 2003

Note: Santa Catalina Isl. and San Clemente Isl. Are in L.A. County

Scientific Name	Common Name	Lead	Status	R.P.	CH	LA	O	SB	Riv	SD	Imp	Fed R
PLANTS												
<i>Acanthomintha ilicifolia</i>	San Diego thornmint	CFWO	T							X		63:549
<i>Allium munzii</i>	Munz's onion	CFWO	E		D-05				X			63:549
<i>Ambrosia pumila</i>	San Diego ambrosia	CFWO	E						X	X		64:725
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i>	Del Mar manzanita	CFWO	E							X		61:523
<i>Arenaria paludicola</i>	marsh sandwort	VFO	E	F 98		X		X				58:413
<i>Arenaria ursina</i>	Bear Valley sandwort	CFWO	T					X				63:490
<i>Astragalus albens</i>	Cushenbury milk-vetch	CFWO	E	D2	D-02			X				59:436
<i>Astragalus brauntonii</i>	Braunton's milk-vetch	VFO	E	F 99		X	X					62:417
<i>Astragalus lentiginosus</i> var. <i>coachellae</i>	Coachella Valley milk-vetch	CFWO	E		P-04				X			63:535
<i>Astragalus magdalenae</i> var. <i>peirsonii</i>	Peirson's milk-vetch	CFWO	T		D-04					X	X	63:535
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i>	Ventura marsh milk-vetch	VFO	E		D-04	X	X					66:279
<i>Astragalus tener</i> var. <i>titi</i>	coastal dunes milk-vetch	VFO	E	D		X				X		63:431
<i>Astragalus tricarinatus</i>	triple-ribbed milk-vetch	CFWO	E					X	X			63:535
<i>Atriplex coronata</i> var. <i>notatior</i>	San Jacinto Valley crownscale	CFWO	E		P-04				X			63:549
<i>Baccharis vanessae</i>	Encinitas baccharis	CFWO	T							X		61:523
<i>Berberis nevinii</i>	Nevin's barberry	CFWO	E			X		X	X	X		63:549
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	CFWO	T		P-04	X	X	X	X	X		63:549
<i>Castilleja cinerea</i>	ash-gray Indian paintbrush	CFWO	T					X				63:490
<i>Castilleja grisea</i>	San Clemente Island Indian paintbrush	CFWO	E	F 84		X						42:406
<i>Ceanothus ophiochilus</i>	Vail Lake ceanothus	CFWO	T						X			63:549
<i>Cercocarpus traskiae</i>	Catalina Island mountain-mahogany	CFWO	E			X						62:426
<i>Chorizanthe orcuttiana</i>	Orcutt's spineflower	CFWO	E							X		61:523
<i>Chorizanthe parryi</i> var. <i>fernandina</i>	San Fernando Valley spineflower	VFO	C			X	X	X				64:575
<i>Cordylanthus maritimus</i> ssp. <i>maritimus</i>	salt marsh bird's beak	CFWO	E	F 85		X	X			X		43:448
<i>Deinandra (Hemizonia) conjugens</i>	Otay tarplant	CFWO	T	D 03	D-02					X		63:549
<i>Delphinium variegatum</i> ssp. <i>kinkiense</i>	San Clemente Island larkspur	CFWO	E	F 84		X						42:406
<i>Dodecahema leptoceras (Centrostegia L.)</i>	slender-horned spineflower	CFWO	E	D		X		X	X			52:362
<i>Dudleya cymosa</i> ssp. <i>ovatifolia</i>	Santa Monica Mountains dudleya	VFO	T	F 99		X	X					62:417
<i>Dudleya stolonifera</i>	Laguna Beach live-forever	CFWO	T				X					63:549
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	Santa Ana River woolly-star	CFWO	E	D			X	X	X			52:362
<i>Erigeron parishii</i>	Parish's daisy	CFWO	T	D2	D-02			X	X			59:436

<i>Eriogonum kennedyi</i> var. <i>austromontanum</i>	southern mountain wild buckwheat	CFWO	T					X			63:490
<i>Eriogonum ovalifolium</i> var. <i>vineum</i>	Cushenbury buckwheat	CFWO	E	D2	D-02			X			59:436
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button celery	CFWO	E	F 98					X	X	58:413
<i>Fremontodendron mexicanum</i>	Mexican flannelbush	CFWO	E							X	63:549
<i>Hazardia orcuttii</i>	Orcutt's hazardia	CFWO	C							X	69:248
<i>Helianthemum greenii</i>	Island rush-rose	VFO	T	F 00			X				62:409
<i>Lesquerella kingii</i> ssp. <i>bernardina</i>	San Bernardino Mountains bladderpod	CFWO	E	D2	D-02			X			59:436
<i>Lithophragma maximum</i>	San Clemente Island woodland star	CFWO	E	F 84			X				62:426
<i>Lotus dendroideus</i> var. <i>traskiae</i>	San Clemente Island lotus	CFWO	E	F 84			X				42:406
<i>Malacothamnus clementinus</i>	San Clemente Island bush mallow	CFWO	E	F 84			X				42:406
<i>Monardella linoides</i> ssp. <i>viminea</i>	willowy monardella	CFWO	E							X	63:549
<i>Navarretia fossalis</i>	spreading navarretia	CFWO	T	F 98	P-04		X		X	X	63:549
<i>Orcuttia californica</i>	California Orcutt grass	CFWO	E	F 98			X		X	X	58:413
<i>Oxytheca parishii</i> var. <i>goodmaniana</i>	Cushenbury oxytheca	CFWO	E	D2	D-02			X			59:436
<i>Pentachaeta lyonii</i>	Lyon's pentachaeta	VFO	E	F 99			X				62:417
<i>Phacelia stellaris</i>	Brand's phacelia	CFWO	C				X		X	X	69:248
<i>Poa atropurpurea</i>	San Bernardino bluegrass	CFWO	E					X		X	63:490
<i>Pogogyne abramsii</i>	San Diego mesa mint	CFWO	E	F 98						X	43:448
<i>Pogogyne nudiuscula</i>	Otay mesa mint	CFWO	E	F 98						X	58:413
<i>Rorippa gambellii</i>	Gambel's watercress	VFO	E	F 98			X	X	X	X	58:413
<i>Sibara filifolia</i>	Santa Cruz Island rock-cress	CFWO	E				X				62:426
<i>Sidalcea hickmanii</i> ssp. <i>parishii</i>	Parish's checkerbloom	VFO	C					X			
<i>Sidalcea pedata</i>	pedate checker-mallow	CFWO	E	F 98				X			49:344
<i>Taraxacum californicum</i>	California taraxacum	CFWO	E					X			63:490
<i>Thelypodium stenopetalum</i>	slender-petaled mustard	CFWO	E	F 98				X			49:344
<i>Trichostema austromontanum compactum</i>	Hidden Lake bluecurls	CFWO	T						X		63:490
<i>Verbesina dissita</i>	big-leaved crown beard	CFWO	T					X			61:523

INVERTEBRATES

<i>Branchinecta lynchii</i>	vernal pool fairy shrimp	SAC	T		D-03				X		59:481
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	CFWO	E	F 98	RP		X			X	62:492
<i>Euphilotes battoides allyni</i>	El Segundo blue butterfly	CFWO	E	F 98			X				41:220
<i>Euphydryas editha quino</i>	Quino checkerspot butterfly	CFWO	E	F 03	D-02		X	X	X	X	62:231
<i>Glaucopsyche lygdamus palosverdensis</i>	Palos Verdes blue butterfly	CFWO	E	F 84	D		X				45:449

<i>Pyrgus ruralis lagunae</i>	Laguna Mountains skipper	CFWO	E							X		62:231
<i>Rhaphiomidas terminatus abdominalis</i>	Delhi Sands flower-loving fly	CFWO	E	F 97				X	X			58:498
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	CFWO	E	F 98	D-05	X	X		X	X		58:413

FISH

<i>Catostomus santaanae</i>	Santa Ana sucker	CFWO	T		D-05	X	X	X	X			65:196
<i>Cyprinodon macularius</i>	desert pupfish	R02	E	F 93	D				X	X	X	51:108
<i>Eucyclogobius newberryi</i>	tidewater goby	VFO	E	D 04	D		X			X		59:549
<i>Gasterosteus aculeatus williamsoni</i>	unarmored threespine stickleback	VFO	E	F 85		X		X		X		35:160
<i>Gila bicolor mohavensis</i>	Mohave tui chub	VFO	E	F 84				X				35:160
<i>Gila elegans</i>	bonytail chub	R06	E	F 90	D			X	X		X	45:277
<i>Oncorhynchus mykiss</i>	southern steelhead	R09	E			X	X			X		62:439
<i>Ptychocheilus lucius</i>	Colorado squawfish	R06	E	F 91				X	X		X	50:301
<i>Xyrauchen texanus</i>	razorback sucker	R06	E		D			X	X		X	56:549

AMPHIBIANS

<i>Batrachoseps aridus</i>	desert slender salamander	CFWO	E	F 82					X			38:146
<i>Bufo californicus</i>	arroyo toad	VFO	E	F 99	D-05	X	X	X	X	X		59:648
<i>Rana aurora draytoni</i>	California red-legged frog	SAC	T	F 02	RP-04	X	X	X	X	X		61:258
<i>Rana muscosa</i>	mountain yellow-legged frog	CFWO	E		P-05	X		X	X			64:717

REPTILES

<i>Gopherus agassizii</i>	desert tortoise	VFO	T	F 94	D			X	X		X	55:121
<i>Uma inornata</i>	Coachella Valley fringe-toed lizard	CFWO	T	F 85	D				X			45:638
<i>Xantusia riversiana</i>	island night lizard	CFWO	T	F 84			X					42:406

BIRDS

<i>Amphispiza belli clementeae</i>	San Clemente sage sparrow	CFWO	T	F 84			X					42:406
<i>Brachyramphus marmoratus</i>	marbled murrelet	POR	T	F 97	D		X					57:453
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	SAC	T	D 01	D-05	X	X				X	58:128
<i>Charadrius montanus</i>	mountain plover	R02	W*			X	X	X	X	X	X	64:758
<i>Coccyzus americanus</i>	yellow-billed cuckoo	SAC	C			X	X	X	X	X	X	66:386
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	R02	E	D	RP-04	X	X	X	X	X	X	60:107
<i>Gymnogyps californianus</i>	California condor	VFO	E	F 96			X		X			61:540

<i>Haliaeetus leucocephalus</i>	bald eagle	R03	T	F 86		X	X	X	X	X	X	60:360
<i>Lanius ludovicianus mearnsi</i>	San Clemente loggerhead shrike	CFWO	E	F 84		X						42:406
<i>Pelecanus occidentalis</i>	brown pelican	VFO	E	F 83		X	X	X	X	X	X	50:494
<i>Phoebastria albatrus</i>	short-tailed albatross	JFO	E			X	X			X		65:466
<i>Polioptila californica californica</i>	coastal California gnatcatcher	CFWO	T*		RP	X	X	X	X	X	X	58:167
<i>Rallus longirostris levipes</i>	light-footed clapper rail	CFWO	E	F 85		X	X			X		35:160
<i>Rallus longirostris yumanensis</i>	Yuma clapper rail	R02	E						X		X	32:400
<i>Sterna antillarum browni</i>	California least tern	CFWO	E	F 85		X	X		X	X	X	35:845
<i>Vireo bellii pusillus</i>	least Bell's vireo	CFWO	E	D 98	D	X	X	X	X	X	X	51:164

MAMMALS

<i>Dipodomys merriami parvus</i>	San Bernardino kangaroo rat	CFWO	E		D-02	X		X	X			63:510
<i>Dipodomys stephensi</i>	Stephens' kangaroo rat	CFWO	E	D 97				X	X	X		53:384
<i>Enhydra lutris nereis</i>	southern sea otter	VFO	T/X*	D 00		X	X			X		52:297
<i>Ovis canadensis</i>	peninsular bighorn sheep	CFWO	E	F 00	D-01				X	X	X	63:131
<i>Panthera onca</i>	jaguar	R02	E						X		X	62:391
<i>Perognathus longimembris pacificus</i>	Pacific pocket mouse	CFWO	E	F 98		X	X			X		59:497
<i>Spermophilus tereticaudus chlorus</i>	Palm Springs ground squirrel	CFWO	C						X			64:575
<i>Urocyon littoralis catalinae</i>	Santa Catalina Island Fox	CFWO	E			X						69:103

E: Listed as a federally endangered species

T: Listed as a federally threatened species

XN: Experimental population; * southern sea otter first listed as threatened Jan. 14, 1977 42:2968

PE: Proposed as federally endangered

PT: Proposed as federally threatened

C: Federal candidate species

R.P.: Recovery Plan, F= Final, D= Draft, those lacking date are in progress

CH: Critical Habitat **P**-Proposed; **D**-Designated

R: Remanded

RV: Remanded and CH designation vacated; RVp = partially vacated

RP: CH Remanded and now repropoed

T*: Proposed DPS

W* = was proposed as threatened but withdrawn 2003

Note: Santa Catalina Isl. and San Clemente Isl. Are in L.A. County

BLM Sensitive Species Known or Suspected to Occur within the Palm Springs/South
Coast Office Area of Responsibility

Common Name	Scientific Name
San Diego ambrosia	<i>Ambrosia pumila</i>
Otay manzanita	<i>Arctostaphylos otayensis</i>
Deane's milk-vetch	<i>Astragalus deani</i>
Jacumba milk-vetch	<i>Astragalus douglasii</i> var. <i>perstrictus</i>
San Diego rattleweed	<i>Astragalus oocarpus</i>
Orcutt's brodiaea	<i>Brodiaea orcuttii</i>
Lakeside ceanothus	<i>Ceanothus cyaneus</i>
Flat-seed spurge	<i>Chamaesyce platysperma</i>
Tecate cypress	<i>Cupressus forbesii</i>
Tecate tarplant	<i>Deinandra floribunda</i>
Many-stemmed dudleya	<i>Dudleya multicaulis</i>
California bedstraw	<i>Galium californicum</i> ssp. <i>primum</i>
San Gabriel bedstraw	<i>Galium grande</i>
Orcutt's hazardia	<i>Hazardia orcuttii</i>
Gander's pitcher-sage	<i>Lepechinia ganderi</i>
Borrego Valley pepper-grass	<i>Lepidium flavum</i> var. <i>felipense</i>
Little San Bernadino Mountains linanthus	<i>Linanthus maculatus</i>
Orcutt's linanthus	<i>Linanthus orcuttii</i>
Mountain Spring bush lupine	<i>Lupinus excubitus</i> var. <i>medius</i>
Robison monardella	<i>Monardella robisonii</i>
San Diego goldenstar	<i>Muilla clevelandii</i>
Munz cholla	<i>Opuntia munzii</i>
San Diego current	<i>Ribes canthariforme</i>
Parry's tetracoccus	<i>Tetracoccus dioicus</i>
White-eared pocket mouse	<i>Perognathus alticola</i>
Palm Springs little pocket mouse	<i>Perognathus longimembris bangsi</i>
Desert bighorn sheep	<i>Ovis canandensis nelsoni</i>
California leaf-nosed bat	<i>Macrotus californicus</i>
Spotted bat	<i>Euderma maculatum</i>
Western mastiff bat	<i>Eumops perotis californicus</i>
Townsend's western big-eared bat	<i>Plecotus townsendii</i>
Pallid bat	<i>Antrozous pallidus</i>
Fringed myotis	<i>Myotis tghaysanodes</i>
Small-footed myotis	<i>Myotis ciliolabrum</i>
Long-eared myotis	<i>Myotis evotis</i>
Cave myotis	<i>Myotis velifer</i>
Yuma myotis	<i>Myotis yumanensis</i>
Burrowing owl	<i>Athene cunicularia</i>
Tricolored blackbird	<i>Agelaius tricolor</i>
Gray vireo	<i>Vireo vicinior</i>
Bendire's thrasher	<i>Toxostoma bendirei</i>
California horned lizard	<i>Phrynosoma coronatum frontale</i>
Flat-tailed horned lizard	<i>Phrynosoma macalli</i>
Colorado Desert fringe-toed lizard	<i>Uma notata notata</i>
Coronado skink	<i>Eumeces skiltonianus interparietalis</i>

Two-striped garter snake	<i>Thamnophis hammondi</i>
Southwestern pond turtle	<i>Emys marmorata pallida</i>
San Sebastian leopard frog	<i>Rana yavapaiensis</i>
Western spadefoot toad	<i>Scaphiopus hammondi</i>
Thorne's hairstreak butterfly	<i>Callophrys thornei</i>

APPENDIX F
Air Quality Calculations

CALCULATION SHEET-COMBUSTABLE EMISSIONS-PROPOSED ACTION

Assumptions for Cumbustable Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Water Truck	1	300	10	240	720000
Diesel Road Compactors	0	100	10	240	0
Diesel Dump Truck	0	300	10	240	0
Diesel Excavator	0	300	10	240	0
Diesel Hole Cleaners/Trenchers	2	175	10	240	840000
Diesel Bore/Drill Rigs	2	300	10	240	1440000
Diesel Cement & Mortar Mixers	3	300	10	240	2160000
Diesel Cranes	2	175	10	240	840000
Diesel Graders	0	300	10	240	0
Diesel Tractors/Loaders/Backhoes	2	100	10	240	480000
Diesel Bull Dozers	2	300	10	240	1440000
Diesel Front End Loaders	2	300	10	240	1440000
Diesel Fork Lifts	3	100	10	240	720000
Diesel Generator Set	10	40	10	240	960000

Emission Factors							
Type of Construction Equipment	VOC g/hp-hr	CO g/hp-hr	NOx g/hp-hr	PM-10 g/hp-hr	PM-2.5 g/hp-hr	SO2 g/hp-hr	CO2 g/hp-hr
Water Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Road Compactors	0.370	1.480	4.900	0.340	0.330	0.740	536.200
Diesel Dump Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Excavator	0.340	1.300	4.600	0.320	0.310	0.740	536.300
Diesel Trenchers	0.510	2.440	5.810	0.460	0.440	0.740	535.800
Diesel Bore/Drill Rigs	0.600	2.290	7.150	0.500	0.490	0.730	529.700
Diesel Cement & Mortar Mixers	0.610	2.320	7.280	0.480	0.470	0.730	529.700
Diesel Cranes	0.440	1.300	5.720	0.340	0.330	0.730	530.200
Diesel Graders	0.350	1.360	4.730	0.330	0.320	0.740	536.300
Diesel Tractors/Loaders/Backhoes	1.850	8.210	7.220	1.370	1.330	0.950	691.100
Diesel Bull Dozers	0.360	1.380	4.760	0.330	0.320	0.740	536.300
Diesel Front End Loaders	0.380	1.550	5.000	0.350	0.340	0.740	536.200
Diesel Fork Lifts	1.980	7.760	8.560	1.390	1.350	0.950	690.800
Diesel Generator Set	1.210	3.760	5.970	0.730	0.710	0.810	587.300

CALCULATION SHEET-COMBUSTABLE EMISSIONS-PROPOSED ACTION

Emission factors (EF) were generated from the NONROAD2005 model for the 2006 calendar year. The VOC EFs includes exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2005 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2005 model is based on the population in U.S. for the 2006 calendar year.

Emission Calculations							
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr
Water Truck	0.349	1.642	4.356	0.325	0.317	0.587	425.284
Diesel Road Paver	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Dump Truck	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Excavator	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Hole Cleaners\Trenchers	0.472	2.259	5.378	0.426	0.407	0.685	495.979
Diesel Bore/Drill Rigs	0.952	3.634	11.346	0.793	0.778	1.158	840.570
Diesel Cement & Mortar Mixers	1.452	5.522	17.329	1.143	1.119	1.738	1260.856
Diesel Cranes	0.407	1.203	5.295	0.315	0.305	0.676	490.796
Diesel Graders	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Tractors/Loaders/Backhoes	0.979	4.343	3.819	0.725	0.704	0.503	365.564
Diesel Bull Dozers	0.571	2.190	7.554	0.524	0.508	1.174	851.044
Diesel Front End Loaders	0.603	2.460	7.934	0.555	0.540	1.174	850.885
Diesel Fork Lifts	1.571	6.157	6.792	1.103	1.071	0.754	548.108
Diesel Generator Set	1.280	3.978	6.316	0.772	0.751	0.857	621.316
Total Emissions	8.637	33.388	76.119	6.681	6.500	9.306	6750.402

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET-SUMMARY OF EMISSIONS-PROPOSED ACTION

Proposed Action Construction Emissions for Criteria Pollutants (tons per year)						
Emission source	VOC	CO	NOx	PM-10	PM-2.5	SO ₂
Combustable Emissions	8.64	33.39	76.12	6.68	6.50	9.31
Construction Site-fugitive PM-10	NA	NA	NA	16.00	3.20	NA
Construction Workers Commuter & Trucking	0.97	9.06	1.25	0.02	0.02	NA
Total emissions	9.61	42.45	77.37	22.70	9.72	9.31
De minimis threshold	NA	NA	NA	100.00	NA	NA

CALCULATION SHEET-TRANSPORTATION COMBUSTABLE EMISSIONS-PROPOSED ACTION

Construction Worker Personal Vehicle Commuting to Construction Sight-Passenger and Light Duty Trucks									
Pollutants	Emission Factors		Assumptions				Results by Pollutant		
	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	120	240	10	10	0.43	0.51	0.94
CO	12.4	15.7	120	240	10	10	3.94	4.98	8.92
NOx	0.95	1.22	120	240	10	10	0.30	0.39	0.69
PM-10	0.0052	0.0065	120	240	10	10	0.00	0.00	0.00
PM 2.5	0.0049	0.006	120	240	10	10	0.00	0.00	0.00

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Heavy Duty Trucks Delivery Supply Trucks to Construction Sight									
Pollutants	Emission Factors		Assumptions				Results by Pollutant		
	10,000-19,500 lb Delivery Truck	33,000-60,000 lb semi trailer rig	Mile/day	Day/yr	Number of trucks	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	0.29	0.55	60	240	2	2	0.01	0.02	0.03
CO	1.32	3.21	60	240	2	2	0.04	0.10	0.14
NOx	4.97	12.6	60	240	2	2	0.16	0.40	0.56
PM-10	0.12	0.33	60	240	2	2	0.00	0.01	0.01
PM 2.5	0.13	0.36	60	240	2	2	0.00	0.01	0.02

OBP Commute to New Site									
Pollutants	Emission Factors		Assumptions				Results by Pollutant		
	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	60	0	0	0	-	0.00	-
CO	12.4	15.7	60	0	0	0	-	0.00	-
NOx	0.95	1.22	60	0	0	0	-	0.00	-
PM-10	0.0052	0.0065	60	0	0	0	-	0.00	-
PM 2.5	0.0049	0.006	60	0	0	0	-	0.00	-

POV Source: USEPA 2005 Emission Facts: Average annual emissions and fuel consumption for gasoline-fueled passenger cars and light trucks. EPA 420-F-05-022 August 2005. Emission rates were generated using MOBILE.6 highway vehicle emission factor model.

Fleet Characterization: 20 POVs commuting to work were 50% are pick up trucks and 50% passenger cars

CALCULATION SHEET-FUGITIVE DUST-PROPOSED ACTION

Fugitive Dust Emissions at New Construction Site (1)					
Construction Site	Emission Factor tons/acre/month (1)	Total Area- Construction Site/month	Months/yr	Total PM-10 Emissions tns/yr	Total PM-2.5 (2)
Fugitive Dust Emissions	0.11	12.12	12	16.00	3.20

1. Mid-Atlantic Regional Air Management Association (MARAMA). Fugitive Dust-Construction Calculation Sheet can be found online at: http://www.marama.org/visibility/Calculation_Sheets/. MRI= Midwest Research Institute, Inventory of Agricultural Tiling, Unpaved Roads, Airstrips and construction Sites., prepared for the U.S. EPA, PB 238-929, Contract 68-02-1437 (November 1977)

2. 20% of the total PM-10 emissions are PM-2.5 (EPA 2006).

Coastruction Site Area Proposed Prioject	Demension (ft)			Total Acres/month
	Length	Width	Units	
Construction Area-Fence	5,280	12	1	1.45
Construction Area-New Road	5,280	28	1	3.39
Construction Area-Road Improvements	5,280	60	1	7.27
Low Water Crossings (LWC)	40	25	1	0.02
Total				12.12

Conversion Factors	Miles to feet	Acres to sq ft	Sq ft to acres	Sq ft in 0.5 acres
	5,280	0	43,560	21,780

Assumptions	Sections/day	Length of Section (ft)	Length/day (ft)	Days/Month	Length/Month (ft)	Miles/Month
Fencing installed per day (1)	22	10	220	24	5280	1.00
Length of fence/month (miles)	1.0					
Length of new road per month	1.0					
Length of road improvements/month	1.0					

1. This model is based on a monthly emission factor. The construction activity assumptions are based on completing X amount of construction per month. Then construction area by month can be multiplied by the PM-10 monthly emission factor.

2. OBP reported that construction crew complete 22 sections of fence per day.

CALCULATION SHEET-COMBUSTABLE EMISSIONS-ALTERNATIVE 3

Assumptions for Cumbustable Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Water Truck	1	300	10	240	720000
Diesel Road Compactors	1	100	10	240	240000
Diesel Dump Truck	2	300	10	240	1440000
Diesel Excavator	2	300	10	240	1440000
Diesel Hole Cleaners/Trenchers	2	175	10	240	840000
Diesel Bore/Drill Rigs	2	300	10	240	1440000
Diesel Cement & Mortar Mixers	2	300	10	240	1440000
Diesel Cranes	2	175	10	240	840000
Diesel Graders	2	300	10	240	1440000
Diesel Tractors/Loaders/Backhoes	2	100	10	240	480000
Diesel Bull Dozers	2	300	10	240	1440000
Diesel Front End Loaders	1	300	10	240	720000
Diesel Fork Lifts	2	100	10	240	480000
Diesel Generator Set	10	40	10	240	960000

Emission Factors							
Type of Construction Equipment	VOC g/hp-hr	CO g/hp-hr	NOx g/hp-hr	PM-10 g/hp-hr	PM-2.5 g/hp-hr	SO2 g/hp-hr	CO2 g/hp-hr
Water Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Road Compactors	0.370	1.480	4.900	0.340	0.330	0.740	536.200
Diesel Dump Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Excavator	0.340	1.300	4.600	0.320	0.310	0.740	536.300
Diesel Trenchers	0.510	2.440	5.810	0.460	0.440	0.740	535.800
Diesel Bore/Drill Rigs	0.600	2.290	7.150	0.500	0.490	0.730	529.700
Diesel Cement & Mortar Mixers	0.610	2.320	7.280	0.480	0.470	0.730	529.700
Diesel Cranes	0.440	1.300	5.720	0.340	0.330	0.730	530.200
Diesel Graders	0.350	1.360	4.730	0.330	0.320	0.740	536.300
Diesel Tractors/Loaders/Backhoes	1.850	8.210	7.220	1.370	1.330	0.950	691.100
Diesel Bull Dozers	0.360	1.380	4.760	0.330	0.320	0.740	536.300
Diesel Front End Loaders	0.380	1.550	5.000	0.350	0.340	0.740	536.200
Diesel Fork Lifts	1.980	7.760	8.560	1.390	1.350	0.950	690.800
Diesel Generator Set	1.210	3.760	5.970	0.730	0.710	0.810	587.300

CALCULATION SHEET-COMBUSTABLE EMISSIONS-ALTERNATIVE 3

Emission factors (EF) were generated from the NONROAD2005 model for the 2006 calendar year. The VOC EFs includes exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2005 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2005 model is based on the population in U.S. for the 2006 calendar year.

Emission Calculations							
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr
Water Truck	0.349	1.642	4.356	0.325	0.317	0.587	425.284
Diesel Road Paver	0.098	0.391	1.296	0.090	0.087	0.196	141.814
Diesel Dump Truck	0.698	3.285	8.712	0.651	0.635	1.174	850.568
Diesel Excavator	0.540	2.063	7.300	0.508	0.492	1.174	851.044
Diesel Hole Cleaners\Trenchers	0.472	2.259	5.378	0.426	0.407	0.685	495.979
Diesel Bore/Drill Rigs	0.952	3.634	11.346	0.793	0.778	1.158	840.570
Diesel Cement & Mortar Mixers	0.968	3.682	11.552	0.762	0.746	1.158	840.570
Diesel Cranes	0.407	1.203	5.295	0.315	0.305	0.676	490.796
Diesel Graders	0.555	2.158	7.506	0.524	0.508	1.174	851.044
Diesel Tractors/Loaders/Backhoes	0.979	4.343	3.819	0.725	0.704	0.503	365.564
Diesel Bull Dozers	0.571	2.190	7.554	0.524	0.508	1.174	851.044
Diesel Front End Loaders	0.302	1.230	3.967	0.278	0.270	0.587	425.443
Diesel Aerial Lifts	1.047	4.105	4.528	0.735	0.714	0.503	365.406
Diesel Generator Set	1.280	3.978	6.316	0.772	0.751	0.857	621.316
Total Emissions	9.218	36.162	88.925	7.427	7.222	11.607	8416.441

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET-SUMMARY OF EMISSIONS-ALTERNATIVE 3

Proposed Action Construction Emissions for Criteria Pollutants (tons per year)						
Emission source	VOC	CO	NOx	PM-10	PM-2.5	SO ₂
Combustable Emissions	9.22	36.16	88.92	7.43	7.22	11.61
Construction Site-fugitive PM-10	NA	NA	NA	24.48	4.90	NA
Construction Workers Commuter & Trucking	1.44	13.52	1.59	0.02	0.02	NA
Total emissions	10.66	49.68	90.52	31.93	12.14	11.61
De minimis threshold	100.00	100.00	100.00	NA	NA	100.00

CALCULATION SHEET-TRANSPORTATION COMBUSTABLE EMISSIONS-ALTERNATIVE 3

Construction Worker Personal Vehicle Commuting to Construction Sight-Passenger and Light Duty Trucks									
Pollutants	Emission Factors		Assumptions				Results by Pollutant		
	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	120	240	15	15	0.65	0.77	1.41
CO	12.4	15.7	120	240	15	15	5.90	7.47	13.38
NOx	0.95	1.22	120	240	15	15	0.45	0.58	1.03
PM-10	0.0052	0.0065	120	240	15	15	0.00	0.00	0.01
PM 2.5	0.0049	0.006	120	240	15	15	0.00	0.00	0.01

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Heavy Duty Trucks Delivery Supply Trucks to Construction Sight									
Pollutants	Emission Factors		Assumptions				Results by Pollutant		
	10,000-19,500 lb Delivery Truck	33,000-60,000 lb semi trailer rig	Mile/day	Day/yr	Number of trucks	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	0.29	0.55	60	240	2	2	0.01	0.02	0.03
CO	1.32	3.21	60	240	2	2	0.04	0.10	0.14
NOx	4.97	12.6	60	240	2	2	0.16	0.40	0.56
PM-10	0.12	0.33	60	240	2	2	0.00	0.01	0.01
PM 2.5	0.13	0.36	60	240	2	2	0.00	0.01	0.02

OBP Commute to New Site									
Pollutants	Emission Factors		Assumptions				Results by Pollutant		
	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	60	0	0	0	-	0.00	-
CO	12.4	15.7	60	0	0	0	-	0.00	-
NOx	0.95	1.22	60	0	0	0	-	0.00	-
PM-10	0.0052	0.0065	60	0	0	0	-	0.00	-
PM 2.5	0.0049	0.006	60	0	0	0	-	0.00	-

POV Source: USEPA 2005 Emission Facts: Average annual emissions and fuel consumption for gasoline-fueled passenger cars and light trucks. EPA 420-F-05-022 August 2005. Emission rates were generated using MOBILE.6 highway vehicle emission factor model.

Fleet Characterization: 20 POVs commuting to work were 50% are pick up trucks and 50% passenger cars

CALCULATION SHEET-FUGITIVE DUST-ALTERNATIVE 3

Fugitive Dust Emissions at New Construction Site.					
Construction Site	Emission Factor tons/acre/month (1)	Total Area- Construction Site/month	Months/yr	Total PM-10 Emissions tns/yr	Total PM-2.5 (2)
Fugitive Dust Emissions	0.11	18.55	12	24.48	4.90

1. Mid-Atlantic Regional Air Management Association (MARAMA). Fugitive Dust-Construction Calculation Sheet can be found online at: http://www.marama.org/visibility/Calculation_Sheets/. MRI= Midwest Research Institute, Inventory of Agricultural Tiling, Unpaved Roads, Airstrips and construction Sites., prepared for the U.S. EPA, PB 238-929, Contract 68-02-1437 (November 1977)

2. 20% of the total PM-10 emissions are PM-2.5 (EPA 2006).

Coastruction Site Area Proposed Prject	Demension (ft)			Total Acres/month
	Length	Width	Units	
Construction Area-Fence	2,640	130	1	7.88
Construction Area-New Road	5,280	28	1	3.39
Construction Area-Road Improvements	5,280	60	1	7.27
Low Water Crossings (LWC)	40	25	1	0.02
Total				18.55

Conversion Factors	Miles to feet	Acres to sq ft	Sq ft to acres	Sq ft in 0.5 acres
	5280	0.000022957	43560	21780

Assumptions	Sections/day	Length of Section (ft)	Length/day (ft)	Days/Month	Length/Month (ft)
Fencing installed per day (1)	11	10	110	24	2640
Length of fence/month (miles)	0.50				
Length of new road per month	1				
Length of road improvements/month	1				

1. OBP reported that construction crew complete 22 sections of fence per day. Alternative 3 requires 2 fences to be built per section and there twice as long to complete per section. Therefore, instead of assuming that 22 sections of fence will be completed per day, we are assuming th fence will be completed per day.

POL	petroleum, oil, and lubricants
PVB	primary vehicle barrier
RCP	reinforced concrete pipe
RMP	Resource Management Plan
ROI	region of influence
SBI	Secure Border Initiative
SCIC	South Coastal Information Center
SHPO	State Historic Preservation Office
SPCCP	Spill Prevention, Control, and Countermeasures Plan
SWPPP	Storm Water Pollution Prevention Plan
TI	Tactical Infrastructure
TMDL	Total Maximum Daily Loads
TPI	total personal income
U.S.	United States
U.S.C.	United States Code
USACE	United States Army Corps of Engineers
USBP	United States Border Patrol
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USIBWC	United States Section, International Boundary Water Commission
WPLT	Western Pluvial Lakes Tradition
WUS	Waters of the U.S.

