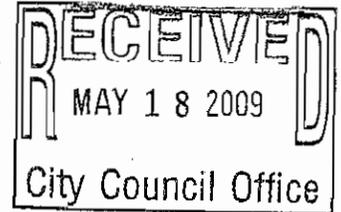




DEPARTMENT OF THE AIR FORCE
AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT
BROOKS CITY- BASE TEXAS



15 May 09

MEMORANDUM FOR INTERESTED INDIVIDUALS, ORGANIZATIONS, AND PUBLIC LIBRARIES

FROM: AFCEE/EX
3300 Sidney Brooks
Brooks, City-Base TX 78235-5112

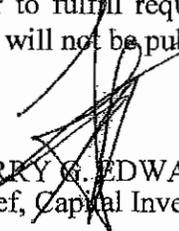
SUBJECT: Draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the Disposal and Reuse of Onizuka AFS, California.

We are pleased to provide you the Draft EA and FONSI for the disposal and reuse of Onizuka AFS, California. The Draft EA/FONSI has been prepared in accordance with the National Environmental Policy Act to analyze the potential environmental consequences of the Proposed Action and alternatives.

There will be a 30-day review period for the Draft EA/FONSI ending on 19 June 2009. All comments on the Draft EA/FONSI may be forwarded by mail to the address below or by e-mail to robert.lopez@brooks.af.mil.

Mr. Robert Lopez
AFCEE/EXC
3300 Sidney Brooks
Brooks City-Base, TX 78235-5112

Any personal information provided will be used only to identify your desire to make a statement during the public comment period or to fulfill requests for copies of the Final EA. Personal home addresses and telephone numbers will not be published in the Final EA.


TERRY G. EDWARDS, P.E., YF-03, DAF
Chief, Capital Investment Execution Division

- 2 Atch:
1. Draft EA, Onizuka AFS
2. Draft Finding of No Significant Impact
Onizuka AFS



**DRAFT
ENVIRONMENTAL ASSESSMENT
May 2009**



**DISPOSAL AND REUSE OF
ONIZUKA AIR FORCE STATION
SUNNYVALE, CALIFORNIA**

1 **DRAFT**
2 **FINDING OF NO SIGNIFICANT IMPACT**
3 **DISPOSAL AND REUSE OF ONIZUKA AIR FORCE STATION, CALIFORNIA**
4
5

6 The attached environmental assessment (EA) analyzes the potential for impacts to the environment as a
7 result of the disposal and reuse of Onizuka Air Force Station (AFS), California. The EA was prepared in
8 accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S. Code
9 Section 4321 et seq.), the Council on Environmental Quality regulations implementing the procedural
10 provisions of NEPA, 40 Code of Federal Regulations (CFR) Parts 1500-1580, and Air Force policy and
11 procedures (32 CFR Part 989).
12

13 This Finding of No Significant Impact (FONSI) summarizes the Proposed Action and alternatives and the
14 results of the evaluation of the disposal and reuse of Onizuka AFS.
15

16 **Site Location**
17

18 Onizuka AFS occupies approximately 23 acres in the City of Sunnyvale, Santa Clara County, California,
19 and is approximately forty miles southeast of San Francisco at the southern edge of San Francisco Bay.
20 State Route 237 borders Onizuka AFS to the south. Onizuka AFS consists of 28 facilities, associated
21 roads, vehicle parking lots, and open areas. Most of the installation is paved or built with only a few
22 small green/open areas.
23

24 **Description of Proposed Action and Alternatives**
25

26 In order to address a range of potential environmental impacts of disposal and reuse, the following reuse
27 alternatives were considered.
28

29 The **Proposed Action** involves the redevelopment of Onizuka AFS for low-density offices with
30 incorporation of the Veterans Affairs (VA) occupation of facilities 1002, 1018, and 1034. Twenty-five
31 existing structures totaling approximately 558,000 square feet would be demolished and approximately
32 243,326 square feet of new office space would be constructed.
33

34 The **Corporate Office Alternative** involves the redevelopment of the property for higher density offices
35 with incorporation of the VA offices in a new on-site building or relocated off site. All existing
36 structures totaling approximately 615,000 square feet would be demolished and approximately
37 287,540 square feet of new office space would be constructed.
38

39 The **Hotel, Conference Center, and Office Alternative** involves construction of a new hotel with
40 restaurant, bar, and conference center. Office development would also occur on the property. All
41 existing structures totaling approximately 615,000 square feet would be demolished and approximately
42 947,695 square feet of new building space would be constructed. VA offices would be incorporated into
43 a new on-site building or developed at a location off site.

1 The **Automotive Retail Center Alternative** involves redevelopment of the property for automotive
2 retail sales and service for multiple vehicle manufacturers. All existing structures totaling approximately
3 615,000 square feet would be demolished and approximately 60,000 square feet of building space for use
4 as automobile show rooms, administrative space, and vehicle inspection, maintenance, and repair shops
5 would be constructed. VA offices would be developed at a location off site.

6
7 The **Veterans Affairs and Homeless Provider Alternative** involves redevelopment of the property for
8 office and residential uses with the VA occupation of facilities 1002, 1018, and 1034. Twenty-five
9 existing structures totaling approximately 558,000 square feet would be demolished and approximately
10 161,980 square feet of new office space and 165,000 square feet of residential development for homeless
11 providers would be constructed.

12
13 The **No-Action Alternative** would involve the Air Force retaining the Onizuka AFS property and
14 maintaining it in caretaker status.

15 16 **Summary of Environmental Consequences**

17
18 The Proposed Action or alternatives would not result in either short- or long-term impacts to the
19 following resources: pesticide usage, polychlorinated biphenyls (PCBs), radon, medical/biohazardous
20 waste, ordnance, radioactive materials, and noise. While there are no significant impacts of the proposed
21 action or alternatives, the Air Force may engage in certain activities described below in the interest of
22 maintaining best management practices (BMPs).

23
24 The resources analyzed in detail are: socioeconomics, land use/aesthetics, transportation, utilities,
25 hazardous materials management, hazardous waste management, Environmental Restoration Program
26 (ERP) sites, storage tanks, asbestos-containing material (ACM), lead-based paint (LBP), geology and
27 soils, water resources, air quality, biological resources, cultural resources, and environmental justice.

28
29 Closure of Onizuka AFS would result in approximately 780 employees at Onizuka AFS being relocated
30 to Vandenberg AFB, CA, realigned to other locations in the nation, would retire, or would have their jobs
31 eliminated. Redevelopment could generate between 490 and 4,437 direct on-site jobs. Because there is
32 no residential component to the redevelopment, no on-site population would exist. Changes in
33 employment and population due to reuse of Onizuka AFS under the Proposed Action and alternatives
34 would not result in significant impacts to socioeconomics.

35
36 Reuse of the property would be consistent with surrounding land uses. Modifications to the City of
37 Sunnyvale Specific Plan would be necessary to accommodate an Automotive Retail Center. This
38 alternative would result in a change in the appearance of the property as a result of demolishing the
39 existing facilities and constructing new structures on the property. The long-term effect of removing
40 older facilities and constructing new modern structures would result in a positive aesthetic effect on the
41 area.

42
43 The number of vehicle trips anticipated under the Proposed Action and alternatives would represent an
44 increase to current traffic levels; most of the existing street network is expected to accommodate project-
45 generated traffic without unacceptable delays. However, Traffic generated by the Corporate Office

1 Alternative, and the Hotel, Conference Center, and Office Alternative would result in decreased Level of
2 Service (LOS) to the Mathilda Avenue/Innovation Way intersection, and the intersections of Mathilda
3 Avenue/Moffett Park Drive. The Mathilda Avenue/Ross Drive would continue to operate at LOS F. The
4 development contractor would be required to pay their fair share of funds for identified improvements for
5 these intersections through payment of a transportation impact fee. Planned improvements at these
6 intersections would reduce the potential impacts to less than significant.
7

8 On-site utility usage (electrical, natural gas, water, and wastewater) would not affect the ability of the
9 local utility purveyors to provide service. Demolition debris would be recycled/reused to the extent
10 possible and remaining debris would require disposal in a landfill. Debris generated from demolition of
11 existing buildings and paved areas at Onizuka AFS would require disposal of up to 449 tons of material.
12 Solid waste generation and demolition debris disposal is not expected to significantly affect the service
13 life of the Kirby Canyon Landfill.
14

15 Current storage, handling, and transportation of hazardous materials and hazardous waste associated with
16 Onizuka AFS would cease. Future storage, handling, and transportation of any hazardous materials and
17 hazardous waste would be conducted in accordance with applicable regulations and established
18 procedures by the future property owner/operator.
19

20 Area of Concern (AOC) sites at Onizuka AFS have received regulator concurrence with no further action
21 required determinations and would not effect disposal and reuse of the property.
22

23 Storage tanks would be emptied, cleaned, and removed. Any new storage tanks (if any) required by the
24 new owner/operator would be subject to applicable federal, state, and local regulations. Proper
25 management of storage tanks would minimize the potential for impacts.
26

27 Renovation and demolition activities could result in the removal and disposal of PCB-containing light
28 ballasts. The development contractor would be notified of the potential presence of PCBs in the light
29 ballasts and would be responsible for managing any items containing PCBs, including maintenance,
30 removal, and disposal, in accordance with applicable regulations.
31

32 ACM and LBP would likely be encountered during renovation and demolition activities. These activities
33 would be subject to applicable federal, state, and local regulations to minimize the potential risk to
34 human health and the environment. ACM and LBP waste generated as a result of renovation and
35 demolition activities would be disposed in accordance with applicable regulations.
36

37 Short-term impacts could occur to soils and surface water resources as a result of ground disturbance
38 associated with construction and demolition activities. Potential impacts would be minimized by
39 implementing standard construction best management practices such as using protective cover,
40 implementing storm water diversions, and limiting the area and period of time that barren ground is left
41 exposed as defined in a storm water pollution prevention plan that would be prepared prior to initiation
42 of construction activities.

1 Air emissions from construction and demolition activities and from operational activities would not
2 adversely affect the regional air quality. Standard management techniques, such as wetting exposed
3 surfaces, would reduce fugitive dust emissions during construction/demolition activities.
4

5 The majority of the vegetation at Onizuka AFS consists of landscaped areas containing nonnative
6 grasses, ornamental shrubs, and shade trees. Impacts to such human-created habitats are considered to be
7 insignificant. Most of the species known to inhabit the Onizuka AFS property are common and/or
8 disturbance tolerant. Potential impacts to wildlife include displacement of individuals to adjacent areas
9 and direct mortality to burrowing species or individuals that are less mobile. These impacts to common
10 wildlife species are not expected to be significant. There is no suitable habitat for threatened or
11 endangered species identified as having the potential to occur on or adjacent to Onizuka AFS.
12

13 No archaeological resources are known to be present on the property. In the unlikely event that
14 archaeological resources are encountered during demolition and construction activities, the
15 redevelopment contractor would suspend work in the immediate area, protect the site in place, and report
16 the discovery to the California State Historic Preservation Officer (SHPO) to determine if additional
17 investigation is required.
18

19 Based on the 2004 historic building inventory and evaluation, none of the facilities at Onizuka AFS have
20 been recommended as eligible for listing in the National Register. An evaluation of facilities 1001, 1002,
21 1003, 1004, 10031 and 10032 will be completed prior to the closure of Onizuka AFS. Although these
22 facilities have already been determined not eligible for listing in the National Register, they are being
23 reconsidered based on the recommendation of the SHPO. The Air Force will consult with the California
24 SHPO, the Advisory Council on Historic Preservation, and other interested parties to develop acceptable
25 measures should they be determined eligible for the National Register. Based on the recommendation of
26 the City's Heritage Preservation Commission, the Onizuka AFS property is considered potentially
27 eligible for designation as a local Heritage Resource under the Sunnyvale Municipal Code. Any further
28 evaluation or preservation of local heritage resources would be implemented by the City of Sunnyvale.
29

30 Activities associated with the disposal of Onizuka AFS would not have a significant impact on any of the
31 resources analyzed in the attached EA. As a result, no disproportionately high or adverse impacts to
32 minority, low-income, or youth populations would be expected.
33

34 **Cumulative Impacts**

35

36 Other future actions in the region were evaluated to determine whether cumulative environmental
37 impacts could result due to the implementation of Air Force property disposal actions in conjunction with
38 other past, present, or reasonably foreseeable future actions. Other actions that would occur in the region
39 include future Moffett Park Redevelopment efforts. Activities associated with this redevelopment have
40 been accounted for in the analysis and are not anticipated to result in significant cumulative impacts
41 when added to potential impacts of proposed Air Force disposal activities.

1 **Conclusion**

2

3 As a result of the analysis of impacts in the EA, it was concluded that the proposed activities would not
4 have a significant effect on the human environment (inclusive of the natural and physical environments);
5 therefore, an environmental impact statement will not be prepared.

ROBERT M. MOORE, SES
Director
Air Force Real Property Agency

Date

Attachment:
Environmental Assessment

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**DRAFT
ENVIRONMENTAL ASSESSMENT**

**DISPOSAL AND REUSE OF
ONIZUKA AIR FORCE STATION, CALIFORNIA**

MAY 2009

1 **COVER SHEET**

2
3 **ENVIRONMENTAL ASSESSMENT**
4 **DISPOSAL AND REUSE OF ONIZUKA AIR FORCE STATION**
5 **SUNNYVALY, CALIFORNIA**
6
7

- 8 a. Lead Agency: U.S. Air Force
- 9 b. Proposed Action: Disposal and Reuse of Onizuka Air Force Station (AFS), California.
- 10 c. Written comments and inquiries regarding this document should be directed to: Branch Chief of
11 Environmental Execution Conversion, HQ AFCEE/EXC, 3300 Sidney Brooks,
12 Brooks City-Base, TX, 78235-5112.
- 13 d. Designation: Draft Environmental Assessment (EA)
- 14 e. Abstract: Pursuant to the Base Closure and Realignment Act of 1990, Onizuka AFS is
15 scheduled for closure by September 15, 2011. This EA has been prepared in accordance with
16 the National Environmental Policy Act to analyze the potential environmental consequences of
17 the disposal and reasonable alternatives for reuse of the installation.

18 The Proposed Action involves the demolition of most installation facilities to allow redevelopment of
19 the property for low-density offices with the Veterans Affairs (VA) occupying facilities 1002, 1018, and
20 1034. The Corporate Office Alternative involves the demolition of all installation facilities to allow
21 redevelopment of the property for higher density offices with incorporation of the VA offices in a new
22 on-site building or relocated off site. The Hotel, Conference Center, and Office Alternative involves
23 the demolition of all installation facilities to allow redevelopment of the property for a new hotel with
24 restaurant, bar, and conference center. Office development would also occur on the property. VA
25 offices would be incorporated into a new on-site building or developed at a location off site. The
26 Automotive Retail Center Alternative involves the demolition of all installation facilities to allow
27 redevelopment of the property for automotive retail sales and service for multiple vehicle
28 manufacturers. VA offices would be developed at a location off site. The Veterans Affairs and
29 Homeless Provider Alternative involves redevelopment of the property for office and residential
30 (homeless provider) uses with the VA occupying facilities 1002, 1018, and 1034. The No-Action
31 Alternative involves the Air Force retaining the Onizuka AFS property and maintaining it in caretaker
32 status.

33 All environmental resources were analyzed in this EA; however, only the environmental resources
34 potentially affected by the Proposed Action and alternative were analyzed in-depth, including
35 socioeconomics, land use/aesthetics, transportation, utilities, hazardous materials management,
36 hazardous waste management, Environmental Restoration Program sites, storage tanks, asbestos-
37 containing material, lead-based paint, geology and soils, water resources, air quality, biological
38 resources, cultural resources, and environmental justice. Based on the analysis of the Proposed
39 Action and alternatives, the Air Force has determined that no significant impacts would occur.

Privacy Advisory

Your comments on this draft environmental assessment (EA) are requested. Letters or other written or oral comments provided may be published in the final EA. As required by law, comments will be addressed in the final EA and made available to the public. Any personal information provided will be used only to identify your desire to make a statement during the public comment period or to fulfill requests for copies of the final EA or associated documents. Private addresses will be compiled to develop a mailing list for those requesting copies of the final EA. However, only the names of the individuals making comments and specific comments will be disclosed. Personal home addresses and telephone numbers will not be published in the final EA.

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ACRONYMS AND ABBREVIATIONS

ACM	asbestos-containing material
Advisory Council	Advisory Council on Historic Preservation
AFI	Air Force Instruction
AFS	Air Force Instruction
AFSPC	Air Force Space Command
AHERA	Asbestos Hazard Emergency Response Act
AIRFA	American Indian Religious Freedom Act
AOC	Area of Concern
AQMD	Air Quality Management District
AST	aboveground storage tank
BAAQMD	Bay Area Air Quality Management District
bgs	below ground surface
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CMP	Congestion Management Program
CO	carbon monoxide
CO ₂	carbon dioxide
Commission	Defense Base Closure and Realignment Commission
CPSC	Consumer Product Safety Commission
CWA	Clean Water Act
DBCRA	Defense Base Closure and Realignment Act
DOD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
DTSC	Department of Toxic Substances Control
EA	environmental assessment
EIR	environmental impact report
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ERP	Environmental Restoration Program
FEMA	Federal Emergency Management Agency
FPMR	Federal Property Management Regulations
gpd	gallons per day
GSA	General Services Administration
HAZMAT	Hazardous Materials
HMBP	Hazardous Materials Business Plan
HMMP	Hazardous Materials Management Plan
HOV	high occupancy vehicle
HSC	Health and Safety Code
HUD	Housing and Urban Development
JP-5	Jet Propulsion Fuel, Grade 5
JP-8	Jet Propulsion Fuel, Grade 8
KWH	kilowatt-hours
LBA	Legally Binding Agreement
LBP	lead-based paint
LOS	Level of Service

LRA	Local Redevelopment Authority
MFA	Moffett Federal Airfield
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
MWH	mega watt hour
NAAQS	National Ambient Air Quality Standards
National Register	National Register of Historic Places
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NOI	notice of interest
NO_x	nitrogen oxide
NO_2	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NSR	New Source Review
OSHA	Occupational Safety and Health Administration
OWS	oil/water separator
PA/SI	Preliminary Assessment/Site Investigation
PCB	polychlorinated biphenyl
pCi/l	pico curies per liter
PG&E	Pacific Gas and Electric
P.L.	Public Law
$\text{PM}_{2.5}$	particulate matter equal to or less than 2.5 micron in diameter
PM_{10}	particulate matter equal to or less than 10 micron in diameter
POL	petroleum, oil, lubricant
ppm	part per million
PSD	Prevention of Significant Deterioration
RCRA	Resources Conservation and Recovery Act
ROI	region of influence
RWQCB	Regional Water Quality Control Board
SCVTA	Santa Clara Valley Transportation Authority
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SMaRT	Sunnyvale Materials Recovery and Transfer
SO_2	sulfur dioxide
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan
TCLP	Toxic Characteristic Leaching Procedure
TDM	transportation demand management
tpy	tons per year
U.S.C.	United States Code
USDA	United States Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
VA	Veterans Affairs
VMT	vehicle miles traveled
VOC	volatile organic compound
WAPA	Western Area Power Administration

1.0 PURPOSE OF AND NEED FOR ACTION

This environmental assessment (EA) evaluates the potential environmental impacts associated with the disposal and reuse of Onizuka Air Force Station (AFS) in the City of Sunnyvale, California.

This document has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [U.S.C.] 4321, et seq.), the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and Air Force policy and procedures (32 CFR Part 989).

1.1 PURPOSE AND NEED

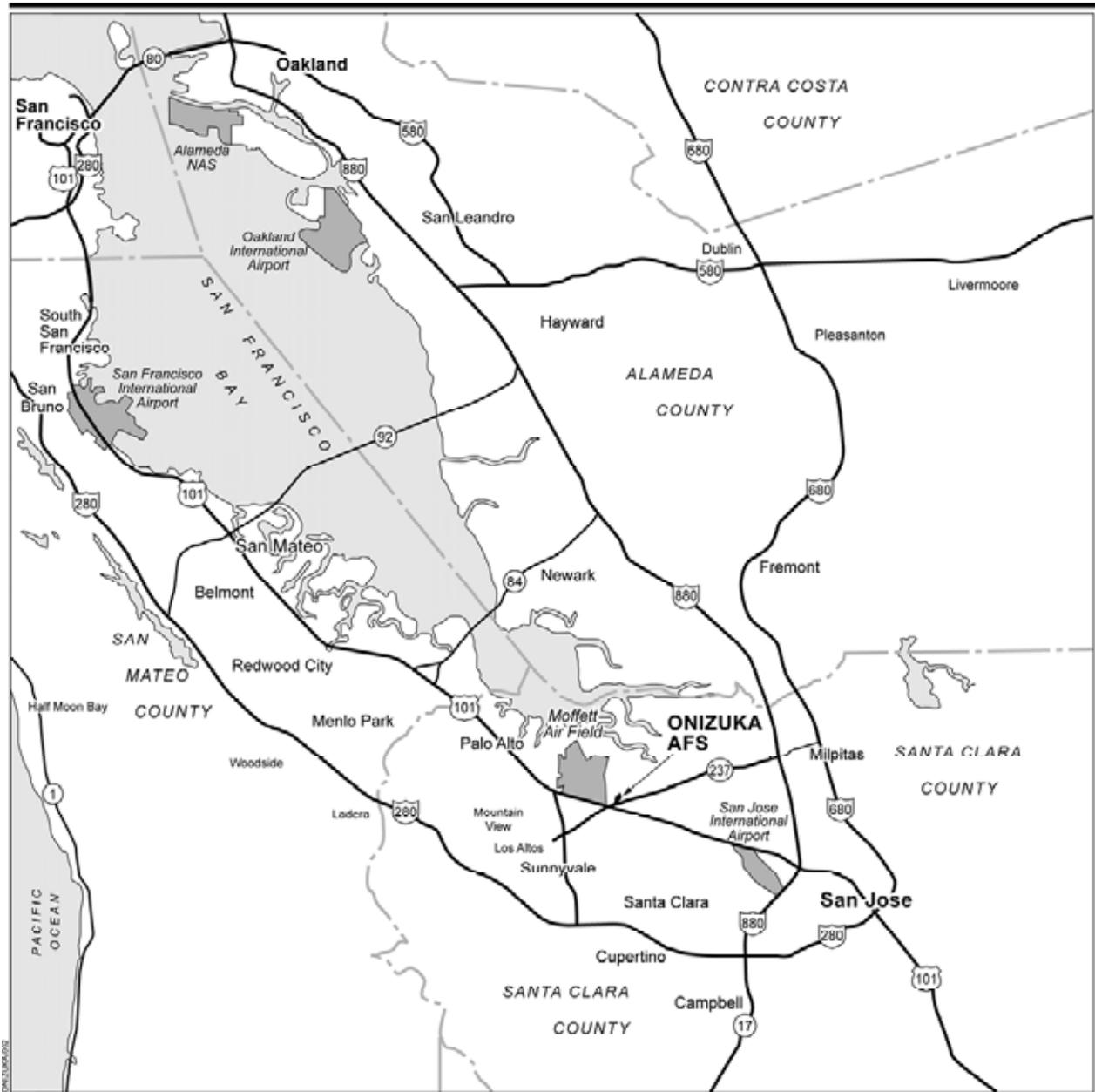
Pursuant to the Defense Base Closure and Realignment Act (DBCRA) of 1990 (Public Law [P.L.] 100-526, 104 Stat. 1808, 10 U.S.C. Section 2687 note), the Department of Defense (DOD) must realign and reduce its military forces. DBCRA established an independent Defense Base Closure and Realignment Commission (Commission) to review the Secretary of Defense's base closure and realignment recommendations. After reviewing these recommendations, the 2005 Commission forwarded its recommended list of base closures and realignments to the President, who accepted the recommendations and submitted them to Congress. Since Congress did not disapprove the recommendations in the time given under DBCRA, the recommendations became law. Because Onizuka AFS was on the Commission's list, the decision to close the installation is final. Onizuka AFS is scheduled to close no later than September 15, 2011.

1.2 LOCATION OF THE PROPOSED ACTION

Onizuka AFS occupies approximately 23 acres in the City of Sunnyvale, Santa Clara County, California, and is approximately forty miles southeast of San Francisco at the southern edge of San Francisco Bay (Figure 1.2-1). State Route (SR) 237 borders Onizuka AFS to the south. Onizuka AFS consists of 28 facilities, associated roads, vehicle parking lots, and open areas (Figure 1.2-2). Most of the installation is paved or built with only a few small green/open areas.

1.3 SCOPE OF ENVIRONMENTAL REVIEW

Consistent with the CEQ regulations, the scope of analysis presented in this EA is defined by the potential range of environmental impacts that would result from implementation of the Proposed Action or alternatives. This document is "issue-driven," in that it concentrates on those resources that may be affected by implementation of the Proposed Action or alternatives.



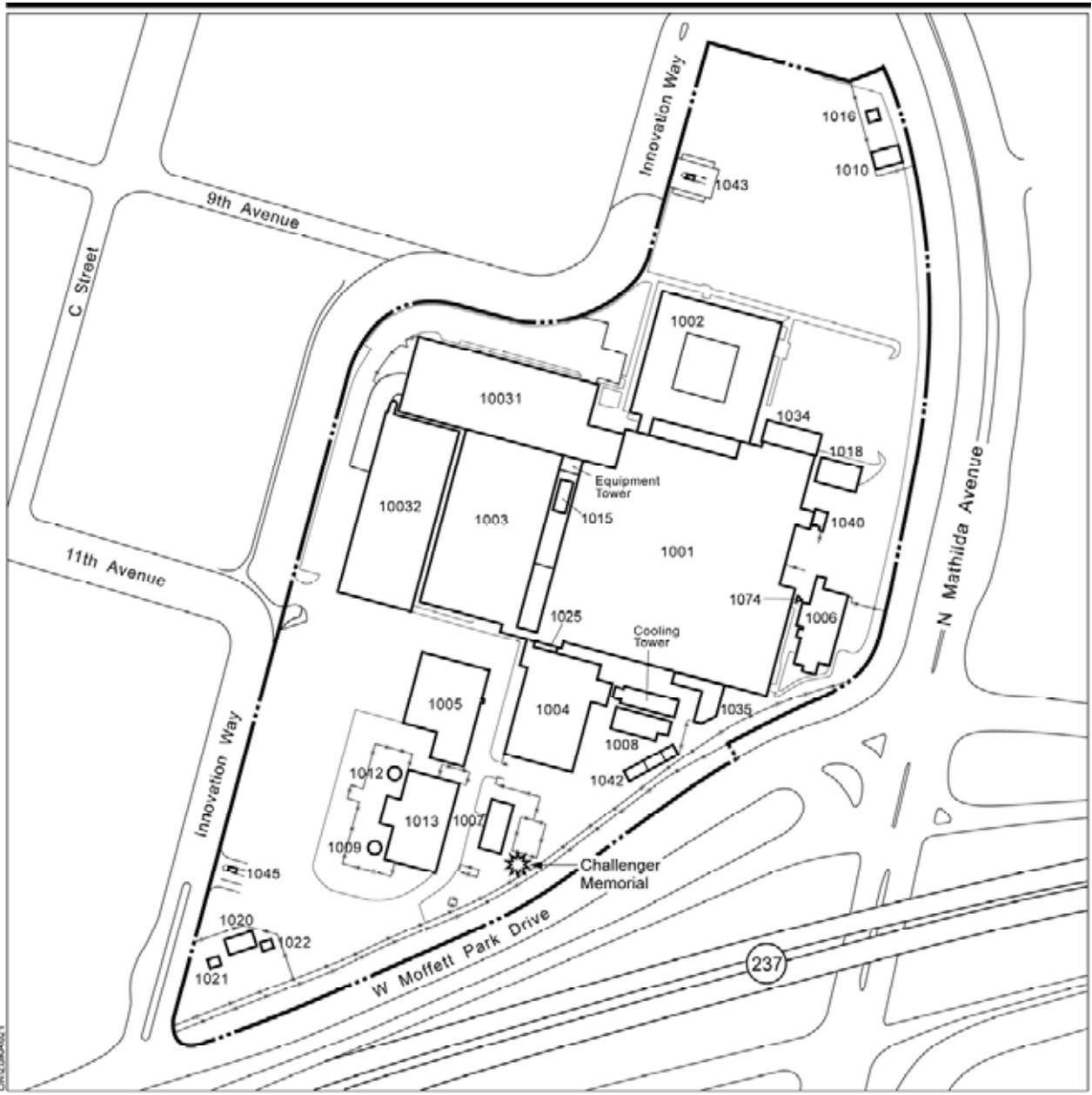
EXPLANATION

-  Interstate Highway
-  U.S. Highway
-  State Highway

**Regional Map
Onizuka
Air Force Station**



Figure 1.2-1



EXPLANATION

--- Installation Boundary

**Onizuka
Air Force Station**

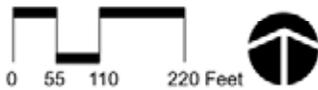


Figure 1.2-2

1 Resources that have a potential for impact were considered in detail in order to
2 determine if implementing the Proposed Action or alternatives would have a
3 significant impact on environmental resources. The resources analyzed in detail
4 are socioeconomics, land use/aesthetics, transportation, utilities, hazardous
5 materials management, hazardous waste management, Environmental
6 Restoration Program (ERP) sites, storage tanks, asbestos-containing material
7 (ACM), lead-based paint (LBP), geology and soils, water resources, air quality,
8 biological resources, cultural resources, and environmental justice. The affected
9 environment and the potential environmental consequences relative to these
10 resources are described in Chapters 3.0 and 4.0, respectively.

11 Initial analysis indicates that disposal activities would not result in impacts to
12 pesticide usage, polychlorinated biphenyls (PCBs), radon, medical/biohazardous
13 waste, ordnance, radioactive materials, and noise. The reasons for not
14 addressing these resources are briefly discussed in the following paragraphs.

15 **Pesticide Usage.** Pesticide applications would be conducted by the property
16 recipient in accordance with applicable laws and label directions; therefore,
17 impacts from pesticide usage are not expected and are not analyzed further in
18 this EA.

19 **Polychlorinated Biphenyls.** No transformers, capacitors, or switches containing
20 PCBs are present on Onizuka AFS (U.S. Air Force, 1998). PCBs may still be
21 present in older light ballasts; however, these are not regulated as PCB
22 equipment or PCB-contaminated equipment. Therefore, impacts from PCBs are
23 not expected and are not analyzed further in this EA.

24 **Radon.** No screening has been conducted at Onizuka AFS because no
25 residential units or schools are present at the installation. Santa Clara County is
26 within U.S. Environmental Protection Agency (EPA) radon zone 2 which indicates
27 indoor average radon levels of between 2 and 4 picocuries per liter (pCi/l)
28 (U.S. Environmental Protection Agency, 2007). Because indoor average radon
29 levels in the region are below the U.S. EPA recommended mitigation level of
30 4.0 pCi/l, impacts from radon would not be expected and are not analyzed further
31 in this EA.

32 **Medical/Biohazardous Waste.** Medical/biohazardous waste is not generated at
33 Onizuka AFS and none would be generated under the Proposed Action or
34 alternatives. Therefore, impacts from medical/biohazardous waste are not
35 expected and are not analyzed further in this EA.

36 **Ordnance.** Ordnance is not stored, used, or disposed at Onizuka AFS; however,
37 small arms ammunition is stored within Facility 1025 for use by site security
38 officials. The Proposed Action and alternatives would not require the use of
39 ordnance. Therefore, impacts from ordnance are not expected and are not
40 analyzed further in this EA.

41 **Radioactive Materials.** Radioactive materials are not stored, used, or disposed
42 within facilities at Onizuka AFS. X-ray activities are conducted at Facility 1005 as
43 part of mail inspection activities. The Proposed Action and alternatives would not

1 require the use of radioactive materials. Therefore, impacts from radioactive
2 materials are not expected and are not analyzed further in this EA.

3 **Noise.** Noise generated from proposed demolition and construction activities
4 would be minor and short-term, and would primarily occur at the construction site.
5 Construction-related traffic noise would also be temporary. Potential reuses of
6 the property (e.g., automotive retail, office, and hotel) would not be expected to
7 generate high noise levels or be incompatible with existing surrounding land uses.
8 No sensitive noise receptors are located in the vicinity of the installation. Impacts
9 from noise are not expected and are not analyzed further in this EA.

10 **1.4 FEDERAL, STATE, AND LOCAL PERMITS, LICENSES, AND FEES**

11 The contractor responsible for conducting demolition/construction activities would
12 obtain required federal, state, and local permits. The contractor would cooperate
13 with the Air Force to ensure compliance with applicable Air Force, federal, state,
14 and local regulations and/or requirements.

15 Representative federal permits, licenses, and entitlements that may be required
16 for the disposal and reuse of Onizuka AFS are provided in Table 1.4-1. This
17 table is presented for illustrative purposes only, it does not include state, county,
18 or local permits, licenses or entitlements that may be required.

Table 1.4-1. Representative Federal Permits, Licenses, and Entitlements

Federal Permit, License, or Entitlement	Typical Activity, Facility, or Category of Persons Required to Obtain the Federal Permit, License, or Entitlement	Authority	Regulatory Agency
Clean Air Act (CAA) Title V permit	Any major sources (sources that emits more than 100 tons/year of criteria pollutant in nonattainment area for that pollutant or is otherwise defined in Title I of CAA as a major source); affected sources as defined in Title IV of CAA; sources subject to Section 111 regarding New Source Performance Standards; sources of air toxics regulated under Section 112 of CAA; sources required to have new source or modification permits under Parts C or D of Title I of CAA; and any other source designated by U.S. Environmental Protection Agency regulations	Title V of CAA, as amended by the 1990 CAA Amendments, Title V of CAA	U.S. Environmental Protection Agency
National Pollutant Discharge Elimination System (NPDES) permit	Discharge of pollutant from any point source into waters of the United States	Section 402 of Clean Water Act, 33 U.S.C. Section 1342	U.S. Environmental Protection Agency
Section 404 (Dredge and Fill) permit	Any project activities resulting in the discharge of dredged or fill material into bodies of water, including wetlands, within the United States	Section 404 of Clean Water Act, 33 U.S.C. Section 1344	U.S. Department of Defense – Army Corps of Engineers, in consultation with U.S. Environmental Protection Agency
Hazardous waste treatment, storage, or disposal (TSD) facility permit	Owners or operators of a new or existing hazardous waste TSD facility	Resource Conservation and Recovery Act (RCRA) as amended, 42 U.S.C. Section 6901; 40 CFR 270	U.S. Environmental Protection Agency
U.S. Environmental Protection Agency identification number	Generators or transporters (off-site transport) of hazardous waste	40 CFR 262.10 (generators); 40 CFR 263, Subpart B (transporters)	U.S. Environmental Protection Agency
Archaeological Resources Protection Act permit	Excavation and/or removal of archaeological resources from public lands or Indian lands and carrying out activities associated with such excavation and/or removal	Archaeological Resource Protection Act of 1979, 16 U.S.C. Section 470cc.	U.S. Department of the Interior – National Park Service
Endangered Species Act Section 10 permit	Taking endangered or threatened wildlife species; engaging in certain commercial trade or endangered or threatened plants or removing such plants on property subject to federal jurisdiction	Section 10 of Endangered Species Act, 16 U.S.C. Section 1539; 50 CFR 17 Subparts C, D, F, and G	U.S. Department of the Interior – Fish and Wildlife Service

CAA = Clean Air Act
 CFR = Code of Federal Regulations
 NPDES = National Pollutant Discharge Elimination System
 RCRA = Resource Conservation and Recovery Act
 TSD = treatment, storage, or disposal
 U.S.C. = United States Code

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 INTRODUCTION

This chapter describes the Proposed Action and alternatives for the disposal and reuse of Air Force property at Onizuka AFS, as well as the No-Action Alternative. The potential environmental impacts of the Proposed Action and alternatives are summarized in Table 2.6-1 at the end of this chapter.

Generally, the Administrator of the General Services Administration (GSA) has authority to dispose of excess and surplus real property belonging to the federal government. However, with regard to military base closures, the DBCRA requires the GSA Administrator to delegate disposal authority to the Secretary of Defense. The Secretary of Defense has since redelegated these authorities to the respective Service Secretaries. The Secretary of the Air Force has full discretion in determining how the Air Force will dispose of its property. DBCRA requires the Air Force to comply with federal property disposal laws and Federal Property Management Regulations (FPMR) (41 CFR 101-47).

Provisions of DBCRA and FPMR require that the Air Force first notify other DOD departments that Onizuka AFS is scheduled for disposal. Any proposals from these departments for the transfer of Onizuka AFS are given priority consideration.

Under Title V of 42 U.S.C. Section 11411, the Stewart B. McKinney Homeless Assistance Act, federal agencies are required to report to the Secretary of the Department of Housing and Urban Development (HUD) information regarding unused, underused, excess, and surplus federal real properties that may be suitable for use as facilities to assist the homeless. These properties may be made available to states, units of local government, and nonprofit organizations operating as homeless providers.

Prior to making property available for use to assist the homeless, the Air Force may consider other federal uses and other important national needs. In deciding the disposition of surplus property, a priority of consideration will be given to uses which assist the homeless, unless it is determined that a competing request for the property that serves one of the public benefits specified under Title 40 U.S.C. Section 484(k) is so meritorious and compelling as to outweigh the needs of the homeless.

The only formal proposal for federal conveyance received was from the Department of Veterans Affairs (VA) for facilities 1002, 1008, and 1034, and associated land/vehicle parking. Two homeless housing proposals have been received by the Local Redevelopment Authority (LRA) for Onizuka AFS. One proposal involves a 125-unit development on 4.2 acres; a second proposal involves a 120-unit and service center development on 3 acres (see Section 2.3.4, Other Interests, for a discussion of these proposals).

1 In order to address a range of potential environmental impacts of disposal and
2 reuse, the following reuse alternatives have been developed.

3 The **Proposed Action** involves the redevelopment of Onizuka AFS for low-
4 density offices with incorporation of the VA occupation of facilities 1002, 1018,
5 and 1034.

6 The **Corporate Office Alternative** would involve the redevelopment of the
7 property for higher density offices with incorporation of the VA offices in a new on-
8 site building or relocated off site.

9 The **Hotel, Conference Center, and Office Alternative** involves construction of
10 a new hotel with restaurant, bar, and conference center. Office development
11 would also occur on the property. VA offices would be incorporated into a new
12 on-site building or developed at a location off site.

13 The **Automotive Retail Center Alternative** involves redevelopment of the
14 property for automotive retail sales and service for multiple vehicle
15 manufacturers. VA offices would be developed at a location off site.

16 The **Veterans Affairs and Homeless Provider Alternative** involves
17 redevelopment of the property for office and residential (homeless provider) uses
18 with the VA occupying facilities 1002, 1018, and 1034.

19 The **No-Action Alternative** would involve the Air Force retaining the Onizuka
20 AFS property and maintaining it in caretaker status.

21 The potential reuse of existing site infrastructure and facilities, and/or their
22 demolition and replacement were considered in the alternatives analysis.
23 Currently, the installation structures include various buildings, utility-related
24 facilities, and non-building facilities such as antenna's, roads, parking, lighting,
25 etc. The various surface buildings range from small single-story structures to
26 large multi-level structures and total approximately 615,000 square feet.

27 During the development of alternatives addressed in this EA, the Air Force
28 considered the compatibility of future uses of the property with current site
29 conditions that may restrict disposal activities to protect human health and the
30 environment. The Air Force also considered the goals and policies identified for
31 the region and established by the City of Sunnyvale planning documents.

32 2.2 DESCRIPTION OF THE PROPOSED ACTION

33 Section 2905(b)(2)(E) of DBCRA requires the Air Force, as part of the disposal
34 process, to consult with the State Governor, heads of local governments, or
35 equivalent political organizations for the purpose of considering any plan for the
36 use of excess property by the concerned local community. In accordance with
37 DBCRA, the Air Force shall give substantial consideration to the LRA
38 redevelopment plan in preparing the NEPA decision document. Air Force policy
39 is to use the community's plan for reuse or redevelopment of land and facilities as
40 the Proposed Action.

1 The LRA was formed and given authority to redevelop those portions of Onizuka
2 AFS to be excessed. The LRA assessed the existing land, facilities, and
3 infrastructure on Onizuka AFS and evaluated their potential for reuse. In
4 December 2008, the LRA submitted to the Air Force, their Final Concept
5 Development Plan that addressed the following:

- 6 • Goals and objectives strategy
- 7 • Existing conditions influencing redevelopment potential
- 8 • Conceptual land uses
- 9 • Site and infrastructure improvements
- 10 • Projected employment.

11 The Air Force has used this planning document to develop the Proposed Action
12 and alternatives for environmental analysis. Although the LRA's preferred
13 alternative is reuse of the property as an automotive retail center, the Proposed
14 Action presented in this EA reflects office and VA use of the property because a
15 decision to transfer a portion of the property to the VA has been made. Reuse of
16 the property as an automotive retail center is included as one of the alternative
17 reuse scenarios.

18 The Proposed Action is a comprehensive reuse plan focusing on redevelopment
19 of excess property for low-density offices with incorporation of the VA occupation
20 of facilities 1002, 1018, and 1034 (Figure 2.2-1). Homeless provider requested
21 use of the property would be relocated to an agreed to off-site location to
22 maximize the redevelopment of the Onizuka AFS property.

23 **2.2.1 Demolition**

24 The Proposed Action would require the demolition of 25 existing structures
25 totaling approximately 558,000 square feet on 21 acres of Onizuka AFS.

26 The demolition contractor would be required to transport and dispose all
27 demolition debris and hazardous waste (including non-regulated waste such as
28 used oil) off site at approved or permitted facilities for that type of waste in
29 accordance with federal, state, and local regulations. If a spill occurs during
30 demolition, it would be cleaned up by the demolition contractor. If ACM, LBP, or
31 other hazardous material are identified in areas proposed for demolition and
32 cannot be avoided, removal and disposal would be conducted by a certified
33 contractor in accordance with applicable federal, state, and local regulations.

34 As a means to reduce the amount of demolition debris disposed, concrete would
35 be separated, ground up, and stockpiled for future use. Some building materials
36 (e.g., wood and metal) would be recycled to the extent possible.

37 **2.2.2 Construction**

38 The proposed commercial office development would involve construction of
39 approximately 243,326 square feet of new office space covering 21 acres, or
40 90 percent of the installation area. Appropriate vehicle parking space
41 (811 spaces) would be provided. With the exception of facilities requested by the
42 VA, all existing structures would be demolished. Homeless provider requested

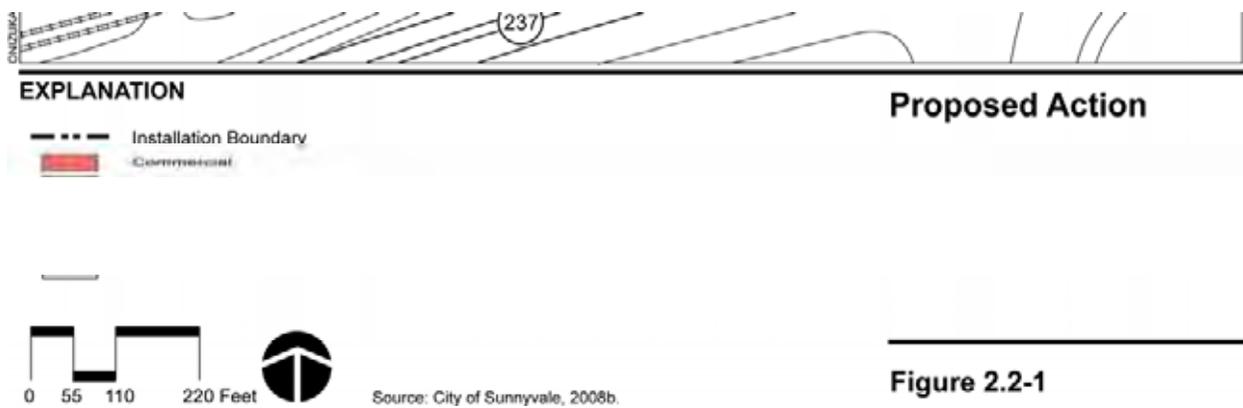


Figure 2.2-1

1 developments would occur at an off-site location. Earthwork for demolition and
2 construction activities would be performed in accordance with an approved Storm
3 Water Pollution Prevention Plan.

4 New office development would occur after 2011 and would be complete by 2016.

5 In order to support their regional needs, the VA has expressed interest in several
6 structures. The VA intends to relocate approximately 150 research and
7 administrative staff from existing regional offices. The specific facilities and areas
8 requested are listed below and shown on Figure 2.2-1:

- 9 • Facility 1002 (50,560 square feet)
- 10 • Facility 1018 (2,200 square feet)
- 11 • Facility 1034 (4,205 square feet)

12 Parking for approximately 100 to 168 vehicles.

13 **2.2.3 Employment and Population**

14 The Proposed Action would generate an estimated 3,363 direct on-site jobs.
15 Demolition and construction activities would create temporary construction and
16 construction-related jobs. No on-site population is anticipated.

17 **2.2.4 Transportation**

18 Under the Proposed Action, Mathilda Avenue would be the major access route to
19 the property. Access from Mathilda Avenue would be provided via Innovation
20 Way on the north and eastern sides of the property.

21 Based on land use and employment projections, average daily vehicular traffic to
22 and from the property would be approximately 3,599 trips. Estimated evening
23 peak hour traffic would be approximately 421 trips.

24 **2.2.5 Utilities**

25 The projected activities associated with the Proposed Action would generate the
26 following on-site utility demands:

- 27 • Water – 350,000 gallons per day (gpd)
- 28 • Wastewater – 290,000 gpd
- 29 • Electricity – 16.6 megawatt-hours (MWH) per day
- 30 • Natural Gas – 80 therms per day
- 31 • Solid Waste – 2.6 tons per day.

32 The installation power plant would no longer be operated. Existing utility
33 connections to and from the site would be considered for reuse. Utility service
34 would continue to be provided by local purveyors.

35 **2.3 ALTERNATIVES TO THE PROPOSED ACTION**

36 For purposes of this EA, three reuse alternatives were considered in addition to
37 the Proposed Action.

1 **2.3.1 Corporate Office Alternative**

2 The Corporate Office Alternative provides for the construction of high-end,
3 landmark-quality corporate headquarters offices with incorporation of the VA
4 requested use of the property or relocation of the VA activities to an agreed to off-
5 site location to maximize Onizuka AFS redevelopment (Figure 2.3-1). Homeless
6 provider requested use of the property would be relocated to an agreed to off-site
7 location to maximize the redevelopment of the Onizuka AFS property.

8 **2.3.1.1 Demolition.**

9 The Corporate Office Alternative would require the demolition of all existing
10 structures totaling approximately 615,000 square feet on 23 acres of Onizuka
11 AFS.

12 The demolition contractor would be required to transport and dispose all
13 demolition debris and hazardous waste (including non-regulated waste such as
14 used oil) off site at approved or permitted facilities for that type of waste in
15 accordance with federal, state, and local regulations. If a spill occurs during
16 demolition, it would be cleaned up by the demolition contractor. If ACM, LBP, or
17 other hazardous material are identified in areas proposed for demolition and
18 cannot be avoided, removal and disposal would be conducted by a certified
19 contractor in accordance with applicable federal, state, and local regulations.

20 As a means to reduce the amount of demolition debris disposed, concrete would
21 be separated, ground up, and stockpiled for future use. Some building materials
22 (e.g., wood and metal) would be recycled to the extent possible.

23 **2.3.1.2 Construction.**

24 The Corporate Office Alternative would involve construction of approximately
25 287,540 square feet of new office space covering 23 acres, or 100 percent of the
26 installation area. Appropriate vehicle parking space (959 spaces) would be
27 provided. VA offices would be incorporated within a portion of the new corporate
28 offices built on site or at another location off-site. Homeless provider requested
29 developments would occur at off-site locations. All existing structures would be
30 demolished. Earthwork for demolition and construction activities would be
31 performed in accordance with an approved Storm Water Pollution Prevention
32 Plan. New office development would occur after 2011 and would be complete by
33 2015.

34 **2.3.1.3 Employment and Population.**

35 The Corporate Office Alternative would generate an estimated 3,616 direct on-
36 site jobs. Demolition and construction activities would create temporary
37 construction and construction-related jobs. No on-site population is anticipated.

38 **2.3.1.4 Transportation.**

39 Under the Corporate Office Alternative, Mathilda Avenue would be the major
40 access route to the property. Access from Mathilda Avenue would be provided
41 via Innovation Way on the north and western sides of the property.

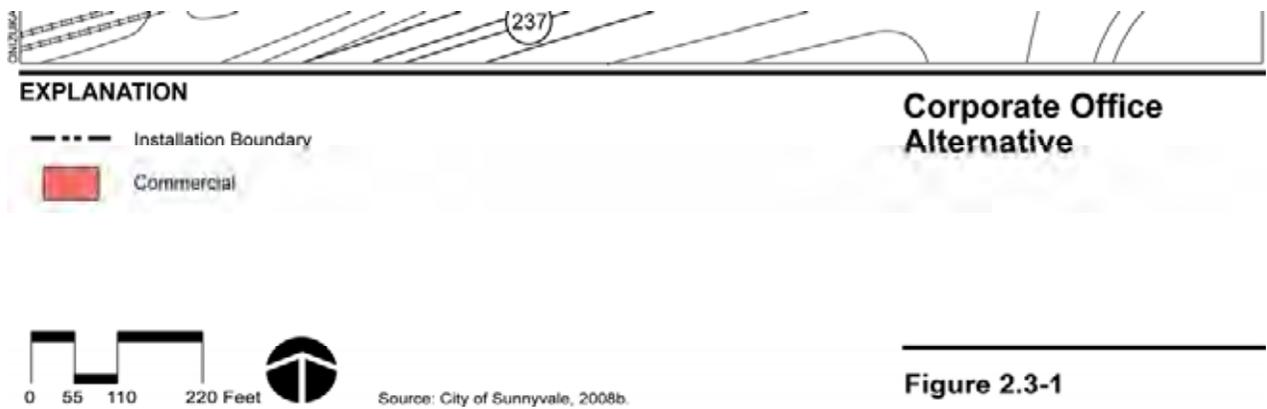


Figure 2.3-1

1 Based on land use and employment projections, average daily vehicular traffic to
2 and from the property would be approximately 4,977 trips. Estimated evening
3 peak hour traffic would be approximately 701 trips.

4 **2.3.1.5 Utilities.**

5 The projected activities associated with the Corporate Office Alternative would
6 generate the following on-site utility demands:

- 7 • Water – 320,000 gpd
- 8 • Wastewater – 300,000 gpd
- 9 • Electricity – 14.2 MWH per day
- 10 • Natural Gas – 15 therms per day
- 11 • Solid Waste – 2.7 tons per day.

12 The installation power plant would no longer be operated. Existing utility
13 connections to and from the site would be considered for reuse. Utility service
14 would continue to be provided by local purveyors.

15 **2.3.2 Hotel, Conference Center, and Office Alternative**

16 The Hotel, Conference Center, and Office Alternative involve the construction of a
17 landmark-quality hotel and conference center (Figure 2.3-2). VA and homeless
18 provider requested use of the property would be relocated to an agreed to off-site
19 location to maximize the redevelopment of the Onizuka AFS property.

20 **2.3.2.1 Demolition.**

21 The Hotel, Conference Center, and Office Alternative would require the
22 demolition of all existing structures totaling approximately 615,000 square feet on
23 23 acres of Onizuka AFS.

24 The demolition contractor would be required to transport and dispose all
25 demolition debris and hazardous waste (including non-regulated waste such as
26 used oil) off site at approved or permitted facilities for that type of waste in
27 accordance with federal, state, and local regulations. If a spill occurs during
28 demolition, it would be cleaned up by the demolition contractor. If ACM, LBP, or
29 other hazardous material are identified in areas proposed for demolition and
30 cannot be avoided, removal and disposal would be conducted by a certified
31 contractor in accordance with applicable federal, state, and local regulations.

32 As a means to reduce the amount of demolition debris disposed, concrete would
33 be separated, ground up, and stockpiled for future use. Some building materials
34 (e.g., wood and metal) would be recycled to the extent possible.

35 **2.3.2.2 Construction.**

36 The Hotel, Conference Center, and Office Alternative would involve construction
37 of approximately 947,695 square feet of building space for a new hotel and
38 conference center. Construction would include:

- 39 • 250-room hotel with restaurant, spa, and ancillary retail space
40 (187,500 square feet)

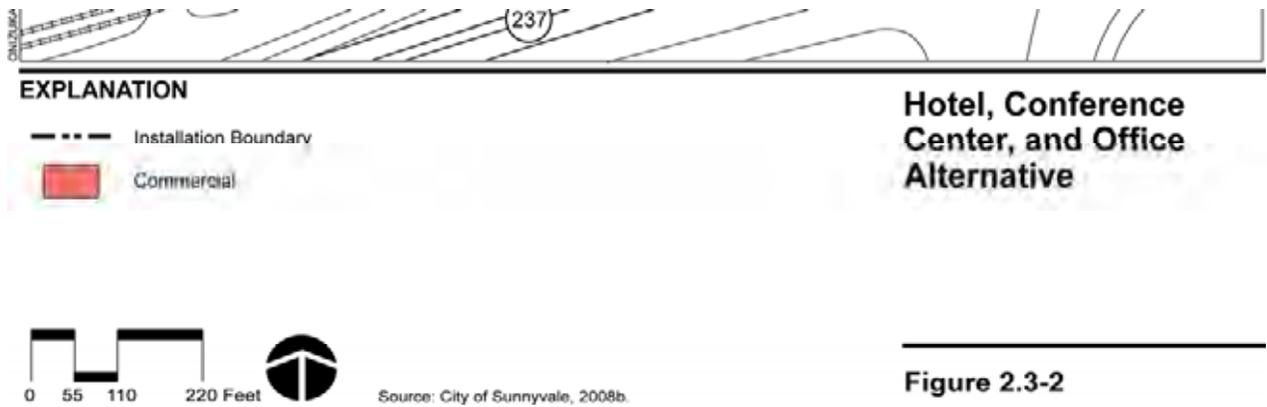


Figure 2.3-2

- Conference Center (10,000 square feet)
- Offices (325,080 square feet)
- Parking structures (1,269 spaces – 425,115 square feet)
- Surface parking (463 spaces).

The entire property would be developed for use as a hotel/conference center and offices with appropriate vehicle parking. VA offices and homeless provider developments would be constructed at another location off-site. All existing structures would be demolished. Earthwork for demolition and construction activities would be performed in accordance with an approved Storm Water Pollution Prevention Plan. Construction would occur after 2011 and would be complete by 2016.

2.3.2.3 Employment and Population.

The Hotel/Conference Center Alternative would generate an estimated 4,437 direct on-site jobs. Demolition and construction activities would create temporary construction and construction-related jobs. No on-site population is anticipated.

2.3.2.4 Transportation.

Under the Hotel/Conference Center Alternative, Mathilda Avenue would be the major access route to the property. Access from Mathilda Avenue would be provided via Innovation Way on the north and western sides of the property.

Based on land use and employment projections, average daily vehicular traffic to and from the property would be approximately 6,976 trips. Estimated evening peak hour traffic would be approximately 993 trips.

2.3.2.5 Utilities.

The projected activities associated with the Hotel/Conference Center Alternative would generate the following on-site utility demands:

- Water – 440,000 gpd
- Wastewater – 400,000 gpd
- Electricity – 25 MWH per day
- Natural Gas – 430 therms per day
- Solid Waste – 5.3 tons per day.

The installation power plant would no longer be operated. Existing utility connections to and from the site would be considered for reuse. Utility service would continue to be provided by local purveyors.

2.3.3 Automotive Retail Center Alternative

The Automotive Retail Center Alternative involves the redevelopment of the property for automotive retail sales and service for multiple vehicle manufacturers (Figure 2.3-3). VA and homeless provider requested use of the property would be relocated to an agreed to off-site location to maximize the redevelopment of the Onizuka AFS property.



EXPLANATION

- Installation Boundary
- Commercial

Automotive Retail Center Alternative



Note: Building footprints for Showrooms/Service are conceptual, each dealer parcel will include showrooms, service, offices, inventory, and parking.
 Source: City of Sunnyvale, 2008b.

Figure 2.3-3

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2.3.3.1 Demolition.

The Automotive Retail Center Alternative would require the demolition of all existing structures totaling approximately 615,000 square feet on 23 acres of Onizuka AFS.

The demolition contractor would be required to transport and dispose all demolition debris and hazardous waste (including non-regulated waste such as used oil) off site at approved or permitted facilities for that type of waste in accordance with federal, state, and local regulations. If a spill occurs during demolition, it would be cleaned up by the demolition contractor. If ACM, LBP, or other hazardous material are identified in areas proposed for demolition and cannot be avoided, removal and disposal would be conducted by a certified contractor in accordance with applicable federal, state, and local regulations.

As a means to reduce the amount of demolition debris disposed, concrete would be separated, ground up, and stockpiled for future use. Some building materials (e.g., wood and metal) would be recycled to the extent possible.

2.3.3.2 Construction.

The Automotive Retail Center Alternative would involve construction of approximately 60,000 square feet of building space for use as automobile show rooms, administrative space, and vehicle inspection, maintenance, and repair shops. The property would be subdivided to support three or more new dealerships. All 23 acres of the property would be developed for use as an automotive retail center with appropriate new vehicle parking areas. VA offices and homeless provider developments would be constructed at another location off-site. All existing structures would be demolished. Earthwork for demolition and construction activities would be performed in accordance with an approved Storm Water Pollution Prevention Plan. Construction would occur after 2011 and would be complete by 2015.

Vehicle maintenance/repair activities would be conducted at each of the vehicle dealership locations. Small quantities of hazardous materials and hazardous waste would be utilized and generated during vehicle maintenance/repair activities. Appropriate control measures, including use of oil/water separators (OWSs), would be in place to prevent or control any accidental releases.

Hazardous materials likely used on the property would include fuels, petroleum, oil, and lubricants (POL), adhesives, corrosives, paints, thinners, degreasers, solvents, antifreeze, batteries, and commercial cleaning products. The specific chemical compositions and exact use rates associated with vehicle maintenance/repair activities are not known. Hazardous wastes likely to be generated would include used POL, waste antifreeze, and waste batteries. Each dealership would be responsible for the management of hazardous materials and hazardous waste according to applicable regulations.

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2.3.3.3 Employment and Population.

The Automotive Retail Center Alternative would generate an estimated 490 direct on-site jobs. Demolition and construction activities would create temporary construction and construction-related jobs. No on-site population is anticipated.

2.3.3.4 Transportation.

Under the Automotive Retail Center Alternative, Mathilda Avenue would continue to be the major access route to the property. Access from Mathilda Avenue would be provided via Innovation Way on the north and western sides of the property.

Based on land use and employment projections, average daily vehicular traffic to and from the property would be approximately 2,250 trips. Estimated evening peak hour traffic would be approximately 168 trips.

2.3.3.5 Utilities.

The projected activities associated with the Automotive Retail Center Alternative would generate the following on-site utility demands:

- Water – 60,000 gpd
- Wastewater – 45,000 gpd
- Electricity – 3.5 MWH per day
- Natural Gas – 21.5 therms per day
- Solid Waste – 2.6 tons per day.

The installation power plant would no longer be operated. Existing utility connections to and from the site would be considered for reuse. Utility service would continue to be provided by local purveyors.

2.3.4 Veterans Affairs and Homeless Provider Alternative

The Veterans Affairs and Homeless Provider Alternative incorporates the VA occupation of facilities 1002, 1018, and 1034 as well as the request of two homeless housing/service providers to construct a total of 245 housing units. Other available property would be used for corporate office development (Figure 2.3-4).

2.3.4.1 Demolition.

The Veterans Affairs and Homeless Provider Alternative would require the demolition of 25 existing structures totaling approximately 558,000 square feet on 21 acres of Onizuka AFS.

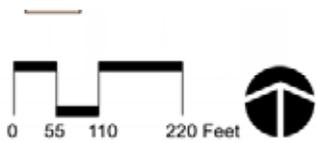
The demolition contractor would be required to transport and dispose all demolition debris and hazardous waste (including non-regulated waste such as used oil) off site at approved or permitted facilities for that type of waste in accordance with federal, state, and local regulations. If a spill occurs during demolition, it would be cleaned up by the demolition contractor. If ACM, LBP, or other hazardous material are identified in areas proposed for demolition and



EXPLANATION

- Installation Boundary
- Residential

Veterans Affairs and Homeless Provider Alternative



Source: City of Sunnyvale, 2008b.

Figure 2.3-4

1 cannot be avoided, removal and disposal would be conducted by a certified
2 contractor in accordance with applicable federal, state, and local regulations.

3 As a means to reduce the amount of demolition debris disposed, concrete would
4 be separated, ground up, and stockpiled for future use. Some building materials
5 (e.g., wood and metal) would be recycled to the extent possible.

6 **2.3.4.2 Construction.**

7 In order to support their regional needs, the VA has expressed interest in several
8 structures. The VA intends to relocate approximately 150 research and
9 administrative staff from existing regional offices. The specific facilities and areas
10 requested are listed below and shown on Figure 2.3-4:

- 11 • Facility 1002 (50,560 square feet)
- 12 • Facility 1018 (2,200 square feet)
- 13 • Facility 1034 (4,205 square feet)
- 14 • Parking for approximately 100 to 168 vehicles.

15 The requested facilities would be renovated as necessary to support VA
16 requirements.

17 Approximately 5 acres, on the northern portion of the property, would be used to
18 construct homeless provider housing and support facilities. The two homeless
19 housing/service providers (Charities Housing and Mid Peninsula Housing) would
20 construct a total of 245 housing units, totaling approximately 165,000 square feet
21 within two three-story structures. Charities Housing would construct 120 units
22 with additional space for administrative use and Mid Peninsula Housing would
23 construct 125 units. This housing development would include a new street
24 perpendicular to Innovation Way. Per the City's parking standards, 1 space per
25 dwelling unit would be provided for a total of 245 parking spaces.

26 The proposed commercial office development would involve construction of
27 161,980 square feet of new office space covering approximately 11 acres.
28 Appropriate vehicle parking space (540 spaces) would be provided. With the
29 exception of facilities requested by the VA, all existing structures would be
30 demolished. Earthwork for demolition and construction activities would be
31 performed in accordance with an approved Storm Water Pollution Prevention
32 Plan. Development would occur after 2011 and would be complete by 2015.

33 **2.3.4.3 Employment and Population.**

34 The Veterans Affairs and Homeless Provider Alternative would generate an
35 estimated 938 direct on-site jobs. Demolition and construction activities would
36 create temporary construction and construction-related jobs.

37 On-site population associated with the residential component of the Veterans
38 Affairs and Homeless Provider Alternative is projected to be approximately 220.

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2.3.4.4 Transportation.

Under the Veterans Affairs and Homeless Provider Alternative, Mathilda Avenue would be the major access route to the property. Access from Mathilda Avenue would be provided via Innovation Way on the north and western sides of the property. A new street perpendicular to Innovation Way would be constructed to provide access to the new housing development.

Based on land use and employment projections, average daily vehicular traffic to and from the property would be approximately 2,800 trips. Estimated evening peak hour traffic would be approximately 328 trips.

2.3.4.5 Utilities.

The projected activities associated with the Veterans Affairs and Homeless Provider Alternative would generate the following on-site utility demands:

- Water – 263,000 gpd
- Wastewater – 218,000 gpd
- Electricity – 11.1 MWH per day
- Natural Gas – 53 therms per day
- Solid Waste – 1.5 tons per day.

The installation power plant would no longer be operated. Existing utility connections to and from the site would be considered for reuse. Utility service would continue to be provided by local purveyors.

2.3.5 No-Action Alternative

Under the No-Action Alternative, the Air Force would retain the Onizuka AFS property and maintain it in caretaker status. The installation property would be preserved (i.e., placed in a condition intended to limit deterioration and ensure public safety). The Air Force would continue to be responsible for the operation and maintenance of the utility systems servicing the facilities on the installation. Employment at the site would consist of approximately five personnel associated with caretaker operations. Average daily vehicular traffic to and from the property would be approximately 20 trips. No demolition activities would occur. This alternative is not viable due to the 2005 Commission decision to close Onizuka AFS. However, in accordance with NEPA, this alternative will be evaluated as it provides a baseline for EA analysis.

2.3.6 Other Interests

This section describes other interests in the Onizuka AFS property (i.e., VA and homeless housing providers). Figure 2.3-5 shows the requested locations of these interests.

Veterans Affairs Offices. In compliance with the Federal Property and Administrative Services Act of 1949, the Air Force solicited proposals from other federal agencies regarding their interest in acquiring any lands or facilities identified for disposal at Onizuka AFS. The only formal proposal for federal conveyance received was from the VA for approximately 2 acres consisting of



EXPLANATION

- Installation Boundary
- Charities Housing Requested Area: 1.8 acres
- Charities Housing Requested Area: 2.5 acres
- Charities Housing Requested Area: 1.5 acres
- Charities Housing Requested Area: 1.5 acres

**Federal/Non-Profit
Interests**



Source: City of Sunnyvale, 2008b.

Figure 2.3-5

1 facilities 1002, 1008, and 1034, and associated land/vehicle parking. The VA use
2 of the property has been incorporated into the Office with Veterans Affairs
3 Alternative and the Veterans Affairs and Homeless Provider Alternative and is
4 assumed to be relocated for the remaining redevelopment alternatives.

5 The LRA will request Air Force approval of the City's request for a conveyance of
6 the VA-requested property to the City, with a requirement that the City lease that
7 property and buildings to the VA. Conceptually the LRA would select a developer
8 who would enter into a Development and Disposition Agreement with the LRA
9 that would set forth details of the redevelopment project including efforts for the
10 relocation of VA interests in the property (City of Sunnyvale, 2008b).

11 **Homeless Services and Housing.** Two homeless housing proposals were
12 received by the LRA, which have not been captured within the analysis of the
13 redevelopment scenarios. One proposal involves a 125-unit development on
14 4.2 acres; the other proposal involves a 120-unit and service center development
15 on 3 acres. Total population under homeless provider proposals is anticipated to
16 be approximately 220. Details of these proposals are presented below:

17 Mid-Peninsula Housing Coalition, a nonprofit housing developer, and Shelter
18 Network, a homeless services provider, submitted a Notice of Intent (NOI) that
19 proposes the construction of 125 new housing units on 4.2 acres. The units
20 would include:

- 21 • 81 studio units to house 40 chronically homeless with mental and/or
22 physical disabilities and 41 single room occupancy units to house
23 individuals at or below 30 percent of area median income
- 24 • 44 (1 and 2 bedroom) units to house 22 homeless families and
25 22 families at-risk of homelessness at or below 30 percent of area
26 median income.

27 Charities Housing Development Corporation, a nonprofit housing developer, and
28 three homeless services providers: Inn Vision - The Way Home, Catholic
29 Charities of Santa Clara County, and the Next Step Center, a division of the
30 Vietnam Veterans of California, submitted an NOI that proposes the construction
31 of 120 new housing units, and an 18,000 square foot service center (for offices
32 and headquarters of the Next Step Center), on 3 acres of land. All 120 housing
33 units would be single-room occupancy type units (averaging 325 square feet).
34 This includes:

- 35 • 20 units to provide permanent housing for homeless individuals
36 transitioning into permanent housing
- 37 • 15 units to house homeless veterans
- 38 • 25 units to house homeless and chronically homeless adults
- 39 • The target population for the remaining 60 units was not specified.

1 The LRA has approved terms of a single Legally Binding Agreement (LBA) with
2 the two non-profit housing development corporations that submitted NOIs on
3 behalf of the homeless. The terms memorialized in the LRA's Homeless
4 Assistance Submission and the LBAs approve the two NOIs for a no-cost
5 homeless conveyance of Onizuka AFS parcels from the DOD for the construction
6 of homeless housing. According to the terms of the LBA, the homeless service
7 providers agree to withdraw their no-cost homeless NOIs at the request of the
8 LRA and in lieu of the land conveyance, accept monetary compensation for
9 predevelopment and purchase costs of property at other locations (City of
10 Sunnyvale, 2008b).

11 **2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER CONSIDERATION**

12 Other than the Proposed Action, Corporate Office Alternative, Hotel, Conference
13 Center, and Office Alternative, Automotive Retail Center Alternative, Veterans
14 Affairs and Homeless Provider Alternative, and the No-Action Alternative, no
15 other alternatives were considered.

16 **2.5 OTHER FUTURE ACTIONS IN THE REGION**

17 Cumulative impacts result from “the incremental impact of actions when added to
18 other past, present, and reasonably foreseeable future actions regardless of what
19 agency undertakes such other actions. Cumulative impacts can result from
20 individually minor but collectively significant actions taking place over a period of
21 time” (Council on Environmental Quality, 1978).

22 Other future actions in the region were evaluated to determine whether
23 cumulative environmental impacts could result due to the implementation of Air
24 Force property disposal actions in conjunction with other past, present, or
25 reasonably foreseeable future actions. The other substantial, on-going action in
26 the region that could contribute to cumulative impacts includes the Moffett Park
27 redevelopment, which is just to the west of Onizuka AFS.

28 **2.6 COMPARISON OF ENVIRONMENTAL IMPACTS**

29 Table 2.6-1 presents a comparative analysis of the Proposed Action and
30 alternatives for each resource (i.e., socioeconomics, transportation, utilities, land
31 use/aesthetics, hazardous materials management, hazardous waste
32 management, ERP sites, storage tanks, ACM, LBP, geology and soils, water
33 resources, air quality, biological resources, cultural resources, and environmental
34 justice) evaluated in this EA. A detailed discussion of potential effects is
35 presented in Chapter 4.0, Environmental Consequences. Neither the Proposed
36 Action nor the alternatives are anticipated to have a significant impact on the
37 environment.

Table 2.6-1. Summary of Influencing Factors and Environmental Impacts
Page 1 of 12

Resources	Proposed Action	Corporate Office Alternative	Hotel, Conference Center, and Office Alternative	Automotive Retail Center Alternative	Veterans Affairs and Homeless Provider Alternative	No-Action Alternative
Impacts	<ul style="list-style-type: none"> Loss of approximately 780 employees within the ROI Approximately 3,363 full-time employees associated with reuse No on-site population 	<ul style="list-style-type: none"> Loss of approximately 780 employees within the ROI Approximately 3,616 full-time employees associated with reuse No on-site population 	<ul style="list-style-type: none"> Loss of approximately 780 employees within the ROI Approximately 4,437 full-time employees associated with reuse No on-site population 	<ul style="list-style-type: none"> Loss of approximately 780 employees within the ROI Approximately 490 full-time employees associated with reuse No on-site population 	<ul style="list-style-type: none"> Loss of approximately 780 employees within the ROI Approximately 938 full-time employees associated with reuse Residential population would be approximately 220 	<ul style="list-style-type: none"> Loss of approximately 780 employees within the ROI Approximately 5 employees associated with caretaker activities No on-site population
	Mitigation Measures	Mitigation Measures	Mitigation Measures	Mitigation Measures	Mitigation Measures	Mitigation Measures
	• None	• None	• None	• None	• None	• None

Table 2.6-1. Summary of Influencing Factors and Environmental Impacts
Page 2 of 12

Resources	Proposed Action	Corporate Office Alternative	Hotel, Conference Center, and Office Alternative	Automotive Retail Center Alternative	Veterans Affairs and Homeless Provider Alternative	No-Action Alternative
Land Use/Aesthetics	Impacts	Impacts	Impacts	Impacts	Impacts	Impacts
	<ul style="list-style-type: none"> Property redeveloped for office use The proposed use of the property would be compatible with adjacent land uses The proposed redevelopment would be consistent with the City of Sunnyvale Specific Plan The change in appearance of the property would be noticeable; redevelopment would be consistent with existing urban visual character of the area Long-term effect of removing older facilities and constructing new structures would result in a positive aesthetic effect on the area 	<ul style="list-style-type: none"> Property redeveloped for office use The proposed use of the property would be compatible with adjacent land uses The proposed redevelopment would be consistent with the City of Sunnyvale Specific Plan The change in appearance of the property would be noticeable; redevelopment would be consistent with existing urban visual character of the area Long-term effect of removing older facilities and constructing new structures would result in a positive aesthetic effect on the area 	<ul style="list-style-type: none"> Property redeveloped for a new hotel, conference center, and offices The proposed use of the property would be compatible with adjacent land uses The proposed redevelopment would be consistent with the City of Sunnyvale Specific Plan The change in appearance of the property would be noticeable; redevelopment would be consistent with existing urban visual character of the area Long-term effect of removing older facilities and constructing new structures would result in a positive aesthetic effect on the area 	<ul style="list-style-type: none"> Property redeveloped as an automotive retail center The proposed use of the property would be compatible with adjacent land uses Modifications to the City of Sunnyvale Specific Plan would be necessary to accommodate an automotive retail center The change in appearance of the property would be noticeable; redevelopment would be consistent with existing urban visual character of the area Long-term effect of removing older facilities and constructing new structures would result in a positive aesthetic effect on the area 	<ul style="list-style-type: none"> Property redeveloped for office and residential use The proposed use of the property would be compatible with adjacent land uses The proposed redevelopment would be consistent with the City of Sunnyvale Specific Plan The change in appearance of the property would be noticeable; redevelopment would be consistent with existing urban visual character of the area Long-term effect of removing older facilities and constructing new structures would result in a positive aesthetic effect on the area 	<ul style="list-style-type: none"> No demolition or redevelopment activities would occur The facilities would be retained by the Air Force and maintained in caretaker status
	<ul style="list-style-type: none"> Mitigation Measures None 	<ul style="list-style-type: none"> Mitigation Measures None 	<ul style="list-style-type: none"> Mitigation Measures None 	<ul style="list-style-type: none"> Mitigation Measures None 	<ul style="list-style-type: none"> Mitigation Measures None 	<ul style="list-style-type: none"> Mitigation Measures None

Table 2.6-1. Summary of Influencing Factors and Environmental Impacts
Page 3 of 12

Resources	Proposed Action	Corporate Office Alternative	Hotel, Conference Center, and Office Alternative	Automotive Retail Center Alternative	Veterans Affairs and Homeless Provider Alternative	No-Action Alternative
Transportation	<ul style="list-style-type: none"> Impacts Daily vehicle trips to and from the property would be 3,599 LOS of the local road network would continue to operate at acceptable levels The Proposed Action represents a small percentage of traffic generation, and would not eliminate planned transportation improvements in the area 	<ul style="list-style-type: none"> Impacts Daily vehicle trips to and from the property would be 4,977 LOS of the local road network would continue to operate at acceptable levels Most intersections operating at acceptable LOS. Intersections with notable decreases in LOS or with unacceptable LOS include: <ul style="list-style-type: none"> Mathilda Avenue/ Innovation Way Mathilda Avenue/ Moffett Park Drive Mary Avenue/ Maude Ave 	<ul style="list-style-type: none"> Impacts Daily vehicle trips to and from the property would be 6,976 LOS of the local road network would continue to operate at acceptable levels Most intersections operating at acceptable LOS. Intersections with notable decreases in LOS or with unacceptable LOS include: <ul style="list-style-type: none"> Mathilda Avenue/ Innovation Way Mathilda Avenue/ Moffett Park Drive Mary Avenue/ Maude Avenue 	<ul style="list-style-type: none"> Impacts Daily vehicle trips to and from the property would be 2,250 LOS of the local road network would continue to operate at acceptable levels This alternative represents a small percentage of traffic generation, and would not eliminate planned transportation improvements in the area 	<ul style="list-style-type: none"> Impacts Daily vehicle trips to and from the property would be 2,800 LOS of the local road network would continue to operate at acceptable levels This alternative represents a small percentage of traffic generation, and would not eliminate planned transportation improvements in the area 	<ul style="list-style-type: none"> Impacts Daily vehicle trips to and from the property would be reduced to that generated by the caretaker employees LOS of the local road network would continue to operate at acceptable levels This alternative represents a small percentage of traffic generation, and would not eliminate planned transportation improvements in the area
	<ul style="list-style-type: none"> Mitigation Measures None 	<ul style="list-style-type: none"> Mitigation Measures Development contractor would be required to pay its fair share of funds for identified improvements for impacted intersections through payment of a transportation impact fee 	<ul style="list-style-type: none"> Mitigation Measures Development contractor would be required to pay its fair share of funds for identified improvements for impacted intersections through payment of a transportation impact fee 	<ul style="list-style-type: none"> Mitigation Measures Development contractor would be required to pay its fair share of funds for identified improvements for impacted intersections through payment of a transportation impact fee 	<ul style="list-style-type: none"> Mitigation Measures None 	<ul style="list-style-type: none"> Mitigation Measures None

Table 2.6-1. Summary of Influencing Factors and Environmental Impacts
Page 4 of 12

Resources	Proposed Action	Corporate Office Alternative	Hotel, Conference Center, and Office Alternative	Automotive Retail Center Alternative	Veterans Affairs and Homeless Provider Alternative	No-Action Alternative
Utilities	<p>Impacts</p> <ul style="list-style-type: none"> • Electrical usage 16,600 KWH/day • Natural gas usage 80 therms/day • Water usage 350,000 gpd • Wastewater generation 290,000 gpd • Solid waste generation 2.6 tons/day • Demolition activities would create 7,205 tons of solid waste; with recycling, 409 tons would require disposal in a landfill • Disposal of demolition debris would not significantly affect the service life of the Kirby Canyon Landfill <p>Mitigation Measures</p> <ul style="list-style-type: none"> • None 	<p>Impacts</p> <ul style="list-style-type: none"> • Electrical usage 14,200 KWH/day • Natural gas usage 15 therms/day • Water usage 320,000 gpd • Wastewater generation 300,000 gpd • Solid waste generation 2.7 tons/day • Demolition activities would create 7,840 tons of solid waste; with recycling, 449 tons would require disposal in a landfill • Disposal of demolition debris would not significantly affect the service life of the Kirby Canyon Landfill <p>Mitigation Measures</p> <ul style="list-style-type: none"> • None 	<p>Impacts</p> <ul style="list-style-type: none"> • Electrical usage 25,000 KWH/day • Natural gas usage 430 therms/day • Water usage 440,000 gpd • Wastewater generation 400,000 gpd • Solid waste generation 5.3 tons/day • Demolition activities would create 7,840 tons of solid waste; with recycling, 449 tons would require disposal in a landfill • Disposal of demolition debris would not significantly affect the service life of the Kirby Canyon Landfill <p>Mitigation Measures</p> <ul style="list-style-type: none"> • None 	<p>Impacts</p> <ul style="list-style-type: none"> • Electrical usage 3,500 KWH/day • Natural gas usage 21.5 therms/day • Water usage 60,000 gpd • Wastewater generation 45,000 gpd • Solid waste generation 2.6 tons/day • Demolition activities would create 7,840 tons of solid waste; with recycling, 449 tons would require disposal in a landfill • Disposal of demolition debris would not significantly affect the service life of the Kirby Canyon Landfill <p>Mitigation Measures</p> <ul style="list-style-type: none"> • None 	<p>Impacts</p> <ul style="list-style-type: none"> • Electrical usage 11,100 KWH/day • Natural gas usage 53 therms/day • Water usage 263,000 gpd • Wastewater generation 218,000 gpd • Solid waste generation 1.5 tons/day • Demolition activities would create 7,205 tons of solid waste; with recycling, 409 tons would require disposal in a landfill • Disposal of demolition debris would not significantly affect the service life of the Kirby Canyon Landfill <p>Mitigation Measures</p> <ul style="list-style-type: none"> • None 	<p>Impacts</p> <ul style="list-style-type: none"> • Minimal utility usage associated with caretaker activities <p>Mitigation Measures</p> <ul style="list-style-type: none"> • None

Table 2.6-1. Summary of Influencing Factors and Environmental Impacts
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Resources	Hotel, Conference Center, and Office Alternative				Automotive Retail Center Alternative		Veterans Affairs and Homeless Provider Alternative	
	Proposed Action	Corporate Office Alternative	Hotel, Conference Center, and Office Alternative	Automotive Retail Center Alternative	Veterans Affairs and Homeless Provider Alternative	No-Action Alternative		
Hazardous Materials/ Hazardous Waste Management	<p>Proposed Action</p> <ul style="list-style-type: none"> Hazardous materials and hazardous waste would continue to be stored, used, and disposed in accordance with applicable regulations 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts of hazardous materials and hazardous waste management activities would be the same as those described under the Proposed Action 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts of hazardous materials and hazardous waste management activities would be the same as those described under the Proposed Action 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts of hazardous materials and hazardous waste management activities would be the same as those described under the Proposed Action 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts of hazardous materials and hazardous waste management activities would be the same as those described under the Proposed Action 	<p>Impacts</p> <ul style="list-style-type: none"> Small quantities of hazardous materials and waste would continue to be stored, used, and generated by the Air Force caretaker contractor in accordance with applicable regulations 		
Environmental Restoration Program Sites	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None <p>Impacts</p> <ul style="list-style-type: none"> There are no active ERP sites within the Onizuka AFS property No land use restrictions are required 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None <p>Impacts</p> <ul style="list-style-type: none"> Potential impacts from ERP sites would be the same as those described under the Proposed Action 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None <p>Impacts</p> <ul style="list-style-type: none"> Potential impacts from ERP sites would be the same as those described under the Proposed Action 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None <p>Impacts</p> <ul style="list-style-type: none"> Potential impacts from ERP sites would be the same as those described under the Proposed Action 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None <p>Impacts</p> <ul style="list-style-type: none"> Potential impacts from ERP sites would be the same as those described under the Proposed Action 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None <p>Impacts</p> <ul style="list-style-type: none"> Potential impacts from ERP sites would be the same as those described under the Proposed Action 		
	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None 		

Table 2.6-1. Summary of Influencing Factors and Environmental Impacts
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Resources	Proposed Action	Corporate Office Alternative	Hotel, Conference Center, and Office Alternative	Automotive Retail Center Alternative	Veterans Affairs and Homeless Provider Alternative	No-Action Alternative
Storage Tanks	<p>Impacts</p> <ul style="list-style-type: none"> Storage tanks servicing Onizuka AFS would be removed Proper management of any new storage tanks would minimize the potential for impacts <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> No new storage tanks are anticipated to be required for the proposed redevelopment Existing storage tanks would be closed in accordance with applicable regulations <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts from storage tanks would be the same as those described under the Corporate Office Alternative <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts from storage tanks would be the same as those described under the Corporate Office Alternative <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts from storage tanks would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> The Air Force would continue management of storage tanks in accordance with applicable regulations <p>Mitigation Measures</p> <ul style="list-style-type: none"> None

Table 2.6-1. Summary of Influencing Factors and Environmental Impacts
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Resources	Proposed Action	Corporate Office Alternative	Hotel, Conference Center, and Office Alternative	Automotive Retail Center Alternative	Veterans Affairs and Homeless Provider Alternative	No-Action Alternative
Asbestos-Containing Material	<p>Impacts</p> <ul style="list-style-type: none"> • ACM would likely be encountered during demolition and renovation activities • Demolition and renovation activities would be subject to applicable federal, state, and local regulations to minimize the potential risk to human health and the environment • The development contractor would be advised, to the extent known, of the type, condition, and amount of ACM present within buildings <p>Mitigation Measures</p> <ul style="list-style-type: none"> • None 	<p>Impacts</p> <ul style="list-style-type: none"> • Potential impacts to ACM management would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> • None 	<p>Impacts</p> <ul style="list-style-type: none"> • Potential impacts to ACM management would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> • None 	<p>Impacts</p> <ul style="list-style-type: none"> • Potential impacts to ACM management would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> • None 	<p>Impacts</p> <ul style="list-style-type: none"> • Potential impacts to ACM management would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> • None 	<p>Impacts</p> <ul style="list-style-type: none"> • The Air Force would continue to be responsible for management of ACM, and would continue to manage ACM in accordance with its own policy and applicable regulations <p>Mitigation Measures</p> <ul style="list-style-type: none"> • None

Table 2.6-1. Summary of Influencing Factors and Environmental Impacts
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Resources	Proposed Action	Corporate Office Alternative	Hotel, Conference Center, and Office Alternative	Automotive Retail Center Alternative	Veterans Affairs and Homeless Provider Alternative	No-Action Alternative
Lead-Based Paint	<p>Impacts</p> <ul style="list-style-type: none"> LBP would likely be encountered during demolition and renovation activities Demolition activities would be subject to applicable federal, state, and local regulations to minimize the potential risk to human health and the environment The development contractor would be advised, to the extent known, of the type, condition, and amount of LBP present within buildings <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts to LBP management would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts to LBP management would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts to LBP management would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts to LBP management would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> The Air Force would continue to be responsible for management of LBP, and would continue to manage LBP in accordance with its own policy and applicable regulations <p>Mitigation Measures</p> <ul style="list-style-type: none"> None

Table 2.6-1. Summary of Influencing Factors and Environmental Impacts
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Resources	Proposed Action	Corporate Office Alternative	Hotel, Conference Center, and Office Alternative	Automotive Retail Center Alternative	Veterans Affairs and Homeless Provider Alternative	No-Action Alternative
Geology and Soils	<p>Impacts</p> <ul style="list-style-type: none"> Short-term impacts would occur as a result of ground disturbance associated with demolition and construction activities Compliance with Construction Site Storm Water NPDES permit and SWPPP and implementation of standard construction practices would reduce the potential for erosion effects Once demolition and construction activities are complete, disturbed areas would be covered with pavement or landscaped to reduce the erosion potential 	<p>Impacts</p> <ul style="list-style-type: none"> Potential geology and soils impacts would be the same as those described under the Proposed Action 	<p>Impacts</p> <ul style="list-style-type: none"> Potential geology and soils impacts would be the same as those described under the Proposed Action 	<p>Impacts</p> <ul style="list-style-type: none"> Potential geology and soils impacts would be the same as those described under the Proposed Action 	<p>Impacts</p> <ul style="list-style-type: none"> Potential geology and soils impacts would be the same as those described under the Proposed Action 	<p>Impacts</p> <ul style="list-style-type: none"> Demolition, construction, and renovation activities would not occur
	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> None

Table 2.6-1. Summary of Influencing Factors and Environmental Impacts
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Resources	Proposed Action	Corporate Office Alternative	Hotel, Conference Center, and Office Alternative	Automotive Retail Center Alternative	Veterans Affairs and Homeless Provider Alternative	No-Action Alternative
Water Resources	<p>Impacts</p> <ul style="list-style-type: none"> • Temporary impacts to surface water drainage patterns may occur during demolition and construction activities <p>Demolitions and construction activities would comply with a Construction Site Storm Water NPDES permit and SWPPP</p>	<p>Impacts</p> <ul style="list-style-type: none"> • Potential water resource impacts would be the same as those described under the Proposed Action 	<p>Impacts</p> <ul style="list-style-type: none"> • Potential water resource impacts would be the same as those described under the Proposed Action 	<p>Impacts</p> <ul style="list-style-type: none"> • Potential water resource impacts would be the same as those described under the Proposed Action 	<p>Impacts</p> <ul style="list-style-type: none"> • Potential water resource impacts would be the same as those described under the Proposed Action 	<p>Impacts</p> <ul style="list-style-type: none"> • Demolition, construction, and renovation activities would not occur
Air Quality	<p>Mitigation Measures</p> <ul style="list-style-type: none"> • None <p>Impacts</p> <ul style="list-style-type: none"> • Construction and demolition activities would result in short-term air quality impacts • BMPs would be used to reduce emissions of dust and particulate matter • Emissions associated with the Proposed Action would not hinder maintenance of the NAAQS or CAAQS 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> • None <p>Impacts</p> <ul style="list-style-type: none"> • Potential air quality impacts would be the same as those described under the Proposed Action 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> • None <p>Impacts</p> <ul style="list-style-type: none"> • Potential air quality impacts would be the same as those described under the Proposed Action 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> • None <p>Impacts</p> <ul style="list-style-type: none"> • Potential air quality impacts would be the same as those described under the Proposed Action 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> • None <p>Impacts</p> <ul style="list-style-type: none"> • Potential air quality impacts would be the same as those described under the Proposed Action 	<p>Mitigation Measures</p> <ul style="list-style-type: none"> • None <p>Impacts</p> <ul style="list-style-type: none"> • Demolition, construction, and renovation activities would not occur

Table 2.6-1. Summary of Influencing Factors and Environmental Impacts
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Resources	Proposed Action	Corporate Office Alternative	Hotel, Conference Center, and Office Alternative	Automotive Retail Center Alternative	Veterans Affairs and Homeless Provider Alternative	No-Action Alternative
Biological Resources	<p>Impacts</p> <ul style="list-style-type: none"> Demolition and construction activities would create a short-term impact to wildlife Species at the site are common and are disturbance-tolerant No threatened and endangered species or sensitive habitats have been identified on the property <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts to biological resources would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts to biological resources would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts to biological resources would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts to biological resources would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Demolition, construction, and renovation activities would not occur <p>Mitigation Measures</p> <ul style="list-style-type: none"> None
Cultural Resources	<p>Impacts</p> <ul style="list-style-type: none"> Because of the severe ground disturbance that occurred during construction of facilities, the potential for discovery of in-tact archaeological resources is considered very low No historic resources, sacred areas, or traditional use areas have been identified <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts to cultural resources would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts to cultural resources would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts to cultural resources would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Potential impacts to cultural resources would be the same as those described under the Proposed Action <p>Mitigation Measures</p> <ul style="list-style-type: none"> None 	<p>Impacts</p> <ul style="list-style-type: none"> Demolition, construction, and renovation activities would not occur <p>Mitigation Measures</p> <ul style="list-style-type: none"> None

Table 2.6-1. Summary of Influencing Factors and Environmental Impacts
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Resources	Proposed Action	Corporate Office Alternative	Hotel, Conference Center, and Office Alternative	Automotive Retail Center Alternative	Veterans Affairs and Homeless Provider Alternative	No-Action Alternative
Environmental Justice	Impacts • No disproportionately high and adverse impacts to low income, minority, or youth populations have been identified	Impacts • Potential environmental justice impacts would be the same as those described under the Proposed Action	Impacts • Potential environmental justice impacts would be the same as those described under the Proposed Action	Impacts • Potential environmental justice impacts would be the same as those described under the Proposed Action	Impacts • Potential environmental justice impacts would be the same as those described under the Proposed Action	Impacts • Potential environmental justice impacts would be the same as those described under the Proposed Action
	Mitigation Measures • None	Mitigation Measures • None	Mitigation Measures • None	Mitigation Measures • None	Mitigation Measures • None	Mitigation Measures • None

ACM	= asbestos-containing material					
AFS	= Air Force Station					
BMP	= best management practice					
CAAQS	= California Ambient Air Quality Standards					
ERP	= Environmental Restoration Program					
gpd	= gallons per day					
KWH	= kilowatt hour					
LBP	= lead-based paint					
LOS	= Level of Service					
NAAQS	= National Ambient Air Quality Standards					
NPDES	= National Pollutant Discharge Elimination System					
SWPPP	= Storm Water Pollution Prevention Plan					

3.0 AFFECTED ENVIRONMENT

3.1 INTRODUCTION

This chapter describes the existing environmental conditions at Onizuka AFS. It provides information to serve as a baseline from which to identify and evaluate environmental changes associated with the disposal and reuse of Air Force property at Onizuka AFS. The environmental components addressed include relevant natural or human environments likely to be affected by the Proposed Action and alternatives.

Based on the nature of the activities that would occur under the Proposed Action and alternatives, it was determined that the potential exists for the following resources to be affected or to create environmental effects: socioeconomics, land use/aesthetics, transportation, utilities, hazardous materials management, hazardous waste management, ERP sites, storage tanks, ACM, LBP, geology and soils, water resources, air quality, biological resources, cultural resources, and environmental justice.

The region of influence (ROI) to be studied will be defined for each resource area affected by the proposed project. The ROI determines the geographical area to be addressed as the Affected Environment. Although the Onizuka AFS property may constitute the ROI limit for some resources, potential impacts associated with certain issues (e.g., air quality) transcend these limits.

3.2 COMMUNITY SETTING

Onizuka AFS occupies approximately 23 acres in the City of Sunnyvale, Santa Clara County, California, and is located approximately forty miles southeast of San Francisco at the southern edge of San Francisco Bay. The installation consists of 28 facilities (approximately 615,000 square feet), associated roads, vehicle parking lots, and open areas. Most of the installation is paved or built with only a few small green/open areas (see Figure 1.2-2).

The Air Force established the current location of Onizuka AFS in 1960 as the Satellite Test Center for the 6594th Test Wing; the facility was re-designated Sunnyvale Air Force Station in 1970. In 1986, its name was changed to Onizuka Air Force Station in honor of Space Shuttle Challenger astronaut Colonel Ellison S. Onizuka. Air Force Space Command (AFSPC) has been the major command host at Onizuka AFS since October 1, 1987. Onizuka AFS tracks, tests, operates, and controls a variety of multi-functional defense satellites, supports non-military space vehicle activities, evaluates procedures and prototype equipment for the entire satellite and control network, and disseminates information.

3.2.1 Socioeconomics

The ROI for employment and population effects as a result of Base Realignment and Closure (BRAC) activities is the City of Sunnyvale.

1 **Population.** The City of Sunnyvale is one of the primary cities that make up the
2 "Silicon Valley". The City of Sunnyvale population in 2000 was 131,760
3 (U.S. Bureau of the Census, 2000). Total housing units in Sunnyvale numbered
4 53,753 in 2000 (U.S. Bureau of the Census, 2000).

5 No living quarters are situated at Onizuka AFS and no personnel live on the
6 property.

7 **Employment.** The City of Sunnyvale civilian labor force totaled 75,272 in 2000
8 (U.S. Bureau of Census, 2000). In 2006, there were 75 military, 170 civilian, and
9 534 contractors employed at Onizuka AFS (Onizuka AFS, 2006i).

10 **3.2.2 Land Use/Aesthetics**

11 This section describes the land use and aesthetics for the installation property
12 and surrounding areas of Onizuka AFS. The ROI includes the installation
13 property and potentially affected adjacent properties.

14 **3.2.2.1 Land Use.**

15 Land use at Onizuka AFS includes office, recreational (dining hall,
16 gym/racquetball court), industrial (power plant, paint shop, hazardous material
17 storage, hazardous waste accumulation), mission support (satellite antennas,
18 ground terminals, work stations), and vehicle parking areas. Constructed
19 buildings cover approximately 615,000 square feet within the installation
20 boundary. Adjacent to these structures are landscaped and vehicle parking
21 areas.

22 Onizuka AFS is surrounded by primarily commercial/office land uses. To the
23 immediate north is public facilities land use (fire station); to the immediate west is
24 a commercial/office complex and an associated vehicle parking structure; to the
25 immediate northwest is a vacant commercial/office structure; hotel/lodging
26 facilities are situated to the east and south (across SR 237); and residential use is
27 to the southeast (across SR 237) (Figure 3.2-1).

28 **Zoning.** Basically, zoning provides for the division of the jurisdiction, in
29 conformity with the general plan, into districts within which the height, open
30 space, building coverage, density, and type of future land uses are set forth.
31 Zoning is designed to achieve various community development goals. Figure
32 3.2-2 depicts the local zoning classifications in the vicinity of Onizuka AFS.

33 The City of Sunnyvale has designated the installation property MP-I (Moffett Park
34 – Industrial), which is intended for the construction, use, and occupancy of
35 buildings as office, corporate headquarters, research and development,
36 warehousing, and limited manufacturing, as well as ancillary supportive uses.
37 Adjacent property to the south and east is also designated MP-I. An area
38 immediately east of Onizuka AFS is designated MP-C (Moffett Park –
39 Commercial), which is intended for the construction, use, and occupancy of
40 buildings as commercial support services to the businesses of Moffett Park.
41 Adjacent property to the west and north is designated MP-TOD (Moffett Park –
42 Transit Oriented Development), which is intended for the construction, use, and



EXPLANATION

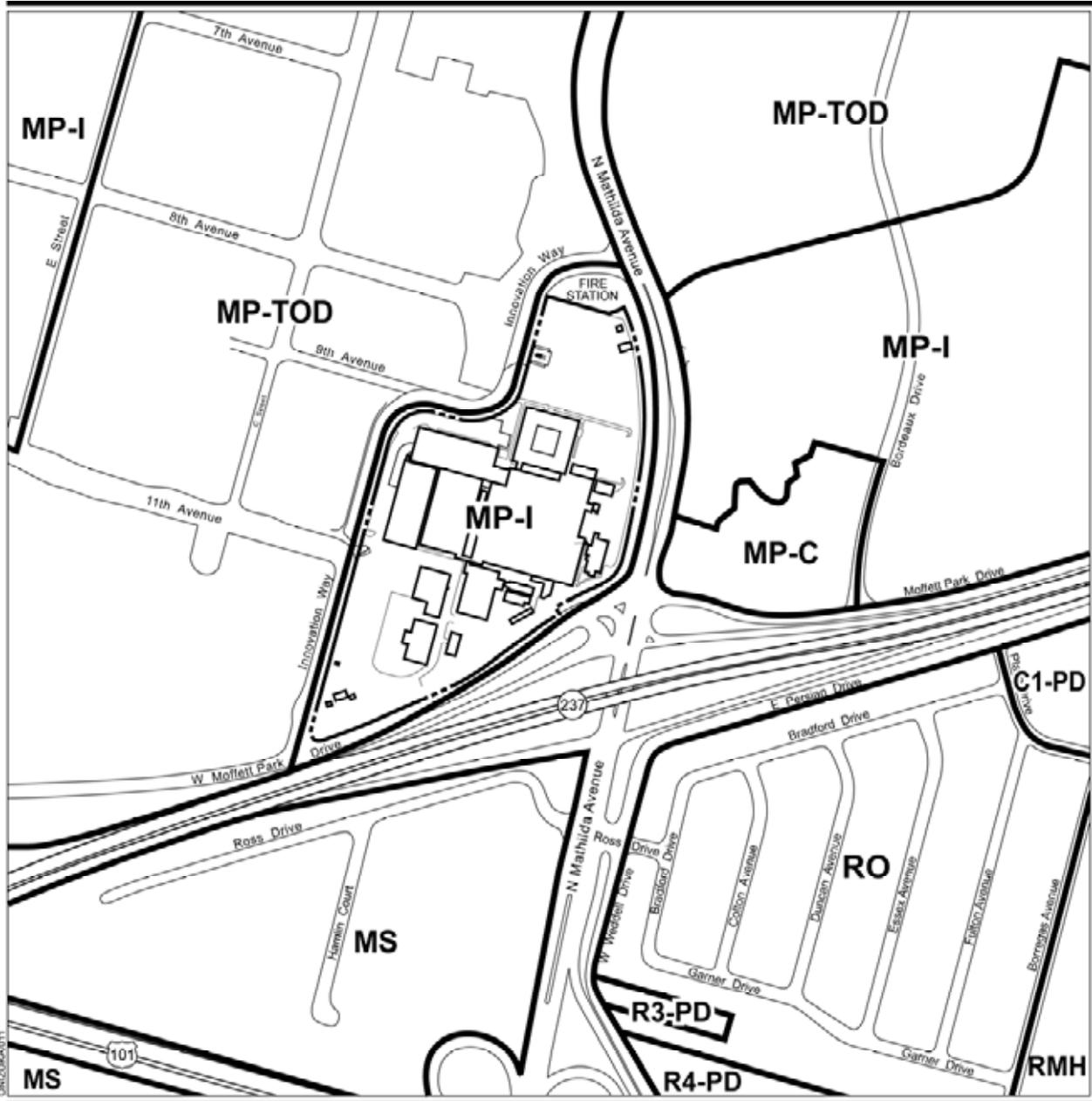
--- Installation Boundary
Commercial/Office
Residential

Public facilities



Land Use

Figure 3.2-1



EXPLANATION

- Installation Boundary
- MP-TOD** Moffett Park - Transit Oriented Development
- MP-I** Moffett Park - General Industrial
- MP-C** Moffett Park - Commercial
- MS** Industrial and Service
- RO** Low-Density Residential

- R3-PD** Medium-Density Residential
- R4-PD** High-Density Residential
- RMH** Residential - Mobile Home
- C1-PD** Neighborhood Business District

Zoning



Source: City of Sunnyvale, 2008a.

Figure 3.2-2

1 occupancy of buildings as corporate headquarters, research and development,
2 general office, and ancillary supportive services, as well as compatible general
3 industrial uses (City of Sunnyvale, 2008a).

4 **3.2.2.2 Aesthetics.**

5 Visual resources include natural and man-made features that give a particular
6 environment its aesthetic qualities. Criteria used in the analysis of these
7 resources include visual sensitivity, which is the degree of public interest in a
8 visual resource and concern over adverse changes in its quality. Visual
9 sensitivity is characterized in terms of high, medium, and low levels.

10 High visual sensitivity exists in areas where views are rare, unique, or in other
11 ways special, such as in a remote pristine environment. High-sensitivity views
12 would include landscapes that have landforms, vegetative patterns, water bodies,
13 or rock formations of unusual or outstanding quality.

14 Medium visual sensitivity is characteristic of areas where human influence and
15 modern civilization are evident and the presence of motorized vehicles is
16 commonplace. These landscapes generally have features containing varieties in
17 form, line, color, and texture, but tend to be more common than high visual
18 sensitivity areas.

19 Low visual sensitivity areas tend to have minimal landscape features with little
20 change in form, line, color, and texture.

21 The visual environment of Onizuka AFS and surrounding areas are characteristic
22 of an urban environment. These areas are mostly developed with roads, vehicle
23 parking lots, and other structures. The present appearance of Onizuka AFS
24 includes large structures as well as several dish antennas, and associated vehicle
25 parking areas. Areas surrounding Onizuka AFS are primarily large office
26 developments and several hotel/lodging facilities. Single-family residential
27 structures are to the southeast (across SR 237). Based on the developed nature
28 of Onizuka AFS and areas surrounding the installation, the ROI is considered to
29 have a medium visual sensitivity.

30 **3.2.3 Transportation**

31 The ROI for the transportation analysis includes the existing road network that
32 services Onizuka AFS. Within this area, the analysis focuses on the segments of
33 the transportation network that serves as direct linkages to the installation
34 property.

35 The operation of roadway intersections is generally expressed in terms of level of
36 service (LOS). The LOS is a qualitative description of traffic flow based on such
37 factors as speed, travel time, delay, and freedom to maneuver. Six levels are
38 defined from LOS A, as the best operating conditions, to LOS F, or the worst
39 operating conditions. LOS E represents "at-capacity" operations. When traffic
40 volumes exceed the intersection capacity, stop-and-go conditions result, and
41 operations are designated as LOS F. The LOS standard for the City of
42 Sunnyvale and the City of Mountain View intersections is LOS D. The

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intersection at Mathilda Avenue/SR 237 is designated as a regionally significant intersection and must operate at LOS E or better. LOS E is the standard for Santa Clara County Congestion Management Program (CMP) intersections (City of Sunnyvale, 2006). Table 3.2.1 presents the LOS designations and their associated control delay factors. These levels are based primarily on the Highway Capacity Manual.

Table 3.2-1. Road Transportation Level of Service

LOS	Description	Average Control Delay per vehicle (seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths	≤10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop and individual cycle failures are noticeable	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences	55.1 to 80.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths	>80.0

Source: City of Sunnyvale, 2008b, Transportation Research Board, 1994.

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Existing roads within the ROI are described at two levels: (1) regional, representing the major links to Onizuka AFS; and (2) local, representing key community roads near the installation. No on-base roads (other than access between vehicle parking lots) are present on Onizuka AFS.

Regional. Regional access to Onizuka AFS is provided via SR 237.

SR 237 is located immediately south of Onizuka AFS and provides regional freeway access between the Cities of Mountain View and Milpitas. SR 237 is an east-west freeway with two mixed-flow lanes and one high occupancy vehicle (HOV) lane in each direction. HOV lanes, also known as diamond or carpool lanes, restrict use to vehicles with two or more persons (carpool, vanpool, and buses) or motorcycles during the morning (5:00 AM to 9:00 AM) and evening (3:00 PM to 7:00 PM) commute periods. Regional access from SR 237 is provided via its interchange with Mathilda Avenue, which provides access to the Onizuka AFS main entrance on Innovation Way.

1 **Local.** The local road network in the vicinity of Onizuka AFS is shown on
 2 Figure 3.2-3. The following streets provide local access to Onizuka AFS:
 3 Mathilda Avenue, Moffett Park Drive, and Innovation Way. Descriptions of these
 4 roadways are presented below.

5 Mathilda Avenue is a major six-lane north-south arterial that also provides
 6 regional access to SR 237 and U.S. Highway 101. To the south, Mathilda
 7 Avenue passes through central Sunnyvale and becomes Sunnyvale-Saratoga
 8 Road ultimately connecting to Interstate 280 and SR 85.

9 Moffett Park Drive is a four-lane east-west roadway that borders Onizuka AFS to
 10 the south. Moffett Park Drive provides direct access to the southwest entrance
 11 gate, located along Innovation Way. Moffett Park Drive also connects to Mathilda
 12 Avenue along the southeastern boundary of Onizuka AFS.

13 Innovation Way is a north-south, four-lane undivided roadway that provides
 14 access to the entry gate at Onizuka AFS. A portion of Innovation Way
 15 immediately adjacent to the western border of Onizuka AFS has been converted
 16 into a greenbelt as a requirement of DOD force protection guidance.

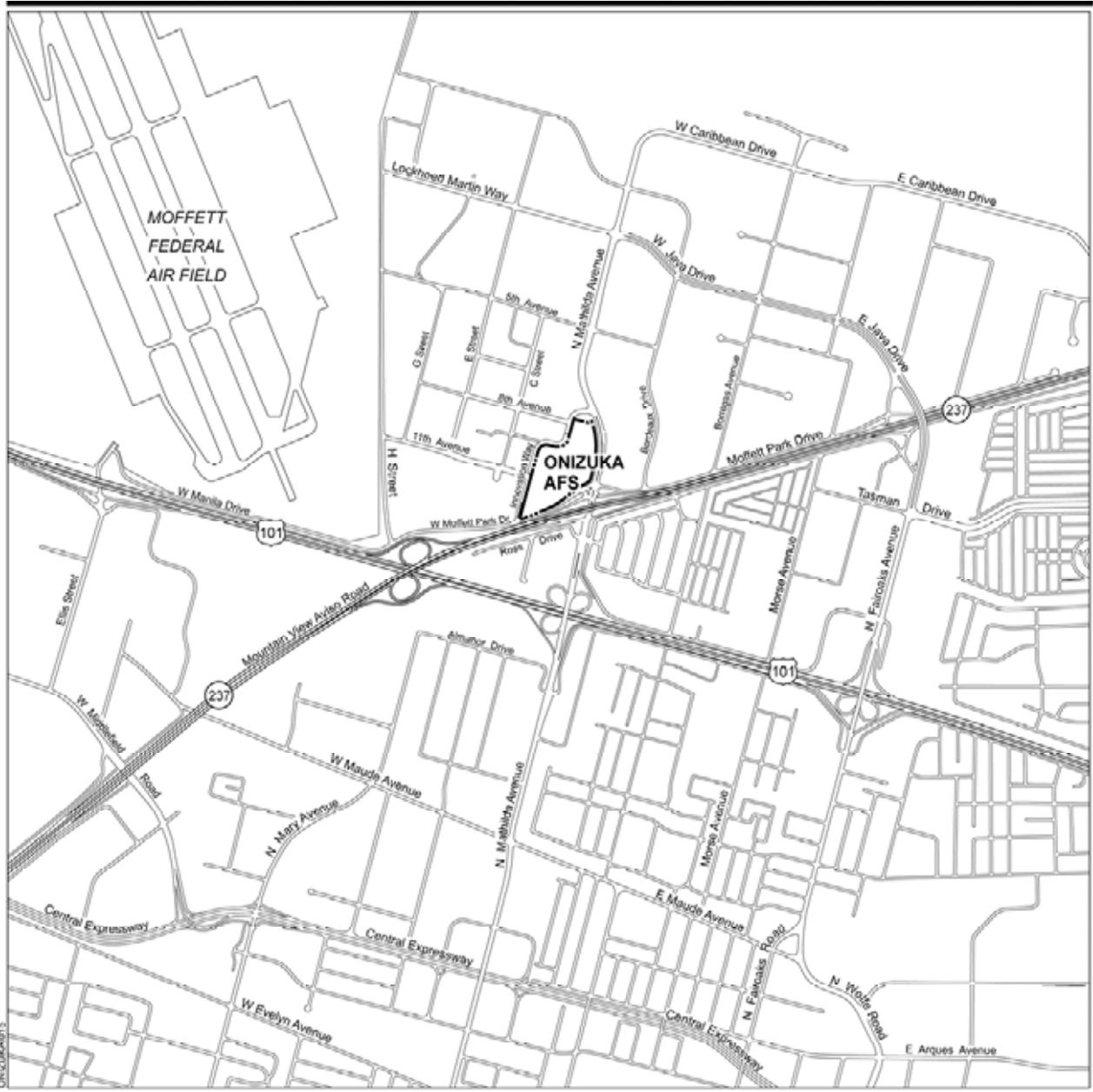
17 The LOS for key intersections near Onizuka AFS is provided in Table 3.2-2 and
 18 discussed below.

Table 3.2-2. Existing Intersection Level of Service

Intersection	Peak Hour	Existing		Future Baseline	
		Delay (seconds)	LOS	Delay (seconds)	LOS
H Street/Manila Drive	AM	17.6	B	10.5	B
	PM	11.1	B	11.7	B
E Street/11th Avenue	AM	7.4	A	23.7	C
	PM	7.2	A	36.0	D
Innovation Way/11th Avenue	AM	8.1	A	48.1	E
	PM	7.0	A	24.7	A
Innovation Way/Moffett Park Drive	AM	9.0	A	7.8	A
	PM	14.1	B	9.7	A
Mathilda Avenue/Java Avenue	AM	18.2	B	61.0	E
	PM	29.9	C	26.4	C
Mathilda Avenue/5th Avenue	AM	6.3	A	35.4	D
	PM	15.8	B	41.3	D
Mathilda Avenue/Innovation Way	AM	6.4	A	19.1	B
	PM	8.6	A	14.5	B
Mathilda Avenue/Moffett Park Drive	AM	16.0	B	311.3	F
	PM	22.7	C	114.2	F
Mathilda Avenue/SR 237 East Bound Ramp	AM	18.6	B	23.2	C
	PM	11.7	B	11.8	B
Mathilda Avenue/Ross Drive	AM	16.0	B	18.6	B
	PM	11.9	B	40.1	D
Mathilda Avenue/Almanor Avenue	AM	22.2	C	54.3	D
	PM	20.3	C	46.7	D
Mathilda Avenue/Maude Avenue	AM	39.6	D	67.0	E
	PM	26.1	C	41.8	D
Mary Avenue/Maude Avenue	AM	26.6	C	66.5	E
	PM	24.2	C	126.9	F

Notes: (a) Projected 2020 LOS using Sunnyvale's travel demand model including planned and anticipated development in Moffett Park.
 LOS = level of service

Sources: City of Sunnyvale, 2006a, 2008b.



EXPLANATION

- U.S. Highway
- State Highway
- Installation Boundary

Local Roadways



Figure 3.2-3

1 Innovation Way/Moffett Park Drive Intersection - This intersection receives limited
2 traffic compared to the major intersections on Mathilda Avenue. This intersection
3 currently operates at LOS A and B during morning and afternoon peak hour
4 commute periods respectively (City of Sunnyvale, 2008b) (see Table 3.2-2).

5 Mathilda Avenue/Moffett Park Drive Intersection - During the AM peak hour
6 commute period, the Mathilda Avenue/Moffett Park Drive intersection
7 experiences the heaviest movements northbound through and left-turn
8 movements. Due to the short length (90 feet) between Moffett Park Drive and the
9 westbound SR 237 ramps, northbound traffic frequently spills back into the
10 Mathilda Avenue/SR237 westbound intersection.

11 During the PM peak hour commute period, southbound Mathilda Avenue through
12 traffic does not efficiently utilize the available green time due to queue spill back
13 from the downstream intersection at Mathilda Avenue/SR 237. This frequently
14 causes southbound through traffic to block the intersection, which in turn hinders
15 westbound traffic from making left-turns. The westbound left-turn movement
16 typically has a large queue and only about half of the vehicles are able to clear
17 during each green phase (cycle). This intersection currently operates at LOS B
18 and C during morning and afternoon peak hour commute periods respectively
19 (City of Sunnyvale, 2008b) (see Table 3.2-2).

20 Mathilda Avenue/SR 237 Intersection - During the AM peak hour commute
21 period, a substantial amount of westbound SR 237 off-ramp traffic is destined for
22 westbound Moffett Park Drive. Vertical poles have been installed to keep off-
23 ramp traffic from performing illegal lane changes. Traffic requiring access to
24 westbound Moffett Park Drive must come off westbound SR 237 earlier or go
25 north on North Mathilda Avenue to Innovation Way, make a U-turn and come
26 south back to westbound Moffett Park Drive.

27 During the PM peak hour commute period, the southbound through and left turn
28 lanes have limited storage capacity, which cause vehicles to spill back into the
29 upstream intersections. This intersection currently operates at LOS B during
30 peak hour commute periods (City of Sunnyvale, 2006a, 2008b) (see Table 3.2-2).

31 The City of Sunnyvale and the Santa Clara Valley Transportation Authority
32 (SCVTA) plans for reconfiguring the SR 237/Mathilda Avenue ramp intersections
33 include:

- 34 • Realigning Moffett Park Drive, east of Mathilda Avenue, to connect to 5th
35 Avenue via Bordeaux Avenue,
- 36 • Shifting the SR 237 westbound off-ramp 150 feet to the north to align with
37 Moffett Park Drive/Mathilda Avenue,
- 38 • Removal of SR 237 westbound on-ramp, and
- 39 • Construction of a direct southbound right-turn on-ramp from Mathilda
40 Avenue to US 101 north.

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3.2.4 Utilities

Utility systems discussed in this section include electricity, natural gas, water, wastewater, and solid waste. The ROI for utilities includes the service area for each provider that serves Onizuka AFS.

Electricity. Pacific Gas and Electric (PG&E) and Western Area Power Administration (WAPA) provide electrical power to the City of Sunnyvale and Onizuka AFS. Annual electrical consumption at Onizuka AFS is approximately 31,795,000 kilowatt hours (KWH) per year (Onizuka AFS, 2006j), 87,110 KWH per day. The Onizuka AFS power plant supplied 85 to 90 percent of the installation’s electrical power until the mid 1990s (Onizuka AFS, 1996a). The power plant is currently maintained as a backup power generating source.

Natural Gas. PG&E provides natural gas to Onizuka AFS. Annual natural gas consumption at Onizuka AFS is approximately 921,700 therms per year (Onizuka AFS, 2006k), 2,525 therms per day.

Water. Water is supplied to Onizuka AFS by the City of Sunnyvale. Annual consumption is approximately 18,738,235 gallons per year (Onizuka AFS, 2006l), 51,337 gpd.

Wastewater. Onizuka AFS discharges wastewater to the Sunnyvale sewer system. The primary wastewater sources are sanitary sewage and cooling tower and boiler blow down water, which has variable quantities of filter backwash, and small amounts of water treatment chemicals (Onizuka AFS, 2006d). Based on Onizuka AFS billing records, annual wastewater generation is similar to water consumption and is approximately 18,738,235 gallons per year (Onizuka AFS, 2006l).

Solid Waste. The City of Sunnyvale provides solid waste management services to Onizuka AFS. Typical solid waste generated at Onizuka AFS include; paper, Styrofoam and other plastics, organic wastes (e.g., landscaping waste), non-construction wood, scrap metal, cardboard, unsorted construction debris, computer compact discs and floppies, bottles, and cans. Solid waste generated at Onizuka AFS in 2005 totaled approximately 222 tons. Of this total, approximately 155 tons were recycled/diverted (70 percent) and approximately 67 tons were disposed (Onizuka, 2006g), 0.2 ton per day.

Solid waste is taken to the Sunnyvale Materials Recovery and Transfer (SMaRT) station (this facility is also used by the cities of Mountain View and Palo Alto). After materials are removed from the refuse that qualify for recycling, the remainder of the refuse is disposed at the Kirby Canyon Landfill, located in Morgan Hill, CA, approximately 27 miles south of Onizuka AFS (Onizuka, 2006g).

The Kirby Canyon Landfill can accept up to 2,600 tons of waste per day or about 3.7 million tons per year. The land fill is a fully permitted subtitle D landfill and accepts municipal solid waste, construction and demolition debris, industrial waste, and yard waste and has a life expectancy through 2022 (California Integrated Waste Management Board, 2007).

1 **3.3 HAZARDOUS MATERIALS AND HAZARDOUS WASTE MANAGEMENT**

2 Hazardous materials and hazardous waste management activities at Onizuka
3 AFS are governed by specific environmental regulations. For the purposes of
4 analysis, the terms “hazardous materials” and “hazardous waste” will refer to
5 those substances defined as hazardous by the Comprehensive Environmental
6 Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. Section 9601,
7 et seq., as amended, and the Solid Waste Disposal Act, as amended by the
8 Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sections 6903-
9 6992, as amended. In general, these include substances that, because of their
10 quantity, concentration, or physical, chemical, or infectious characteristics, may
11 present substantial danger to public health, welfare, or the environment when
12 released into the environment.

13 The ROI for hazardous materials and hazardous waste encompasses those
14 areas that could potentially be exposed to a release during demolition and
15 construction activities at Onizuka AFS. Hazardous materials management,
16 hazardous waste management, ERP Sites, storage tanks, ACM, and LBP are
17 discussed in this section.

18 **3.3.1 Hazardous Materials Management**

19 Management of hazardous materials at Onizuka AFS is conducted in accordance
20 with applicable Air Force requirements, including Air Force Instruction (AFI)
21 32-7086, Hazardous Materials Management; U.S. EPA requirements for spill
22 prevention, control, and countermeasures plans; Emergency Planning and
23 Community Right-to-Know Act (EPCRA), 42 U.S.C. Chapter 116; and
24 Occupational Safety and Health Administration (OSHA) requirements under
25 29 CFR, including Hazard Communication requirements under 29 CFR
26 1910.1200.

27 The Hazardous Material Management Plan (HMMP) promotes the responsible,
28 safe management of hazardous materials at Onizuka AFS. The HMMP ensures
29 compliance with Federal, State, local, and Air Force hazardous materials
30 management regulations and instructions/directives. It includes procedures for
31 operation of a hazardous materials pharmacy (HAZMAT Pharmacy) (Facility
32 1007), general guidelines for storing, tracking, handling and using hazardous
33 materials, as well as, calls out procedures to ensure a safe working environment
34 and proper reporting procedures in the event of a release of a hazardous
35 substances. The HMMP also identifies training requirements for personnel
36 routinely handling hazardous materials.

37 Onizuka established a HAZMAT Pharmacy in April 1998 in accordance with AFI
38 32-7080, *Pollution Prevention Program*. Most of the hazardous materials used at
39 Onizuka AFS, excluding JP-8, are stored in the pharmacy facility located outside
40 Building 1007 and the Paint Shop (Building 1040). Most shops, offices, and work
41 areas are limited to a 2-week supply of the specific hazardous materials they are
42 authorized to use in that work area. Office supplies which may constitute
43 hazardous materials (e.g., correction fluid) are usually excluded from this
44 requirement.

1 Because Onizuka AFS uses and stores hazardous materials, greater than the
2 amounts called out under the California Health and Safety Code (HSC) Section
3 25503.5 and/or 40 CFR 355, Appendix A, it is required to annually submit a
4 Hazardous Materials Business Plan (HMBP) to the Santa Clara County
5 Department of Environmental Health, Hazardous Materials Compliance Division,
6 and Sunnyvale Department of Public Safety in accordance with Title 22, Division
7 4.5 of the California Code of Regulations (CCR), and Chapter 6.95 of the
8 California HSC. The HMBP provides general facility information, facility maps
9 and hazardous material storage locations, emergency and environmental points
10 of contacts, a hazardous materials inventory, and an employee training plan.

11 **3.3.2 Hazardous Waste Management**

12 The federal government issued regulations for hazardous waste management
13 under RCRA. In general, hazardous waste includes substances that, because of
14 their quantity; concentration; or physical, chemical, or infectious characteristics,
15 may present substantial danger to public health or the environment when
16 released to the environment.

17 Procedures for management of hazardous waste generated at Onizuka AFS are
18 described in the Onizuka AFS HMMP. The HMMP does not directly address
19 hazardous waste, but the management of hazardous materials and hazardous
20 waste is often intertwined. Therefore, the HMMP includes the State of
21 California's definition of when a material becomes a waste under Title 22 CCR
22 Section 66261.2, and hazardous waste under 22 CCR Section §66261.3.
23 Additionally, this plan fulfills the requirements in Title 40, CFR Parts 260-270, and
24 22 CCR Parts 66264.13 and 66268.7(a), which establishes procedures to achieve
25 and maintain regulatory compliance regarding accumulation, transportation, and
26 disposal of hazardous wastes (Onizuka AFS, 2006e).

27 Facility 1007, the HAZMAT Pharmacy, is currently used as a 90-day hazardous
28 waste accumulation point for hazardous waste generated at Onizuka AFS. Prior
29 to reaching the 90-day limit, wastes are disposed off site by the Defense
30 Reutilization and Marketing Office (DRMO) in Stockton, California. Satellite
31 accumulation points are situated within several facilities on Onizuka AFS for
32 collection of used batteries. At the time of closure, hazardous waste generated
33 by activities at Onizuka AFS will have been collected from the accumulation point
34 and disposed off site at a permitted facility. Formal closure of Facility 1007 as a
35 hazardous waste accumulation point would occur in accordance with California
36 EPA/Department of Toxic Substances Control (DTSC) requirements.

37 **3.3.3 Environmental Restoration Program Sites**

38 The ERP was established to identify, characterize, and remediate CERCLA
39 related contamination on Air Force installations. The program is designed to
40 evaluate past disposal sites, control the migration of contaminants, and control
41 potential hazards to human health and the environment.

42 The ERP has been established as the mechanism for the CERCLA (42 U.S.C.
43 Section 9601) process, incorporating applicable RCRA and state regulations, as
44 well as meeting requirements of the National Oil and Hazardous Substance

1 Pollution Contingency Plan (40 CFR Part 300). To ensure compliance with
 2 CERCLA regulations, the ERP was implemented to identify potentially
 3 contaminated sites, investigate those sites, and evaluate and select remedial
 4 actions.

5 There have been several investigations of the environmental condition of property
 6 at Onizuka AFS. As a result, the following Area of Concern (AOC) sites were
 7 identified (Figure 3.3-1):

- 8 • SD-1, Storm Drain – Building 1007 Cooling Tower Filter Backwash
- 9 • SD-2, Storm Drain near Building 1005
- 10 • FS-1, Fuel Spill, Fuels Area – East of Facility 1004
- 11 • FS-2, Fuel Spill, Fuels Area – South of Facility 1004
- 12 • FS-3, Fuel Spill, Antenna Area – near Facility 1009.

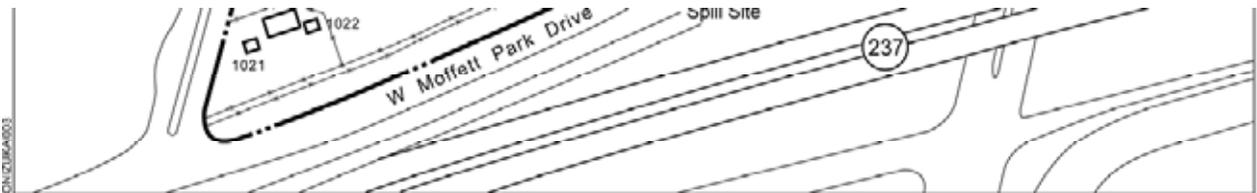
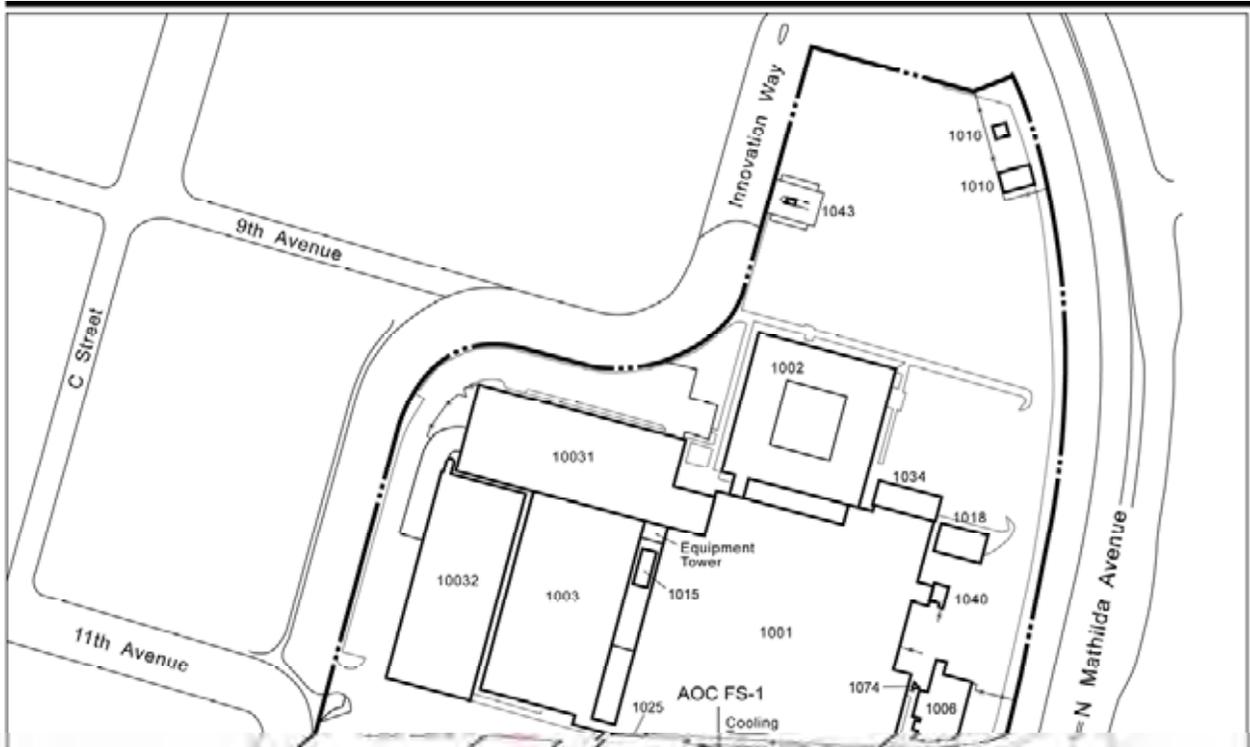
13 These AOC sites have all been closed. Table 3.3-1, provides individual site
 14 descriptions of the AOC sites. AOC Sites SD-1, SD-2, and FS-3 were evaluated
 15 and contamination did not require remedial action.

Table 3.3-1. Summary of Area of Concern Sites

Site ID	Site Name	Site Description	Site Status
SD-1	Storm Drain – Building 1007 Cooling Tower Filter Backwash	AOC SD-1 is located near Facility 1042. Filter backwash containing suspended solids and water treatment chemicals were the contaminants of concern. Sample results were below action levels.	No further action. NFA DD completed on 2/17/1989.
SD-2	Storm Drain, North of Building 1005	AOC SD-2 is located on the north side of Facility 1005. Washwater from antenna maintenance activities was suspected to contain an alkaline detergent based aircraft cleaning compound. Sample results were below action levels.	No further action. NFA DD completed on 2/17/1989.
FS-1	Fuel Spill, Fuels Area, East of Facility 1004	AOC FS-1 is located in the fuels area east of Facility 1004. Approximately 1,000 gallons of JP-5 fuel was released in this area in 1980.	No further action. NFA DD completed on 2/17/1989.
FS-2	Fuel Spill, Fuels Area, South of Facility 1004	AOC FS-2 is located at the former fuel farm south of Facility 1004. This is the site of a 1,600 gallon release of JP-5 fuel in 1987. All tanks in the fuel farm and contaminated soil were removed in April 1988.	No further action. NFA DD completed on 2/17/1989.
FS-3	Fuel Spill, Antenna Area, near Facility 1009	AOC FS-3 is located near the antenna support structure (Facility 1009). Approximately 5 gallons of JP-5 fuel was release at this site.	No further action. NFA DD completed on 2/17/1989.

AOC = Area of Concern
 DD = Decision Document
 FS = Fuel Spill
 JP-5 = jet propulsion fuel, grade 5
 NFA = No Further Action
 SD = Storm Drain

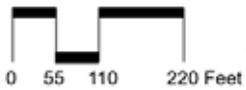
Source: U.S. Air Force, 1995.



EXPLANATION

- Installation Boundary
- Area of Concern

Areas of Concern



Source: U.S. Air Force, 1995.

Figure 3.3-1

3.3.4 Storage Tanks

Underground Storage tanks (USTs) are subject to federal regulations within RCRA, 42 U.S.C. 6991 and U.S. EPA implementing regulations 40 CFR Parts 280 and 112. These regulations were mandated by the Hazardous and Solid Waste Amendments of 1984. California regulates USTs under CCR Title 23, Section 2610 et seq. and the Health and Safety Code Sections 25280 through 25299.7 of Division 20, Chapter 6.7, which are more stringent than the federal regulations. California's regulations are enforced by the Regional Water Quality Control Board (RWQCB) and are intended to protect waters of the state from discharges of hazardous substances from USTs by establishing standards for construction, monitoring, release reporting, repair, upgrade, and closure of USTs.

Aboveground Storage Tanks (ASTs) are regulated by the local Air Quality Management District (AQMD) and the California Aboveground Petroleum Storage Act (Division 20 of the Health and Safety Code, Chapter 6.67, Section 25270-25270.13). The operation and construction of ASTs is subject to National Fire Protection Association fire codes and the Uniform Fire Code. The Onizuka HMMP plan addresses California HSC Division 20 Chapter 6.67, Aboveground Storage of Hazardous Material, and AFI 32-7044, Storage Tank Compliance.

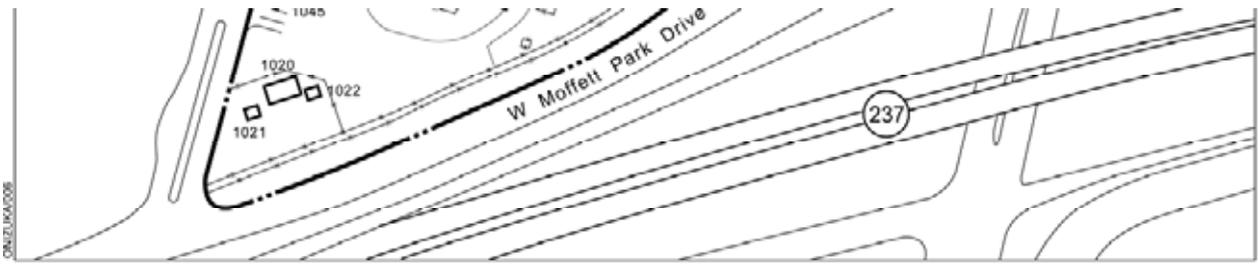
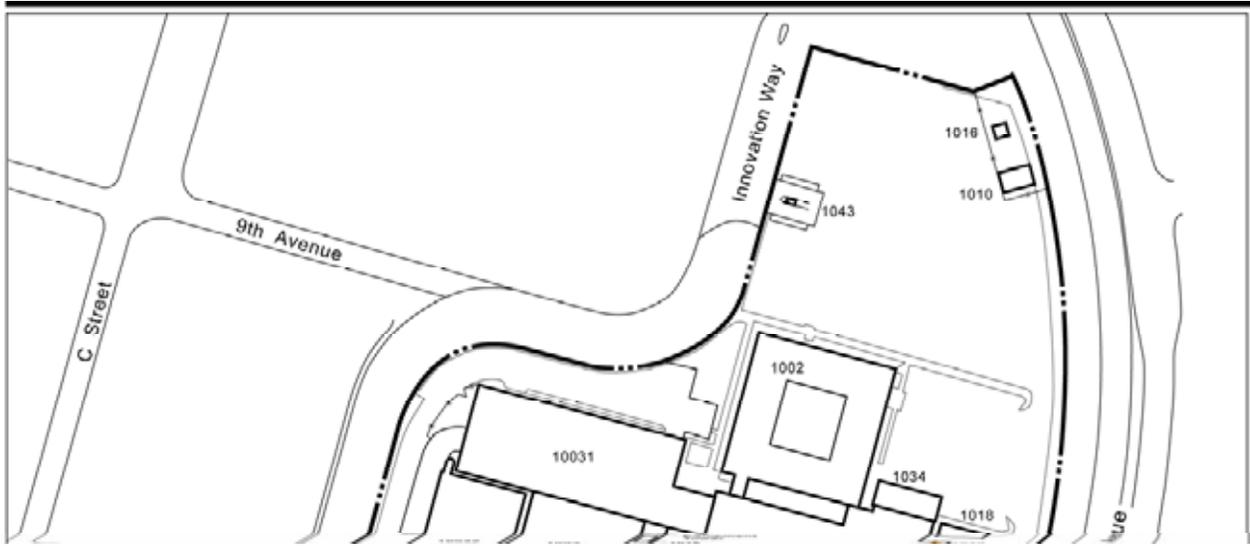
Thirteen ASTs are/were associated with Onizuka AFS (Table 3.3-2). Six of the ASTs are in service and seven have been removed. The locations of these ASTs are shown on Figure 3.3-2.

Table 3.3-2. Aboveground Storage Tanks

Facility ID	Contents	Capacity (gallons)	Status
1004	Waste Oil	1,000	Active
1004	Waste Oil	300	Active
1004	Propane	50	Active
1004	Diesel	128	Active
1008	JP-8	30,000	Active
1008	JP-8	30,627	Active
NA ^(a)	JP-5	50,000	Removed
NA ^(a)	JP-5	50,000	Removed
NA ^(a)	JP-5	50,000	Removed
NA ^(a)	JP-5	50,000	Removed
NA ^(a)	JP-5	50,000	Removed
NA ^(a)	JP-5	10,000	Removed
NA ^(a)	JP-5	10,000	Removed

Note: (a) Former tank farm area, present Facility 1007 location
JP-5 = jet propulsion fuel, grade 5
JP-8 = jet propulsion fuel, grade 8
NA = not applicable

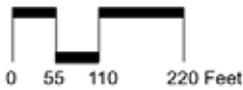
Sources: U.S. Air Force, 1995, 1997a, 2007.



EXPLANATION

- Installation Boundary
- ▲ Aboveground Storage Tank (active)
- ▲ Aboveground Storage Tank (removed)

Storage Tanks



Source: U.S. Air Force, 2007.

Figure 3.3-2

1 Facility 1008 houses two 30,000-gallon jet propulsion fuel grade 8 (JP-8) ASTs
2 that are used as a backup fuel source for the power plant. Facility 1004 utilizes
3 three ASTs; two tanks store used oil and one stores propane.

4 Prior to 1988, jet propulsion fuel grade 5 (JP-5) was stored in five 50,000-gallon
5 ASTs and two 10,000-gallon ASTs within the installation fuel farm situated south
6 of Facility 1004. As a result of a release of approximately 1,600 gallons of JP-5 in
7 1987, all the tanks within the fuel farm were removed in April 1988.

8 Environmental investigation after tank and soil removal activities were completed
9 concluded that no risk to the environment existed due to residual soil and
10 groundwater hydrocarbon contamination (U.S. Air Force 1995).

11 Five USTs were associated with Onizuka AFS (Table 3.3-3). The locations of the
12 former USTs are shown on Figure 3.2-2. Two 30,000-gallon USTs formerly used
13 to store emergency cooling water and two 31,000-gallon JP-5 USTs were
14 removed in 1994. The removal and closure of the four USTs was coordinated
15 with the City of Sunnyvale, Department of Public Safety, and Santa Clara Valley
16 Water District. The four USTs have been replaced by two 30,000 gallon ASTs
17 (U.S. Air Force, 1995). One 865-gallon UST, formerly used to store filtrate, was
18 removed in 1987 during the removal of the ASTs within the fuel yard.

Table 3.3-3. Underground Storage Tanks

Facility ID	Contents	Capacity (gallons)	Status
1004	Emergency Cooling Water	30,000	Removed
1004	Emergency Cooling Water	30,000	Removed
1004	JP-5	31,000	Removed
1004	JP-5	31,000	Removed
NA	Filtrate	865	Removed

JP-5 = jet propulsion fuel, grade 5

NA = not applicable

Sources: U.S. Air Force, 1994a, 1994b, 2007.

19 Two grease traps are utilized at Onizuka AFS. A grease trap is located at the
20 Onizuka AFS dining facility, Facility 1006 and an oil interceptor is located at the
21 paint shop, Facility 1040.

22 **3.3.5 Asbestos-Containing Material**

23 ACM and ACM abatement are regulated by the U.S. EPA and OSHA. Asbestos
24 fiber emissions into the ambient air are regulated in accordance with Section 112
25 of the Clean Air Act (CAA), which established the National Emissions Standards
26 for Hazardous Air Pollutants (NESHAP). Under NESHAP, the owner of a
27 structure must, prior to demolition or renovation of buildings with ACM, provide
28 notice to the regulator with CAA authority (either the U.S. EPA or its state
29 counterpart). The NESHAP regulations (40 CFR Part 61, Subpart M) address the
30 demolition or renovation of buildings with ACM. The Asbestos Hazard
31 Emergency Response Act (AHERA), (P.L. 99-519 and P.L. 101-637), addresses
32 worker protection for employees who work around or remediate ACM. The State
33 of California regulates asbestos under Title 8 CCR, Section 1529 and 5208.

1 Renovation or demolition of buildings with ACM has a potential for releasing
2 asbestos fibers into the air. Asbestos fibers could be released due to disturbance
3 or damage to various building materials, such as pipe insulation, acoustical
4 ceilings, sprayed-on fire proofing, and other materials used for sound proofing or
5 insulation. The current Air Force practice is to manage or abate ACM in active
6 facilities and abate any ACM that has been identified as a hazard to human
7 health, following regulatory requirements and prior to facility demolition or
8 renovation. Removal of ACM occurs when there is a potential for asbestos fiber
9 release that would affect human health or the environment.

10 There are two primary categories that describe ACM. Friable ACM is defined as
11 any material containing more than 1 percent asbestos that when dry, can be
12 crumbled, pulverized, or reduced to powder by hand pressure (e.g., pipe or boiler
13 insulation and acoustic ceilings). Non-friable ACM is material that contains more
14 than 1 percent asbestos but does not meet the criteria for friable asbestos
15 (e.g., floor tile).

16 Asbestos surveys of structures at Onizuka AFS were conducted in 2003 and
17 2006. The surveys evaluated the buildings for the presence, quantity, locations,
18 and character of ACM. The survey protocol was designed to develop an
19 asbestos operations and maintenance program and did not allow for destructive
20 sampling of existing building components. Although samples were collected in
21 each building, additional sampling may be required to further characterize building
22 materials before they are demolished or renovated.

23 ACM was identified in 11 of the 24 structures surveyed including facilities 1001,
24 1002, 1003, 1004, 1005, 1006, 1008, 1010, 1013, 1018, and 1020. Access was
25 not available to portions of the first and third floors and the entire second floor of
26 Facility 1003 and the second floor of facilities 10031 and 10032 during the
27 asbestos survey and no samples were taken, so it is assumed that ACM is
28 present in those areas. Facilities 1015, 1025, and 1045 were not included in the
29 2003 and 2006 surveys. Therefore, the interior of these structures are presumed
30 to contain ACM until samples indicate otherwise. No ACM was identified on or in
31 the following structures: Facilities 1007, 1009, 1012, 1016, 1021, 1022, 1034,
32 1035, 1040, 1042, and 1043 (Table 3.3-4).

33 **3.3.6 Lead-Based Paint**

34 Human exposure to lead has been determined to pose an adverse health risk by
35 agencies such as OSHA and the U.S. EPA. Sources of exposure to lead are
36 dust, soils, and paint. In 1973, the Consumer Product Safety Commission
37 (CPSC) established a maximum lead content in paint of 0.5 percent by weight in
38 a dry film of newly applied paint.

39 The use of LBP paint declined after 1978 when the CPSC lowered the allowable
40 lead content in paint to 0.06 percent by weight from its 1973 level of 0.5 percent
41 by weight in a dry film of newly applied paint. This change was made under the
42 Consumer Safety Act of 1977, P.L. 101-608, as implemented by 16 CFR Part
43 1303. DOD implemented a ban of LBP use in 1978; however, it is possible that
44 facilities painted prior to or during 1978 may contain LBP. The Air Force does not
45 actively pursue removal of LBP. Instead, it is managed in place and removed by
46 the Air Force, as necessary.

Table 3.3-4. Facilities Surveyed for Asbestos

Facility ID	Asbestos-Containing Material Present
1001	Pipe insulation, ceiling tile and mastic, floor tile and mastic, duct adhesive, carpet and mastic, cove-base mastic, drywall skim-coat, drywall joint compound, sealant/expansion joint putty, leveling compound and mastic, residual mastic, penetration seal and tar, miscellaneous fibrous debris
1002	Floor tile and mastic, ceiling tile and mastic, carpet and mastic, cove-base mastic, drywall skim-coat, drywall joint compound, linoleum and mastic, mudded joint packaging on piping system
1003	Floor tile and mastic, cove-base mastic, drywall, and drywall joint compound, wainscot, residual mastic
1004	Floor tile and mastic, carpet backing, gasket material, pipe insulation, drywall skim-coat, drywall joint compound, drywall, pipe insulation, cementitious panel and adhesive
1005	Floor tile and mastic, carpet and mastic
1006	Drywall skim-coat, drywall joint compound
1007	No ACM identified
1008	Mastic
1009	No ACM identified
1010	Floor tile and mastic, drywall skim-coat, drywall joint compound, residual mastic
1012	No ACM identified
1013	Floor tile and mastic
1015	ACM assumed to be present ^(a)
1016	No ACM identified
1018	Floor tile and mastic, linoleum and mastic, drywall, drywall joint compound
1020	Floor tile and mastic, cove-base mastic
1021	No ACM identified
1022	No ACM identified
1025	ACM assumed to be present ^(a)
1034	No ACM identified
1035	No ACM identified
1040	No ACM identified
1042	No ACM identified
1043	No ACM identified
1045	ACM assumed to be present ^(a)
10031	ACM assumed to be present ^(a)
10032	ACM assumed to be present ^(a)

Notes: (a) No access to all or a portion of facility during 2003 and 2006 surveys.
ACM = asbestos-containing material

Source: U.S. Air Force 2005b.

1 A LBP survey of the exterior surfaces of 23 structures at Onizuka AFS was
2 conducted in 2003. LBP was identified on the exteriors surfaces of 8 of the
3 23 structures surveyed including facilities 1001, 1002, 1003, 1004, 1010, 1013,
4 1016, and 1034. No LBP was identified on the exterior surfaces of facilities 1005,
5 1006, 1007, 1008, 1009, 1012, 1018, 1020, 1021, 1022, 1035, 1042, 1043,
6 10031, and 10032 (U.S. Air Force, 2005d). Demolishing a building containing
7 LBP would have the potential for releasing lead into the environment.

8 3.4 NATURAL ENVIRONMENT

9 This section describes the affected environment for natural resources: geology
10 and soils, water resources, air quality, biological resources, and cultural
11 resources.

12 3.4.1 Geology and Soils

13 The discussion of geology and soils covers features of the physical environment
14 that may be affected by, or have an impact upon, the proposed activities. These
15 include physiography, geology (surface and bedrock), mineral resources,
16 seismicity, and soils (types and properties). Although the discussion of geology
17 includes the regional discussion needed to understand this setting, the ROI is
18 considered to be localized and limited to the Onizuka AFS property.

19 3.4.1.1 Geology.

20 **Physiography.** The Onizuka AFS property is located in the Coast Ranges
21 Physiographic Province, but in a sub-region that has some very distinct
22 differences in landforms from the majority of this province (Norris and Webb
23 1990). The San Francisco Bay was formed as a structural basin resulting from
24 the active tectonics of this continental margin. It is bounded by mountains to the
25 west and southwest (a combination of the San Francisco Peninsula and Santa
26 Cruz mountains, and mountains to the east and northeast (Diablo Range).
27 Onizuka AFS is adjacent to the southern tip of the San Francisco Bay, with flat
28 topography and elevations that range from about 15 feet above sea level at the
29 northern boundary to about 25 feet above sea level at the southern boundary.

30 **Surficial and Bedrock Geology.** As a result of the mountain building on either
31 side, the structural lowering of San Francisco Bay, and its eventual inundation
32 from a combination of the Pacific Ocean and the Central Valley drainages, the
33 Bay has accumulated thick sequences of sediment since the Pliocene (up to
34 5 million years before present). Surface materials at Onizuka AFS are identified
35 as alluvial fan deposits, fine facies, while immediately north of the installation
36 there is San Francisco Bay mud (Witter, et al., 2006). The underlying bedrock
37 includes a number of sedimentary formations, the most prominent, and most
38 recent being the Merced Formation. This formation is a Pliocene-Pleistocene
39 depositional unit that was laid down primarily in a marine environment, with the
40 upper (and latest) 10 percent of the deposits in a non-marine environment.

41 **Mineral Resources.** Available mineral resources in the San Francisco Bay area
42 are quite varied and include construction related materials (sand and gravel,
43 stone, clay, lime, and cement), precious metals (gold and silver), gemstones,

1 boron, and others (including asbestos, diatomite, gypsum, iron ore, mercury, salt,
2 and rare earths). However, there are no mineral extraction activities present
3 within the boundaries of Onizuka AFS (Galloway, et al., 2001).

4 **Seismicity.** Onizuka AFS is situated in a Zone 4 seismic area, indicating a high
5 probability of seismic activity with potential for damage (Onizuka AFS, 2006d).
6 Areas within Zone 4 are expected to experience maximum magnitudes and
7 damage in the event of an earthquake. The U.S. Geological Survey (USGS)
8 Working Group on California Earthquake Probabilities has evaluated the
9 probability of one or more earthquakes of Richter magnitude 6.7 or higher
10 occurring in the San Francisco Bay Area within the next 30 years. The result of
11 the evaluation indicated a 70 percent likelihood that such an earthquake event will
12 occur in the Bay Area between 2000 and 2030 (U.S. Geological Survey, 1999).

13 Potential earthquakes in this zone have been correlated to a Modified Mercalli
14 intensity level value of VII. Typical results of a Level VII earthquake, considered
15 to have strong shaking severity, are described as follows:

- 16 • People have difficulty standing
- 17 • Drivers feel their cars shaking
- 18 • Some furniture breaks
- 19 • Loose bricks fall from buildings
- 20 • Damage is slight to moderate in well-built buildings; considerable in
21 poorly built buildings.

22 The San Francisco Bay area has both historic and recent seismic activity
23 primarily due to the presence of the San Andreas, Hayward, and Calaveras fault
24 zones. Onizuka AFS is between the San Andreas Fault, located 10 miles to the
25 southwest, and the Hayward Fault, located nine miles to the northeast. The
26 combined southern and northern segments of the Hayward Fault, as well as the
27 San Andreas Fault and Calaveras Fault, are considered by the USGS to pose the
28 greatest threat of generating at least one earthquake with a magnitude 6.7 or
29 greater over the next 30 years (U.S. Geological Survey, 1999).

30 Ground movement intensity during an earthquake can vary depending on the
31 overall magnitude, distance to the fault, focus of earthquake energy, and type of
32 geologic material. The unconsolidated alluvial materials underlying Onizuka AFS
33 are a cause for concern not only because of the exaggerated effect they can have
34 on earth shaking during earthquakes, but also on their potential to experience
35 liquefaction as a result of earthquakes. Although these sediments are in a zone
36 of Required Investigation for the potential of liquefaction, their expected
37 susceptibility to liquefaction is only moderate (Witter, et al., 2006).

38 **3.4.1.2 Soils.**

39 Surface soils at Onizuka AFS are derived from the alluvial deposits found on
40 gently sloping flood plains. The United States Department of Agriculture (USDA)

1 classified surface soils predominantly as Sunnyvale silty clay of the Sunnyvale
2 series, which has low permeability, drains slowly, has a high shrink-swell
3 potential, and loses strength when wet. These characteristics are not desirable
4 for construction and require that foundations and structural footings be carefully
5 designed to prevent damage due to soil movement. Because of their proximity to
6 the brackish water of the Bay, Sunnyvale silty clay soils are moderately alkaline
7 and therefore can be highly corrosive (U.S. Department of Agriculture, 1958).

8 **3.4.2 Water Resources**

9 Water resources include both surface water features, such as lakes and rivers,
10 and groundwater. The ROI for water resources has been defined to include the
11 Onizuka AFS property.

12 **3.4.2.1 Surface Water.**

13 Onizuka AFS falls within the Guadalupe Slough watershed and is east of the
14 Stevens Creek watershed. Most storm water that runs off the rooftops and
15 ground surfaces at Onizuka AFS is routed to an underground storm drain system
16 which discharges to the Sunnyvale West Channel. Storm water from the
17 Sunnyvale West Channel empties into Moffett Channel and from there flows to
18 Guadalupe Slough, which discharges into San Francisco Bay north of Onizuka
19 AFS. Very little infiltration of storm water into the soil takes place at Onizuka AFS
20 because the surfaces are predominantly impervious (i.e., paved or covered with
21 buildings).

22 The Federal Emergency Management Agency (FEMA) shows the Sunnyvale
23 West Channel, which is situated along the southern and eastern boundaries of
24 the installation, as a flood Zone AE (but it is essentially limited to the channel
25 area). Zone AE indicates areas where flooding can be expected from the
26 100-year return period event. The flood surface elevations provided on FEMA's
27 flood insurance rate map start at 13 feet above sea level at the downstream end
28 of the channel near Matilda Avenue and increase to 23 feet at the upstream end
29 near Innovation Way (Federal Emergency Management Agency, 1997).

30 **3.4.2.2 Groundwater.**

31 Onizuka AFS lies in the Santa Clara Valley groundwater basin, within a
32 northwest-southeast oriented valley bounded by mountains to the east (the Diablo
33 Range) and to the west (Santa Cruz Mountains). Underlying the installation are
34 two water-bearing zones: an upper aquifer generally encountered between
35 10 feet and 100 feet below ground surface (bgs). The lower aquifer is generally
36 encountered between the depths of approximately 200 feet to 500 feet bgs, or
37 greater. Separating these aquifers is a confining layer approximately 100 feet
38 thick. The upper aquifer is not considered to be hydraulically connected to the
39 lower aquifer in the vicinity of Onizuka AFS (U.S. Air Force, 1997a).

40 Extensive groundwater investigations have been performed at the neighboring
41 Moffett Federal Airfield (MFA), formerly Naval Air Station Moffett Field to
42 delineate and characterize groundwater contamination associated with past
43 activities at the Naval Air Station. The investigations conducted on the eastern
44 half of MFA located one extensive plume containing volatile organic compounds

1 (VOCs) and several isolated plumes containing petroleum compounds. These
2 plumes do not impact Onizuka AFS because the groundwater flow gradient is
3 north toward the San Francisco Bay, away from the installation (Tetra Tech,
4 1998). Investigations at Onizuka AFS have not provided any evidence of
5 groundwater contamination resulting from past or present activities on the
6 property.

7 **3.4.3 Air Quality**

8 Air quality in a given location is described as the concentration of various
9 pollutants in the atmosphere, generally expressed in units of parts per million
10 (ppm) or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). Short-term or long-term effects on
11 air quality is determined by the type and cumulative amount of pollutants emitted
12 into the atmosphere from various sources, the size and topography of the air
13 basin, and the prevailing meteorological conditions. The significance of a
14 pollutant concentration is determined by comparing it to federal and/or state
15 ambient air quality standards. These standards represent the maximum
16 allowable atmospheric concentrations that may occur and still protect public
17 health and welfare with a reasonable margin of safety.

18 The U.S. EPA established the federal standards for the permissible levels of
19 certain pollutants in the atmosphere. The National Ambient Air Quality Standards
20 (NAAQS) have been established for seven criteria pollutants: ozone, nitrogen
21 dioxide (NO_2), particulate matter equal to or less than 10 microns in diameter
22 (PM_{10}), particulate matter equal to or less than 2.5 microns in diameter ($\text{PM}_{2.5}$),
23 carbon monoxide (CO), sulfur dioxide (SO_2), and lead. Ozone is a secondary
24 pollutant formed in the atmosphere by photochemical reactions of previously
25 emitted pollutants, or precursors. The ozone precursors are nitrogen oxide (NO_x)
26 and VOCs. The California Air Resources Board (CARB) has established the
27 California Ambient Air Quality Standards (CAAQS) for these air pollutants, and
28 also for visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.
29 Both the NAAQS and the CAAQS are shown in Table 3.4-1.

30 Areas that meet the NAAQS standard for a criteria pollutant are designated as
31 being "in attainment" while areas where criteria pollutant levels exceed the
32 NAAQS are designated as "nonattainment". The nonattainment classifications for
33 CO and PM_{10} are further divided into moderate and serious categories. Ozone
34 nonattainment areas are further classified, based on the severity of the pollution
35 problem, as either basic, marginal, moderate, serious, severe, or extreme. A
36 maintenance area is an area that has recently been re-designated as an
37 attainment area from a former nonattainment area. However, during the
38 maintenance period, most of the CAA rules for a nonattainment area are still
39 applicable to a maintenance area.

40 **3.4.3.1 Current Air Quality Conditions.**

41 Onizuka AFS is in Santa Clara County, which is within the Bay Area Air Quality
42 Management District (BAAQMD). Based on the nature of air quality, the ROI for
43 air quality is the entire BAAQMD, which consists of all or portions of Alameda,
44 Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and
45 Sonoma counties. In June 2004, the BAAQMD was designated as a marginal

Table 3.4-1. National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ^(c)	National Standards	
			Primary ^(a,b,c,d)	Secondary ^(a,b,e)
Ozone	1-hour	0.09 ppm (180 µg/m ³)	--	--
	8-hour	--	0.075 ppm (147 µg/m ³)	Same as primary standard
Carbon Monoxide	8-hour	9 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	--
	1-hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	--
Nitrogen Dioxide	Annual Arithmetic Mean	0.030 ppm (56 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as primary standard
	1-hour	0.25 ppm (470 µg/m ³)	--	--
Sulfur Dioxide	Annual Arithmetic Mean	--	0.03 ppm (80 µg/m ³)	--
	24-hour	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)	--
	3-hour	--	--	0.5 ppm (1,300 µg/m ³)
PM ₁₀	1-hour	0.25 ppm (655 µg/m ³)	--	--
	Annual Arithmetic Mean	20 µg/m ³	--	--
PM _{2.5}	24-hour	50 µg/m ³	150 µg/m ³	Same as primary standard
	Annual Arithmetic Mean	12 µg/m ³	15 µg/m ³	Same as primary standard
Lead	24-hour	--	35 µg/m ³	Same as primary standard
	30-day	1.5 µg/m ³	--	--
Sulfates	Quarterly	--	1.5 µg/m ³	Same as primary standard
	24-hour	25 µg/m ³	--	--
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m ³)	--	--
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m ³)	--	--
Visibility Reducing Particles	8-hour (10 a.m. to 6 p.m., Pacific Standard Time)	In a sufficient amount to produce an extinction coefficient of 0.23 per kilometer-visibility of 10 miles or more due to particles when the relative humidity is less than 70 percent.	--	--

- Notes: (a) Primary standards define levels of air quality necessary to protect public health with an adequate margin of safety. Secondary standards define levels of air quality necessary to protect public welfare (i.e., soils, vegetation, property, and wildlife) from any known or anticipated adverse effects.
- (b) The 8-hour primary and secondary ambient air quality standards are met at a monitoring site when the average of the annual fourth-highest daily maximum 8-hour average ozone concentration is less than or equal to 0.075 ppm.
- (c) The NAAQS and California standards are based on standard temperature and pressure of 25 degrees Celsius and 760 millimeters of mercury.
- (d) National Primary Standards: The levels of air quality necessary to protect the public health with an adequate margin of safety. Each state must attain the primary standards no later than three years after the state implementation plan is approved by the U.S. EPA.
- (e) National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after the state implementation plan is approved by the U.S. EPA.

EPA = Environmental Protection Agency
 µg/m³ = micrograms per cubic meter
 mg/m³ = milligrams per cubic meter
 NAAQS = National Ambient Air Quality Standards
 PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter
 PM₁₀ = particulate matter equal to or less than 10 microns in diameter
 ppm = parts per million

1 nonattainment area of the national 8-hour ozone standard. The U.S. EPA
 2 lowered the national 8-hour ozone standard from 0.80 to 0.75 ppm effective
 3 May 27, 2008. The U.S. EPA will issue final designations based upon the new
 4 0.75 ppm ozone standard by March 2010 (Bay Area Air Quality Management
 5 District, 2008).

6 An emission inventory for Onizuka AFS was prepared in 2005. The emission
 7 source categories for Onizuka AFS include combustion sources such as
 8 cogeneration turbines, boilers, emergency generators, and fuel storage (Onizuka
 9 AFS, 2005c). Onizuka AFS operates under a Synthetic Minor Permit to Operate
 10 from the BAAQMD. This permit provides operating conditions and emission
 11 limitations (i.e., 95 tons per year for each of the criteria pollutants) that must be
 12 followed by the installation. The permit specifically identifies the 12 cogeneration
 13 turbines, 4 boilers, and an emergency generator. The Onizuka AFS 2004
 14 emissions inventory and BAAQMD 2005 emissions inventory are provided in
 15 Table 3.4-2.

Table 3.4-2. Onizuka AFS and BAAQMD Air Emission Inventory and Permit to Operate Emission Limits (tons per year)

	NO _x	CO	VOC	SO ₂	PM ₁₀
Onizuka AFS 2004 Emissions	3.75	3.63	0.34	0.031	1.25
BAAQMD 2005 Emissions	196,370	781,100	146,000	23,360	82,125

BAAQMD = Bay Area Air Quality Management District
 CO = carbon monoxide
 NO_x = nitrogen oxides
 PM₁₀ = particulate matter equal to or less than 10 microns in diameter
 SO₂ = sulfur dioxide
 VOC = volatile organic compound

Sources: Onizuka AFS, 2005c, Bay Area Air Quality Management District, 2008.

16 **3.4.3.2 Clean Air Act General Conformity.**

17 In areas where the NAAQS are exceeded, preparation of a State Implementation
 18 Plan (SIP) detailing how the state would attain the standard within mandated time
 19 frames is required. Section 176c of the CAA provides that a federal agency
 20 cannot support a federal action in any way unless the federal agency determines
 21 that the activity will conform to the SIP's purpose of attaining and maintaining the
 22 NAAQS, listed in Table 3.4-1.

23 The CAA, amended in 1990, expands the scope and content of the CAA's
 24 conformity provisions in terms of their relationship to a SIP. Under Section 176(c)
 25 of the CAA, a project is in "conformity" if it corresponds to a SIP's purpose of
 26 eliminating or reducing the severity and number of violations of the NAAQS and
 27 achieving expeditious attainment of such standards. Conformity further requires
 28 that such activities would not:

- 29 (1) Cause or contribute to any new violations of any standards in any
 30 area;
- 31 (2) Increase the frequency or severity of any existing violation of any
 32 standards in any area; or

1 (3) Delay timely attainment of any standard or any required interim
2 emission reductions or other milestones in any area.

3 The U.S. EPA published final rules on general conformity (40 CFR Parts 51 and
4 93 in the Federal Register on November 30, 1993) that apply to federal actions in
5 areas designated nonattainment for any of the criteria pollutants under the CAA.
6 The rules specify *de minimis* emission levels by pollutant to determine the
7 applicability of conformity requirements for a project. As defined in the general
8 conformity rule, a formal conformity determination is required when the annual
9 net total of direct and indirect emissions from a federal action, occurring in a
10 nonattainment or maintenance area, equals or exceeds the annual *de minimis*
11 levels for criteria pollutants. Since Onizuka AFS is located in a marginal
12 nonattainment area for ozone, the *de minimis* criteria of 100 tons per year (tpy) of
13 NO_x and VOC apply.

14 A federal action that does not exceed the threshold rates of criteria pollutants may
15 still be subject to a general conformity determination. This would happen if the
16 direct and indirect emissions from the action exceed 10 percent of the total
17 emissions inventory for a particular criteria pollutant in a nonattainment or
18 maintenance area and the action is considered to be a "regionally significant".
19 Table 3.4-2 provides the 2005 estimated annual emissions of criteria pollutants in
20 the BAAQMD.

21 However, the final rule also defines a series of exemptions under 40 CFR
22 93.153(c) (2). In particular, the general conformity rules are not applicable to the
23 proposed Onizuka AFS Reuse Plan under Exemptions XIV and XIX, which
24 respectively read:

25 "Transfers of ownership, interests, and titles in land, facilities,
26 and real and personal properties, regardless of the form and
27 method of the transfer."

28 "Actions (or portions thereof) associated with transfers of
29 land, facilities, title, and real properties through an
30 enforceable contract or lease agreement where the delivery
31 of the deed is required to occur promptly after a specific,
32 reasonable condition is met, such as promptly after the land
33 is certified as meeting the requirements of Comprehensive
34 Environmental Response, Compensation and Liability Act
35 (CERCLA), and where the Federal agency does not retain
36 continuing authority to control emissions associated with the
37 lands, facilities, title, or real properties."

38 **3.4.3.3 Stationary Emission Sources.**

39 New or modified major stationary sources associated with the Onizuka AFS
40 property would be subject to Prevention of Significant Deterioration (PSD) review
41 and nonattainment pollutant New Source Review (NSR) to ensure that these
42 sources are constructed without significant adverse deterioration of the air in the
43 area. The U.S. EPA oversees programs for stationary source operating permits
44 (Title V) and for new or modified major stationary source construction and
45 operation.

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3.4.3.4 Greenhouse Gas Emission Sources.

Greenhouse gases are compounds found naturally in the Earth’s atmosphere. The compounds trap infrared heat converted from the sunlight inside Earth’s atmosphere. In this way, greenhouse gases act as insulation, and contribute to the maintenance of global temperatures. As the levels of greenhouse gases increase; however, the result is a greater overall temperature on Earth. As 83 percent of greenhouse gases are carbon dioxide (CO₂) emissions, this EA considers CO₂ as the representative greenhouse gas emission and predicts CO₂ levels as appropriate for disclosure purposes.

3.4.4 Biological Resources

Biological resources include both native and non-native species of plants and animals in the project area. For discussion purposes, these are divided into vegetation, wildlife, threatened and endangered species, and sensitive habitats. Human activity has altered the natural environment at Onizuka AFS through grading, paving, and construction of buildings on the property. Data sources for biological resources include published literature, and information provided by the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game.

The ROI used for discussion of biological resources includes the Onizuka AFS property, which consists of areas that have been altered or disturbed with existing facilities and vehicle parking lots. This ROI includes the area within which potential impacts could occur and provides a basis for evaluating the level of impact.

3.4.4.1 Vegetation.

All vegetation on Onizuka AFS has been introduced since the construction of the installation. Vegetation consists of small areas of Kentucky bluegrass (*Poa pratensis*), a small number of eucalyptus and live oak trees (*Quercus agrifolia*), and a variety of ornamental plants common to the area.

3.4.4.2 Wildlife.

Onizuka AFS provides very little habitat for even some of the more common wildlife that could be found in the region. AFI 32-7064 requires that the Air Force installations be classified according to the presence of suitable habitat for supporting wildlife. Category I installations have suitable habitat, while Category II installations do not. The State of California Department of Fish and Game has reviewed the Onizuka AFS property and concurred with the Category II classification for fish and wildlife habitat suitability. As mentioned within the aforementioned vegetation section, because trees are used within the landscaping on the property there is potential for the occurrence of various bird species adapted to human activity. In addition, the potential for other wildlife often associated with urban settings such as rats (*Rattus* sp.) and mice (*Mus* sp.) could occur within or adjacent to the installation.

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3.4.4.3 Threatened and Endangered Species.

The California Department of Fish and Game website was consulted for the most up-to-date information concerning federally and state threatened and endangered species that have the potential to occur on or adjacent to Onizuka AFS. Table 3.4-3 presents federal, state threatened, endangered, and species of special concern that have the potential to occur on or within the vicinity of Onizuka AFS.

Table 3.4-3. Federal and State Listed Species with the Potential to Occur at Onizuka AFS

Common and Scientific Name	Federal Status	State Status
Invetebrates		
bay checkerspot butterfly (<i>Euphydryas editha bayensis</i>)	Threatened	-
San Bruno elfin butterfly (<i>Callophrys mossii bayensis</i>)	Endangered	-
vernal pool tadpole shrimp (<i>Lepidurus packardi</i>)	Endangered	-
Birds		
burrowing owl (<i>Athene cunicularia</i>)	-	SC
western snowy plover (<i>Charadrius alexandrinus nivosus</i>)	Threatened	SC
northern harrier (<i>Circus cyaneus</i>)	-	SC
salt marsh common yellow-throat (<i>Geothlypis trichas sinuosa</i>)	-	SC
California black rail (<i>Laterallus jamaicensis cofurniculus</i>)	-	Threatened
Alameda song sparrow (<i>Melospiza melodia pusillula</i>)	-	SC
California clapper rail (<i>Rallus longirostris obsoletus</i>)	Endangered	Endangered
California least tern <i>Sternula antillarum browni</i>	Endangered	Endangered
Mammals		
salt marsh harvest mouse (<i>Reithrodontomys raviventris</i>)	Endangered	Endangered
salt marsh wandering shrew (<i>Sorex vagrans halicoetes</i>)	-	SC

Endangered = any species that is in danger of extinction throughout all or a significant portion of its range.
 Threatened = any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.
 SC = An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited ranges, and/or continuing threats. Some species may be just starting to decline, while others may have already reached the point where they meet the criteria for listing as a threatened or endangered species.

Sources: California Department of Fish and Game, 2009; U.S. Fish and Wildlife Service, 2009.

1 As discussed in Section 3.4.4.2, Wildlife, Onizuka AFS is a Category II facility
2 with respect to fish and wildlife habitat suitability. There is no habitat present on
3 Onizuka AFS to support any of the listed species identified as having the potential
4 to occur on or near the installation. Because bird species are highly mobile, there
5 is potential for the listed bird species to be observed within the ROI. However,
6 observations of the listed bird species would be rare and more than likely
7 transitory in nature.

8 **3.4.4.4 Sensitive Habitats.**

9 Sensitive habitats include wetlands, plant communities that are unusual or of
10 limited distribution, and important seasonal use areas for wildlife (e.g., migration
11 routes, breeding areas, crucial summer/winter habitat).

12 Wetlands are defined as those areas that are inundated or saturated by surface
13 or groundwater at a frequency and duration sufficient to support, and that under
14 normal circumstances do support, a prevalence of vegetation typically adapted for
15 life in saturated soil conditions (Federal Interagency Committee for Wetland
16 Delineation, 1989). Wetlands are regulated under Section 404 of the Clean
17 Water Act (CWA) and Executive Order (EO) 11990 (Protection of Wetlands).

18 According to the Onizuka AFS Integrated Natural and Cultural Resources
19 Management Plan, a review of the National Wetlands Inventory published by the
20 USFWS in October 1992 indicated that there are no wetlands on Onizuka AFS
21 (Onizuka AFS, 2006d).

22 There is no federally designated critical habitat for any listed species on Onizuka
23 AFS.

24 **3.4.5 Cultural Resources**

25 Cultural resources are defined as prehistoric or historic archaeological sites,
26 buildings, structures, districts, artifacts, or other physical evidence of human
27 activity. For ease of discussion, cultural resources have been divided into
28 prehistoric and historic archaeological resources, historic buildings and
29 structures, and traditional cultural resources (e.g., sacred or ceremonial sites).

30 For the purposes of this analysis, the term ROI is synonymous with the “area of
31 potential effect” as defined under cultural resources legislation. The ROI for the
32 analysis of cultural resources within this EA includes any structures and areas
33 that may be affected by disposal and reuse activities. This would entail the entire
34 Onizuka AFS property.

35 Numerous laws and regulations require federal agencies to consider the effects
36 of a proposed action on cultural resources. These laws and regulations stipulate
37 a process for compliance, define the responsibilities of the federal agency
38 proposing the action, and prescribe the relationships among other involved
39 agencies (e.g., the State Historic Preservation Officer [SHPO] and the Advisory
40 Council on Historic Preservation [ACHP]). The primary law governing the
41 treatment of cultural resources is the National Historic Preservation Act (NHPA),
42 which requires a federal agency to consider potential impacts on historic
43 properties from any proposed undertaking.

1 In compliance with the NHPA, the Air Force has initiated the Section 106 review
2 process with the California SHPO. Only those cultural resources determined to
3 be significant under cultural resources legislation are subject to protection or
4 consideration by a federal agency. Significant cultural resources, whether they
5 are prehistoric, historic, or traditional in nature, are referred to as “historic
6 properties.” Under 36 CFR Part 800, historic properties, are defined as any
7 prehistoric or historic district, site, building, structure, or object included in, or
8 eligible for inclusion in, the National Register of Historic Places (National
9 Register). For the purposes of these regulations, the term includes artifacts,
10 records, and remains that are related to, and located within, such properties. The
11 term “eligible for inclusion in the National Register” includes properties formally
12 determined as such by the Secretary of the Interior and all other properties that
13 meet National Register listing criteria. Therefore, sites that meet the criteria, but
14 are not yet evaluated, may be considered potentially eligible to the National
15 Register and, as such, are afforded the same regulatory consideration as
16 nominated historic properties. As a federal agency, the Air Force is responsible
17 for identifying any historic properties associated with its property.

18 **Background.** The Air Force established the current location of Onizuka AFS in
19 June 1960 when it moved the 6594th Test Wing (Satellite) from Palo Alto to the
20 Lockheed complex in Sunnyvale. Over the years, the installation has undergone
21 several name changes as its mission evolved. It began as the Satellite Test
22 Center and then became the Satellite Test Annex. In 1970, it was designated
23 Sunnyvale Air Force Station. In 1986, the installation was renamed Onizuka Air
24 Force Station in honor of Air Force Lieutenant Colonel Ellison S. Onizuka who
25 died as a crew member onboard the Space Shuttle Challenger. In 1987, the
26 installation was renamed Onizuka Air Force Base as part of an Air Force-wide
27 organizational change; the name was changed to Onizuka Air Station in 1994.
28 The name was eventually changed to Onizuka Air Force Station in March 2000
29 (Onizuka AFS, 2006d).

30 On October 1, 1987, Air Force Space Command took control of the installation
31 and replaced Air Force Systems Command as the major command host. On
32 January 30, 1992, as part of a Space Command-wide, reorganization, the
33 installation became a subordinate unit of the 50th Space Wing at Schriever AFB,
34 Colorado. As part of this reorganization, the 750th Space Group was activated
35 and became the host unit for the installation. Upon the deactivation of the 750th
36 Space Group in June 1999, the 21st Space Operations Squadron became the
37 host unit (Onizuka AFS, 2006d).

38 **3.4.5.1 Prehistoric and Historic Archaeological Resources.**

39 No known archaeological resources are associated with Onizuka AFS. Because
40 of the severe ground disturbance that occurred during construction of buildings
41 and vehicle parking areas, the potential for discovery of in-tact archaeological
42 resources is considered very low. Historical artifacts have been unearthed from
43 past diggings in the vicinity of Onizuka AFS; therefore, a qualified archaeological
44 monitor would be required to be present when excavations deeper than five feet
45 are expected to occur at the installation (Onizuka AFS, 2006d).

1 **3.4.5.2 Historic Buildings and Structures.**

2 An historic building inventory and evaluation of Onizuka AFS facilities was
3 conducted in 2004. Based on this evaluation, none of the facilities at Onizuka
4 AFS were recommended to be eligible for listing in the National Register. The
5 facilities (with the exception of facility 1001) are less than 50 years in age; are
6 support facilities that serve ancillary functions (e.g., storage sheds, antennas,
7 traffic check houses, or infrastructure shelters); and are typically of unremarkable
8 corrugated metal or concrete block construction. In addition, given their function,
9 architecture, and age, none of the buildings demonstrate the exceptional
10 importance requirement. Because of their function and architecture, the
11 likelihood of Onizuka AFS facilities becoming historically significant at any age is
12 extremely remote. Facilities 1001, 1002, 1003, 1004, 10031 and 10032 were
13 recommended as not eligible for inclusion in the National Register at the time of
14 the evaluation; however, it was recommended that the facilities be reconsidered
15 for eligibility in the year 2019, or at such time as additional specific information
16 about their activities and mission becomes publicly available (U.S. Air Force,
17 2004). Figure 3.4-1 depicts the location of these buildings. The California SHPO
18 concurred with these findings in a letter dated February 2, 2005.

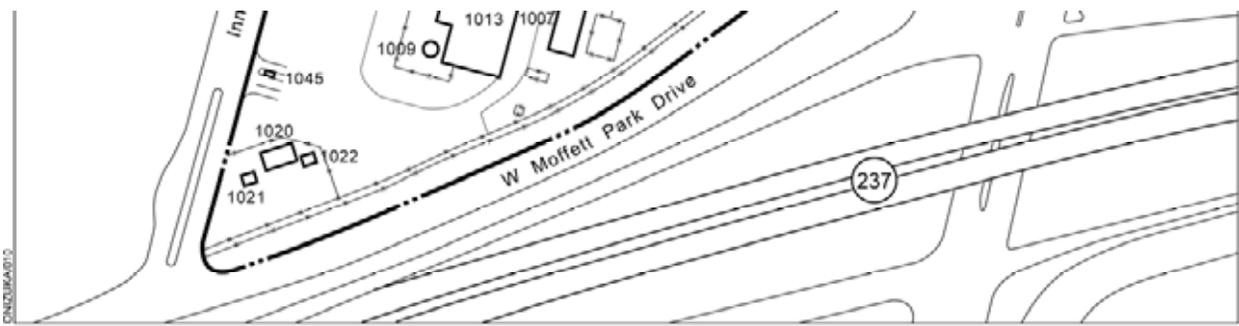
19 Because SHPO recommended facilities 1001, 1002, 1003, 1004, 10031 and
20 10032 be reconsidered for eligibility in the year 2019, or at such time as additional
21 specific information about their activities and mission becomes publicly available,
22 an evaluation of these facilities will be completed prior to closure of Onizuka AFS.

23 During preparation of the installation redevelopment plan, the LRA prepared a
24 preliminary report on cultural resources of Onizuka AFS. They determined that
25 Onizuka AFS may be eligible for listing as a Sunnyvale heritage resource under
26 Criteria A, B, E, F, and L of the Sunnyvale Historic Preservation Ordinance
27 (Ordinance 2558-97). The property may also be eligible as a heritage resource
28 district, which would encompass the entire site as well as the buildings (City of
29 Sunnyvale, 2008b).

30 Based on available information, the LRA has acknowledged that the Onizuka AFS
31 property is potentially eligible for designation as a local Heritage Resource and
32 recommends further evaluation of the historic significance of the buildings,
33 artifacts, and site and possible preservation of a building, artifact, or other
34 appropriate measure to commemorate the site's heritage significance (City of
35 Sunnyvale, 2008b).

36 **3.4.5.3 Traditional Cultural Resources.**

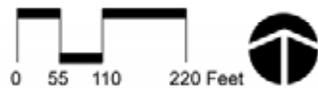
37 No traditional cultural resource concerns have been identified at Onizuka AFS. In
38 compliance with the American Indian Religious Freedom Act (AIRFA), the Air
39 Force has completed consultation with American Indian groups that have
40 historically inhabited or occupied the vicinity of Onizuka AFS. No specific
41 concerns of tribal organizations with regard to the Onizuka AFS property have
42 been identified (Appendix A).



EXPLANATION

- Installation Boundary
-  Facility being reconsidered for National Register eligibility

Structures Being Reconsidered for Eligibility to the National Register of Historic Places



Source: U.S. Air Force, 2004a.

Figure 3.4-1

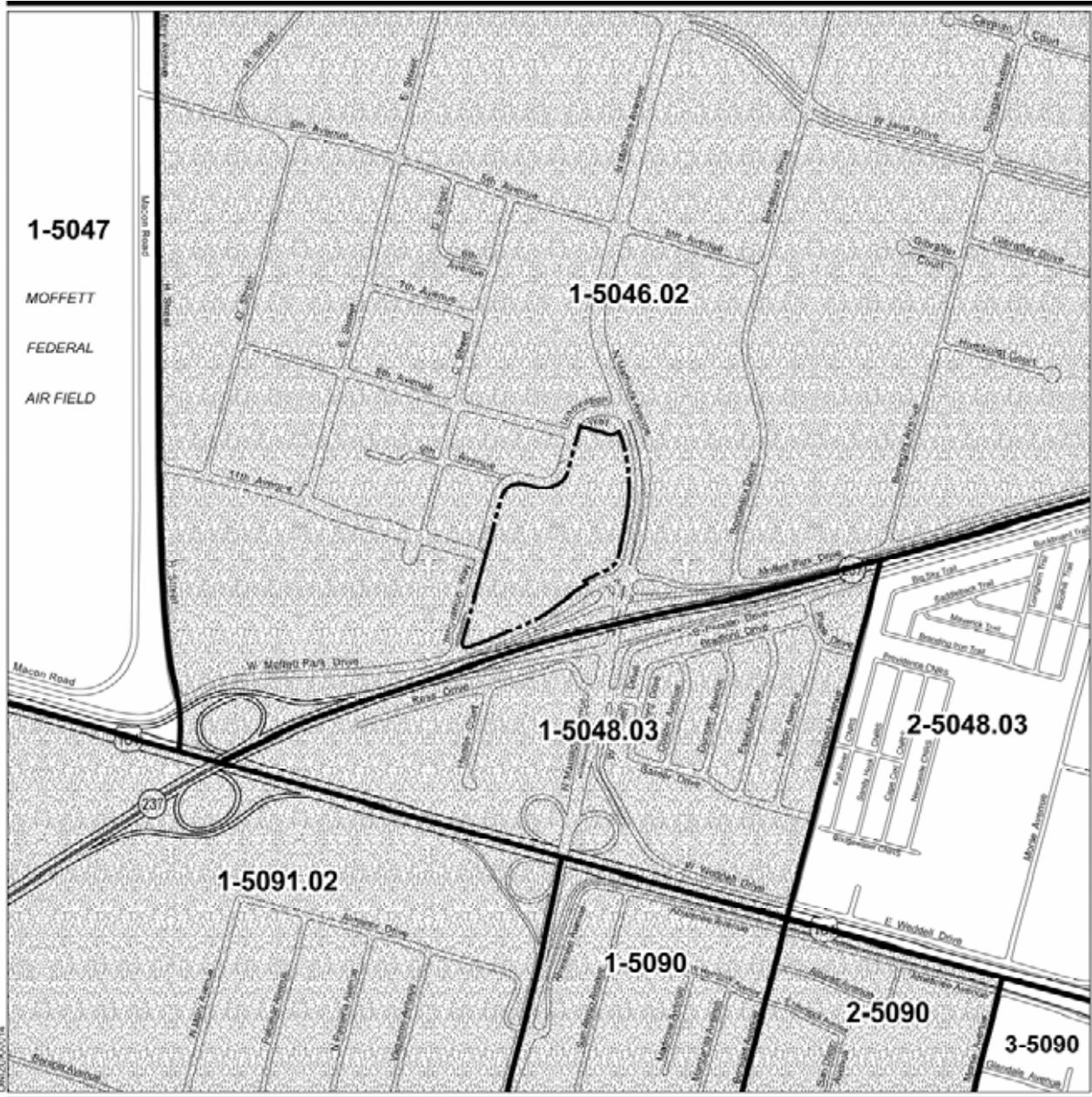
Table 3.5-1. Percent Minority, Low-Income, and Persons Under 18 Years of Age Populations

	Population	Percent Minority	Disproportionately High	Percent of Population Below Poverty Level	Disproportionately High	Percent Under Age 18	Disproportionately High
United States		24.9	--	9.2	--	25.7	--
California	36,457,549	40.5	--	10.6	--	27.3	--
Santa Clara County	1,682,585	46.2	--	4.9	--	24.7	--
Block Group - Census Tracts in Santa Clara County							
1-5046.02	2,234	58.3	Yes	4.5	No	32.1	Yes
1-5047	599	39.4	No	7.4	Yes	23.4	No
1-5048.03	1,448	60.8	Yes	2.7	No	21.0	No
2-5048.03	2,351	37.1	No	10.4	Yes	8.8	No
1-5090	1,862	51.6	Yes	8.5	Yes	26.7	Yes
2-5090	1,783	47.5	Yes	9.9	Yes	26.6	Yes
3-5090	2,209	45.8	No	11.6	Yes	22.6	No
1-5091.02	2,030	47.2	Yes	3.6	No	16.3	No

Source: U.S. Bureau of the Census, 2000.

1 U.S. Census Bureau poverty status is used in this EA to define low-income
2 status. Poverty status is reported for families with income below poverty level
3 (defined in the 2000 census as \$16,895 for a family of four with two children
4 under 18 years in 1999). Five of the census tract block groups (1-5047,
5 2-5048.03, 1-5090, 2-5090, and 3-5090) have a disproportionately high
6 percentage of population below the poverty level in comparison to Santa Clara
7 County with 4.9 percent of the population below the poverty level (U.S. Bureau of
8 the Census, 2000) (see Table 3.5-1). Figure 3.5-2 depicts the Santa Clara
9 County census tracts in the vicinity of Onizuka AFS. Disproportionate census
10 tract block groups for low-income populations are identified on this figure.

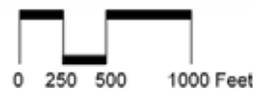
11 Youth populations, for consideration of EO 13045, are defined as persons under
12 the age of 18. Based on the 2000 U.S. Census on Family and Housing, three
13 census tract block groups (1-5046.02, 1-5090, and 2-5090) have a
14 disproportionately high percentage of youth population in comparison to Santa
15 Clara County with a youth population of 24.7 percent (U.S. Bureau of the Census,
16 2000) (see Table 3.5-1). Figure 3.5-3 depicts the Santa Clara County census
17 tract block groups in the vicinity of Onizuka AFS. Disproportionate census tract
18 block groups for youth populations are identified on this figure.



EXPLANATION

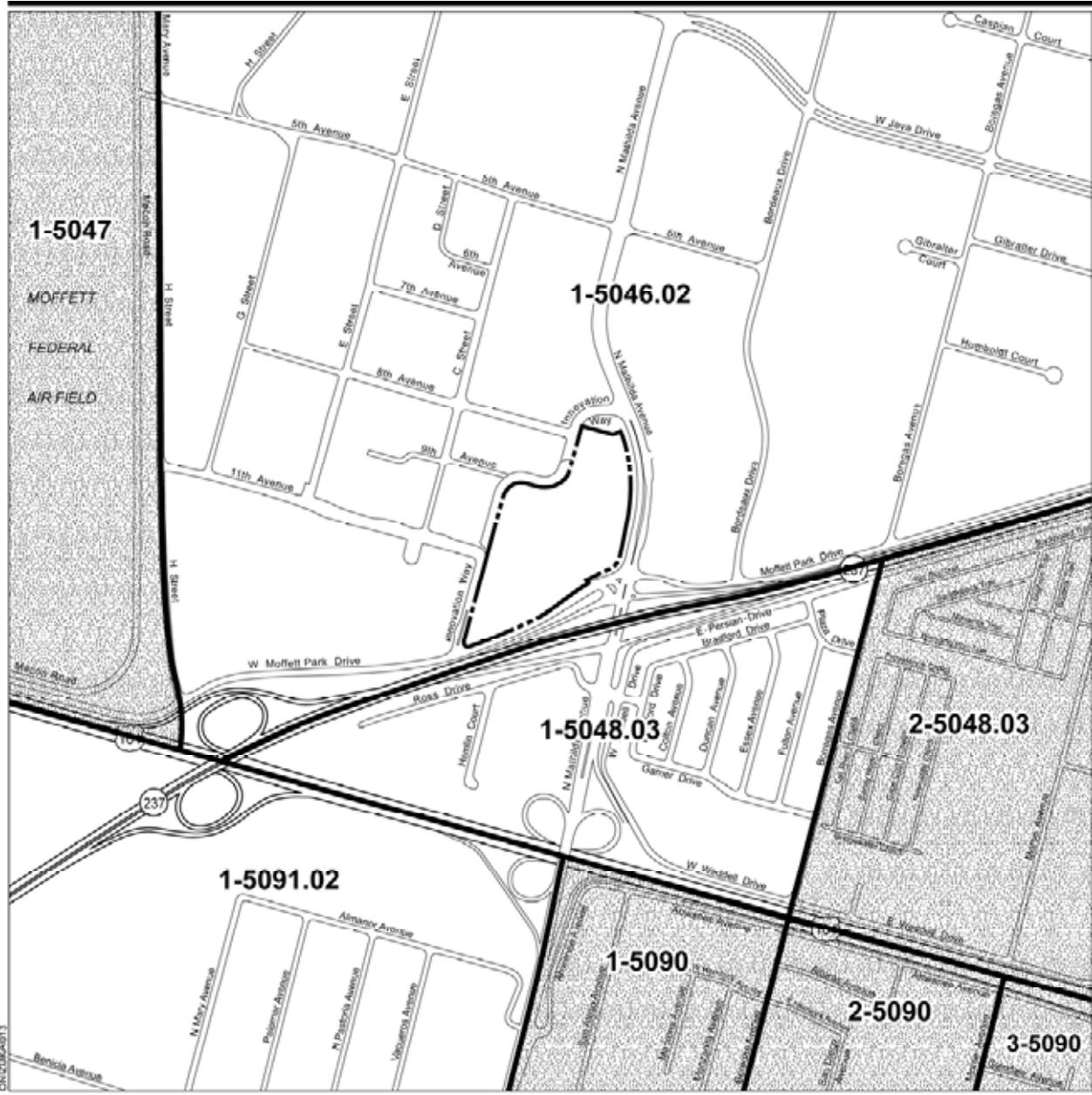
-  Disproportionate Census Tract
-  Census Tract Boundary
- 1-5090** Census Tract ID
-  Installation Boundary

**Disproportionate
Census Tracts within
the ROI -
Minority Populations**



Source: U.S. Bureau of the Census, 2000.

Figure 3.5-1



EXPLANATION

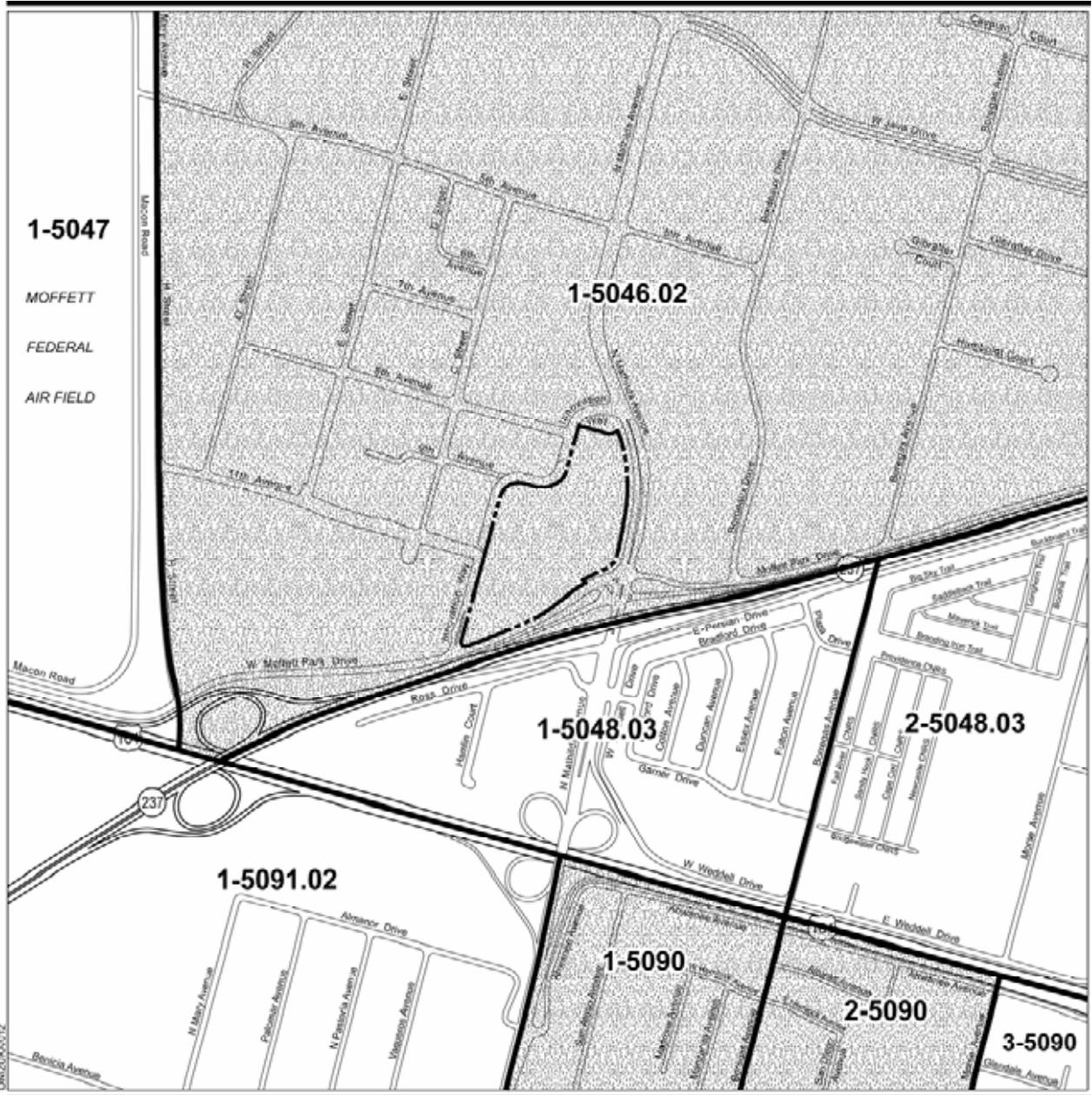
-  Disproportionate Census Tract
-  Census Tract Boundary
- 1-5090** Census Tract ID
-  Installation Boundary

**Disproportionate
Census Tracts within
the ROI - Low Income
Populations**



Source: U.S. Bureau of the Census, 2000.

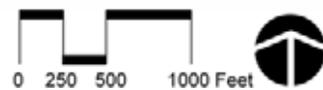
Figure 3.5-2



EXPLANATION

-  Disproportionate Census Tract
-  Census Tract Boundary
- 1-5090** Census Tract ID
-  Installation Boundary

**Disproportionate
Census Tracts within
the ROI -
Youth Populations**



Source: U.S. Bureau of the Census, 2000.

Figure 3.5-3

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

This chapter presents the results of the analysis of potential environmental effects associated with the disposal and reuse of Onizuka AFS. The Proposed Action and alternatives, including the No-Action Alternative, are analyzed. Changes to the natural and human environments that may result from the Proposed Action and alternatives were evaluated relative to the existing environment as described in Chapter 3.0. The potential for significant environmental consequences was evaluated utilizing the context and intensity considerations as defined in CEQ regulations for implementing the procedural provisions of NEPA (40 CFR Section 1508.27).

4.2 COMMUNITY SETTING

This section describes the potential effects of the Proposed Action and alternatives on socioeconomics, land use/aesthetics, transportation, and utilities.

4.2.1 Socioeconomics

Potential socioeconomic effects are addressed only to the extent that they are interrelated with the biophysical environment. Thus, the discussion includes key employment and population effects of the Proposed Action and alternatives.

4.2.1.1 Proposed Action.

Employment. Under the Proposed Action, the property would be redeveloped for office use. This alternative includes the approximately 150 research and administrative staff that the VA would relocate to the Onizuka AFS property from regional offices. This redevelopment would generate an estimated 3,363 direct on-site jobs. Work associated with facility demolition and construction activities would result in a temporary increase in local construction-related jobs during the construction period (2011 to 2016). Construction workers are expected to come from the local area.

The approximately 780 full-time employees at Onizuka AFS would be relocated to Vandenberg AFB, CA, realigned to other locations in the nation, would retire, or would have their jobs eliminated resulting in a very small (approximately 1 percent) decrease in the year 2000 estimated workforce of 75,272 persons in the City of Sunnyvale. With redevelopment, the generation of 3,363 new jobs would result in an increase of over 4 percent from the year 2000 estimated workforce in the City of Sunnyvale.

Population. There is no residential component to the Proposed Action; therefore, no on-site population would exist.

No significant impacts to socioeconomics are anticipated from implementation of the Proposed Action.

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4.2.1.2 Corporate Office Alternative.

Employment. Under this alternative, the property would be redeveloped for office use. This redevelopment would generate an estimated 3,616 direct on-site jobs. Work associated with facility demolition and construction activities would result in a temporary increase in local construction-related jobs during the construction period (2011 to 2015). Construction workers are expected to come from the local area.

The approximately 780 full-time employees at Onizuka AFS would be relocated to Vandenberg AFB, CA, realigned to other locations in the nation, would retire, or would have their jobs eliminated resulting in a very small (approximately 1 percent) decrease in the year 2000 estimated workforce of 75,272 persons in the City of Sunnyvale. With redevelopment, the generation of 3,616 new jobs would result in an increase of almost 5 percent from the year 2000 estimated workforce in the City of Sunnyvale.

Population. There is no residential component to this alternative; therefore, no on-site population would exist.

No significant impacts to socioeconomics are anticipated from implementation of the Corporate Office Alternative.

4.2.1.3 Hotel, Conference Center, and Office Alternative.

Employment. Under this alternative, the property would be redeveloped for mixed use (i.e., hotel, conference, and office). This redevelopment would generate an estimated 4,437 direct on-site jobs. Work associated with facility demolition and construction activities would result in a temporary increase in local construction-related jobs during the construction period (2011 to 2016). Construction workers are expected to come from the local area.

The approximately 780 full-time employees at Onizuka AFS would be relocated to Vandenberg AFB, CA, realigned to other locations in the nation, would retire, or would have their jobs eliminated resulting in a very small (approximately 1 percent) decrease in the year 2000 estimated workforce of 75,272 persons in the City of Sunnyvale. With redevelopment, the generation of 4,437 new jobs would result in an increase of almost 6 percent from the year 2000 estimated workforce in the City of Sunnyvale.

Population. There is no permanent residential component to this alternative; therefore, no on-site population would exist.

No significant impacts to socioeconomics are anticipated from implementation of the Hotel, Conference Center, and Office Alternative.

4.2.1.4 Automotive Retail Center Alternative.

Employment. Under this alternative, the property would be redeveloped as an automotive retail center. This redevelopment would generate an estimated 490 direct on-site jobs. Work associated with facility demolition and construction

1 activities would result in a temporary increase in local construction-related jobs
2 during the construction period (2011 to 2015). Construction workers are
3 expected to come from the local area.

4 The approximately 780 full-time employees at Onizuka AFS would be relocated to
5 Vandenberg AFB, CA, realigned to other locations in the nation, would retire, or
6 would have their jobs eliminated resulting in a very small (approximately
7 1 percent) decrease in the year 2000 estimated workforce of 75,272 persons in
8 the City of Sunnyvale. With redevelopment, the generation of 490 new jobs
9 would result in a less than 1 percent increase from the year 2000 estimated
10 workforce in the City of Sunnyvale.

11 **Population.** There is no residential component to this alternative; therefore, no
12 on-site population would exist.

13 No significant impacts to socioeconomics are anticipated from implementation of
14 the Automotive Retail Center Alternative.

15 **4.2.1.5 Veterans Affairs and Homeless Provider Alternative.**

16 **Employment.** Under the Veterans Affairs and Homeless Provider Alternative,
17 the property would be redeveloped for residential and office use. This alternative
18 includes the approximately 150 research and administrative staff that the VA
19 would relocate to the Onizuka AFS property from regional offices. This
20 redevelopment would generate an estimated 938 direct on-site jobs. Work
21 associated with facility demolition and construction activities would result in a
22 temporary increase in local construction-related jobs during the construction
23 period (2011 to 2015). Construction workers are expected to come from the local
24 area.

25 The approximately 780 full-time employees at Onizuka AFS would be relocated to
26 Vandenberg AFB, CA, realigned to other locations in the nation, would retire, or
27 would have their jobs eliminated resulting in a very small (approximately
28 1 percent) decrease in the year 2000 estimated workforce of 75,272 persons in
29 the City of Sunnyvale. With redevelopment, the generation of 938 new jobs
30 would result in an increase of about 1 percent from the year 2000 estimated
31 workforce in the City of Sunnyvale.

32 **Population.** On-site population associated with the residential component of the
33 Veterans Affairs and Homeless Provider Alternative is projected to be
34 approximately 220. This would represent a 0.001 percent increase to the year
35 2000 estimated population of 131,760 persons in the city of Sunnyvale.
36 Currently, there is no residential population on Onizuka AFS.

37 No significant impacts to socioeconomics are anticipated from implementation of
38 the Veterans Affairs and Homeless Provider Alternative.

39 **4.2.1.6 No-Action Alternative.**

40 Under the No-Action Alternative, the existing on-site full-time work force would be
41 reduced from approximately 780 to approximately 5 caretaker positions.

1 Realignment of the existing employees at Onizuka AFS would be the same as
2 described under the Proposed Action. No temporary increase in employment
3 associated with facility demolition and construction would occur. Only a small
4 (approximately 1 percent) decrease in the 2000 employment level for the City of
5 Sunnyvale is anticipated. No on-site population would exist. No significant
6 impacts to socioeconomics are anticipated from implementation of the No-Action
7 Alternative.

8 **Mitigation Measures.** No mitigation measures would be required.

9 **4.2.2 Land Use/Aesthetic**

10 The potential effects of the Proposed Action and alternatives on land use and
11 aesthetics within the ROI are presented in this section.

12 **4.2.2.1 Proposed Action.**

13 **Land Use.** Under the Proposed Action, with the exception of facilities requested
14 by the VA, all existing structures would be demolished and the property
15 redeveloped for corporate offices (see Figure 2.2-1). The redevelopment
16 includes five three-story office buildings totaling over 243,000 square feet and
17 includes appropriate vehicle parking (811 parking spaces) on the property. This
18 alternative incorporates the VA request for several facilities in order to support
19 their regional needs. The specific facilities and areas requested Include:

- 20 • Facility 1002 (50,560 square feet)
- 21 • Facility 1018 (2,200 square feet)
- 22 • Facility 1034 (4,205 square feet)
- 23 • Parking for approximately 100 to 168 vehicles.

24 The proposed redevelopment and VA use of the property would be compatible
25 with existing commercial land uses surrounding the property. The proposed
26 redevelopment would also be consistent with the City of Sunnyvale Specific Plan,
27 which supports retail and services uses for the area. No significant impacts to
28 land use are anticipated.

29 **Aesthetics.** The proposed redevelopment would result in a noticeable change in
30 the appearance of the property as a result of demolishing existing structures and
31 constructing new offices. The redevelopment would include five three-story
32 structures with appropriate vehicle parking (811 parking spaces) as well as
33 retaining facilities 1002, 1018, and 1034 to support VA requirements. Office
34 redevelopment would be consistent with the existing urban visual character of the
35 area. The use of landscaping would enhance the aesthetic quality of the
36 property. Modern building designs would be developed with the intent of creating
37 an attractive appearance. The long-term effect of removing older buildings and
38 constructing new modern structures would result in a positive aesthetic effect on
39 the area.

40 No significant impacts to aesthetics are anticipated.

1 **4.2.2.2 Corporate Office Alternative.**

2 **Land Use.** Under this alternative, demolition of all facilities and paved areas at
3 Onizuka AFS would occur and the property redeveloped for corporate offices (see
4 Figure 2.3-1). The redevelopment includes over 287,000 square feet of corporate
5 office space with appropriate vehicle parking (959 parking spaces) on the
6 property. The proposed redevelopment would be compatible with existing
7 commercial land uses surrounding the property. The proposed redevelopment
8 would also be consistent with the City of Sunnyvale Specific Plan, which supports
9 retail and services uses for the area. No significant impacts to land use are
10 anticipated.

11 **Aesthetics.** The proposed redevelopment would result in a noticeable change in
12 the appearance of the property as a result of demolishing the existing structures
13 and constructing new corporate offices. The redevelopment would include four
14 three-story structures with appropriate vehicle parking (959 parking spaces).
15 Office redevelopment would be consistent with the existing urban visual character
16 of the area. The use of landscaping would enhance the aesthetic quality of the
17 property. Modern building designs would be developed with the intent of creating
18 an attractive appearance. The long-term effect of removing older buildings and
19 constructing new modern structures would result in a positive aesthetic effect on
20 the area.

21 No significant impacts to aesthetics are anticipated.

22 **4.2.2.3 Hotel, Conference Center, and Office Alternative.**

23 **Land Use.** Under this alternative, demolition of all facilities and paved areas at
24 Onizuka AFS would occur and the property redeveloped for a new hotel,
25 conference center, and office buildings (see Figure 2.3-2). Over 947,000 square
26 feet of new development would occur. The redevelopment would include:

- 27 • eight-story, 250-room hotel totaling 187,500 square feet
- 28 • single-story conference center totaling 10,000 square feet
- 29 • two, six-story office buildings totaling 325,080 square feet
- 30 • three-level parking structure for 560 vehicles
- 31 • four-level parking structure for 709 vehicles
- 32 • surface parking for 463 vehicles.

33 The proposed redevelopment would be compatible with existing commercial land
34 uses surrounding the property. The proposed redevelopment would also be
35 consistent with the City of Sunnyvale Specific Plan, which supports retail and
36 services uses for the area. No significant impacts to land use are anticipated.

37 **Aesthetics.** The proposed redevelopment would result in a noticeable change in
38 the appearance of the property as a result of demolishing the existing structures
39 and constructing a new hotel, conference center, and office buildings. The
40 redevelopment would include an eight-story hotel; a single-story conference
41 center; two, six-story office buildings; and two multi-level parking structures. The
42 proposed redevelopment would be consistent with the existing urban visual
43 character of the area. The use of landscaping would enhance the aesthetic

1 quality of the property. Modern building designs would be developed with the
2 intent of creating an attractive appearance. The long-term effect of removing
3 older buildings and constructing new modern structures would result in a positive
4 aesthetic effect on the area. No significant impacts to aesthetics are anticipated.

5 **4.2.2.4 Automotive Retail Center Alternative.**

6 **Land Use.** Under this alternative, demolition of all facilities and paved areas at
7 Onizuka AFS would occur and the property redeveloped as an automotive retail
8 center (see Figure 2.3-3). The proposed redevelopment would be compatible
9 with existing commercial land uses surrounding the property. The redevelopment
10 includes an estimated 60,000 square feet of show room and service center
11 development (for three new dealerships) on the property.

12 The proposed Automotive Retail Center is not currently included as a planned
13 use in the City of Sunnyvale Specific Plan. Although the Specific Plan supports
14 retail and services uses, auto retail is considered to be community/regional
15 serving rather than neighborhood serving retail as originally intended in the
16 Specific Plan. Modifications to the Specific Plan would be necessary to
17 accommodate an Automotive Retail Center. If the Specific Plan is amended to
18 support an Automotive Retail Center, an application for a specific development
19 proposal would need to be submitted to the City of Sunnyvale Planning Division
20 for review to assure consistency with a revised Specific Plan. With appropriate
21 revision to the City of Sunnyvale Specific Plan, no significant impacts to land use
22 are anticipated.

23 **Aesthetics.** The proposed redevelopment would result in a noticeable change in
24 the appearance of the property as a result of demolishing the existing structures
25 and constructing a new automotive retail center. The redevelopment would
26 include single-story structures and would be consistent with the existing urban
27 visual character of the area. The use of landscaping and exterior lighting would
28 enhance the aesthetic quality of the property. The long-term effect of removing
29 older buildings and constructing new modern structures would result in a positive
30 aesthetic effect on the area.

31 No significant impacts to aesthetics are anticipated.

32 **4.2.2.5 Veterans Affairs and Homeless Provider Alternative.**

33 **Land Use.** Under the Veterans Affairs and Homeless Provider Alternative, with
34 the exception of facilities requested by the VA, all existing structures would be
35 demolished and the property redeveloped for homeless housing and corporate
36 offices (see Figure 2.3-4). The redevelopment includes two, three-story, multi-
37 unit residential structures (totaling 245 units) supporting homeless provider
38 requests for the property and two three-story office buildings totaling
39 161,980 square feet. Appropriate vehicle parking (760 parking spaces) for the
40 residential and office development would be provided. This alternative
41 incorporates the VA request for several facilities in order to support their regional
42 needs. The specific facilities and areas requested Include:

- 43 • Facility 1002 (50,560 square feet)

- 1 • Facility 1018 (2,200 square feet)
- 2 • Facility 1034 (4,205 square feet)
- 3 • Parking for approximately 100 to 168 vehicles.

4 The proposed redevelopment would be compatible with existing land uses
5 surrounding the property. The proposed redevelopment would also be consistent
6 with the City of Sunnyvale Specific Plan, which supports retail and services uses
7 for the area. No significant impacts to land use are anticipated.

8 **Aesthetics.** The proposed redevelopment would result in a noticeable change in
9 the appearance of the property as a result of demolishing existing structures and
10 constructing new residential units and offices. The redevelopment would include
11 two, three-story, multi-unit residential structures (totaling 245 units) and two three-
12 story office structures with appropriate vehicle parking (760 parking spaces) as
13 well as retaining facilities 1002, 1018, and 1034 to support VA requirements.
14 Redevelopment would be consistent with the existing urban visual character of
15 the area. The use of landscaping would enhance the aesthetic quality of the
16 property. Modern building designs would be developed with the intent of creating
17 an attractive appearance. The long-term effect of removing older buildings and
18 constructing new modern structures would result in a positive aesthetic effect on
19 the area.

20 No significant impacts to aesthetics are anticipated.

21 **4.2.2.6 No-Action Alternative.**

22 Under the No-Action Alternative, there would be no significant impact to land use.
23 No demolition or redevelopment activities would occur. The facilities would be
24 retained by the Air Force and would be maintained in caretaker status. This
25 change would not conflict with adjacent land uses. No significant impacts to land
26 use are anticipated.

27 Visual resources would not change significantly. Property would be maintained in
28 caretaker status. The appearance of the buildings may eventually deteriorate
29 from reduced maintenance. The potential change in appearance of the property
30 due to reduced maintenance would not be readily noticeable from a distance and
31 would not change the existing visual character of the area; therefore, significant
32 degradation of the existing aesthetic quality is not anticipated.

33 **Mitigation Measures.** No mitigation measures would be required.

34 **4.2.3 Transportation**

35 The potential effects of the Proposed Action and alternatives on traffic on roads
36 within the ROI are presented in this section.

37 **Trip Generation and Distribution.** Reuse-related effects on roadway traffic
38 were assessed by estimating the number of trips generated by each land use
39 considering employees, visitors, residents, and service vehicles.

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The transportation analysis used the standard analysis techniques of trip generation, trip distribution, and traffic assignment. Trips generated by the alternatives were based upon trip rates provided in the transportation analysis presented with the Onizuka AFS Redevelopment Plan which were obtained from the Trip Generation Manual (Institute of Transportation Engineers, 2003). Table 4.2-1 presents the daily trips and morning and evening entering and exiting volumes generated by the Proposed Action and alternatives. Project-generated trips for the alternatives were assigned to the network based on the trip distribution presented in the Onizuka AFS Redevelopment Plan.

Table 4.2-1. Generated Vehicle Trips

	Daily			Morning Peak			Evening Peak		
	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit
Proposed Action	3,599	1,799	1,800	418	291	127	421	138	283
Corporate Office Alternative	4,977	2,488	2,489	737	649	88	701	119	582
Hotel, Conference Center, and Office Alternative	6,976	3,488	3,488	955	800	155	993	241	752
Auto Retail Center Alternative ^(a)	2,250	1,125	1,125	133	97	36	168	67	101
Veterans Affairs and Homeless Provider Alternative	2,800	1,400	1,400	325	226	99	328	108	220
No-Action Alternative ^(b)	min	min	min	min	min	min	min	min	min

Notes: (a) Source is City of Sunnyvale, 2008b.
 (b) Minimal traffic would be generated from caretaker personnel under the No-Action Alternative.
 min = minimal

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City of Sunnyvale Traffic Analyses. The Onizuka AFS Redevelopment Plan provided an intersection LOS analysis. Traffic volumes were estimated by applying an annual growth factor to existing traffic volumes to account for regional traffic growth, adding traffic projections from approved but not yet constructed projects within the ROI, and adding estimated traffic resulting from the conceptual reuse options. The existing Onizuka AFS traffic was eliminated from the traffic network. Traffic effects were determined based upon the LOS changes for each of the key intersections.

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The City of Sunnyvale traffic analysis included adjustments for increased ridership on SCVTA's light rail (the Lockheed Martin and Moffett Park light rail stations are both approximately one-quarter mile from either end of Onizuka AFS) to account for the proposed redevelopment of the property. The SCVTA allows a trip reduction of three percent for employment and nine percent for residential uses located within 2,000 feet of a light rail station. No trip reductions were applied for transportation demand management (TDM) programs; therefore, the

1 analysis is conservative since the City requires TDM programs for office and
2 mixed-use development in the Moffett Park area.

3 The approach to the analysis for the redevelopment plan is consistent with the
4 traffic analysis conducted when the City of Sunnyvale Specific Plan was
5 prepared. The Specific Plan environmental impact report (EIR) assessed
6 potential traffic impacts from future development of Moffett Park allowed by the
7 Specific Plan (based on traffic levels from existing development, including
8 Onizuka AFS). Mitigations based on the Specific Plan EIR provide for
9 intersection improvements and other transportation improvements to offset the
10 additional impacts from redevelopment. The improvement program is funded
11 through multiple sources, including collection of transportation impact fees from
12 new construction.

13 The Onizuka AFS property represents a small portion of the overall trip
14 generating potential of Moffett Park. Therefore, the potential redevelopment
15 represent only a small percentage of traffic generation proposed in Moffett Park,
16 and would not eliminate or otherwise alleviate the need for planned transportation
17 improvements in the area.

18 **4.2.3.1 Proposed Action.**

19 The Proposed Action would redevelop the Onizuka AFS property for corporate
20 offices. The redevelopment includes five three-story office buildings totaling over
21 243,000 square feet and includes appropriate vehicle parking (811 parking
22 spaces). This alternative also incorporates the VA request for several facilities in
23 order to support their regional needs. Approximately 3,599 total daily trips are
24 estimated to be generated by the Proposed Action. Traffic generated by the
25 Proposed Action is estimated to be 418 and 421 vehicles per hour during the
26 morning and evening peak hours, respectively (see Table 4.2-1).

27 The results of the LOS analysis are included in Table 4.2-2. Traffic generated by
28 the Proposed Action would not significantly affect the intersection LOS for the
29 intersections of the existing traffic network.

30 The Proposed Action would be consistent with the Specific Plan and would not
31 generate any net new trips beyond what was generated by Onizuka AFS during
32 peak operations by the Air Force. As a result, the Proposed Action would not be
33 required to pay any transportation impact fees. The Onizuka AFS property
34 represents only a small portion of the overall trip generating potential of Moffett
35 Park. Therefore, redevelopment under the Proposed Action represent only a
36 small percentage of traffic generation proposed in Moffett Park, and would not
37 eliminate planned transportation improvements in the area.

38 **4.2.3.2 Corporate Office Alternative.**

39 Potential impacts to transportation under the Corporate Office Alternative would
40 be similar to those described under the Proposed Action. The redevelopment
41 includes over 287,000 square feet of corporate office space with appropriate
42 vehicle parking (959 parking spaces) on the property. Approximately 4,977 total

Table 4.2-2. Intersection Level of Service – Proposed Action

Intersection	Peak Hour	2020 Baseline		Proposed Action ^(a)	
		Delay (seconds)	LOS	Delay (seconds)	LOS
H Street/Manila Drive	AM	10.5	B	10.5	B
	PM	11.7	B	11.7	B
E Street/11th Avenue	AM	23.7	C	23.7	C
	PM	36.0	D	36.0	D
Innovation Way/11th Avenue	AM	48.1	E	48.1	E
	PM	24.7	A	24.7	A
Innovation way/Moffett Park Drive	AM	7.8	A	7.8	A
	PM	9.7	A	9.7	A
Mathilda Avenue/Java Avenue	AM	61.0	E	60.4	E
	PM	26.4	C	27.6	C
Mathilda Avenue/5th Avenue	AM	35.4	D	37.8	D
	PM	41.3	D	43.3	D
Mathilda Avenue/Innovation Way	AM	19.1	B	47.6	D
	PM	14.5	B	22.1	C
Mathilda Avenue/Moffett Park Drive	AM	311.3	F	345.9	F
	PM	114.2	F	143.9	F
Mathilda Avenue/SR 237 East Bound Ramp	AM	23.2	C	30.3	C
	PM	11.8	B	13.1	B
Mathilda Avenue/Ross Drive	AM	18.6	B	19.7	B
	PM	40.1	D	50.9	D
Mathilda Avenue/Almanor Avenue	AM	54.3	D	56.5	E
	PM	46.7	D	49.1	D
Mathilda Avenue/Maude Avenue	AM	67.0	E	69.3	E
	PM	41.8	D	43.8	D
Mary Avenue/Maude Avenue	AM	66.5	E	66.5	E
	PM	126.9	F	126.9	F

Note: (a) Includes projected 2020 levels using Sunnyvale’s travel demand model including planned and anticipated development in Moffett Park as well as future redevelopment of Onizuka AFS property.
LOS = level of service

Sources: City of Sunnyvale, 2006a, 2008b.

1 daily trips are estimated to be generated by the Corporate Office Alternative.
 2 Traffic generated by the Corporate Office Alternative is estimated to be 737 and
 3 701 vehicles per hour during the morning and evening peak hours, respectively
 4 (see Table 4.2-1).

5 The results of the LOS analysis are included in Table 4.2-3. Comparing the
 6 results for this alternative with baseline conditions, the intersection LOS remains
 7 fairly similar for most of the study area intersections with most intersection
 8 operating at acceptable levels (LOS E or better). Intersections with notable
 9 decreases in LOS or with unacceptable LOS include:

- 10 • Mathilda Avenue/Innovation Way intersection, which degrades from LOD
 11 B to LOS F during the morning peak hour

Table 4.2-3. Intersection Level of Service – Corporate Office Alternative

Intersection	Peak Hour	2020 Baseline		Corporate Office Alternative ^(a)	
		Delay (seconds)	LOS	Delay (seconds)	LOS
H Street/Manila Drive	AM	10.5	B	10.5	B
	PM	11.7	B	11.7	B
E Street/11th Avenue	AM	23.7	C	23.7	C
	PM	36.0	D	36.0	D
Innovation Way/11th Avenue	AM	48.1	E	48.1	E
	PM	24.7	A	24.7	A
Innovation Way/Moffett Park Drive	AM	7.8	A	7.8	A
	PM	9.7	A	9.7	A
Mathilda Avenue/Java Avenue	AM	61.0	E	60.6	E
	PM	26.4	C	26.5	C
Mathilda Avenue/5th Avenue	AM	35.4	D	35.5	D
	PM	41.3	D	41.6	D
Mathilda Avenue/Innovation Way	AM	19.1	B	134.1	F
	PM	14.5	B	28.0	C
Mathilda Avenue/Moffett Park Drive	AM	311.3	F	398.8	F
	PM	114.2	F	182.1	F
Mathilda Avenue/SR 237 East Bound Ramp	AM	23.2	C	44.4	D
	PM	11.8	B	15.3	B
Mathilda Avenue/Ross Drive	AM	18.6	B	22.8	C
	PM	40.1	D	65.6	E
Mathilda Avenue/Almanor Avenue	AM	54.3	D	59.3	E
	PM	46.7	D	52.6	D
Mathilda Avenue/Maude Avenue	AM	67.0	E	72.6	E
	PM	41.8	D	46.8	D
Mary Avenue/Maude Avenue	AM	66.5	E	66.5	E
	PM	126.9	F	126.9	F

Notes: (a) Includes projected 2020 levels using Sunnyvale's travel demand model including planned and anticipated development in Moffett Park as well as future redevelopment of Onizuka AFS property.
LOS = level of service

Sources: City of Sunnyvale, 2006a, 2008b.

- 1 • Mathilda Avenue/Moffett Park Drive intersection, which would continue to
- 2 operate at LOS F during the morning and evening peak hours

- 3 • Mary Avenue/Maude Avenue intersection, which would continue to
- 4 operate at LOS F during the evening peak hour.

- 5 The development contractor would be required to pay their fair share of funds for
- 6 identified improvements for these intersections through payment of a
- 7 transportation impact fee (see Mitigation Measures below).

1 **4.2.3.3 Hotel, Conference Center, and Office Alternative.**

2 Potential impacts to transportation under the Hotel, Conference Center, and
3 Office Alternative would be greater than those described under the Proposed
4 Action. The redevelopment would include over 947,000 square feet of new
5 building space including an eight-story, 250-room hotel, a single-story conference
6 center, two, six-story office buildings, and two multi-level parking structures.

7 Approximately 6,976 total daily trips are estimated to be generated by the Hotel,
8 Conference Center, and Office Alternative. Traffic generated by the Hotel,
9 Conference Center, and Office Alternative is estimated to be 955 and 993
10 vehicles per hour during the morning and evening peak hours, respectively (see
11 Table 4.2-1).

12 The results of the LOS analysis are included in Table 4.2-4. Comparing the
13 results for this alternative with baseline conditions, the intersection LOS remains
14 fairly similar for most of the study area intersections with most intersections
15 operating at acceptable levels (LOS E or better). Intersections with notable
16 decreases in LOS or with unacceptable LOS include:

- 17 • Mathilda Avenue/Innovation Way intersection, which degrades from LOD
18 B to LOS F during the morning peak hour
- 19 • Mathilda Avenue/Moffett Park Drive intersection, which would continue to
20 operate at LOS F during the morning and evening peak hours
- 21 • Mary Avenue/Maude Avenue intersection, which would continue to
22 operate at LOS F during the evening peak hour.

23 The development contractor would be required to pay their fair share of funds for
24 identified improvements for these intersections through payment of a
25 transportation impact fee (see Mitigation Measures below).

26 **4.2.3.4 Automotive Retail Center Alternative.**

27 Potential impacts to transportation under the Automotive Retail Center Alternative
28 would be similar to those described under the Proposed Action. This alternative
29 includes the redevelopment of the Onizuka AFS property for use as an
30 automotive retail center with showrooms, service centers (for three new
31 dealerships). Approximately 2,250 total daily trips are estimated to be generated
32 under this alternative. Traffic generated by this alternative is estimated to be 133
33 and 168 vehicles per hour during the morning and evening peak hours,
34 respectively (Table 4.2-1).

35 The results of the LOS analysis are included in Table 4.2-5. Traffic generated by
36 the Automotive Retail Center Alternative would not significantly affect the
37 intersection LOS for the intersections of the existing traffic network.

38 The Automotive Retail Center Alternative would be consistent with the Specific
39 Plan and would not generate any net new trips beyond what was generated by
40 Onizuka AFS during peak operations by the Air Force. As a result, this

Table 4.2-4. Intersection Level of Service – Hotel, Conference Center, and Office Alternative

Intersection	Peak Hour	2020 Baseline		Hotel, Conference Center, and Office Alternative ^(a)	
		Delay (seconds)	LOS	Delay (seconds)	LOS
H Street/Manila Drive	AM	10.5	B	10.5	B
	PM	11.7	B	11.7	B
E Street/11th Avenue	AM	23.7	C	23.7	C
	PM	36.0	D	36.0	D
Innovation Way/11th Avenue	AM	48.1	E	48.1	E
	PM	24.7	A	24.7	A
Innovation way/Moffett Park Drive	AM	7.8	A	7.8	A
	PM	9.7	A	9.7	A
Mathilda Avenue/Java Avenue	AM	61.0	E	59.5	E
	PM	26.4	C	28.1	C
Mathilda Avenue/5th Avenue	AM	35.4	D	36.8	D
	PM	41.3	D	44.1	D
Mathilda Avenue/Innovation Way	AM	19.1	B	148.2	F
	PM	14.5	B	50.0	D
Mathilda Avenue/Moffett Park Drive	AM	311.3	F	404.7	F
	PM	114.2	F	189.0	F
Mathilda Avenue/SR 237 East Bound Ramp	AM	23.2	C	47.0	D
	PM	11.8	B	15.5	B
Mathilda Avenue/Ross Drive	AM	18.6	B	20.6	C
	PM	40.1	D	62.5	E
Mathilda Avenue/Almanor Avenue	AM	54.3	D	59.1	E
	PM	46.7	D	52.5	D
Mathilda Avenue/Maude Avenue	AM	67.0	E	72.4	E
	PM	41.8	D	46.7	D
Mary Avenue/Maude Avenue	AM	66.5	E	66.5	E
	PM	126.9	F	126.9	F

Note: (a) Includes projected 2020 levels using Sunnyvale's travel demand model including planned and anticipated development in Moffett Park as well as future redevelopment of Onizuka AFS property.
LOS = level of service

Sources: City of Sunnyvale, 2006a, 2008b.

1 alternative would not be required to pay any transportation impact fees. The
 2 Onizuka AFS property represents only a small portion of the overall trip
 3 generating potential of Moffett Park. Therefore, redevelopment under the
 4 Proposed Action represent only a small percentage of traffic generation proposed
 5 in Moffett Park, and would not eliminate planned transportation improvements in
 6 the area.

7 **4.2.3.5 Veterans Affairs and Homeless Provider Alternative.**

8 Potential impacts to transportation under the Veterans Affairs and Homeless
 9 Provider Alternative would be similar to those described under the Proposed
 10 Action. Under this alternative the property would be redeveloped for residential
 11 and office use. The redevelopment includes two, three-story, multi-unit

Table 4.2-5. Intersection Level of Service – Automotive Retail Center Alternative

Intersection	Peak Hour	2020 Baseline		Automotive Retail Center Alternative ^(a)	
		Delay (seconds)	LOS	Delay (seconds)	LOS
H Street/Manila Drive	AM	10.5	B	10.5	B
	PM	11.7	B	11.7	B
E Street/11th Avenue	AM	23.7	C	23.7	C
	PM	36.0	D	36.0	D
Innovation Way/11th Avenue	AM	48.1	E	48.1	E
	PM	24.7	A	24.7	A
Innovation Way/Moffett Park Drive	AM	7.8	A	7.8	A
	PM	9.7	A	9.7	A
Mathilda Avenue/Java Avenue	AM	61.0	E	61.0	E
	PM	26.4	C	26.4	C
Mathilda Avenue/5th Avenue	AM	35.4	D	35.4	D
	PM	41.3	D	41.3	D
Mathilda Avenue/Innovation Way	AM	19.1	B	21.2	C
	PM	14.5	B	16.4	B
Mathilda Avenue/Moffett Park Drive	AM	311.3	F	323.4	F
	PM	114.2	F	125.6	F
Mathilda Avenue/SR 237 East Bound Ramp	AM	23.2	C	25.5	C
	PM	11.8	B	12.4	B
Mathilda Avenue/Ross Drive	AM	18.6	B	18.9	B
	PM	40.1	D	44.2	D
Mathilda Avenue/Almanor Avenue	AM	54.3	D	55.1	E
	PM	46.7	D	47.7	D
Mathilda Avenue/Maude Avenue	AM	67.0	E	67.8	E
	PM	41.8	D	42.6	D
Mary Avenue/Maude Avenue	AM	66.5	E	66.5	E
	PM	126.9	F	126.9	F

Notes: (a) Includes projected 2020 levels using Sunnyvale’s travel demand model including planned and anticipated development in Moffett Park as well as future redevelopment of Onizuka AFS property.
LOS = level of service

Sources: City of Sunnyvale, 2006a, 2008b.

1 residential structures (totaling 245 units) and two three-story office buildings.
2 Appropriate vehicle parking (760 parking spaces) for the residential and office
3 development would be provided. This alternative also incorporates the VA
4 request for several facilities in order to support their regional needs.
5 Approximately 2,800 total daily trips are estimated to be generated by the
6 Veterans Affairs and Homeless Provider Alternative. Traffic generated by the
7 Veterans Affairs and Homeless Provider Alternative is estimated to be 325 and
8 328 vehicles per hour during the morning and evening peak hours, respectively
9 (see Table 4.2-1).

10 The results of the LOS analysis are included in Table 4.2-6. Traffic generated by
11 the Veterans Affairs and Homeless Provider Alternative would not significantly
12 affect the intersection LOS for the intersections of the existing traffic network.

Table 4.2-6. Intersection Level of Service – Veterans Affairs and Homeless Provider Alternative

Intersection	Peak Hour	2020 Baseline		Veterans Affairs and Homeless Provider Alternative ^(a)	
		Delay (seconds)	LOS	Delay (seconds)	LOS
H Street/Manila Drive	AM	10.5	B	10.5	B
	PM	11.7	B	11.7	B
E Street/11th Avenue	AM	23.7	C	23.7	C
	PM	36.0	D	36.0	D
Innovation Way/11th Avenue	AM	48.1	E	48.1	E
	PM	24.7	A	24.7	A
Innovation way/Moffett Park Drive	AM	7.8	A	7.8	A
	PM	9.7	A	9.7	A
Mathilda Avenue/Java Avenue	AM	61.0	E	60.5	E
	PM	26.4	C	27.3	C
Mathilda Avenue/5th Avenue	AM	35.4	D	37.3	D
	PM	41.3	D	42.8	D
Mathilda Avenue/Innovation Way	AM	19.1	B	41.3	D
	PM	14.5	B	20.4	C
Mathilda Avenue/Moffett Park Drive	AM	311.3	F	338.2	F
	PM	114.2	F	137.3	F
Mathilda Avenue/SR 237 East Bound Ramp	AM	23.2	C	28.7	C
	PM	11.8	B	12.8	B
Mathilda Avenue/Ross Drive	AM	18.6	B	19.5	B
	PM	40.1	D	48.5	D
Mathilda Avenue/Almanor Avenue	AM	54.3	D	56.0	D
	PM	46.7	D	48.6	D
Mathilda Avenue/Maude Avenue	AM	67.0	E	68.8	E
	PM	41.8	D	43.4	D
Mary Avenue/Maude Avenue	AM	66.5	E	66.5	E
	PM	126.9	F	126.9	F

Notes: (a) Includes projected 2020 levels using Sunnyvale’s travel demand model including planned and anticipated development in Moffett Park as well as future redevelopment of Onizuka AFS property.
LOS = level of service

Sources: City of Sunnyvale, 2006a, 2008b.

1 The Veterans Affairs and Homeless Provider Alternative would be consistent with
2 the Specific Plan and would not generate any net new trips beyond what was
3 generated by Onizuka AFS during peak operations by the Air Force. As a result,
4 this alternative would not be required to pay any transportation impact fees. The
5 Onizuka AFS property represents only a small portion of the overall trip
6 generating potential of Moffett Park. Therefore, redevelopment under the
7 Veterans Affairs and Homeless Provider Alternative represent only a small
8 percentage of traffic generation proposed in Moffett Park, and would not eliminate
9 planned transportation improvements in the area.

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4.2.3.6 No-Action Alternative.

Daily vehicle trips to Onizuka AFS generated by the approximately 800 employees commuting to and from the installation would be reduced to that generated by the caretaker employees. As such, vehicle trips associated with the Onizuka AFS property would be minimal with no impact to the surrounding street network. No significant impacts to transportation are anticipated.

Mitigation Measures. No mitigation measures would be required.

Traffic generated by the Corporate Office Alternative, and the Hotel, Conference Center, and Office Alternative would result in decreased LOS to the Mathilda Avenue/Innovation Way intersection, and the intersections of Mathilda Avenue/Moffett Park Drive, and Mathilda Avenue/Ross Drive would continue to operate at LOS F. The development contractor would be required to pay their fair share of funds for identified improvements for these intersections through payment of a transportation impact fee.

The City of Sunnyvale and the SCVTA plans to reconfigure the SR 237/Mathilda Avenue ramp intersections include:

- Realigning Moffett Park Drive, east of Mathilda Avenue, to connect to 5th Avenue via Bordeaux Avenue
- Shifting the SR 237 Westbound Off-ramp 150 feet to the north to align with Moffett Park Drive/Mathilda Avenue
- Removal of SR 237 Westbound On-ramp
- Construction of a direct southbound right-turn on-ramp from Mathilda Avenue to US 101 north.

No mitigation measures would be required for proposed redevelopment activities associated with the Proposed Action, Automotive Retail Center Alternative, Veterans Affairs and Homeless Provider Alternative, or the No-Action Alternative.

4.2.4 Utilities

The potential effects of the Proposed Action and alternatives on utility providers within the ROI are presented in this section.

4.2.4.1 Proposed Action.

Electricity. Based on the square footage of buildings on the property as well as the number of employees that would be present, electrical usage under the Proposed Action is estimated to be 16,600 KWH/day. This would be a decrease from the current electrical usage of 87,110 KWH/day. The decrease in electrical usage would not affect PG&E or WAPA's ability to provide service. The existing installation power plant that is used as a backup power source would be demolished. The alignment of the existing electrical system would likely not be compatible with the proposed redevelopment; therefore, modifications would be required. Any electrical infrastructure improvements/additions required would be

1 constructed on-site as part of the development. No significant impacts to
2 electricity are anticipated.

3 **Natural Gas.** Based on the square footage of buildings on the property as well
4 as the number of employees that would be present, natural gas usage under the
5 Proposed Action is estimated to be 80 therms per day. This would be a decrease
6 from the current natural gas usage of 2,525 therms per day. This natural gas
7 usage would be within PG&E's ability to provide service. The alignment of the
8 existing natural gas system would likely not be compatible with the proposed
9 redevelopment; therefore, modifications would be required. Any natural gas
10 infrastructure improvements or additions required would be constructed on-site as
11 part of the development. No significant impacts to natural gas are anticipated.

12 **Water.** Potable water would continue to be supplied by the City of Sunnyvale.
13 Based on the building square footage and number of employees, water usage
14 under the Proposed Action is estimated to be 350,000 gpd; this would be
15 approximately seven times the current water usage of 51,337 gpd. The
16 estimated future water usage is within the capacity of the City of Sunnyvale. The
17 alignment of the existing water distribution system would likely not be compatible
18 with the proposed redevelopment; therefore, modifications would be required.
19 Any water infrastructure improvements/additions required would be constructed
20 on-site as part of the development. No significant impacts to the water supply
21 system are anticipated.

22 **Wastewater.** Wastewater generation under the Proposed Action would increase
23 from current conditions based on the square footage of buildings on the property
24 as well as the number of employees that would be present. Under the Proposed
25 Action, wastewater generation is estimated to be 290,000 gpd; this would be
26 approximately six times the current wastewater generation of 51,337 gpd. The
27 increase in wastewater generation would not affect the City of Sunnyvale's ability
28 to provide service. The existing Onizuka AFS sewer system likely does not meet
29 current municipal standards and the alignment would likely not be compatible with
30 the proposed redevelopment; therefore, modifications would be required. Any
31 sewage infrastructure improvements/additions required would be constructed on-
32 site as part of the development. No significant impacts to wastewater are
33 anticipated.

34 **Solid Waste.** Under the Proposed Action, solid waste management services
35 would continue to be provided by the City of Sunnyvale. Solid waste generation
36 under the Proposed Action is estimated to be 2.6 tons per day; this would be an
37 increase over the current solid waste generation of 0.2 ton per day. The increase
38 in solid waste generation would not adversely affect the service life of the Kirby
39 Canyon Landfill. No significant impacts from solid waste generation are
40 anticipated.

41 Building demolition activities would generate solid waste, including wood, drywall,
42 cardboard, metals, concrete, and roofing material. Building materials would be
43 separated and recycled to the extent possible. The types and estimated
44 quantities of debris expected as a result of the Proposed Action are presented in
45 Table 4.2-7. Demolition debris that cannot be recycled would be disposed in an
46 approved off-site landfill. Concrete rubble would be separated, ground up, and

Table 4.2-7. Estimated Demolition Debris – Proposed Action (tons)

Building Materials	Demolition Factor (tons per 1,000 sq ft)	Demolition Tonnage
Wood	1.54	430
Drywall	0.12	34
Cardboard	0.045	13
Metals	0.053	15
Concrete	12.5	3,488
Roofing Material	0.9	251
Sidewalk/roadway	53.0 ^(a)	2,900
Other	0.265	74
TOTAL		7,205

Note: Based on approximately 558,000 square feet of building space demolition.

(a) Sidewalk/parking lot debris is estimated based on 53 pounds per cubic foot.
sq ft = square feet

Source: Calculated from Peaks to Prairies, 2002.

1 stockpiled for future use. Buildings that are mobile (e.g., storage sheds, etc.),
2 could be moved for use by a yet to be identified organization, further reducing the
3 amount of demolition debris to be disposed.

4 Demolition of the Onizuka AFS facilities would create approximately 7,205 tons of
5 solid waste (see Table 4.2-7). Approximately 90 percent of the material is
6 expected to be concrete from buildings, building foundations, and sidewalks, and
7 asphalt from parking areas, which would be stockpiled for future use. The
8 remaining 817 tons of solid waste would be drywall, wood, roofing material,
9 metals, glass, and other building materials. Debris from demolition activities is
10 often contaminated with nails, rebar, or other building materials that make
11 recycling more difficult. It is expected that approximately 50 percent of the
12 building materials would be recycled. The wood material may be chipped and
13 reused as mulch. Sheet metal, structural steel, and glass would be sold as scrap.
14 Miscellaneous building materials such as electrical wire, outlet boxes, metallic
15 tubing, light fixtures, pipe, plumbing fixtures, and heating systems would be
16 salvaged and reused or sold as scrap. Even though a recycling program would
17 be used, it would be impractical to accomplish complete source separation, and
18 approximately 50 percent, or 409 tons, of the building materials would require
19 disposal in a landfill. Based on the available landfill capacity, disposal of the
20 409 tons of demolition debris over the duration of demolition and construction
21 activities (i.e., 6-year period) is not expected to significantly affect the service life
22 of the Kirby Canyon Landfill.

23 Facilities with the potential to contain ACM and/or LBP would be sampled prior to
24 demolition activities to ensure proper disposal and abatement of these materials.
25 The property owner or demolition contractor would be required to dispose ACM
26 and LBP debris in accordance with applicable federal, state, and local
27 regulations. No significant impacts are anticipated.

1 **4.2.4.2 Corporate Office Alternative.**

2 **Electricity.** Based on the building square footage and number of employees,
3 electrical usage under this alternative is estimated to be 14,200 KWH/day; this
4 would be a decrease from the current electrical usage of 87,110 KWH/day. The
5 decrease in electrical usage would not affect PG&E or WAPA's ability to provide
6 service. The existing installation power plant that is used as a backup power
7 source would be demolished. The alignment of the existing electrical system
8 would likely not be compatible with the proposed redevelopment; therefore,
9 modifications would be required. Any electrical infrastructure
10 improvements/additions required would be constructed on-site as part of the
11 development. No significant impacts to electricity are anticipated.

12 **Natural Gas.** Based on the building square footage and number of employees,
13 natural gas usage under this alternative is estimated to be 15 therms per day; this
14 would be a decrease from the current natural gas usage of 2,525 therms per day.
15 This natural gas usage would be within PG&E's ability to provide service. The
16 alignment of the existing natural gas system would likely not be compatible with
17 the proposed redevelopment; therefore, modifications would be required. Any
18 natural gas infrastructure improvements or additions required would be
19 constructed on-site as part of the development. No significant impacts to natural
20 gas are anticipated.

21 **Water.** Potable water would continue to be supplied by the City of Sunnyvale.
22 Based on the building square footage and number of employees, water usage
23 under this alternative is estimated to be 320,000 gpd; this would be approximately
24 six times the current water usage of 51,337 gpd. The estimated future water
25 usage is within the capacity of the City of Sunnyvale. The alignment of the
26 existing water distribution system would likely not be compatible with the
27 proposed redevelopment; therefore, modifications would be required. Any water
28 infrastructure improvements/additions required would be constructed on-site as
29 part of the development. No significant impacts to the water supply system are
30 anticipated.

31 **Wastewater.** Based on the building square footage and number of employees,
32 wastewater generation under this alternative is estimated to be 300,000 gpd; this
33 would be approximately six times the current wastewater generation of
34 51,337 gpd. The increase in wastewater generation would not affect the City of
35 Sunnyvale's ability to provide service. The existing Onizuka AFS sewer system
36 likely does not meet current municipal standards and the alignment would likely
37 not be compatible with the proposed redevelopment; therefore, modifications
38 would be required. Any sewage infrastructure improvements/additions required
39 would be constructed on-site as part of the development. No significant impacts
40 to wastewater are anticipated.

41 **Solid Waste.** Under this alternative, solid waste management services would
42 continue to be provided by the City of Sunnyvale. Solid waste generation under
43 this alternative is estimated to be 2.7 tons per day; this would be an increase over
44 the current solid waste generation of 0.2 ton per day. The increase in solid waste
45 generation would not adversely affect the service life of the Kirby Canyon Landfill.
46 No significant impacts from solid waste generation are anticipated.

1 Building demolition activities would generate solid waste, including wood, drywall,
 2 cardboard, metals, concrete, and roofing material. Building materials would be
 3 separated and recycled to the extent possible. The types and estimated
 4 quantities of debris expected as a result of this alternative are presented in Table
 5 4.2-8. Demolition debris that cannot be recycled would be disposed in an
 6 approved off-site landfill. Concrete rubble would be separated, ground up, and
 7 stockpiled for future use. Buildings that are mobile (e.g., storage sheds, etc.),
 8 could be moved for use by a yet to be identified organization, further reducing the
 9 amount of demolition debris to be disposed.

**Table 4.2-8. Estimated Demolition Debris – Corporate Office Alternative
(tons)**

Building Materials	Demolition Factor (tons per 1,000 sq ft)	Demolition Tonnage
Wood	1.54	473
Drywall	0.12	37
Cardboard	0.045	14
Metals	0.053	16
Concrete	12.5	3,843
Roofing Material	0.9	277
Sidewalk/roadway	53.0 ^(a)	3,099
Other	0.265	81
TOTAL		7,840

Note: Based on approximately 615,000 square feet of building space demolition.

(a) Sidewalk/parking lot debris is estimated based on 53 pounds per cubic foot.
 sq ft = square feet

Source: Calculated from Peaks to Prairies, 2002.

10 Demolition of the Onizuka AFS facilities would create approximately 7,840 tons of
 11 solid waste (see Table 4.2-8). Approximately 90 percent of the material is
 12 expected to be concrete from buildings, building foundations, and sidewalks, and
 13 asphalt from parking areas, which would be stockpiled for future use. The
 14 remaining 898 tons of solid waste would be drywall, wood, roofing material,
 15 metals, glass, and other building materials. Debris from demolition activities is
 16 often contaminated with nails, rebar, or other building materials that make
 17 recycling more difficult. It is expected that approximately 50 percent of the
 18 building materials would be recycled. The wood material may be chipped and
 19 reused as mulch. Sheet metal, structural steel, and glass would be sold as scrap.
 20 Miscellaneous building materials such as electrical wire, outlet boxes, metallic
 21 tubing, light fixtures, pipe, plumbing fixtures, and heating systems would be
 22 salvaged and reused or sold as scrap. Even though a recycling program would
 23 be used, it would be impractical to accomplish complete source separation, and
 24 approximately 50 percent, or 449 tons, of the building materials would require
 25 disposal in a landfill. Based on the available landfill capacity, disposal of the
 26 449 tons of demolition debris over the duration of demolition and construction
 27 activities (i.e., 5-year period) is not expected to significantly affect the service life
 28 of the Kirby Canyon Landfill.

1 Facilities with the potential to contain ACM and/or LBP would be sampled prior to
2 demolition activities to ensure proper disposal and abatement of these materials.
3 The property owner or demolition contractor would be required to dispose ACM
4 and LBP debris in accordance with applicable federal, state, and local
5 regulations. No significant impacts are anticipated.

6 **4.2.4.3 Hotel, Conference Center, and Office Alternative.**

7 **Electricity.** Based on the square footage of buildings on the property as well as
8 the number of employees and hotel guests that would be present, electrical
9 usage under this alternative is estimated to be 25,000 KWH/day. This would be a
10 decrease from the current electrical usage of 87,110 KWH/day. The decrease in
11 electrical usage would not affect PG&E or WAPA's ability to provide service. The
12 existing installation power plant that is used as a backup power source would be
13 demolished. The alignment of the existing electrical system would likely not be
14 compatible with the proposed redevelopment; therefore, modifications would be
15 required. Any electrical infrastructure improvements/additions required would be
16 constructed on-site as part of the development. No significant impacts to
17 electricity are anticipated.

18 **Natural Gas.** Based on the square footage of buildings on the property as well
19 as the number of employees and hotel guests that would be present, natural gas
20 usage under this alternative is estimated to be 430 therms per day. This would
21 be a decrease from the current natural gas usage of 2,525 therms per day. This
22 natural gas usage would be within PG&E's ability to provide service. The
23 alignment of the existing natural gas system would likely not be compatible with
24 the proposed redevelopment; therefore, modifications would be required. Any
25 natural gas infrastructure improvements or additions required would be
26 constructed on-site as part of the development. No significant impacts to natural
27 gas are anticipated.

28 **Water.** Potable water would continue to be supplied by the City of Sunnyvale.
29 Water usage under this alternative would increase from current conditions based
30 on the square footage of buildings on the property as well as the number of
31 employees that would be present and hotel guests. Water usage is estimated to
32 be 440,000 gpd; this would be approximately eight times the current water usage
33 of 51,337 gpd. The estimated future water usage is within the capacity of the City
34 of Sunnyvale. The alignment of the existing water distribution system would likely
35 not be compatible with the proposed redevelopment; therefore, modifications
36 would be required. Any water infrastructure improvements/additions required
37 would be constructed on-site as part of the development. No significant impacts
38 to the water supply system are anticipated.

39 **Wastewater.** Wastewater generation under this alternative would increase from
40 current conditions based on the square footage of buildings on the property as
41 well as the number of employees that would be present and hotel guests. Under
42 this alternative, wastewater generation is estimated to be 400,000 gpd; this would
43 be approximately eight times the current wastewater generation of 51,337 gpd.
44 The increase in wastewater generation would not affect the City of Sunnyvale's
45 ability to provide service. The existing Onizuka AFS sewer system likely does not

1 meet current municipal standards and the alignment would likely not be
2 compatible with the proposed redevelopment; therefore, modifications would be
3 required. Any sewage infrastructure improvements/additions required would be
4 constructed on-site as part of the development. No significant impacts to
5 wastewater are anticipated.

6 **Solid Waste.** Under this alternative, solid waste management services would
7 continue to be provided by the City of Sunnyvale. Solid waste generation under
8 this alternative is estimated to be 5.3 tons per day; this would be an increase over
9 the current solid waste generation of 0.2 ton per day. The increase in solid waste
10 generation would not adversely affect the service life of the Kirby Canyon Landfill.
11 No significant impacts from solid waste generation are anticipated.

12 Building demolition activities would generate solid waste, including wood, drywall,
13 cardboard, metals, concrete, and roofing material. Building materials would be
14 separated and recycled to the extent possible. The types and estimated
15 quantities of debris expected as a result of this alternative would be similar to that
16 described under the Corporate Office Alternative (see Table 4.2-8). Based on the
17 available landfill capacity, disposal of the 449 tons of demolition debris over the
18 duration of demolition and construction activities (i.e., 5-year period) is not
19 expected to significantly affect the service life of the Kirby Canyon Landfill.

20 Facilities with the potential to contain ACM and/or LBP would be sampled prior to
21 demolition activities to ensure proper disposal and abatement of these materials.
22 The property owner or demolition contractor would be required to dispose ACM
23 and LBP debris in accordance with applicable federal, state, and local
24 regulations. No significant impacts are anticipated.

25 **4.2.4.4 Automotive Retail Center Alternative.**

26 **Electricity.** Based on the square footage of buildings on the property as well as
27 the number of employees that would be present, electrical usage under this
28 alternative is estimated to be 3,500 KWH/day; this would be a decrease from the
29 current electrical usage of 87,110 KWH/day. The decrease in electrical usage
30 would not affect PG&E or WAPA's ability to provide service. The existing
31 installation power plant that is used as a backup power source would be
32 demolished. The alignment of the existing electrical system would likely not be
33 compatible with the proposed redevelopment; therefore, modifications would be
34 required. Any electrical infrastructure improvements/additions required would be
35 constructed on-site as part of the development. No significant impacts to
36 electricity are anticipated.

37 **Natural Gas.** Based on the building square footage and number of employees,
38 natural gas usage under this alternative is estimated to be 21.5 therms per day;
39 this would be a decrease from the current natural gas usage of 2,525 therms per
40 day. This natural gas usage would be within PG&E's ability to provide service.
41 The alignment of the existing natural gas system would likely not be compatible
42 with the proposed redevelopment; therefore, modifications would be required.
43 Any natural gas infrastructure improvements or additions required would be

1 constructed on-site as part of the development. No significant impacts to natural
2 gas are anticipated.

3 **Water.** Potable water would continue to be supplied by the City of Sunnyvale.
4 Based on the building square footage and number of employees, water usage
5 under this alternative is estimated to be 60,000 gpd; this would be a slight
6 increase over the current water usage of 51,337 gpd. The estimated future water
7 usage is within the capacity of the City of Sunnyvale. The alignment of the
8 existing water distribution system would likely not be compatible with the
9 proposed redevelopment; therefore, modifications would be required. Any water
10 infrastructure improvements/additions required would be constructed on-site as
11 part of the development. No significant impacts to the water supply system are
12 anticipated.

13 **Wastewater.** Wastewater generation under this alternative would decrease from
14 current conditions because of the decreased square footage of buildings on the
15 property as well as the decrease in employees that would be present. Under this
16 alternative, wastewater generation is estimated to be 45,000 gpd; this would be a
17 decrease from the current wastewater generation of 51,337 gpd. The decrease
18 in wastewater generation would not affect the City of Sunnyvale's ability to provide
19 service. The existing Onizuka AFS sewer system likely does not meet current
20 municipal standards and the alignment would likely not be compatible with the
21 proposed redevelopment; therefore, modifications would be required. Any
22 sewage infrastructure improvements/additions required would be constructed on-
23 site as part of the development. No significant impacts to wastewater are
24 anticipated.

25 **Solid Waste.** Under this alternative, solid waste management services would
26 continue to be provided by the City of Sunnyvale. Solid waste generation is
27 estimated to be 2.6 tons per day; this would be an increase over the current solid
28 waste generation of 0.2 ton per day. The increase in solid waste generation
29 would not adversely affect the service life of the Kirby Canyon Landfill. No
30 significant impacts from solid waste generation are anticipated.

31 Building demolition activities would generate solid waste, including wood, drywall,
32 cardboard, metals, concrete, and roofing material. Building materials would be
33 separated and recycled to the extent possible. The types and estimated
34 quantities of debris expected as a result of this alternative would be similar to that
35 described under the Corporate Office Alternative (see Table 4.2-8). Based on the
36 available landfill capacity, disposal of the 449 tons of demolition debris over the
37 duration of demolition and construction activities (i.e., 5-year period) is not
38 expected to significantly affect the service life of the Kirby Canyon Landfill.

39 Facilities with the potential to contain ACM and/or LBP would be sampled prior to
40 demolition activities to ensure proper disposal and abatement of these materials.
41 The property owner or demolition contractor would be required to dispose ACM
42 and LBP debris in accordance with applicable federal, state, and local
43 regulations. No significant impacts are anticipated.

1 **4.2.4.5 Veterans Affairs and Homeless Provider Alternative.**

2 **Electricity.** Based on the square footage of buildings on the property as well as
3 the number of employees and residents that would be present, electrical usage
4 under this alternative is estimated to be 11,100 KWH/day; this would be a
5 decrease from the current electrical usage of 87,110 KWH/day. The decrease in
6 electrical usage would not affect PG&E or WAPA's ability to provide service. The
7 existing installation power plant that is used as a backup power source would be
8 demolished. The alignment of the existing electrical system would likely not be
9 compatible with the proposed redevelopment; therefore, modifications would be
10 required. Any electrical infrastructure improvements/additions required would be
11 constructed on-site as part of the development. No significant impacts to
12 electricity are anticipated.

13 **Natural Gas.** Based on the building square footage and number of employees
14 and residents, natural gas usage under this alternative is estimated to be
15 53 therms per day; this would be a decrease from the current natural gas usage
16 of 2,525 therms per day. This natural gas usage would be within PG&E's ability
17 to provide service. The alignment of the existing natural gas system would likely
18 not be compatible with the proposed redevelopment; therefore, modifications
19 would be required. Any natural gas infrastructure improvements or additions
20 required would be constructed on-site as part of the development. No significant
21 impacts to natural gas are anticipated.

22 **Water.** Potable water would continue to be supplied by the City of Sunnyvale.
23 Based on the building square footage and number of employees and residents,
24 water usage under this alternative is estimated to be 263,000 gpd; this would be
25 approximately 5 times the current water usage of 51,337 gpd. The estimated
26 future water usage is within the capacity of the City of Sunnyvale. The alignment
27 of the existing water distribution system would likely not be compatible with the
28 proposed redevelopment; therefore, modifications would be required. Any water
29 infrastructure improvements/additions required would be constructed on-site as
30 part of the development. No significant impacts to the water supply system are
31 anticipated.

32 **Wastewater.** Under this alternative, wastewater generation is estimated to be
33 218,000 gpd; this would be approximately 4 times the current wastewater
34 generation of 51,337 gpd. The increase in wastewater generation would not
35 affect the City of Sunnyvale's ability to provide service. The existing Onizuka AFS
36 sewer system likely does not meet current municipal standards and the alignment
37 would likely not be compatible with the proposed redevelopment; therefore,
38 modifications would be required. Any sewage infrastructure
39 improvements/additions required would be constructed on-site as part of the
40 development. No significant impacts to wastewater are anticipated.

41 **Solid Waste.** Under this alternative, solid waste management services would
42 continue to be provided by the City of Sunnyvale. Solid waste generation is
43 estimated to be 1.5 tons per day; this would be an increase over the current solid
44 waste generation of 0.2 ton per day. The increase in solid waste generation

1 would not adversely affect the service life of the Kirby Canyon Landfill. No
2 significant impacts from solid waste generation are anticipated.

3 Building demolition activities would generate solid waste, including wood, drywall,
4 cardboard, metals, concrete, and roofing material. Building materials would be
5 separated and recycled to the extent possible. The types and estimated
6 quantities of debris expected as a result of this alternative would be similar to that
7 described under the Proposed Action (see Table 4.2-7). Based on the available
8 landfill capacity, disposal of the 409 tons of demolition debris over the duration of
9 demolition and construction activities (i.e., 4-year period) is not expected to
10 significantly affect the service life of the Kirby Canyon Landfill.

11 Facilities with the potential to contain ACM and/or LBP would be sampled prior to
12 demolition activities to ensure proper disposal and abatement of these materials.
13 The property owner or demolition contractor would be required to dispose ACM
14 and LBP debris in accordance with applicable federal, state, and local
15 regulations. No significant impacts are anticipated.

16 **4.2.4.6 No-Action Alternative.**

17 Minimal utilities usage and solid waste generation are expected from caretaker
18 activities under the No-Action Alternative; therefore, no significant impacts to
19 utilities are anticipated.

20 **4.3 HAZARDOUS MATERIALS AND HAZARDOUS WASTE MANAGEMENT**

21 This section describes the potential effects of the Proposed Action and
22 alternatives on hazardous materials management, hazardous waste
23 management, ERP sites, storage tanks, ACM, and LBP.

24 **4.3.1 Hazardous Materials Management**

25 The potential effects of the Proposed Action and alternatives on hazardous
26 materials management within the ROI are presented in this section.

27 **4.3.1.1 Proposed Action.**

28 Under the Proposed Action, hazardous material use associated with activities at
29 Onizuka AFS would end. During demolition and construction activities, small
30 amounts of hazardous materials are expected to be utilized, and the potential for
31 spills would exist. Any spills or releases of hazardous materials would be cleaned
32 up by the contractor. Hazardous materials likely to be utilized during demolition
33 and construction activities include adhesives; motor fuels; paints; thinners;
34 solvents; POL, and household products.

35 Future use of the property (i.e., office) would primarily involve the use of batteries,
36 herbicides/pesticides, and commercial cleaning products. The specific chemical
37 composition and exact use rates associated with proposed reuse activities are
38 not known. Storage, handling, and transportation of hazardous materials
39 associated with demolition, construction, and reuse activities would be conducted
40 in accordance with applicable regulations and established procedures. Because

1 hazardous materials would be managed in accordance with applicable
2 regulations, no significant impacts are anticipated.

3 The new property owners would be responsible for storing, handling, and
4 transporting any hazardous materials in accordance with applicable regulations
5 and would comply with EPCRA that requires local communities be informed of
6 the use of hazardous materials. Because hazardous materials would be
7 managed in accordance with applicable regulations, no significant impacts are
8 anticipated.

9 **4.3.1.2 Corporate Office Alternative.**

10 Management of hazardous materials would be similar to that described under the
11 Proposed Action. The types and quantities of hazardous materials expected to
12 be used during demolition and construction activities are anticipated to be similar
13 to that discussed under the Proposed Action. Future use of the property
14 (i.e., office) would primarily involve the use of batteries, herbicides/pesticides, and
15 commercial cleaning products. The specific chemical composition and exact use
16 rates associated with proposed reuse activities are not known. Storage, handling,
17 and transportation of hazardous materials associated with demolition,
18 construction, and reuse activities would be conducted in accordance with
19 applicable regulations and established procedures. Because hazardous
20 materials would be managed in accordance with applicable regulations, no
21 significant impacts are anticipated.

22 **4.3.1.3 Hotel, Conference Center, and Office Alternative.**

23 Management of hazardous materials would be similar to that described under the
24 Proposed Action. The types and quantities of hazardous materials expected to
25 be used during demolition and construction activities are anticipated to be similar
26 to that discussed under the Proposed Action. Future use of the property
27 (i.e., commercial, office) would primarily involve the use of batteries, pool
28 supplies, herbicides/pesticides, and commercial cleaning products. The specific
29 chemical composition and exact use rates associated with proposed reuse
30 activities are not known. Storage, handling, and transportation of hazardous
31 materials associated with demolition, construction, and reuse activities would be
32 conducted in accordance with applicable regulations and established procedures.
33 Because hazardous materials would be managed in accordance with applicable
34 regulations, no significant impacts are anticipated.

35 **4.3.1.4 Automotive Retail Center Alternative.**

36 Management of hazardous materials would be similar to that described under the
37 Proposed Action. The types and quantities of hazardous materials expected to
38 be used during demolition and construction activities are anticipated to be similar
39 to that discussed under the Proposed Action. Future use of the property
40 (i.e., Auto Retail Center) would primarily involve the use of fuels, POL, adhesives,
41 corrosives, paints, thinners, degreasers, solvents, antifreeze, batteries,
42 herbicides/pesticides, and commercial cleaning products. The specific chemical
43 composition and exact use rates associated with proposed reuse activities are
44 not known. Storage, handling, and transportation of hazardous materials

1 associated with demolition, construction, and reuse activities would be conducted
2 in accordance with applicable regulations and established procedures. Because
3 hazardous materials would be managed in accordance with applicable
4 regulations, no significant impacts are anticipated.

5 **4.3.1.5 Veterans Affairs and Homeless Provider Alternative.**

6 Management of hazardous materials would be similar to that described under the
7 Proposed Action. The types and quantities of hazardous materials expected to
8 be used during demolition and construction activities are anticipated to be similar
9 to that discussed under the Proposed Action. Future use of the property
10 (i.e., office and residential) would primarily involve the use of batteries,
11 herbicides/pesticides, and commercial cleaning products. The specific chemical
12 composition and exact use rates associated with proposed reuse activities are
13 not known. Storage, handling, and transportation of hazardous materials
14 associated with demolition, construction, and reuse activities would be conducted
15 in accordance with applicable regulations and established procedures. Because
16 hazardous materials would be managed in accordance with applicable
17 regulations, no significant impacts are anticipated.

18 **4.3.1.6 No-Action Alternative.**

19 Under the No-Action Alternative, hazardous materials usage would decrease
20 from current levels; however, Air Force caretaker activities would continue to
21 require the storage and use of some hazardous materials, such as fuel and
22 lubricants for landscaping equipment, that are required to maintain the facilities
23 and grounds. Management of hazardous materials would continue in accordance
24 with applicable regulations. No significant impacts are anticipated.

25 **Mitigation Measures.** No mitigation measures would be required.

26 **4.3.2 Hazardous Waste Management**

27 The potential effects of the Proposed Action and alternatives on hazardous waste
28 management within the ROI are presented in this section.

29 **4.3.2.1 Proposed Action.**

30 Under the Proposed Action, hazardous waste generated by Air Force activities
31 would cease. Hazardous wastes generated by activities at Onizuka AFS will have
32 been collected from the accumulation point and disposed off site at a permitted
33 facility. Formal closure of Facility 1007 as a hazardous waste accumulation point
34 would occur in accordance with California EPA/DTSC requirements.

35 Small quantities of hazardous waste may be generated during demolition and
36 construction activities. The redevelopment contractor would be responsible for
37 following applicable regulations for management of any hazardous waste
38 generated. Any spills or releases of fuel or oil from equipment would be cleaned
39 up by the contractor. The contractor would be responsible for the off-site disposal
40 of any hazardous waste (including demolition debris) generated on the property in
41 accordance with applicable regulations.

1 Reuse activities would primarily involve the use of batteries, herbicides/pesticides,
2 and commercial cleaning products. Most of the hazardous materials utilized
3 would be consumed during use or recycled; as a result, only small amounts of
4 wastes would likely be generated. Hazardous waste would be handled and
5 disposed in accordance with applicable regulations. Because hazardous waste
6 would be managed in accordance with applicable regulations, no significant
7 impacts are anticipated.

8 **4.3.2.2 Corporate Office Alternative.**

9 Management of hazardous waste would be similar to that described under the
10 Proposed Action. Small quantities of hazardous waste may be generated during
11 demolition and construction activities. The redevelopment contractor would be
12 responsible for following applicable regulations for management of any hazardous
13 waste generated. Any spills or releases of fuel or oil from equipment would be
14 cleaned up by the contractor. The contractor would be responsible for the off-site
15 disposal of any hazardous waste (including demolition debris) generated on the
16 property in accordance with applicable regulations.

17 Reuse activities would primarily involve the use of batteries, herbicides/pesticides,
18 and commercial cleaning products. Most of the hazardous materials utilized
19 would be consumed during use or recycled; as a result, only small amounts of
20 wastes would likely be generated. Hazardous waste would be handled and
21 disposed in accordance with applicable regulations. Because hazardous waste
22 would be managed in accordance with applicable regulations, no significant
23 impacts are anticipated.

24 **4.3.2.3 Hotel, Conference Center, and Office Alternative.**

25 Management of hazardous waste would be similar to that described under the
26 Proposed Action. Small quantities of hazardous waste may be generated during
27 demolition and construction activities. The redevelopment contractor would be
28 responsible for following applicable regulations for management of any hazardous
29 waste generated. Any spills or releases of fuel or oil from equipment would be
30 cleaned up by the contractor. The contractor would be responsible for the off-site
31 disposal of any hazardous waste (including demolition debris) generated on the
32 property in accordance with applicable regulations.

33 Reuse activities would primarily involve the use of batteries, pool supplies,
34 pesticides/herbicides, and household cleaning products. Most of the hazardous
35 materials utilized would be consumed during use or recycled; as a result, only
36 small amounts of wastes would likely be generated. Hazardous waste would be
37 handled and disposed in accordance with applicable regulations. Because
38 hazardous and non-regulated waste would be managed in accordance with
39 applicable regulations, no significant impacts are anticipated.

40 **4.3.2.4 Automotive Retail Center Alternative.**

41 Management of hazardous waste would be similar to that described under the
42 Proposed Action. Small quantities of hazardous waste may be generated during
43 demolition and construction activities. The redevelopment contractor would be
44 responsible for following applicable regulations for management of any hazardous

1 waste generated. Any spills or releases of fuel or oil from equipment would be
2 cleaned up by the contractor. The contractor would be responsible for the off-site
3 disposal of any hazardous waste (including demolition debris) generated on the
4 property in accordance with applicable regulations.

5 Reuse activities would primarily involve the use of fuels, POL, adhesives,
6 corrosives, paints, thinners, degreasers, solvents, antifreeze, batteries,
7 herbicides/pesticides, and commercial cleaning products. Most of the hazardous
8 materials used would be consumed during use; as a result, only small amounts of
9 waste POL and batteries would likely be generated. Hazardous waste would be
10 handled and disposed in accordance with applicable regulations. Because
11 hazardous waste would be managed in accordance with applicable regulations,
12 no significant impacts are anticipated.

13 **4.3.2.5 Veterans Affairs and Homeless Provider Alternative.**

14 Management of hazardous waste would be similar to that described under the
15 Proposed Action. Small quantities of hazardous waste may be generated during
16 demolition and construction activities. The redevelopment contractor would be
17 responsible for following applicable regulations for management of any hazardous
18 waste generated. Any spills or releases of fuel or oil from equipment would be
19 cleaned up by the contractor. The contractor would be responsible for the off-site
20 disposal of any hazardous waste (including demolition debris) generated on the
21 property in accordance with applicable regulations.

22 Reuse activities would primarily involve the use of batteries, herbicides/pesticides,
23 and commercial cleaning products. Most of the hazardous materials utilized
24 would be consumed during use or recycled; as a result, only small amounts of
25 wastes would likely be generated. Hazardous waste would be handled and
26 disposed in accordance with applicable regulations. Because hazardous waste
27 would be managed in accordance with applicable regulations, no significant
28 impacts are anticipated.

29 **4.3.2.6 No-Action Alternative.**

30 Under the No-Action Alternative, hazardous waste generation would decrease
31 from current levels; however, hazardous waste would continue to be generated by
32 the Air Force during caretaker activities. Hazardous waste generated by the
33 caretaker would be tracked to ensure proper identification, storage,
34 transportation, and disposal, as well as implementation of waste minimization
35 programs. Because hazardous waste would be managed in accordance with
36 applicable regulations, no significant impacts are anticipated.

37 **Mitigation Measures.** No mitigation measures would be required.

38 **4.3.3 Environmental Restoration Program Sites**

39 The potential effects of the Proposed Action and alternatives on areas of potential
40 contamination on Onizuka AFS are presented in this section.

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4.3.3.1 Proposed Action.

As a result of past installation operations, five AOC sites have been identified at Onizuka AFS (see Table 3.3-1 and Figure 3.3-1). These sites have received regulator concurrence with no further action required determinations and would not effect disposal and reuse of the property. Because the areas of potential contamination have been closed, no significant impacts are anticipated.

4.3.3.2 Corporate Office Alternative.

Potential impacts from AOC sites under this alternative would be the same as those described under the Proposed Action. No significant impacts are anticipated.

4.3.3.3 Hotel, Conference Center, and Office Alternative.

Potential impacts from AOC sites under this alternative would be the same as those described under the Proposed Action. No significant impacts are anticipated.

4.3.3.4 Automotive Retail Center Alternative.

Potential impacts from AOC sites under this alternative would be the same as those described under the Proposed Action. No significant impacts are anticipated.

4.3.3.5 Veterans Affairs and Homeless Provider Alternative.

Potential impacts from AOC sites under this alternative would be the same as those described under the Proposed Action. No significant impacts are anticipated.

4.3.3.6 No-Action Alternative.

Because the AOCs have been investigated, remediated as necessary, and closed, no significant impacts are anticipated.

Mitigation Measures. No mitigation measures would be required.

4.3.4 Storage Tanks

The potential effects of the Proposed Action and alternatives on the management of storage tanks within the ROI are presented in this section.

4.3.4.1 Proposed Action.

Under the Proposed Action, the grease trap, oil interceptor, and storage tanks associated with Onizuka AFS would be closed in conformance with appropriate federal, state, and local regulations. No new storage tanks are anticipated to be required for the proposed office development. Because storage tanks would be closed in accordance with applicable regulations, no significant impacts are anticipated.

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4.3.4.2 Corporate Office Alternative.

Under this alternative, the grease trap, oil interceptor, and storage tanks associated with Onizuka AFS would be closed in conformance with appropriate federal, state, and local regulations. No new storage tanks are anticipated to be required for the proposed office development. Because storage tanks would be closed in accordance with applicable regulations, no significant impacts are anticipated.

4.3.4.3 Hotel, Conference Center, and Office Alternative.

Under this alternative, the grease trap, oil interceptor, and storage tanks associated with Onizuka AFS would be closed in conformance with appropriate federal, state, and local regulations. No new storage tanks are anticipated to be required for the proposed development. Because storage tanks would be closed in accordance with applicable regulations, no significant impacts are anticipated.

4.3.4.4 Automotive Retail Center Alternative.

Under this alternative, the grease trap, oil interceptor, and storage tanks associated with Onizuka AFS would be closed in conformance with appropriate federal, state, and local regulations. Any new storage tanks (if any) required by the new owner/operator would be subject to applicable federal, state, and local regulations. These regulations include provisions for acceptable leak detection methodologies, spill and overflow protection, secondary containment, and liability insurance. Management of storage tanks in accordance with applicable regulations would minimize the potential for impacts; therefore, no significant impacts from storage tanks are anticipated.

4.3.4.5 Veterans Affairs and Homeless Provider Alternative.

Under this alternative, the grease trap, oil interceptor, and storage tanks associated with Onizuka AFS would be closed in conformance with appropriate federal, state, and local regulations. No new storage tanks are anticipated to be required for the proposed office and residential development. Because storage tanks would be closed in accordance with applicable regulations, no significant impacts are anticipated.

4.3.4.6 No-Action Alternative.

Under the No-Action Alternative, the grease trap, oil interceptor, and storage tanks would not be used to support caretaker activities; therefore, they would be closed in conformance with appropriate federal, state, and local regulations. No significant impacts are anticipated.

Mitigation Measures. No mitigation measures would be required.

4.3.5 Asbestos-Containing Material

The potential effects of the Proposed Action and alternatives on the management of ACM within the ROI are presented in this section.

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4.3.5.1 Proposed Action.

The Air Force would inform the new owner of the presence of ACM in facilities being transferred. Under the Proposed Action, demolition of facilities 1001, 1003, 1004, 1005, 1006, 1008, 1010, 1013, 1015, 1020, 1025, 1045, 10031, and 10032 which contain or are assumed to contain ACM, would occur. ACM may also be encountered during the renovation of facilities 1002 and 1018 (retained by the VA), which contain ACM. In addition to ACM being encountered in the structures, ACM could be encountered within some utility systems during any work performed on piping within these systems.

Demolition activities would be subject to applicable federal, state, and local regulations to minimize the potential risk to human health and the environment. ACM waste generated as a result of demolition activities would be disposed in accordance with applicable regulations at an off site landfill permitted to accept this type of material. The development contractor would be responsible for ensuring the proper management of asbestos and maintaining continued regulatory compliance. Management of ACM and ACM waste in accordance with applicable regulations would preclude any significant impacts.

4.3.5.2 Corporate Office Alternative.

Potential impacts from ACM would be similar to those described under the Proposed Action.

Under the Corporate Office Alternative, demolition of facilities 1001, 1002, 1003, 1004, 1005, 1006, 1008, 1010, 1013, 1015, 1018, 1020, 1025, 1045, 10031, and 10032 which contain or are assumed to contain ACM, would occur. In addition to ACM being encountered in the structures, ACM could be encountered within some utility systems during any work performed on piping within these systems.

Demolition and renovation activities would be subject to applicable federal, state, and local regulations to minimize the potential risk to human health and the environment. ACM waste generated as a result of demolition and renovation activities would be disposed in accordance with applicable regulations at an off site landfill permitted to accept this type of material. The development contractor would be responsible for ensuring the proper management of asbestos and maintaining continued regulatory compliance. Management of ACM and ACM waste in accordance with applicable regulations would preclude any significant impacts.

4.3.5.3 Hotel, Conference Center, and Office Alternative.

Potential impacts from ACM would be the same as those described under the Corporate Office Alternative. No significant impacts are anticipated.

4.3.5.4 Automotive Retail Center Alternative.

Potential impacts from ACM would be similar to those described under the Corporate Office Alternative.

1 **4.3.5.5 Veterans Affairs and Homeless Provider Alternative.**
2 Potential impacts from ACM would be similar to those described under the
3 Proposed Action. No significant impacts are anticipated.

4 **4.3.5.6 No-Action Alternative.**
5 Under the No-Action Alternative, the Air Force would continue to be responsible
6 for the management of structures containing ACM within the Onizuka AFS
7 property. The Air Force would continue to manage ACM in accordance with
8 current Air Force policy and applicable regulations. Management of ACM and
9 ACM waste in accordance with applicable regulations would preclude any
10 significant impacts.

11 **Mitigation Measures.** No mitigation measures would be required.

12 **4.3.6 Lead-Based Paint**
13 The potential effects of the Proposed Action and alternatives on the management
14 of LBP within the ROI are presented in this section.

15 **4.3.6.1 Proposed Action.**
16 The Air Force would inform the new owner of the potential presence of LBP in
17 facilities being transferred. The new owner would be responsible for managing
18 any LBP in accordance with applicable regulations precluding any significant
19 impacts. Under the Proposed Action, LBP would likely be encountered during
20 demolition activities. Demolition of facilities 1001, 1002, 1003, 1004, 1010, 1013,
21 1016, and 1034, which tested positive for LBP, would occur. Demolition activities
22 would be conducted in accordance with applicable federal, state, and local
23 regulations to minimize potential risks to human health and the environment.

24 Although LBP is not considered a hazardous waste, materials containing LBP
25 would have to be disposed at a facility that will accept solid waste containing LBP.
26 Waste is defined as hazardous under 40 CFR Part 261 if it contains levels of lead
27 exceeding a maximum concentration of 5.0 milligrams per liter (mg/l), as
28 determined using the U.S. EPA Toxic Characteristic Leaching Procedure (TCLP).
29 The redevelopment contractor would be required to perform a TCLP scan on
30 demolition debris prior to disposal to ensure it is not hazardous. If a waste is
31 classified as hazardous, disposal must take place in accordance with U.S. EPA
32 and state hazardous waste rules.

33 The redevelopment contractor would be responsible for ensuring the proper
34 management of LBP from the structures and excavated soil. If lead levels
35 exceed 400 ppm in the soil, the redevelopment contractor would be responsible
36 for removing lead-contaminated soil and disposing it properly at a licensed facility.
37 The redevelopment contractor shall maintain continued regulatory compliance.
38 Management of LBP and LBP waste in accordance with applicable regulations
39 would preclude any significant impacts.

1 **4.4.1 Geology and Soils**

2 The potential effects of the Proposed Action and alternatives on the local geology
3 and soils have been analyzed based on a review of published literature. Geology
4 and soils would be affected primarily during ground-disturbing activities, when
5 local soil profiles would be altered. Soils in these areas would remain relatively
6 stable in the long-term because they would be overlain by buildings, pavement, or
7 landscaping which would minimize erosion.

8 **4.4.1.1 Proposed Action.**

9 **Geology.** The Proposed Action is unlikely to affect the local geology of the
10 Onizuka AFS property. Sedimentation patterns would not be significantly altered,
11 and no structural movements or changes in seismicity would result. No
12 significant impacts are anticipated.

13 **Soils.** Potential impacts to soil within Onizuka AFS from the Proposed Action
14 would be minimal and would result primarily from ground disturbance associated
15 with the demolition of existing structures and the construction of new buildings or
16 infrastructure. These activities could alter soil profiles and local topography, as
17 grading is required for both the demolition and construction activities.

18 The construction contractor would be required to obtain a Construction Site Storm
19 Water National Pollutant Discharge Elimination System (NPDES) permit before
20 initiating any construction activity. The contractor would also be required to
21 prepare a Storm Water Pollution Prevention Plan (SWPPP) for the construction
22 activity. The Construction Site Storm Water NPDES permit, together with the
23 required SWPPP, would outline strict construction site management practices
24 designed to protect the quality of the surface water, groundwater, and natural
25 environment through which they flow. The SWPPP would identify specific areas
26 of existing and potential soil erosion, location of structural measures for sediment
27 control, and management practices and controls. Use of these management
28 practices and controls would reduce the potential for erosion of disturbed soils.

29 Under the Proposed Action, demolition and construction activities would disturb
30 approximately 23 acres within the Onizuka AFS property.

31 Short-term erosion impacts could occur during ground-disturbing activities, such
32 as demolition of existing facilities, removal of vegetative cover, or grading.
33 Potential impacts would be minimized through proper management practices
34 defined within the approved SWPPP. Standard construction practices that could
35 be implemented to minimize soil erosion include:

- 36 • Use of protective cover, such as mulch, straw, plastic netting, or a
37 combination of these protective coverings

- 38 • Implementation of site grading procedures to limit the time soils are
39 exposed prior to being covered by impermeable surfaces or vegetation

- 40 • Implementation of storm water diversions to reduce water flow through
41 exposed sites

- Maintenance of a buffer strip of vegetation around a pond or drainage, where possible, to filter sediments
- Retention of as many trees and shrubs as possible adjacent to exposed ground areas for use as natural windbreaks.

Once disturbed areas have been covered with pavement, buildings, or vegetation, their susceptibility to erosion would be significantly reduced. Upon completion of the construction phase, maintenance of a vegetative cover or covering undeveloped areas with gravel would serve as effective, long-term erosion control strategies for areas not covered with impervious surfaces. Soils underlying facilities and pavements are not subject to erosion.

Because management practices required by the developer's Construction Site Storm Water NPDES permit and SWPPP would be implemented during demolition and construction activities, no significant impacts to soils are anticipated.

4.4.1.2 Corporate Office Alternative.

Potential geology and soils impacts from implementation of this alternative would be the same as those described under the Proposed Action. Because standard construction practices would be implemented, no significant impacts are anticipated.

4.4.1.3 Hotel, Conference Center, and Office Alternative.

Potential geology and soils impacts from implementation of this alternative would be the same as those described under the Proposed Action. Because standard construction practices would be implemented, no significant impacts are anticipated.

4.4.1.4 Automotive Retail Center Alternative

Potential geology and soils impacts from implementation of this alternative would be the same as those described under the Proposed Action. Because standard construction practices would be implemented, no significant impacts are anticipated.

4.4.1.5 Veterans Affairs and Homeless Provider Alternative.

Potential geology and soils impacts from implementation of this alternative would be the same as those described under the Proposed Action. Because standard construction practices would be implemented, no significant impacts are anticipated.

4.4.1.6 No-Action Alternative.

Under the No-Action Alternative, no demolition or construction activities would occur on the Onizuka AFS property. Therefore, no significant impacts to geology or soils are anticipated.

Mitigation Measures. No mitigation measures would be required.

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4.4.2 Water Resources

The potential effects of the Proposed Action and alternatives on water resources within the ROI are presented in this section.

4.4.2.1 Proposed Action.

Surface Water. As discussed in Section 4.4.1, Geology and Soils, the proposed activities would be subject to Construction Site Storm Water NPDES permit requirements for storm water discharge during the construction period. Issuance of a Construction Site Storm Water NPDES permit is contingent on the development of an SWPPP by the permittee, which would then be subject to approval by the regional water authority. SWPPP requirements under the Construction Site Storm Water NPDES permit include an outline of the storm water drainage system for each discharge point, actual and potential pollutant contact, and surface water locations. The SWPPP would also incorporate storm water management controls and preventive maintenance for buildings. Compliance with the Construction Site Storm Water NPDES permit and the SWPPP would minimize potential impacts to surface water quantity and quality. No significant impacts to surface water are anticipated.

Ground Water. Under the Proposed Action, there is no potential for direct contamination of groundwater. There are no major sources of potential contamination within the Onizuka AFS property. Activities associated with demolition and construction activities would not introduce any contaminants with the potential to affect groundwater. No significant impacts to groundwater are anticipated.

4.4.2.2 Corporate Office Alternative.

Potential water resource impacts from implementation of this alternative would be the same as those described under the Proposed Action. No significant impacts to surface water or ground water resources are anticipated.

4.4.2.3 Hotel, Conference Center, and Office Alternative.

Potential water resource impacts from implementation of this alternative would be the same as those described under the Proposed Action. No significant impacts to surface water or ground water resources are anticipated.

4.4.2.4 Automotive Retail Center Alternative.

Potential water resource impacts from implementation of this alternative would be the same as those described under the Proposed Action. No significant impacts to surface water or ground water resources are anticipated.

4.4.2.5 Veterans Affairs and Homeless Provider Alternative.

Potential water resource impacts from implementation of this alternative would be the same as those described under the Proposed Action. No significant impacts to surface water or ground water resources are anticipated.

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4.4.2.6 No-Action Alternative.

Under the No-Action Alternative, no demolition or construction activities would occur on the Onizuka AFS property. Therefore, no significant impacts to surface water or ground water resources are anticipated.

Mitigation Measures. No mitigation measures would be required.

4.4.3 Air Quality

The potential effects of the Proposed Action and alternatives on air quality within the ROI are presented in this section.

4.4.3.1 Proposed Action.

Activities associated with the Proposed Action, including demolition and construction activities would not result in significant air quality impacts.

Roadway Traffic. The primary automobile-related or mobile-source air pollutants are CO, PM, NO_x, and VOCs (precursors of ozone). The project-level air quality impacts of a traffic-related project are generally evaluated on two scales:

- Microscale level for CO and PM (PM10 and PM2.5). A microscale (also referred as a hot-spot) analysis of traffic-related impacts at intersections or free flow sites provides estimates of localized pollutant concentrations for direct comparison to the NAAQS and/or applicable impact thresholds.
- Mesoscale level for NO_x and VOCs. NO_x and VOCs, precursors of ozone, are usually of regional concern in nonattainment areas for ozone. Potential emission increases from additional vehicle miles traveled (VMT) may affect regional ozone levels. However, since ozone is a problem of regional concern and subject to air transport phenomena under different weather conditions, ozone-related impacts are generally evaluated on a regional basis by the appropriate regional Metropolitan Planning Organization using regional ozone airshed model(s). This type of mesoscale analysis is generally not conducted on a project-by-project basis and is not necessary for this EA.

The CO concentrations were modeled using the Proposed Action traffic forecasts described in Section 4.2.3, Transportation, at the nearby signalized intersections of 1) N. Mathilda Avenue and Moffett Park Drive and 2) N. Mathilda Avenue and eastbound SR 237 on-ramp that would experience the worst-case congestion and highest traffic volumes.

The CO concentration modeling was performed in two steps:

- Vehicle exhaust emission factors were estimated using the U.S. EPA EMFAC2007 emission factor model with input parameters for the winter season that are applicable to the county where the project is located.
- The estimated emission factors were subsequently used as input for the U.S. EPA CALINE4 dispersion model to calculate CO concentrations at the worst-case intersection with the peak hour traffic conditions as well as the worst-case meteorological conditions.

1 Detailed descriptions of these models and the analysis procedures are presented
2 in Appendix B.

3 The conservatively-predicted CO concentrations are shown in Table 4.4-1. The
4 concentrations are well below both 1-hour and 8-hour CO NAAQS and CAAQS at
5 the worst-case intersection. Therefore, the Proposed Action would not result in
6 significant traffic CO impacts.

Table 4.4-1. Modeled Hot Spot Peak Hour Worst-case CO Levels, Proposed Action

Intersection	One-Hour Concentration (ppm)	Eight-Hour Concentration (ppm)
N. Mathilda Avenue and Moffett Park Drive/ N. Mathilda Avenue and eastbound SR 237 on-ramp	4.0	2.6

Notes: CO levels include background levels of 3.3 ppm for 1-hour and 2.1 ppm for 8-hour.
NAAQS: 35 ppm for 1-hour and 9 ppm for 8-hour.
CAAQS: 35 ppm for 1-hour and 9 ppm for 8-hour.

7 Although potential PM (PM_{2.5} and PM₁₀) impact could result on a local level from
8 the change of traffic pattern, the PM concerns are mostly related to the amount of
9 diesel vehicles. According to the U.S. EPA guidelines in addressing hot spot PM
10 impacts, five categories of project actions with potential air quality concerns that
11 require a qualitative PM_{2.5} and PM₁₀ hot-spot analysis include:

- 12 • New or expanded highway projects that have a significant number of or
13 significant increase in diesel vehicles.
- 14 • Projects affecting intersections that are at LOS D, E, or F with a
15 significant number of diesel vehicles, or those that will change to LOS D,
16 E, or F because of increased traffic volumes from a significant number of
17 diesel vehicles related to the project.
- 18 • New bus and rail terminals and transfer points that have a significant
19 number of diesel vehicles congregating at a single location.
- 20 • Expanded bus and rail terminals and transfer points that significantly
21 increase the number of diesel vehicles congregating at a single location.
- 22 • Projects in or affecting locations, areas, or categories of sites that are
23 identified in the PM_{2.5} and PM₁₀ applicable implementation plan or
24 implementation plan submission, as appropriate, as sites of violation or
25 possible violation.

26 Because the Proposed Action would not induce significant diesel vehicular trips
27 around the site, a localized traffic PM impact analysis is not warranted and traffic-
28 related PM impact is not considered significant under the Proposed Action.

29 **Demolition, Construction, and Operation.** Demolition activities associated with
30 the Proposed Action would result in short-term impacts to air quality from
31 emissions generated by demolition of existing facilities totaling approximately
32 558,000 square feet. Following demolition activities, construction of more than
33 243,400 square feet of new building space would occur.

1 Impacts are expected to be primarily from fugitive dust associated with building
 2 demolition, clearing and grading of the land for new building construction, and
 3 construction vehicles traveling on unpaved surfaces at the site. Dust emissions
 4 would also be generated by removal and replacement of roads and utilities, and
 5 through construction of new vehicle parking areas. Operational emissions would
 6 primarily result from space heating requirements and vehicle service activities.

7 For disclosure purposes, the likely construction and operation activity-associated
 8 emissions, including criteria pollutants and greenhouse gas in terms of carbon
 9 dioxide (CO₂) emissions, were calculated on an annual basis and summarized in
 10 this section. In order to calculate the potential annual air emissions from the
 11 Proposed Action, a schedule for demolition and construction was developed.
 12 This schedule, presented in Table 4.4-2, was developed for purposes of analysis
 13 only and does not represent an actual construction timetable. Appendix B
 14 describes detailed analysis methodologies, assumptions, and emission factor
 15 models used for the estimates.

**Table 4.4-2. Assumed Project Demolition and Construction
 Schedule (Proposed Action)**

Year(s)	Demolition per Year (square footage)	Construction per Year (square footage)	Acres Disturbed
2012	300,000	0	11.0
2013	258,000	0	10.0
2014	0	101,462	7.0
2015	0	101,462	7.0
2016		40,402	3.0
Total	558,000	243,326	

16 Criteria pollutant emissions generated by building demolition and construction,
 17 grading, landscaping, and building operation were calculated using the U.S. EPA
 18 developed NONROAD emission factor model and the equipment usage hours.
 19 The construction equipment and vehicle operation hours are estimated primarily
 20 based on RS Means handbook guidance. Space heating boiler emissions were
 21 estimate based on the net change in building size summarized in Table 4.4-2 and
 22 applicable AP-42 emission factors. Table 4.4-3 presents the total construction
 23 and operation emissions including CO₂ emissions calculated for each year under
 24 the Proposed Action.

25 The CAA General Conformity Rule applies to the project with respect to the
 26 nonattainment pollutants of NO_x and VOCs; the emissions thresholds (i.e., de
 27 minimis levels and 10 percent regional levels) defined in the rule were used as a
 28 measure of the nonattainment pollutant emissions significance. For other
 29 pollutants, the levels predicted and summarized in Table 4.4-3 are provided for
 30 disclosure purposes. The regional emissions levels were obtained from the
 31 BAAQMD. The predicted emissions in most of the construction and operational
 32 years would be mostly offset by the retirement of existing building space-heating
 33 related emissions. Therefore, no significant impacts to air quality would occur
 34 from construction, demolition, and operation activities associated with the
 35 Proposed Action at both the local and regional levels.

**Table 4.4-3. Proposed Action Total Annual Emissions
(tons per year)**

Year	PM ₁₀	PM _{2.5}	CO	NO _x	VOC	SO ₂	CO ₂
2012	0.06	0.06	3.84	0.91	0.60	0.03	-1,091.93
2013	-0.06	-0.06	2.69	-0.63	0.48	0.01	-2,353.59
2014	-0.03	-0.03	3.01	-0.24	0.51	0.01	-1,882.99
2015	0.00	0.00	3.32	0.14	0.53	0.01	-1,412.42
2016	0.01	0.01	3.44	0.29	0.53	0.02	-1,225.02
After 2016	-0.09	-0.09	-1.02	-1.22	-0.07	-0.01	-1,459.35
De minimis threshold	NA	NA	NA	100	100	NA	NA
10-percent of BAAQMD Inventory	8,213	NA	78,110	19,637	14,600	2,336	NA

Notes: The heating area used for estimating the overall heating emissions is the net change of heating space by subtracting the existing building space to be demolished. Where the demolition area is greater than the area to be constructed, a net reduction in emissions is shown.

- CO = carbon monoxide
- CO₂ = carbon dioxide (greenhouse gas)
- NA = not applicable
- NO_x = nitrogen oxides
- PM₁₀ = particulate matter equal to or less than 10 microns in diameter
- PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter
- SO₂ = sulfur dioxide
- VOC = volatile organic compound

1 **Stationary Emission Sources.** Given the type of reuse development plan, the
 2 Proposed Action may result in new stationary sources within the Onizuka AFS
 3 property. However, the determination of whether an air permit would be required
 4 under the Proposed Action would be made once the plan is in the final design
 5 stage when specific source types and sizes are defined.

6 **4.4.3.2 Corporate Office Alternative.**

7 Potential impacts to air quality would be similar to those described under the
 8 Proposed Action except that additional air emissions would be produced by
 9 construction of additional building square footage (i.e., offices).

10 **Demolition, Construction, and Operation.** In order to calculate the potential
 11 annual air emissions from the Corporate Office Alternative, a schedule for
 12 demolition and construction was developed. This schedule, presented in Table
 13 4.4-4, was developed for purposes of analysis only and does not represent an
 14 actual construction timetable. The same methodologies used for evaluating the
 15 emissions under the Proposed Action were employed for this alternative. Table
 16 4.4-5 presents the total construction and operation emissions calculated for each
 17 year of the Corporate Office Alternative.

18 The emissions from the Corporate Office Alternative are slightly higher as
 19 compared to the Proposed Action but the majority of construction and operational
 20 emissions would still be offset by the retirement of existing building space-heating
 21 related emissions particularly after the completion of the project (see Table 4.4-5)
 22 Based on these findings, no significant impacts to air quality would occur under
 23 the Corporate Office Alternative.

Table 4.4-4. Assumed Project Demolition and Construction Schedule (Corporate Office Alternative)

Year(s)	Demolition per Year (square footage)	Construction per Year (square footage)	Acres Disturbed
2012	300,000	0	11.0
2013	315,000	0	12.0
2014	0	143,772	11.5
2015	0	143,772	11.5
Total	615,000	287,544	

Table 4.4-5. Corporate Office Alternative Total Annual Emissions (tons per year)

Year	PM ₁₀	PM _{2.5}	CO	NO _x	VOC	SO ₂	CO ₂
2012	0.05	0.05	5.44	1.10	0.72	0.03	-1,053.15
2013	-0.09	-0.09	4.07	-0.71	0.58	0.01	-2,586.66
2014	-0.05	-0.05	4.52	-0.17	0.61	0.01	-1,919.84
2015	-0.01	-0.02	4.93	0.29	0.64	0.02	-1,253.05
After 2015	-0.10	-0.10	-1.06	-1.27	-0.07	-0.01	-1,518.63
De minimis threshold	NA	NA	NA	100	100	NA	NA
10-percent of BAAQMD Inventory	8,213	NA	78,110	19,637	14,600	2,336	NA

Notes: The heating area used for estimating the overall heating emissions is the net change of heating space by subtracting the existing building space to be demolished. Where the demolition area is greater than the area to be constructed, a net reduction in emissions is shown.

- CO = carbon monoxide
- CO₂ = carbon dioxide (greenhouse gas)
- NA = not applicable
- NO_x = nitrogen oxides
- PM₁₀ = particulate matter equal to or less than 10 microns in diameter
- PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter
- SO₂ = sulfur dioxide
- VOC = volatile organic compound

1 **Stationary Emission Sources.** Given the type of reuse development plan, the
 2 Corporate Office Alternative may result in new stationary sources within the
 3 Onizuka AFS property. However, the determination of whether an air permit
 4 would be required under this alternative would be made once the plan is in the
 5 final design stage when specific source types and sizes are defined.

6 **4.4.3.3 Hotel, Conference Center, and Office Alternative.**

7 Potential impacts to air quality would be similar to those described under the
 8 Corporate Office Alternative except that additional air emissions would be
 9 produced by construction of additional building square footage (i.e., hotel and
 10 conference center).

11 **Demolition, Construction, and Operation.** In order to calculate the potential
 12 annual air emissions from the Hotel, Conference Center, and Office Alternative, a
 13 schedule for demolition and construction was developed. This schedule,
 14 presented in Table 4.4-6, was developed for purposes of analysis only and does
 15 not represent an actual construction timetable. The same methodologies used
 16 for evaluating the emissions under the Proposed Action were employed for this

Table 4.4-6. Assumed Project Demolition and Construction Schedule (Hotel, Conference Center, and Office Alternative)

Year(s)	Demolition per Year (square footage)	Construction per Year (square footage)	Acres Disturbed
2012	300,000	0	11.0
2013	315,000	0	12.0
2014	0	187,500	11.5
2015	0	162,540	11.5
2016		197,600	
2017		162,540	
2018		237,515	
Total	615,000	947,695	

1 alternative. Table 4.4-7 presents the total construction and operation emissions
2 calculated for each year of the Hotel, Conference Center, and Office Alternative.

Table 4.4-7. Hotel, Conference Center, and Office Alternative Total Annual Emissions (tons per year)

Year	PM ₁₀	PM _{2.5}	CO	NO _x	VOC	SO ₂	CO ₂
2012	0.18	0.17	11.85	3.18	0.70	0.06	-736.58
2013	0.04	0.02	10.46	1.35	0.56	0.04	-2,270.00
2014	0.03	0.02	10.43	1.32	0.56	0.04	-2,269.86
2015	0.09	0.08	10.98	2.02	0.59	0.04	-1,400.23
2016	0.13	0.13	11.48	2.62	0.62	0.04	-646.35
2017	0.18	0.17	11.72	2.86	0.62	0.05	270.50
2018	0.22	0.22	12.23	3.46	0.65	0.05	1,024.40
After 2018	0.10	0.10	1.08	1.29	0.07	0.01	1,542.92
De minimis threshold	NA	NA	NA	100	100	NA	NA
10-percent of BAAQMD Inventory	8,213	NA	78,110	19,637	14,600	2,336	NA

CO = carbon monoxide
 CO₂ = carbon dioxide (greenhouse gas)
 NA = not applicable
 NO_x = nitrogen oxides
 PM₁₀ = particulate matter equal to or less than 10 microns in diameter
 PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter
 SO₂ = sulfur dioxide
 VOC = volatile organic compound

3 The emissions from the Hotel, Conference Center, and Office Alternative are
 4 higher compared to both the Proposed Action and the Corporate Office
 5 Alternative and they would not be entirely offset by the elimination of existing
 6 building space-heating related emissions. However, they are still considered
 7 negligible for applicable criteria pollutants when compared to *de minimis*
 8 thresholds and regional levels for the BAAQMD (see Table 4.4-7). Based on
 9 these findings, no significant impacts to air quality would occur under the Hotel,
 10 Conference Center, and Office Alternative.

1 **Stationary Emission Sources.** Given the type of reuse development plan, the
 2 Hotel, Conference Center, and Office Alternative may result in new stationary
 3 sources within the Onizuka AFS property. However, the determination of whether
 4 an air permit would be required under this alternative would be made once the
 5 plan is in the final design stage when specific source types and sizes are defined.

6 **4.4.3.4 Automotive Retail Center Alternative.**

7 Potential impacts to air quality would be similar to those described under the
 8 Proposed Action.

9 **Demolition, Construction, and Operation.** In order to calculate the potential
 10 annual air emissions from the Automotive Retail Center Alternative, a schedule
 11 for demolition and construction was developed. This schedule, presented in
 12 Table 4.4-8, was developed for purposes of analysis only and does not represent
 13 an actual construction timetable. The same methodologies used for evaluating
 14 the emissions under the Proposed Action were employed for this alternative.
 15 Table 4.4-9 presents the total construction and operation emissions calculated for
 16 each year of the Office with Veterans Affairs Alternative.

Table 4.4-8. Assumed Project Demolition and Construction Schedule (Automotive Retail Center Alternative)

Year(s)	Demolition per Year (square footage)	Construction per Year (square footage)	Acres Disturbed
2012	200,000	0	7.5
2013	215,000	0	8.0
2014	200,000	20,000	7.5
2015	0	40,000	15
Total	615,000	60,000	

Table 4.4-9. Automotive Retail Center Alternative Total Annual Emissions (tons per year)

Year	PM ₁₀	PM _{2.5}	CO	NO _x	VOC	SO ₂	CO ₂
2012	0.06	0.06	0.68	0.86	0.55	0.03	-716.29
2013	-0.05	-0.06	-0.36	-0.55	0.44	0.01	-1,786.08
2014	-0.11	-0.12	-1.01	-1.33	0.39	0.01	-2,713.59
2015	-0.11	-0.11	-0.95	-1.26	0.40	0.01	-2,620.82
After 2015	-0.16	-0.16	-1.80	-2.14	-0.12	-0.01	-2,573.89
De minimis Threshold	NA	NA	NA	100	100	NA	NA
10-percent of BAAQMD Inventory	8,213	NA	78,110	19,637	14,600	2,336	NA

Notes: The heating area used for estimating the overall heating emissions is the net change of heating space by subtracting the existing building space to be demolished. Where the demolition area is greater than the area to be constructed, a net reduction in emissions is shown.

- CO = carbon monoxide
- CO₂ = carbon dioxide (greenhouse gas)
- NA = not applicable
- NO_x = nitrogen oxides
- PM₁₀ = particulate matter equal to or less than 10 microns in diameter
- PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter
- SO₂ = sulfur dioxide
- VOC = volatile organic compound

1 The emissions from the Automotive Retail Center Alternative are slightly higher
 2 as compared to the Proposed Action but would be mostly offset by the elimination
 3 of existing building space-heating related emissions. The annual emissions are
 4 considered negligible when compared to *de minimis* thresholds and regional
 5 levels for the BAAQMD (see Table 4.4-9). Based on these findings, no significant
 6 impacts to air quality would occur under the Automotive Retail Center Alternative.

7 **Stationary Emission Sources.** Given the type of reuse development plan, the
 8 Automotive Retail Center Alternative may result in new stationary sources within
 9 the Onizuka AFS property. However, the determination of whether an air permit
 10 would be required under this alternative would be made once the plan is in the
 11 final design stage when specific source types and sizes are defined.

12 **4.4.3.5 Veterans Affairs and Homeless Provider Alternative.**

13 Potential impacts to air quality would be similar to those described under the
 14 Proposed Action.

15 **Demolition, Construction, and Operation.** In order to calculate the potential
 16 annual air emissions from the Veterans Affairs and Homeless Provider
 17 Alternative, a schedule for demolition and construction was developed. This
 18 schedule, presented in Table 4.4-10, was developed for purposes of analysis only
 19 and does not represent an actual construction timetable. The same
 20 methodologies used for evaluating the emissions under the Proposed Action
 21 were employed for this alternative. Table 4.4-11 presents the total construction
 22 and operation emissions calculated for each year of the Veterans Affairs and
 23 Homeless Provider Alternative.

Table 4.4-10. Assumed Project Demolition and Construction Schedule (Veterans Affairs and Homeless Provider Alternative)

Year(s)	Demolition per Year (square footage)	Construction per Year (square footage)	Acres Disturbed
2012	300,000	0	11.0
2013	258,000	0	12.0
2014	0	163,400	11.5
2015	0	163,400	11.5
Total	558,000	326,800	

24 The emissions from the Veterans Affairs and Homeless Provider Alternative are
 25 slightly higher as compared to the Proposed Action; however, most of the
 26 construction and operational emissions would still be offset by the retirement of
 27 existing building space-heating related emissions particularly after the completion
 28 of the project (see Table 4.4-11). Based on these findings, no significant impacts
 29 to air quality would occur under the Veterans Affairs and Homeless Provider
 30 Alternative.

31 **Stationary Emission Sources.** Given the type of reuse development planned,
 32 the Veterans Affairs and Homeless Provider Alternative may result in new
 33 stationary sources within the Onizuka AFS property. However, the determination

Table 4.4-11. Veterans Affairs and Homeless Provider Alternative Total Annual Emissions (tons per year)

Year	PM ₁₀	PM _{2.5}	CO	NO _x	VOC	SO ₂	CO ₂
2012	0.06	0.06	3.84	0.91	0.60	0.03	-1,091.96
2013	-0.06	-0.06	2.69	-0.63	0.48	0.01	-2,353.59
2014	0.09	0.08	11.04	2.03	0.59	0.04	-1,407.64
2015	0.09	0.08	11.04	2.03	0.59	0.04	-1,407.64
After 2015	-0.06	-0.06	-0.76	-0.91	-0.05	-0.01	-1,085.13
De minimis threshold	NA	NA	NA	100	100	NA	NA
10-percent of BAAQMD Inventory	8,213	NA	78,110	19,637	14,600	2,336	NA

Notes: The heating area used for estimating the overall heating emissions is the net change of heating space by subtracting the existing building space to be demolished. Where the demolition area is greater than the area to be constructed, a net reduction in emissions is shown.

- CO = carbon monoxide
- CO₂ = carbon dioxide (greenhouse gas)
- NA = not applicable
- NO_x = nitrogen oxides
- PM₁₀ = particulate matter equal to or less than 10 microns in diameter
- PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter
- SO₂ = sulfur dioxide
- VOC = volatile organic compound

1 of whether an air permit would be required under this alternative would be made
 2 once the plan is in the final design stage when specific source types and sizes
 3 are defined.

4 **4.4.3.6 No-Action Alternative.**

5 Under the No-Action Alternative, no demolition or construction activities would
 6 occur on the Onizuka AFS property. Air quality conditions would be similar to
 7 existing conditions discussed in Section 3.4.3. Therefore, no significant impacts
 8 to air quality are anticipated.

9 **Mitigation Measures.** No mitigation measures would be required.

10 **4.4.4 Biological Resources**

11 **4.4.4.1 Proposed Action.**

12 **Vegetation.** Vegetation would be disturbed during demolition and construction
 13 activities associated with the Proposed Action. Vegetation at Onizuka AFS
 14 consists of landscaped areas containing nonnative grasses, ornamental shrubs,
 15 and shade trees. Impacts to such highly disturbed, human-created habitats are
 16 considered to be insignificant. Existing landscaping would be retained during
 17 demolition and construction activities to the extent possible, and the existing
 18 property would be landscaped upon completion of construction activities. No
 19 significant impacts to vegetation are anticipated.

20 **Wildlife.** Under the Proposed Action, demolition and construction activities within
 21 Onizuka AFS property could temporarily affect some individual wildlife species.
 22 However, because the land has been developed, these areas and adjacent areas
 23 lack suitable wildlife habitat. The species known to inhabit the Onizuka AFS

1 property are common and/or disturbance tolerant. Potential impacts to wildlife
2 include displacement of individuals to adjacent areas and direct mortality to
3 burrowing species (e.g., mice and rats) or individuals that are less mobile. These
4 impacts to common wildlife species are not expected to be significant.

5 Ornamental shrubs and shade trees on the property provide suitable nesting
6 habitat to a variety of bird species. Removal or relocation of shrubs and trees
7 during demolition and construction activities could cause impacts to bird species
8 during nesting season; however, similar nesting habitat exists on surrounding
9 properties. Therefore, no significant impacts to bird species are anticipated.

10 **Threatened and Endangered Species.** There is no suitable habitat for any of
11 the threatened or endangered species identified as having the potential to occur
12 on or adjacent to Onizuka AFS. Therefore, no significant impacts to threatened
13 and endangered species as a result of the Proposed Action are anticipated.

14 **Sensitive Habitat.** There is no sensitive habitat on Onizuka AFS; therefore, no
15 significant impacts to sensitive habitat as a result of the Proposed Action are
16 anticipated.

17 **4.4.4.2 Corporate Office Alternative.**

18 Because the entire Onizuka AFS property would be disturbed during
19 redevelopment activities, potential impacts to vegetation, wildlife, threatened and
20 endangered species, and sensitive habitats would be the same as those
21 described under the Proposed Action. No significant impacts are anticipated.

22 **4.4.4.3 Hotel, Conference Center, and Office Alternative.**

23 Because the entire Onizuka AFS property would be disturbed during
24 redevelopment activities, potential impacts to vegetation, wildlife, threatened and
25 endangered species, and sensitive habitats would be the same as those
26 described under the Proposed Action. No significant impacts are anticipated.

27 **4.4.4.4 Automotive Retail Center Alternative.**

28 Because the entire Onizuka AFS property would be disturbed during
29 redevelopment activities, potential impacts to vegetation, wildlife, threatened and
30 endangered species, and sensitive habitats would be the same as those
31 described under the Proposed Action. No significant impacts are anticipated.

32 **4.4.4.5 Veterans Affairs and Homeless Provider Alternative.**

33 Because the entire Onizuka AFS property would be disturbed during
34 redevelopment activities, potential impacts to vegetation, wildlife, threatened and
35 endangered species, and sensitive habitats would be the same as those
36 described under the Proposed Action. No significant impacts are anticipated.

37 **4.4.4.6 No-Action Alternative.**

38 **Vegetation.** Under the No-Action Alternative, no demolition or construction
39 activities would occur on the Onizuka AFS property. Caretaker activities would

1 include continued grounds maintenance of landscaped areas. No significant
2 impacts to vegetation are anticipated.

3 **Wildlife.** Under the No-Action Alternative, no demolition or construction activities
4 would occur on the Onizuka AFS property. Displacement of local wildlife to
5 adjacent areas and direct mortality to burrowing species (e.g., mice and rats) or
6 individuals that are less mobile would not occur. A reduction in human activity on
7 the property would also reduce disturbance to wildlife on and in the vicinity of
8 Onizuka AFS. No significant impacts are anticipated.

9 **Threatened and Endangered Species.** Under the No-Action Alternative, no
10 demolition or construction activities would occur on the Onizuka AFS property.
11 Because there is no suitable habitat for any of the threatened or endangered
12 species identified as having the potential to occur on or adjacent to Onizuka AFS,
13 no significant impacts to threatened and endangered species are anticipated.

14 **Sensitive Habitat.** Under the No-Action Alternative, no demolition or
15 construction activities would occur on the Onizuka AFS property. Because there
16 is no sensitive habitat on Onizuka AFS, no significant impacts to sensitive habitat
17 are anticipated.

18 **Mitigation Measures.** No mitigation measures would be required.

19 **4.4.5 Cultural Resources**

20 Potential impacts to cultural resources were assessed by (1) identifying types and
21 possible locations of reuse activities that could directly or indirectly affect cultural
22 resources, and (2) identifying the nature and significance of cultural resources on
23 the Onizuka AFS property.

24 Pursuant to the NHPA, as directed by the Section 106 review process,
25 consultation has been initiated with the California SHPO. Historic properties,
26 under 36 CFR Part 800 are defined as any prehistoric or historic district, site,
27 building, structure, or object included in, or eligible for inclusion in, the National
28 Register. For the purposes of these regulations, the term also includes artifacts,
29 records, and remains that are related to, and located within, such properties. The
30 term “eligible for inclusion in the National Register” includes properties formally
31 determined as such by the Secretary of the Interior and all other properties that
32 meet National Register listing criteria. Therefore, sites that meet the criteria, but
33 are not yet evaluated, may be considered potentially eligible to the National
34 Register and, as such, are afforded the same regulatory consideration as
35 nominated historic properties.

36 As a federal agency, the Air Force is responsible for identifying any historic
37 properties associated with the property. This identification process includes not
38 only field surveys and recording of cultural resources but also evaluations to
39 develop determinations of significance in terms of National Register criteria. No
40 archeological sites have been identified on Onizuka AFS. An historic building
41 inventory and evaluation of Onizuka AFS facilities was conducted in 2004. Based

1 on this evaluation, none of the facilities at Onizuka AFS were recommended to be
2 eligible for listing in the National Register.

3 **4.4.5.1 Proposed Action.**

4 **Prehistoric and Historic Archaeological Resources.** The results of a 1992
5 California Archeological Inventory indicate that no archaeological resources have
6 been identified on the Onizuka AFS property. Because of the severe ground
7 disturbance that occurred during construction of buildings and vehicle parking
8 areas, the potential for discovery of intact archaeological resources is considered
9 very low. In the unlikely event that archaeological resources are encountered
10 during demolition and construction activities, the redevelopment contractor would
11 suspend work in the immediate area, protect the site in place, and report the
12 discovery to the California SHPO to determine if additional investigation is
13 required. In the event further investigation is required, any data recovery would
14 be performed in accordance with the Secretary of the Interior's Standards and
15 Guidelines for Archaeological Documentation (48 FR 44734-37) and take into
16 account the Council's publication, Treatment of Archaeological Properties. Due
17 to the developed nature of the property and the urban setting surrounding
18 Onizuka AFS, no significant impacts to archaeological resource are anticipated.

19 **Historic Buildings and Structures.** Based on the 2004 historic building
20 inventory and evaluation, none of the facilities at Onizuka AFS have been
21 recommended as eligible for listing in the National Register.

22 An evaluation of facilities 1001, 1002, 1003, 1004, 10031 and 10032 will be
23 completed prior to the closure of Onizuka AFS. Although these facilities have
24 already been determined not eligible for listing in the National Register, they are
25 being reconsidered based on the recommendation of the SHPO. The evaluation
26 will provide the Air Force necessary information to make a determination of
27 eligibility.

28 Under the Proposed Action, any reuse activities entailing demolition, renovation,
29 or allowing deterioration of significant historic structures constitute an adverse
30 effect. Furthermore, the conveyance of any such structures to a nonfederal entity
31 would also be considered an adverse effect, since the historic properties would
32 cease to be protected by federal legislation. Facility 1002 is proposed for transfer
33 to the VA (a federal entity).

34 The potential impact of conveyance of historic properties to a nonfederal entity
35 (state, local, or private), could be reduced to a nonadverse level through the
36 placement of preservation covenants in the disposal document. Any
37 development of Onizuka AFS that could impact historic properties would;
38 therefore, fall under the requirements of Section 106 of the NHPA. Other
39 measures may be developed that meet the Secretary of the Interior's Standards
40 and Guidelines for Historic Preservation Projects (36 CFR Part 68), or
41 Archaeology and Historic Preservation (Federal Register, Vol. 48, No. 190,
42 September 29, 1983, pages 44716-44742). These measures could include
43 avoidance, stabilization, preservation in place, or data recovery. Documentation

1 of the structures may be considered adequate data recovery, and should include,
2 but not be limited to, as-built and alteration drawings and historic photographs.

3 The Air Force would consult with the California SHPO and the Advisory Council to
4 develop acceptable measures. Consultation would proceed in compliance with
5 Section 106 of the NHPA and its implementing regulations (36 CFR Part 800). A
6 Memorandum of Agreement may be developed to document the accepted
7 measures. A Programmatic Agreement for cultural resources must be
8 coordinated with, at a minimum, the California SHPO, the Advisory Council, and
9 the Air Force. Other parties (e.g., City of Sunnyvale) may be included as
10 determined appropriate by the parties.

11 Based on the recommendation of the City's Heritage Preservation Commission,
12 the Onizuka AFS property is considered potentially eligible for designation as a
13 local Heritage Resource under the Sunnyvale Municipal Code. Any further
14 evaluation or preservation of local heritage resources would be implemented by
15 the City of Sunnyvale. The Proposed Action incorporates the preservation of the
16 existing memorial to the lost astronauts on board the space shuttle Challenger,
17 including Ellison Onizuka in whose memory the installation is named. No
18 significant impacts to historic buildings and structures are anticipated.

19 **Traditional Resources.** The Air Force has conducted consultations with
20 representatives of Native American groups as required under AIRFA. The
21 purpose of these consultations was to determine AIRFA-related concerns such as
22 access to sites of past cultural activity, landforms, and components of the natural
23 environment which may occur on Onizuka AFS and are important to traditional
24 religious practices of Native American groups. The Native American groups
25 consulted include the Ohlone/Costanoan, Bay Miwok, Plains Miwok, and Patwin.

26 Based on consultation with representatives of Native American groups, no
27 traditional cultural resources, sacred areas, or traditional use areas have been
28 identified within the Onizuka AFS property. No significant impacts are
29 anticipated.

30 **4.4.5.2 Corporate Office Alternative.**

31 **Prehistoric and Historic Archaeological Resources.** Potential impacts to
32 prehistoric and historic archaeological resources would be the same as those
33 described under the Proposed Action.

34 **Historic Buildings and Structures.** Potential impacts to historic buildings and
35 structures would be similar to those described under the Proposed Action. This
36 alternative incorporates the preservation of the existing memorial to the lost
37 astronauts on board the Space Shuttle Challenger.

38 **Traditional Resources.** Potential impacts to traditional resources would be the
39 same as those described under the Proposed Action.

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4.4.5.3 Hotel, Conference Center, and Office Alternative.

Prehistoric and Historic Archaeological Resources. Potential impacts to prehistoric and historic archaeological resources would be the same as those described under the Proposed Action.

Historic Buildings and Structures. Potential impacts to historic buildings and structures would be similar to those described under the Proposed Action. This alternative incorporates the preservation of the existing memorial to the lost astronauts on board the Space Shuttle Challenger.

Traditional Resources. Potential impacts to traditional resources would be the same as those described under the Proposed Action.

4.4.5.4 Automotive Retail Center Alternative.

Prehistoric and Historic Archaeological Resources. Potential impacts to prehistoric and historic archaeological resources would be the same as those described under the Proposed Action.

Historic Buildings and Structures. Potential impacts to historic buildings and structures would be similar to those described under the Proposed Action. This alternative incorporates the preservation of the existing memorial to the lost astronauts on board the Space Shuttle Challenger.

Traditional Resources. Potential impacts to traditional resources would be the same as those described under the Proposed Action.

4.4.5.5 Veterans Affairs and Homeless Provider Alternative.

Prehistoric and Historic Archaeological Resources. Potential impacts to prehistoric and historic archaeological resources would be the same as those described under the Proposed Action.

Historic Buildings and Structures. Potential impacts to historic buildings and structures would be similar to those described under the Proposed Action. This alternative incorporates the preservation of the existing memorial to the lost astronauts on board the Space Shuttle Challenger.

Traditional Resources. Potential impacts to traditional resources would be the same as those described under the Proposed Action.

4.4.5.6 No-Action Alternative.

Under the No-Action Alternative, no demolition or construction activities would occur on the Onizuka AFS property. The Air Force would continue to maintain structures to prevent deterioration. No significant impacts to cultural resources are anticipated.

Mitigation Measures. No mitigation measures would be required.

1 **4.5 ENVIRONMENTAL JUSTICE**

2 The Community of Comparison, or ROI, for the environmental justice analysis is
3 defined as the City of Sunnyvale, Santa Clara County, focusing on those areas
4 surrounding Onizuka AFS potentially affected by disposal and reuse activities.

5 In developing statistics for the 2000 Census of Population and Housing, the
6 U.S. Department of Commerce, Bureau of the Census, has identified small
7 subdivisions, called census tracts, which are used to group statistical census
8 data. The U.S Bureau of the Census has created a Block Group which is a
9 cluster of census blocks having the same first digit of their four-digit identifying
10 numbers within a census tract. In order to determine whether disproportionate
11 impacts to low-income, minority, or youth populations would result from the
12 Proposed Action or alternatives, census data for each census block group were
13 analyzed to determine if these census tracts contain a disproportionate
14 percentage of low-income, minority, or youth residents. This is calculated by
15 comparing the percentage of low-income, minority, and youth residents in each
16 census tract with the corresponding percentages for Santa Clara County.
17 Information on minority, low income, and youth populations based on the 2000
18 U.S. Census is presented in Table 3.5-1. Disproportionate census tract block
19 groups for minority, low-income, and youth populations are identified on Figures
20 3.5-1, 3.5-2, and 3.5-3, respectively. The census tract block groups were then
21 analyzed to determine whether they underlie impact footprints for resources
22 analyzed in this EA. For the environmental justice analysis, impact footprints are
23 defined as the area of a proposed activity. Environmental justice impacts could
24 occur if an environmental or economic effect disproportionately affects a nearby
25 minority, low-income, or youth population. The results of the environmental
26 justice analysis are discussed below.

27 **4.5.1.1 Proposed Action.**

28 Based on the analysis conducted for this EA, it was determined that activities
29 associated with the Proposed Action would not have a significant impact on any
30 of the resources analyzed in this EA. In addition, impacts to resources analyzed
31 in this EA, with the exception of air quality, would generally be confined to the
32 project site and would not result in an adverse impact to adjacent communities.
33 Potential impact to air quality would occur throughout the area; therefore,
34 disproportionate high and adverse air quality impacts to minority, low-income, and
35 youth populations would not be expected.

36 **4.5.1.2 Corporate Office Alternative.**

37 Based on the analysis conducted for this EA, it was determined that activities
38 associated with this alternative would not have a significant impact on any of the
39 resources analyzed in this EA. Therefore no disproportionately high and adverse
40 impacts to minority, low-income, or youth populations would be expected.

41 **4.5.1.3 Hotel, Conference Center, and Office Alternative.**

42 Based on the analysis conducted for this EA, it was determined that activities
43 associated with this alternative would not have a significant impact on any of the

1 resources analyzed in this EA. Therefore no disproportionately high and adverse
2 impacts to minority, low-income, or youth populations would be expected.

3 **4.5.1.4 Automotive Retail Center Alternative.**

4 Based on the analysis conducted for this EA, it was determined that activities
5 associated with this alternative would not have a significant impact on any of the
6 resources analyzed in this EA. Therefore no disproportionately high and adverse
7 impacts to minority, low-income, or youth populations would be expected.

8 **4.5.1.5 Veterans Affairs and Homeless Provider Alternative.**

9 Based on the analysis conducted for this EA, it was determined that activities
10 associated with this alternative would not have a significant impact on any of the
11 resources analyzed in this EA. Therefore no disproportionately high and adverse
12 impacts to minority, low-income, or youth populations would be expected.

13 **4.5.1.6 No-Action Alternative.**

14 Based on the analysis conducted for this EA, it was determined that activities
15 associated with the No-Action Alternative would not have a significant impact on
16 any of the resources analyzed in this EA. Therefore no disproportionately high
17 and adverse impacts to minority, low-income, or youth populations would be
18 expected.

19 **Mitigation Measures.** No mitigation measures would be required.

20 **4.6 COMPATIBILITY OF THE PROPOSED ACTION WITH OBJECTIVES OF FEDERAL, STATE,**
21 **REGIONAL, AND LOCAL LAND USE PLANS AND POLICIES**

22 The Proposed Action and alternatives promote the Air Force's intention to
23 cooperate with communities and other federal agencies, whenever possible, for
24 reuse of excess property.

25 The Automotive Retail Center Alternative is not currently included as a planned
26 use in the City of Sunnyvale Specific Plan. Although the Specific Plan supports
27 retail and services uses, auto retail is considered to be community/regional
28 serving rather than neighborhood serving retail as originally intended in the
29 Specific Plan. Modifications to the Specific Plan would be necessary to
30 accommodate an Automotive Retail Center. If the Specific Plan is amended to
31 support an Automotive Retail Center, an application for a specific development
32 proposal would need to be submitted to the City of Sunnyvale Planning Division
33 for review to assure consistency with a revised Specific Plan. With appropriate
34 revision to the City of Sunnyvale Specific Plan, no significant impacts to land use
35 are anticipated.

36 With appropriate revision to the City of Sunnyvale Specific Plan, the Proposed
37 Action and alternatives would not adversely affect federal, state, regional, or local
38 land use plans and policies and are compatible with adjacent off-site land uses.

1 **4.7 RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND LONG-TERM**
2 **PRODUCTIVITY**

3 The Proposed Action and alternatives would not affect the long-term productivity
4 of the environment because no significant environmental impacts are anticipated,
5 provided best management practices identified in this EA are implemented, and
6 natural resources would not be depleted.

7 **4.8 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**

8 Irreversible and irretrievable resource commitment refers to the use of
9 nonrenewable sources and the effects these resources would have on future
10 generations. Irreversible effects would result primarily from the consumption or
11 destruction of a resource that could not be reversed. Irretrievable resource
12 commitments would involve a loss or gain in the value of an affected resource
13 that could not be reversed. The Proposed Action and alternatives would result in
14 an irreversible or irretrievable commitment of resources such as labor, fuel, and
15 demolished materials. Implementation of the Proposed Action or alternatives
16 would not result in any significant irreversible or irretrievable commitment of
17 resources.

18 **4.9 CUMULATIVE ENVIRONMENTAL CONSEQUENCES**

19 Cumulative impacts result from “the incremental impact of actions when added to
20 other past, present, and reasonably foreseeable future actions, regardless of
21 what agency undertakes such other actions. Cumulative impacts can result from
22 individually minor but collectively significant actions taking place over a period of
23 time” (Council on Environmental Quality, 1978).

24 Other future actions in the region (e.g., Moffett Park Redevelopment) were
25 evaluated and considered within the analysis presented in Chapter 4 of this EA to
26 determine whether cumulative environmental impacts could result due to the
27 implementation of Air Force property disposal actions in conjunction with other
28 past, present, or reasonably foreseeable future actions. In sum, no significant
29 cumulative impacts are anticipated.

30 Traffic generated by the Hotel, Conference Center, and Office Alternative when
31 combined with projected future traffic could result in decreased LOS to the
32 Mathilda Avenue intersections at Moffett Park Drive and State Route 237
33 Westbound ramps and at the H Street/Manila Drive intersection. The
34 development contractor would be required to pay its fair share of funds for
35 identified improvements for these intersections through payment of a
36 transportation impact fee.

37 The BAAQMD would review emissions generated by development projects and
38 implement control measures required for the region to demonstrate attainment of
39 the NAAQS and CAAQS.

1 **5.0 AGENCIES, ORGANIZATIONS, AND PERSONS CONTACTED**

2 The federal, state, DOD, and other agencies/organizations/individuals contacted during the preparation of
3 this EA are listed below:

4

5 **Federal**

6

7 U.S. EPA, Region 9

8 U.S. Fish and Wildlife Service

9

10 **State**

11

12 California Department of Fish and Game

13 California EPA/DTSC

14 California State Historic Preservation Officer

15

16 **Department of Defense**

17

18 Air Force Real Property Agency (AFRPA)

19 Headquarters Air Force Center for Engineering and the Environment (HQ AFCEE)

20 Headquarters Air Force Space Command (HQ AFSPC)

21 Onizuka AFS, 21st Space Operations Squadron (21 SOPS)

22

23 **Other**

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25 City of Sunnyvale, Onizuka BRAC Project Office

26 Onizuka Civil Engineering Support-Joint Venture (OCE/JV)

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16 **U.S House of Representatives**

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18 The Honorable Anna Eshoo
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43 Mayor of Sunnyvale
44 City Hall
45 456 West Olive Avenue
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5 3801 Miranda Avenue
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9 VA Central California Health Care System
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15 Region 9
16 Director, Office of Federal Activities
17 75 Hawthorne Street
18 San Francisco, CA 94105

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20 U.S. Department of the Interior
21 U.S. Fish and Wildlife Service
22 CA/NV Operations Office
23 2800 Cottage Way, Room W-2605
24 Sacramento, CA 95825

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36 Napa, CA 94558

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42 Suite 100
43 Berkley, CA 94710-2721

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46 State Clearinghouse
47 State Capitol Building
48 Sacramento, CA 95814

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- 4 Onizuka BRAC Project Manager
- 5 Office of the City Manager
- 6 456 West Olive Avenue
- 7 Sunnyvale, CA 94088-3707
- 8
- 9 City of Sunnyvale
- 10 City Manager
- 11 456 West Olive Avenue
- 12 Sunnyvale, CA 94088-3707
- 13
- 14 Ohlone/Costanoan
- 15 720 North 2nd Street
- 16 Patterson, CA 95363
- 17
- 18 Amah Mutsun Tribal Band
- 19 3015 Eastern Avenue, #40
- 20 Sacramento, CA 95821
- 21
- 22 Amah Mutsun Tribal Band
- 23 35867 Yosemite Avenue
- 24 Davis, CA 95616
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- 26 Amah Mutsun Tribal Band
- 27 P.O. Box 3892
- 28 Clear Lake, CA 95422
- 29
- 30 Amah Mutsun Tribal Band
- 31 789 Canada Road
- 32 Woodside, CA 94062
- 33
- 34 Indian Canyon Mutsun Band of Costanoan
- 35 P.O. Box 28
- 36 Hollister, CA 95024
- 37
- 38 Muwekma Ohlone Indian Tribe of the SF Bay Area
- 39 P.O. Box 360791
- 40 Milpitas, CA 95036
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- 42 The Ohlone Indian Tribe
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42 665 W. Olive Avenue
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44
45 Mountain View Public Library
46 585 Franklin Street
47 Mountain View, CA 94041

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APPENDIX A
REGULATORY CONSULTATION

STATE OF CALIFORNIA - THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, Governor

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

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To: HAMIS



February 2, 2005

Reply to: USAF041221A

Ronald E. Thompson, Jr., Lt. Col., USAF
Commander, 21st Space Operations Squadron
1080 Innovation Way, Box 129
Sunnyvale, CA 94089

RE: Historic Building Inventory and Evaluation, Onizuka Air Force Station, California

Dear Lt. Col. Thompson:

Thank you for your letter dated December 17, 2004 regarding the above referenced project prepared in accordance with your responsibilities under Sections 106 and 110 of the National Historic Preservation Act of 1966 (NHPA). You are consulting with me in order to comply with Section 106 of the NHPA and implementing regulations codified in 36 CFR 800 et seq.

You have provided me with your efforts to identify and evaluate the eligibility of the Onizuka Air Force Station in Sunnyvale, California. The inventory included the identification and evaluation of 30 buildings and structures, constructed between 1959 and 1989, related to the operations of the station and its mission of administration and tracking of various satellite programs

I have reviewed the documentation provided and concur with the USAF's finding that the buildings are ineligible for inclusion in the National Register at this time because they are less than 50 years in age and further do not meet the requirements pursuant to Criterion Consideration G for buildings less than 50 years in age. I also concur with the USAF's recommendation that the eligibility determination for Buildings 1001, 1002, 1003, 1004, 10031 and 10032 be reconsidered at the time they reach the requisite age required for evaluation.

Please note as they reach the requisite age, consideration should be made to the antenna support structures which exhibit a strong association with the buildings and the station itself and due to their apparent importance to the station's ongoing mission.

Thank you for considering historic properties during project planning. If you have any questions, please feel free to contact Kelly Hobbs at (916) 653-8936 or by e-mail at khobb@ohp.parks.ca.gov

Sincerely,

A handwritten signature in black ink that reads "Milford Wayne Donaldson".

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer



DEPARTMENT OF THE AIR FORCE
AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT
BROOKS CITY-BASE TEXAS

JAN 02 2009

MEMORANDUM FOR Mr. Dave Byrd
Office of Historic Preservation
Department of Parks and Recreation
P.O. Box 942886
Sacramento CA 94286-001

FROM: AFCEE/EX
3300 Sidney Brooks
Brooks City-Base TX 78235-5112

SUBJECT: Disposal and Reuse of Onizuka Air Force Station (AFS), California

REFERENCES: (a) USAF Space Command Report: Historic Building Inventory and Evaluation Onizuka Air Force Station (AFS), California (WMSJ360497: Cold War Survey) dated December 2004
(b) Letter from the Office of Historic Preservation (OHP) entitled, Historic Building Inventory and Evaluation, Onizuka Air Force Station, California dated 2 February 2005, reply number USAF041221A

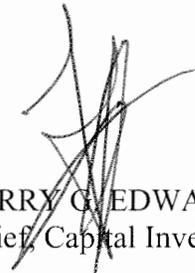
Onizuka AFS is scheduled to close no later than 15 September 2011 pursuant to the Base Closure and Realignment Act of 1990. As such, we are preparing an Environmental Assessment for the Disposal and Reuse of Onizuka AFS in accordance with the National Environmental Policy Act of 1969. Therefore, we wish to consult with your office to meet our responsibilities under Sections 106 and 110 of the National Historic Preservation Act of 1966.

Reference (a) states the United States Air Force found that the buildings on Onizuka AFS were ineligible for inclusion in the National Register at that time because they were less than 50 years in age and they did not meet one of the four "criteria of eligibility" established by the National Park Service (36 CFR 60.4). The four criteria are: (A) association with significant events in the past; (B) association with significant people in the past; (C) exemplifying an important architectural type, construction technique, or other qualities; and (D) potential to yield important information about history or prehistory. Furthermore, they did not meet the requirements pursuant to Criterion G consideration for buildings less than 50 years in age (i.e. they are not of exceptional importance). Reference (a) recommends that the eligibility determination for Buildings 1001, 1002, 1003, 1004, 10031 and 10032 be reconsidered at the time they reach the age required for evaluation or at such time any additional specific information about their activities and missions become publicly available. Building 1001 will be 50 years old in 2009. The next building to turn 50 is Building 1002 in 2014. Reference (b) indicated concurrence with this finding.

The Onizuka AFS mission is classified today and will remain classified after the installation is closed and moves to Vandenberg AFB, California. Because of the highly classified nature of the mission, only limited historical and physical information about Building

1001 is available. National security restrictions prohibit the acquisition and publication of mission details and photography of the facilities is restricted. This information is critical to the evaluation process. If additional information is released during the preparation of the Environmental Assessment, we will provide your office with a supplemental report. However, we do not anticipate the release of additional materials. Because of these restrictions, we cannot reach defensible conclusions that would change the National Register eligibility of the facility. Therefore, we request your concurrence with our supplemental evaluation report for Building 1001 in meeting our Section 106 consultations of the NHPA.

Please contact our program manager, Mr. Robert Lopez at (210) 536-4508 if you have any questions.

A handwritten signature in black ink, appearing to read 'Terry C. Edwards', is written over the printed name and title.

TERRY C. EDWARDS, P.E., YF-03, DAF
Chief, Capital Investment Execution Division

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February 9, 2009

In reply refer to: USAF041221A

Terry G. Edwards, P.E., YF-03, DAF
Chief, Capital Investment Execution Division
United States Department of the Air Force
AFCEE/EX
3300 Sidney Brooks
Brooks City-Base, TX 78235-5112

Re: Disposal and Reuse of Onizuka Air Force Station, California

Dear Mr. Edwards:

Thank you for your letter requesting my review and comment with regard to the proposed undertaking at Onizuka Air Force Station (AFS). You are consulting with me in order to comply with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f), as amended, and its implementing regulation at 36 CFR Part 800.

The proposed undertaking, as I understand it, would involve the closure of Onizuka AFS (no later than 15 September 2011), demolition of all facilities at Onizuka AFS, and the transfer of ownership to the Local Redevelopment Authority.

In December 2004, the Air Force prepared the *Historical Building Inventory and Evaluation, Onizuka Air Force Station, California*. In this document, the Air Force determined that none of the buildings on Onizuka AFS was eligible for listing in the National Register of Historic Places (NRHP) because they did not meet the criteria of eligibility and because they were less than 50 years old. The inventory and evaluation report also recommended that Buildings 1001, 1002, 1003, 1004, 10031, and 10032 be reevaluated for listing in the NRHP as a group when they reach 50 years of age.

In the time since this determination, Building 1001 has reached 50 years of age. The Air Force proposes to supplement the 2004 document by evaluating Building 1001 for its potential eligibility for listing in the NRHP.

I offer the following recommendations regarding your efforts to identify and evaluate historic properties.

- Please include all six properties (Buildings 1001, 1002, 1003, 1004, 10031, and 10032) in your supplemental evaluation report.
- The supplemental report should evaluate these buildings within the larger context of Onizuka Air Force Station, paying particular attention to the following contexts:
 - Statewide military properties in California
 - Cold War military properties

- Space Program facilities
- Any other applicable and appropriate contexts
- Please include information regarding the Local Redevelopment Agency's project for the site, including their plan for demolition and any voluntary mitigation measures they are proposing.
- Please include the evaluation report prepared by the City of Sunnyvale.

Thank you for seeking my comments and considering historic properties as part of your project planning. If you have any questions or concerns, please contact Mark Beason, Project Review Unit historian, at (916) 653-8902 or at mbeason@parks.ca.gov.

Sincerely,

Susan K Shattor for

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

MWD:mb



DEPARTMENT OF THE AIR FORCE
AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT
BROOKS CITY- BASE TEXAS

25 Feb 09

MEMORANDUM FOR The Ohlone/Costanoan Tribes
Ms. Tina Marine Ruano Family
Ramona Garibay, Representative
16010 Halmar Lane
Lathrop, CA 95330

FROM: AFCEE/EX
3300 Sidney Brooks
Brooks City-Base TX 78235-5112

SUBJECT: Consultations on Native American Interests Regarding Traditional and Historic Resources at Onizuka Air Force Station, Sunnyvale, California

References:

- (a) American Indian Religious Freedom Act of 1978
- (b) Native American Graves Protection and Repatriation Act of 1990
- (c) Section 106 of the National Historic Preservation Act (36 CFR Part 800), as amended

We are preparing an Environmental Assessment (EA) for the disposal and reuse of Onizuka Air Force Station (AFS). As part of this effort, and in compliance with the above references, we are initiating correspondence and consultation efforts to affiliated tribal groups regarding the lands managed by Onizuka AFS.

Onizuka AFS occupies approximately 23 acres in the City of Sunnyvale, Santa Clara County, California, and is located forty miles southeast of San Francisco at the southern edge of San Francisco Bay (Figure 1). The station consists of 28 facilities, associated roads, vehicle parking lots, and open areas (Figure 2). Most of the installation is paved or built with only a few small green/open areas.

No known archaeological resources are associated with Onizuka AFS. Because of the severe ground disturbance that occurred during construction of buildings and vehicle parking areas, the potential for discovery of in-tact archaeological resources is considered very low.

An historic building inventory and evaluation of Onizuka AFS facilities was conducted in 2004. Based on this evaluation, none of the facilities at Onizuka AFS were recommended to be eligible for listing in the National Register. Buildings 1001, 1002, 1003, 1004, 10031 and 10032 were recommended as not eligible for inclusion in the National Register at the time of the evaluation; however, it was recommended that the facilities be reconsidered for eligibility in the year 2019, or at such time as additional specific information about their activities and mission becomes publicly available.

The California State Historic Preservation Officer (SHPO) concurred with these findings in a letter dated February 2, 2005.

Because Building 1001 will be 50 years in age in 2009, a supplemental evaluation will be conducted to determine its potential for listing in the National Register. Findings of the supplemental evaluation will be presented in the EA.

We invite you to participate in consultation for the conveyance of Onizuka AFS from federal to non-federal ownership. To ensure that any areas of sacred or spiritual significance to Native American groups are considered, we would appreciate your help in identifying or sharing any interests or concerns regarding religious or cultural resources within the lands of Onizuka AFS. Our goal is to protect areas important to Native Americans who have lived on Onizuka AFS in the past, or have interest in it for the future.

Thank you for your cooperation with our efforts to address any possible Native American concerns that may be impacted. We look forward to your response. Please contact our Program Manager, Mr. Robert L. Lopez at (210) 536-4508 if you need additional information.

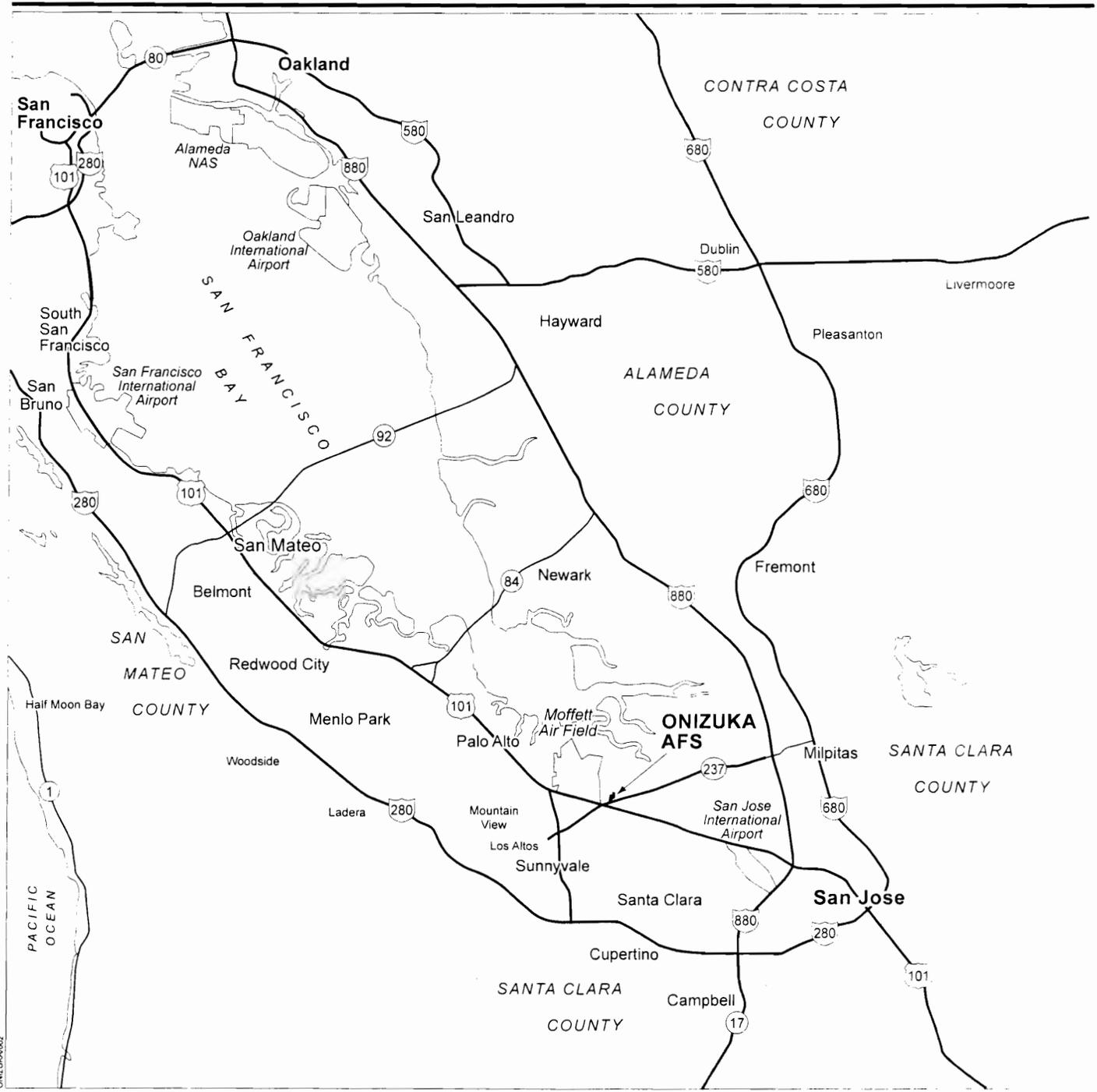


ROGER LOZANO, JR., P.E., YF-03, DAF
Deputy Chief, Capital Investment Execution Division

Attachments:

Figure 1

Figure 2



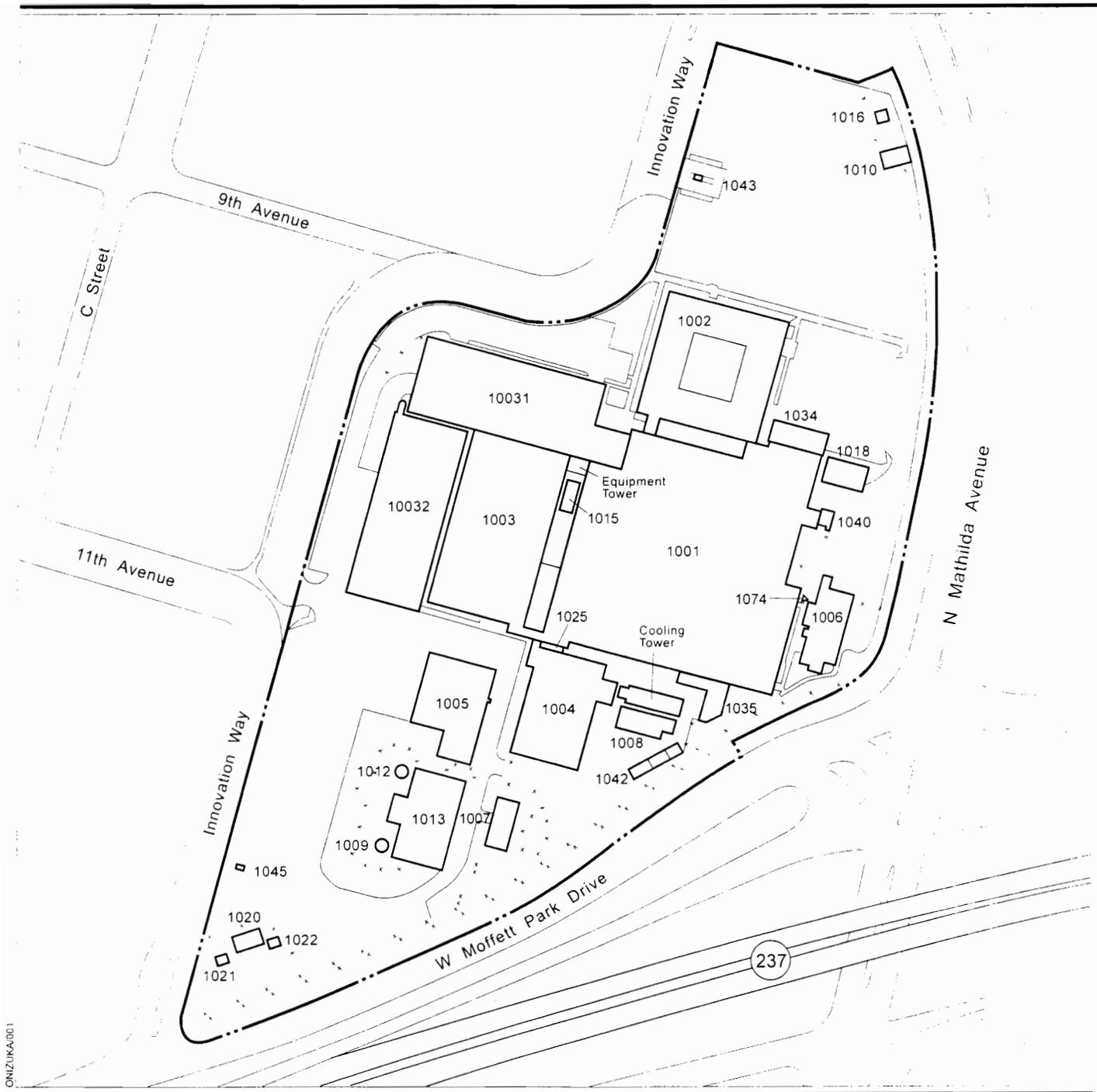
EXPLANATION

-  Interstate Highway
-  U.S. Highway
-  State Highway

**Regional Map
Onizuka
Air Force Station**



Figure 1



ONIZUKA001

EXPLANATION

--- Installation Boundary

**Onizuka
Air Force Station**



Figure 2



DEPARTMENT OF THE AIR FORCE
AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT
BROOKS CITY- BASE TEXAS

25 Feb 09

MEMORANDUM FOR The Ohlone Indian Tribe
Mr. Andrew Galvan
P.O. Box 3152
Mission San Jose, CA 94539

FROM: AFCEE/EX
3300 Sidney Brooks
Brooks City-Base TX 78235-5112

SUBJECT: Consultations on Native American Interests Regarding Traditional and Historic Resources at Onizuka Air Force Station, Sunnyvale, California

References:

- (a) American Indian Religious Freedom Act of 1978
- (b) Native American Graves Protection and Repatriation Act of 1990
- (c) Section 106 of the National Historic Preservation Act (36 CFR Part 800), as amended

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ROGER LOZANO, JR., P.E., YF-03, DAF
Deputy Chief, Capital Investment Management Division

Attachments:

Figure 1

Figure 2



DEPARTMENT OF THE AIR FORCE
AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT
BROOKS CITY- BASE TEXAS

25 Feb 09

MEMORANDUM FOR The Ohlone/Costanoan Tribes
Mr. Jakki Kehl
Ohlone/Costanoan
720 North 2nd Street
Patterson, CA 95363

FROM: AFCEE/EX
3300 Sidney Brooks
Brooks City-Base TX 78235-5112

SUBJECT: Consultations on Native American Interests Regarding Traditional and Historic Resources at Onizuka Air Force Station, Sunnyvale, California

References:

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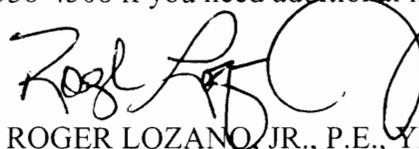
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ROGER LOZANO, JR., P.E., YF-03, DAF
Deputy Chief, Capital Investment Execution Division

Attachments:

Figure 1

Figure 2



DEPARTMENT OF THE AIR FORCE
AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT
BROOKS CITY- BASE TEXAS

25 Feb 09

MEMORANDUM FOR Amah Mutsun Tribal Band
Mr. Edward Ketchum
35867 Yosemite Ave
Davis, CA 95616

FROM: AFCEE/EX
3300 Sidney Brooks
Brooks City-Base TX 78235-5112

SUBJECT: Consultations on Native American Interests Regarding Traditional and Historic Resources at Onizuka Air Force Station, Sunnyvale, California

References:

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ROGER LOZANO, JR., P.E., YF-03, DAF
Deputy Chief, Capital Investment Management Division

Attachments:

Figure 1

Figure 2



DEPARTMENT OF THE AIR FORCE
AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT
BROOKS CITY- BASE TEXAS

25 Feb 09

MEMORANDUM FOR Armah/Mutsun Tribal Band
Mr. Valentin Lopez, Chairperson
3015 Eastyern Ave,#40
Sacramento, CA 95821

FROM: AFCEE/EX
3300 Sidney Brooks
Brooks City-Base TX 78235-5112

SUBJECT: Consultations on Native American Interests Regarding Traditional and Historic Resources at Onizuka Air Force Station, Sunnyvale, California

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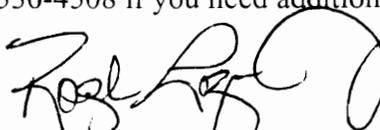
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ROGER LOZANO, JR., P.E., YF-03, DAF
Deputy Chief, Capital Investment Management Division

Attachments:

Figure 1

Figure 2



DEPARTMENT OF THE AIR FORCE
AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT
BROOKS CITY- BASE TEXAS

25 Feb 09

MEMORANDUM FOR Amah/Mutsun Tribal Band
Ms. Michelle Zimmer, Cultural Resource Coordinator
P.O. Box 3892
Clear Lake, CA 95422

FROM: AFCEE/EX
3300 Sidney Brooks
Brooks City-Base TX 78235-5112

SUBJECT: Consultations on Native American Interests Regarding Traditional and Historic Resources at Onizuka Air Force Station, Sunnyvale, California

References:

- (a) American Indian Religious Freedom Act of 1978
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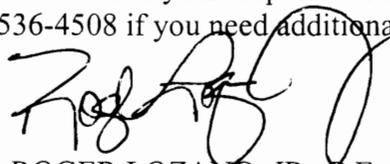
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ROGER LOZANO, JR., P.E., YF-03, DAF
Deputy Chief, Capital Investment Execution Division

Attachments:

Figure 1

Figure 2



DEPARTMENT OF THE AIR FORCE
AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT
BROOKS CITY- BASE TEXAS

25 Feb 09

MEMORANDUM FOR Indian Canyon Mutsun Band of Costanoan
Ms. Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA 95024

FROM: AFCEE/EX
3300 Sidney Brooks
Brooks City-Base TX 78235-5112

SUBJECT: Consultations on Native American Interests Regarding Traditional and Historic Resources at Onizuka Air Force Station, Sunnyvale, California

References:

- (a) American Indian Religious Freedom Act of 1978
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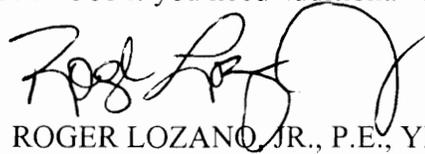
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ROGER LOZANO, JR., P.E., YF-03, DAF
Deputy Chief, Capital Investment Management Division

Attachments:

Figure 1

Figure 2



**DEPARTMENT OF THE AIR FORCE
AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT
BROOKS CITY- BASE TEXAS**

25 Feb 09

MEMORANDUM FOR Armah/Mutsun Tribal Band
Ms. Irene Zwierien, Chairperson
789 Canada Road
Woodside, CA 94062

FROM: AFCEE/EX
3300 Sidney Brooks
Brooks City-Base TX 78235-5112

SUBJECT: Consultations on Native American Interests Regarding Traditional and Historic Resources at Onizuka Air Force Station, Sunnyvale, California

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Deputy Chief, Capital Investment Management Division

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Figure 1

Figure 2



DEPARTMENT OF THE AIR FORCE
AIR FORCE CENTER FOR ENGINEERING AND THE ENVIRONMENT
BROOKS CITY- BASE TEXAS

MAR 09 2009

MEMORANDUM FOR Ryan Olah, Chief
Coast Bay Delta Branch
U.S. Fish and Wildlife Service
Sacramento Field Office
2800 Cottage Way, Suite W2605
Sacramento, CA 95825

FROM: AFCEE/EX
3300 Sidney Brooks
Brooks City-Base TX 78235-5112

SUBJECT: Notification of an Environmental Assessment for the Disposal and Reuse of Onizuka Air Force Station, Santa Clara County, Sunnyvale, California.

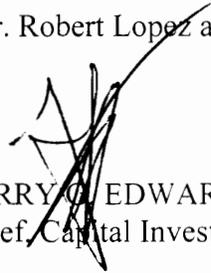
References:

- (a) Endangered Species Act of 1973, Section 7(c)(1)
- (b) National Environmental Policy Act of 1969.

In accordance with references above, we are preparing the issuance of an Environmental Assessment (EA) for the Disposal and Reuse of Onizuka Air Force Station. The draft document is scheduled to be issued in May 2009. We request you confirm the threatened, endangered candidates and proposed species list are current and complete. Please identify any possible adverse impacts affecting species or critical habitat. Attached to this document is a brief description of the proposed EA including discussion of threatened and endangered species and figures showing the project location and boundary.

We appreciate your assistance with our efforts to identify important biological resources early in the EA development. Upon completion, a copy of the draft EA will be forwarded to your office for review.

Please contact our Program Manager, Mr. Robert Lopez at (210) 536-4508 if you have any questions.


TERRY O. EDWARDS, P.E., YF-03, DAF
Chief, Capital Investment Execution Division

Attachments:

- 1. Environmental Assessment Documentation
- 2. Figure 1
- 3. Figure 2

Environmental Assessment Documentation Onizuka Air Force Station, CA

Introduction

An Environmental Assessment (EA) is being prepared for the disposal and reuse of Onizuka Air Force Station (AFS).

Pursuant to the Defense Base Closure and Realignment Act (DBCRA) of 1990 (Public Law 101-510, Title XXIX), the DOD must realign and reduce its military forces. Because Onizuka AFS was on the Commission's list, the decision to close the installation is final. Onizuka AFS is scheduled to close no later than September 15, 2011.

Proposed Action

Onizuka AFS occupies approximately 23 acres in the City of Sunnyvale, Santa Clara County, California, and is located approximately forty miles southeast of San Francisco at the southern edge of San Francisco Bay (Figure 1). Highway 237 borders Onizuka AFS to the south, with residential and commercial developments to the east and south. Office complexes are located to the west and north of Onizuka AFS. The installation consists of 28 facilities, associated roads, vehicle parking lots, and open areas (Figure 2). Most of the installation is paved or built with only a few small green/open areas.

The Proposed Action is a comprehensive reuse plan focusing on redevelopment of excess property for automotive sales and service for multiple vehicle manufacturers. The Proposed Action would require the demolition of all existing structures totaling approximately 615,000 square feet on 23 acres of Onizuka AFS.

The Proposed Action would involve construction of approximately 60,000 square feet of building space for use as automobile show rooms, administrative space, and vehicle inspection, maintenance, and repair shops. The property would be subdivided to support three or more new dealerships. All 23 acres of the property would be developed for use as an automotive retail center with appropriate new vehicle parking areas. Construction would occur after 2011 and would be complete by 2015.

Alternatives to the Proposed Action

The **Corporate Office Alternative** would involve the redevelopment of the property for higher density offices with incorporation of Veterans Affairs (VA) offices in a new on site building or relocated off site.

The **Hotel, Conference Center, and Office Alternative** involves construction of a new hotel with restaurant, bar, and conference center. Office development would also occur on the property. VA offices would be incorporated into a new on-site building or developed at a location off site.

The **Office with Veterans Affairs Alternative** involves the redevelopment of Onizuka AFS for low-density offices with incorporation of the VA occupation of Facilities 1002, 1018, and 1034.

The **No-Action Alternative** would involve the Air Force retaining the Onizuka AFS property and maintaining it in caretaker status.

Threatened and Endangered Species

The U.S. Fish and Wildlife Service and California Department of Fish and Game websites were consulted for the most up-to-date information concerning federally and state threatened and endangered species that have the potential to occur on or adjacent to Onizuka AFS. Table 1 lists the federal, state threatened, endangered, and species of special concern that have the potential to occur on or in the vicinity of Onizuka AFS.

Table 1. Federal and State Listed Species with Potential to Occur at Onizuka AFS

Common and Scientific Name	Federal Status	State Status
Plants		
None identified	-	-
Invertebrates		
bay checkerspot butterfly (<i>Euphydryas editha bayensis</i>)	Threatened	-
San Bruno elfin butterfly (<i>Callophrys mossii bayensis</i>)	Endangered	-
vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	Endangered	-
Birds		
burrowing owl (<i>Athene cunicularia</i>)	-	SC
western snowy plover (<i>Charadrius alexandrinus nivosus</i>)	Threatened	SC
northern harrier (<i>Circus cyaneus</i>)	-	SC
salt marsh common yellow-throat (<i>Geothlypis trichas sinuosa</i>)	-	SC
California black rail (<i>Laterallus jamaicensis cofurniculus</i>)	-	Threatened
Alameda song sparrow (<i>Melospiza melodia pusillula</i>)	-	SC
California clapper rail (<i>Rallus longirostris obsoletus</i>)	Endangered	Endangered
California least tern (<i>Sternula antillarum browni</i>)	Endangered	Endangered
Mammals		
salt marsh harvest mouse (<i>Reithrodontomys raviventris</i>)	Endangered	Endangered
salt marsh wandering shrew (<i>Sorex vagrans halicoetes</i>)	-	SC

Notes:

Endangered = any species that is in danger of extinction throughout all or a significant portion of its range.

Threatened = any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

SC = An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited ranges, and/or continuing threats. Some species may be just starting to decline, while others may have already reached the point where they meet the criteria for listing as a threatened or endangered species.

AFI 32-7064 requires that the Air Force installations be classified according to the presence of suitable habitat for supporting wildlife. Category I installations have suitable habitat, while

Category II installations do not. The State of California Department of Fish and Game (CDFG) has reviewed the Onizuka AFS facilities and concurred with the Category II classification for fish and wildlife habitat suitability at the installation.

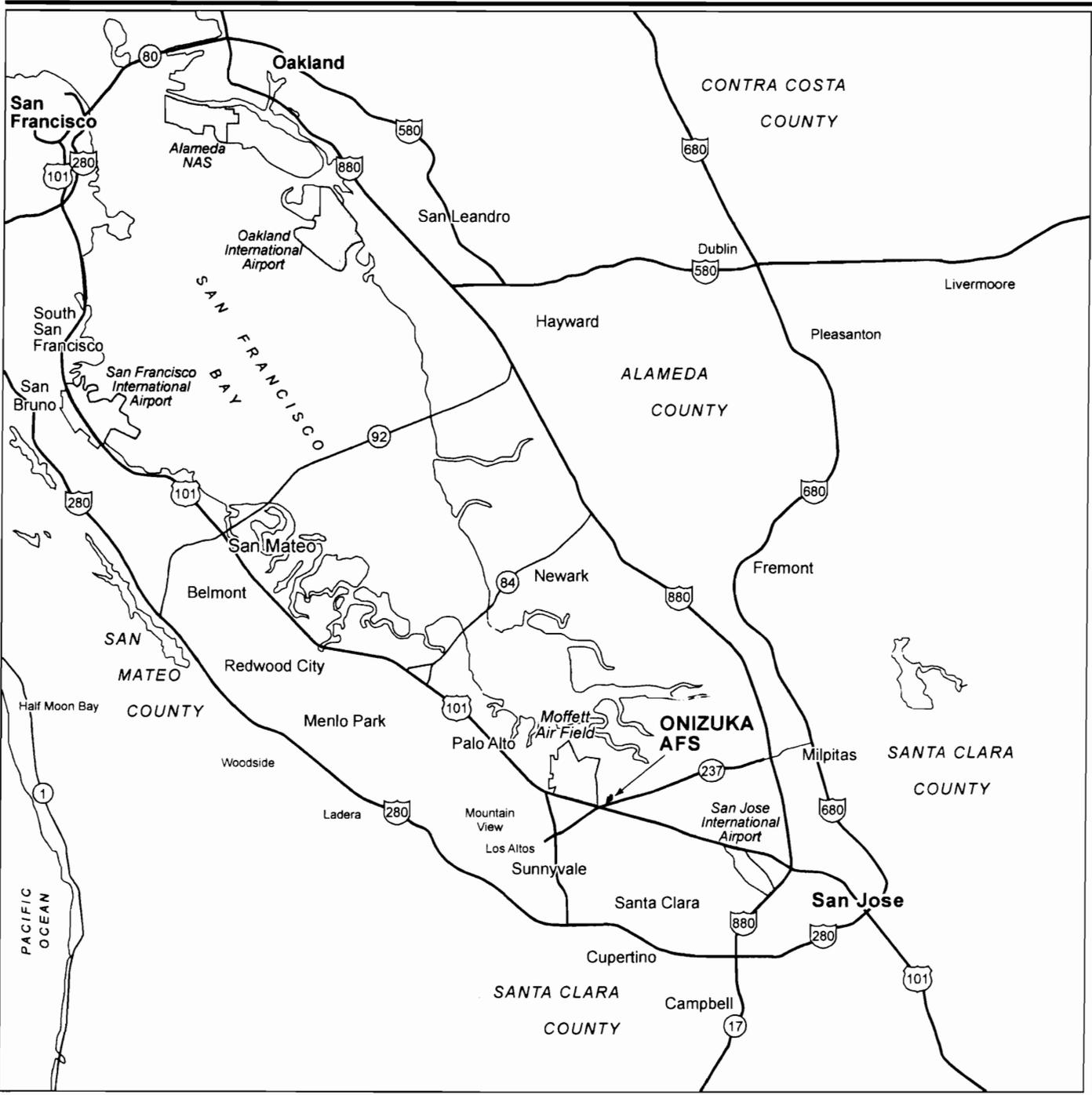
All vegetation on Onizuka AFS has been introduced since the construction of the installation. Vegetation consists of small areas of Kentucky bluegrass (*Poa pratensis*), a small number of eucalyptus and live oak trees (*Quercus agrifolia*), and a variety of ornamental plants common to the area.

There is no habitat present on the Onizuka AFS to support any of the listed species identified as having the potential to occur on or near the property. Because bird species are highly mobile, there is potential for the listed bird species to be observed at Onizuka AFS. However, observations of the listed bird species would be rare and more than likely transitory in nature.

Sensitive Habitats

According to the Onizuka AFS Integrated Natural and Cultural Resources Plan and a review of the National Wetlands Inventory indicates there are no wetlands on Onizuka AFS.

No federally designated critical habitat has been identified on Onizuka AFS.



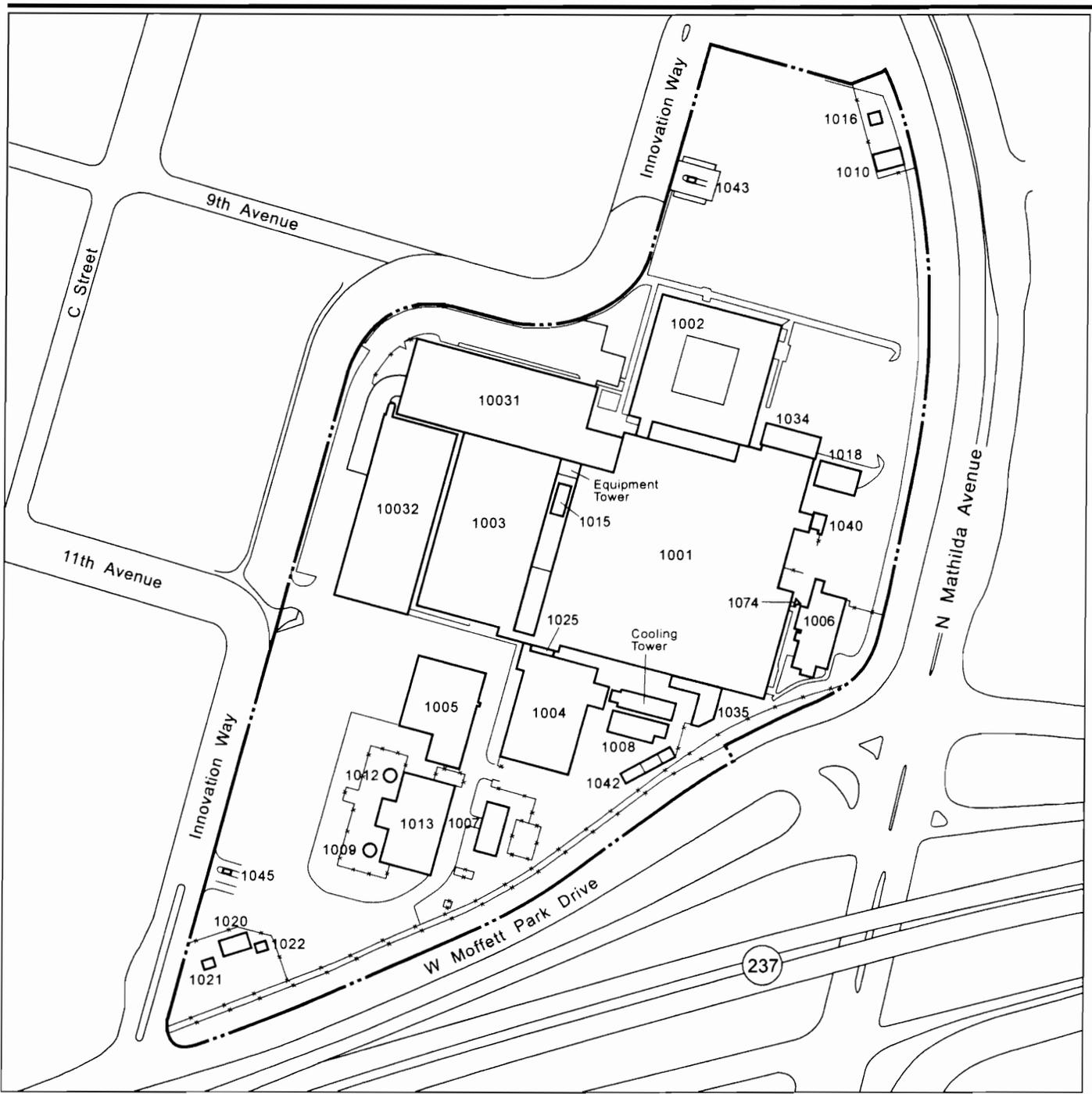
EXPLANATION

- Interstate Highway
- U.S. Highway
- State Highway

**Regional Map
Onizuka
Air Force Station**



Figure 1



ONIZUKA/001

EXPLANATION

--- Installation Boundary

**Onizuka
Air Force Station**



Figure 2

APPENDIX B
AIR QUALITY IMPACT ANALYSIS

B.1 Introduction

This appendix provides the following analyses of potential air quality impacts:

- Mobile source carbon monoxide (CO) impact modeling
- Criteria pollutants emissions analysis
- Greenhouse gas analysis.

B.2 Mobile Source CO Impact Modeling Analysis

This part of the appendix describes the methods used for the microscale (Hot Spot) ambient CO dispersion modeling analysis to assess the potential CO impacts from the anticipated traffic increase. The modeling analysis includes estimates of emission factors and prediction of CO concentrations at the worst-case intersection. The results of the impact analysis were in the form of ambient concentration levels for averaging periods corresponding to the CO National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS).

B.2.1 Analysis Scenario

The CO impact analysis was conducted based on the traffic forecasts described in Section 4.2.3, Transportation, of this environmental assessment (EA).

B.2.2 Modeled Intersection Location

CO impacts were estimated for receptor locations during weekday AM and PM peak periods at the following intersections:

- N. Mathilda Avenue and Moffett Park Drive
- N. Mathilda Avenue and Mountain View-Alviso Freeway East Ramp (SR 237).

These intersections were selected for CO modeling based upon their potential for being subject to the maximum increase in traffic, the worst-case traffic congestion with highest traffic volumes, and the proximity of each other. The resulting estimates are; therefore, conservative ones.

Based on U.S. Environmental Protection Agency (EPA) guidance, reasonable receptor locations include sidewalks, residences, schools, hospitals, parking or vacant lots, and other places continuously accessible to the public. Since sidewalks are immediately adjacent to the modeled roadways and they are generally critical for CO impact analysis, a total of 20 receptors were selected along sidewalks at each modeled intersection and CO concentrations were modeled at these receptors. The receptors on sidewalks were located 3 meters from the roadway edge.

B.2.3 Mathematic Models

The projected CO concentrations have been determined in two steps: 1) vehicle exhaust emission factors were estimated using the California Air Resource Board (CARB) EMFAC2007 emission factor model with Santa Clara County-specific input parameters and 2) these emission factors were subsequently used as the input for the California Department of Transportation (CALTRAN)/U.S. EPA CALINE4 dispersion model to

calculate CO concentrations at representative intersections. A brief description of the two computer models follows:

- **EMFAC2007** generates vehicular emission factors based on locality-specific vehicle fleet characteristics, including vehicle mix, operating mode in cold and hot start, and season.
- **CALINE4** predicts downwind CO concentrations from motor vehicles traveling near roadway intersections. The model incorporates inputs such as roadway geometries, receptor locations, meteorological conditions including wind speed, stability, etc., and vehicular emission factors predicted by EMFAC2007.

Total ambient CO concentrations near an intersection consist of two components – local source contributions (i.e., vehicular emissions near the intersection) and background contributions from other mobile sources, and stationary and natural sources in the project vicinity. Background CO levels were obtained from the most recent available ambient measurements collected at the monitoring site that is closest to the project area; specifically, the air quality monitoring station located at 158b Jackson Street, San Jose, Santa Clara County, California. These levels are 3.3 ppm for a one-hour and 2.1 ppm for an eight-hour averaging period. A U.S. EPA default persistence factor of 0.70 was used to convert the one-hour CO concentrations calculated by CALINE4 to eight-hour concentrations. The persistence factor represents a combination of the hourly variability of both traffic and meteorological conditions.

Furthermore, the worst-case meteorological conditions that result in the potentially highest one-hour CO concentration levels were used in the CALINE4 dispersion modeling.

B.2.4 Analysis Results

A predicted CO concentration for the chosen intersection is shown in Table B-1. The results predicted using the CALINE4 model at the modeled intersection is well below the one-hour CO NAAQS and CAAQS, and the eight-hour CO NAAQS and CAAQS. Although the other alternatives would result in slightly different CO concentration levels as compared to the Proposed Action, the CO level under these alternatives would not result in any significant CO impacts given the low levels predicted under the Proposed Action.

Table B-1. Modeled CO Levels under Proposed Action

Intersection	One-Hour Concentration (ppm)		Eight-Hour Concentration (ppm)	
	AM	PM	AM	PM
N. Mathilda Avenue and Moffett Park Drive	4	3.9	2.6	2.5
N. Mathilda Avenue and Mountain View-Alviso Fwy. (SR 237)				

Notes: CO levels include background concentrations of 3.3 ppm (1-hour) and 2.1 ppm (8-hour). NAAQS/CAAQS CO one-hour standard is 35 ppm; the eight-hour standard is 9 ppm.

B.3 Criteria Pollutant Emissions Analysis

B.3.1 Methodology

The 1990 amendments to the Clean Air Act (CAA) require federal agencies to ensure that their actions conform to the appropriate State Implementation Plan (SIP) in a nonattainment area. The SIP is a plan that provides for implementation, maintenance, and enforcement of the NAAQS, and it includes emission limitations and control measures to attain and maintain the NAAQS. Conformity to a SIP, as defined in the CAA, means conformity to a SIP's purpose of reducing the severity and number of violations of the NAAQS to achieve attainment of such standards. The federal agency responsible for an action is required to determine if its action conforms to the applicable SIP.

The U.S. EPA has developed two sets of conformity regulations and federal actions are appropriately differentiated into transportation projects and non-transportation-related projects:

- Transportation projects are governed by the "transportation conformity" regulations (40 Code of Federal Regulations [CFR] Parts 51 and 93), which became effective on December 27, 1993 and were revised on August 15, 1997.
- Non-transportation projects are governed by the "general conformity" regulations (40 CFR Parts 6, 51 and 93) described in the final rule for *Determining Conformity of General Federal Actions to State or Federal Implementation Plans* that was published in the *Federal Register* on November 30, 1993. The General Conformity Rule (GCR) became effective January 31, 1994 and has not been updated since then.

Since the Proposed Action is a non-transportation project, only the GCR may apply because Onizuka Air Force Station (AFS) is located in Santa Clara County, which is within the Bay Area Air Quality Management District (BAAQMD), an area currently designated as attainment for all criteria pollutants except for the 8-hour ozone standard.

However, the GCR also defines a series of exemptions under 40 CFR 93.153(c) (2). In particular, the general conformity rules are not applicable to the proposed Onizuka AFS Reuse Plan under Exemptions XIV and XIX, which read:

"Transfers of ownership, interests, and titles in land, facilities, and real and personal properties, regardless of the form and method of the transfer."

"Actions (or portions thereof) associated with transfers of land, facilities, title, and real properties through an enforceable contract or lease agreement where the delivery of the deed is required to occur promptly after a specific, reasonable condition is met, such as promptly after the land is certified as meeting the requirements of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and where the Federal agency does not retain continuing authority to control emissions associated with the lands, facilities, title, or real properties."

Although the GCR does not apply, for disclosure purposes, criteria pollutant emissions were analyzed in a similar way as required by the GCR.

De Minimis Emissions Levels

According to the GCR, threshold (*de minimis*) rates of emissions were established for those federal actions with the potential to have significant air quality impacts. Table B-2 summarizes these thresholds.

Table B-2. De Minimis Emission Levels for Criteria Air Pollutants

Pollutant	Nonattainment Designation	Tons/Year
Ozone ^(a)	Serious	50
	Severe	25
	Extreme	10
	Other nonattainment or maintenance areas outside ozone transport region	100
	Marginal and moderate nonattainment areas inside ozone transport region	50/100 ^(b)
Carbon Monoxide	All	100
Sulfur Dioxide	All	100
Lead	All	25
Nitrogen Dioxide	All	100
Particulate Matter ≤ 10 microns	Moderate	100
	Serious	70
Particulate Matter ≤ 2.5 microns ^(c)	All	100

Notes: (a) Applies to ozone precursors – volatile organic compounds (VOCs) and nitrogen oxides (NO_x).
 (b) VOCs/NO_x
 (c) Applies to PM_{2.5} and its precursors.

Regional Significance

A federal action that does not exceed the threshold emission rates of criteria pollutants may still be subject to a general conformity determination if the direct and indirect emissions from the action exceed 10 percent of the total emissions inventory for a particular criteria pollutant in a nonattainment or maintenance area. If the emissions exceed this 10 percent threshold, the federal action is considered to be a “regionally significant” activity.

Analysis

Pursuant to the GCR, all reasonably foreseeable emissions (both direct and indirect) associated with the proposed demolition and construction activities, under the Proposed Action were quantified and compared to the annual *de minimis* levels to determine potential emissions impacts.

The analysis examines the impacts of the direct and indirect net emissions from mobile and stationary sources. Direct emissions are emissions of a criteria pollutant or its precursors that are caused or initiated by a federal action and occur at the same time and place as the action. Indirect emissions, occurring later in time and/or further removed in distance from the action itself, must be included in the determination if both of the following apply:

- The federal agency can practicably control the emissions and has continuing program responsibility to maintain control
- The emissions caused by the federal action are reasonably foreseeable.

Increased direct and indirect emissions from the demolition and construction would result from the following potential activities:

- Use of diesel and gas-powered construction equipment
- Movement of trucks containing construction and removal materials
- Commuting of construction workers.

The change in direct operational emissions would result from the change in space heating requirement due to space increase.

In estimating emissions, the usage of equipment and the duration of construction activities first were determined based on the sizes of the individual facilities to be constructed. The increased emissions were then calculated using the U.S. EPA guidance and emission factors.

B.3.2 Construction Emissions

Activity Data

In estimating construction-related emissions, the usage of equipment, the likely duration of each activity, and manpower estimates for the construction were based on the data described in Chapter 2 of this EA for the future project-associated activities. The weekly duration given for each activity was assumed to be eight hours per day and five days per week. Estimates as to construction crew and equipment requirements and productivity are based on data presented in the 2003 RS Means Facilities Construction Cost Data (R.S. Means, 2003).

The assumptions and calculations presented below are based on Chapter 2 of this EA, which provides a planning-level description of the Proposed Action and the available information including conceptual maps of the proposed and alternative actions, and engineering judgment.

The Proposed Action is for the reuse of the site as an automotive retail center. The three reuse alternatives are the reuse of the site as 1) a corporate office park, 2) a hotel/conference center/office park, and 3) an office park with reuse of some existing facilities by the Department of Veterans' Affairs.

The preferred action and alternatives involving construction activity are summarized as follows:

- The Proposed Action would result in the demolition of all existing structures at Onizuka AFS except for Buildings 1002, 1018, and 1034 (totaling 558,000 square feet [SF] over 21 acres) and construction of a new office park on the newly cleared space, with a total of 243,326 SF of office space over five buildings with an approximate footprint of 2.4 acres and 0.6 acres of landscaping. The remaining 18 acres of the site would be paved to provide parking.
- The Corporate Office Alternative would result in the demolition of all existing structures at Onizuka AFS (totaling 615,000 SF over 23 acres) and construction of a new office park, with a total of 287,540 SF of usable office space (300,000 SF total, 100,000 SF total building footprint) over four buildings with exterior dimensions of 125 ft by 200 ft. and three-story height. The remainder of the site would be paved to provide parking for vehicles, except for about 2.1 acres of landscaped area.
- The Hotel, Conference Center, and Office Alternative would result in the demolition of all existing structures at Onizuka AFS (totaling 615,000 SF over 23 acres) and construction of a new hotel/conference center/office park, with a total of 187,500 SF of hotel space (including 250 rooms, restaurant, spa, and ancillary retail space), a 10,000 SF conference center, 325,080 SF of office space, 425,115 SF of parking structure, and 463 at-grade parking spaces.

- The Automotive Retail Center Alternative would result in the demolition of all existing structures at Onizuka AFS (totaling 615,000 SF over 23 acres) and construction of three automotive retail/servicing storefronts, each with about 20,000 SF of floor space. The remainder of the site would be paved to provide parking and display area for vehicles, except for an assumed five acres of landscaped area to provide storm water management features.

The redevelopment actions include the following basic types of construction, for which an estimate will be made of each construction activity:

- Demolition is required for:
 - Existing structures
 - Site Pavement
- Site preparation
- Construction of new buildings
- Foundation
- Building envelope
- Mechanical system
- Interior construction and finishes.

All equipment was assumed to be diesel powered unless otherwise noted. Each piece of equipment was assumed to be operated continuously for six hours during each working day. Pieces of equipment to be used for the construction and demolition activities include, but are not limited to:

- Backhoe loaders
- Compressors
- Concrete pumps
- Cranes
- Drill rig
- Dozers
- Front end loaders
- Gas engine vibrators
- Gas welding machines
- Gradalls
- Graders
- Hammers
- Pavement removers
- Pavement breakers
- Pavers
- Rammers/tampers
- Rollers
- Trenchers
- Dump trucks.

Equipment Emission Estimate

Estimates of construction equipment operational emissions were based on the estimated hours of equipment usage and emission factors for each type of equipment. Emission factors related to heavy-duty diesel equipment were provided by the U.S. EPA using the NONROAD emission factor model and the national default model inputs for nonroad engines, equipment, and vehicles of interest provided with the model (U.S. Environmental Protection Agency, 2008). The average equipment horsepower (hp) values and average power load factors are also provided in association with the NONROAD emission factors. Emission factors related to construction-associated delivery trucks were estimated using California ARB EMFAC2007 mobile source emission factor model.

Emission factors (in grams of pollutant per hour per horsepower) were multiplied by the estimated running time and equipment associated average horsepower to calculate the total grams of pollutant from each piece of equipment. Finally, the total grams of pollutant were converted to tons of pollutant.

The U.S. EPA recommends the following formula to calculate hourly emissions from nonroad engine sources including cranes, backhoes, etc.:

$$M_i = N \times HP \times LF \times EF_i$$

where:

- M_i = mass of emissions of i th pollutants during inventory period;
- N = source population (units);
- HP = average rated horsepower;
- LF = typical load factor; and
- EF_i = average emissions of i th pollutant per unit of use (e.g., grams per horsepower-hour).

Equipment running times were estimated based on a 6 hour continuous run per day schedule. Table B-3 shows the emissions estimates for on-site construction equipment emissions under the Proposed Action.

Vehicle Emission Estimate

Truck and worker's commuting vehicle operations would result in indirect emissions. However, the only activities that are can be reasonably quantified are vehicle operations within Onizuka AFS. Motor vehicle operations within Onizuka AFS are assumed and summarized as follows:

- Pickup, dump, and other construction-related trucks would travel at an average speed of 25 miles per hour (mph) on site, for a total estimated on-base run time of two hours per working day; and
- Each worker's commuter vehicle would take a 20-minute round trip to commute within Onizuka AFS at an average speed of 25 mph.

Emission factors for motor vehicles were calculated for both trucks (including dump, delivery, tractor, and tractor trucks that were modeled as heavy-duty diesel vehicles (HDDV)) and commuter vehicles (modeled as light-duty gasoline vehicles (LDGV)) using the California ARB EMFAC2007 mobile source emission factor model. Specific input parameters for the summer and winter seasons that are applicable to the Sunnyvale area were used. The modeled emission factors were then multiplied by the vehicle operational hours to determine motor vehicle emissions. Tables B-4 and B-5 are the worksheets for estimating truck and commuting vehicle emissions associated with the demolition and construction activities, respectively.

Asphalt Curing Emission Estimate

Asphalt curing-related volatile organic compound (VOC) emissions were calculated based on the amount of paving anticipated for parking and display area for vehicles. The following assumptions were used:

- CARB-provided asphalt paving Total Organic Gases (TOG) emission factor of 0.04 lbs/ton (California Air Resources Board, 2005) was conservatively used for paving VOC emissions estimate. The Emulsified Emission Factor used for primary and tack coats is 17.9 lbs/ton.
- The density of asphalt (8.34 lb/gal) used in the calculations was obtained from U.S. EPA, EIIP, Vol. III, Ch. 17, Asphalt Paving, January 2001.
- Conservative four-inch paving thickness was assumed (R.S. Means, 2003).

The conservatively estimated total annual paving emissions levels are summarized in Table B-6.

B.3.2 Operational Emissions

According to California air permitting regulation, any space heating boilers that use gaseous fuel with a maximum heat input of less than 10 million British Thermo Units (BTU) per hour is exempt from the air permitting process and is normally considered an insignificant emission source with minimal air quality impacts. It is expected that the proposed development units would be constructed with the new heating boilers having a heating capacity of less than 10 million BTU per hour. Therefore, the emissions from these boilers would unlikely be regulated under California's air permitting regulations. However, these boilers would still result in additional emissions.

The future building units are assumed to be heated by natural gas-fired boilers. Each unit is assumed to be adequately heated with a heating value of 30 BTUs per hour per square foot plus a 20 percent of safety factor.

Emission estimates were then calculated based on the U.S. EPA-provided AP-42 emission factors for a natural-gas-burning boiler. It is assumed conservatively that each boiler would be used 24 hours per day for all units the following year after the completion of construction, for a total of three heating months each year at maximum heating capacity. The conservatively estimated total annual emissions levels are summarized in Table B-7.

It should be noted that the heating area used for estimating overall heat values space is the net change of heating space by subtracting the known existing building spaces to be demolished, when applicable. In the cases where the demolition area is greater than the area to be constructed, there would be a net reduction of boiler emissions for that year. The available building space that is associated with each applicable alternative is presented in Section 3.4.

B.4 Operational Greenhouse Gas Emissions Estimate

Construction Emissions

The construction-related carbon dioxide (CO₂) emissions were estimated in the same way as used for predicting criteria pollutant emissions. The estimated total annual construction CO₂ emissions are summarized in Table B-8.

Boiler Emissions

The heating-related CO₂ emissions were estimated in the same way as used for predicting criteria pollutant emissions. The likely energy required for additional space heating and AP-42-provided boiler CO₂ emission factors were used. The estimated total annual boiler CO₂ emissions are summarized in Table B-8.

Vehicular Emissions

Vehicular emissions due to greenhouse gases in terms of CO₂ were estimated in the same way as used for predicting criteria pollutant emissions. The estimated total annual vehicular CO₂ emissions are summarized in Table B-8.

B.5 Total Annual Emissions Estimate

The combined annual emissions during both construction and operational years under the Proposed Action are summarized in Table B-9. The same methodologies used for predicting annual emissions for Proposed Action were employed for other action alternatives and the corresponding total annual emissions are shown in Table B-10 through Table B-12 for other alternatives.

Table B-3 Annual Construction Equipment Emissions Worksheet for Proposed Action 2012																	
Equipment Type/Activity	Number of Units	Weeks	Hours	Horsepower (hp)	Load Factor (%)	Emission Factor (grams/hp-hour)				Emission Rate (tons)							
						VOC	NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂	VOC	NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂
Demolition																	
Backhoe loader, 48hp	1	25.5	766	48	21	1.47	6.80	6.42	1.01	0.98	0.14	0.01	0.06	0.05	0.01	0.00	
Front end loader, 1.5 cy	1	25.5	766	93	21	1.47	6.80	6.42	1.01	0.98	0.14	0.02	0.11	0.02	0.02	0.00	
Pavement removal bucket	1	25.5	766	171	59	0.32	4.25	1.64	0.29	0.28	0.12	0.03	0.36	0.14	0.02	0.01	
Total Demolition												0.06	0.53	0.30	0.05	0.01	
Construction																	
Asphalt paver, 130 HP	1	1.0	29	130	59	0.38	4.59	2.07	0.36	0.35	0.12	0.00	0.01	0.00	0.00	0.00	
Backhoe loader, 48hp	1	16.5	496	48	21	1.47	6.80	6.42	1.01	0.98	0.14	0.01	0.04	0.04	0.01	0.00	
Compressor, 250 cfm	1	3.5	105	83	43	0.54	5.42	2.40	0.44	0.43	0.12	0.00	0.02	0.01	0.00	0.00	
Concrete pump, small	1	1.4	41	53	43	0.75	6.18	3.03	0.57	0.56	0.12	0.00	0.01	0.00	0.00	0.00	
Crane, 90-ton	1	25.9	776	231	43	0.35	5.14	1.30	0.25	0.24	0.11	0.03	0.44	0.11	0.02	0.01	
Crane, SP, 12 ton	1	1.4	41	231	43	0.35	5.14	1.30	0.25	0.24	0.11	0.00	0.02	0.01	0.00	0.00	
Dozer, 300 HP	1	1.0	29	300	59	0.33	4.72	1.93	0.30	0.29	0.12	0.00	0.03	0.01	0.00	0.00	
Front end loader, 1.5 cy	1	26.2	786	93	21	1.47	6.80	6.42	1.01	0.98	0.14	0.02	0.12	0.11	0.02	0.00	
Gas engine vibrator	1	2.7	80	6	55	26.08	2.78	696.11	0.18	0.17	0.22	0.01	0.00	0.19	0.00	0.00	
Gas welding machine	1	1.0	30	17	68	11.35	3.24	642.74	0.11	0.10	0.21	0.00	0.00	0.25	0.00	0.00	
Gradall, 3 ton, 1/2 cy	1	0.9	26	171	59	0.32	4.25	1.64	0.29	0.28	0.12	0.00	0.01	0.00	0.00	0.00	
Grader, 30,000 lb	1	2.7	81	204	59	0.32	4.26	1.45	0.28	0.27	0.12	0.00	0.05	0.02	0.00	0.00	
Pneumatic wheel roller	1	1.0	29	92	59	0.42	4.77	2.49	0.41	0.40	0.12	0.00	0.01	0.00	0.00	0.00	
Pavement removal bucket	1	4.8	143	171	59	0.12	0.28	4.25	1.64	0.29	0.32	0.01	0.07	0.03	0.00	0.00	
Roller, vibratory	1	1.0	29	92	59	0.42	4.77	2.49	0.41	0.40	0.12	0.00	0.01	0.00	0.00	0.00	
Rollers, steel wheel	1	1.9	57	92	59	0.42	4.77	2.49	0.41	0.40	0.12	0.00	0.02	0.01	0.00	0.00	
Total Construction												0.09	0.84	0.79	0.06	0.02	
Total 2012												0.16	0.37	1.09	0.11	0.11	0.03

**Table B-3
Annual Construction Equipment Emissions Worksheet for Proposed Action (continued)
2013 - 2015**

Equipment Type/Activity	Number of Units	Weeks	Hours	Horsepower (hp)	Load Factor (%)	Emission Rate (tons)										
						VOC	NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂	VOC	NO _x	CO	PM ₁₀	PM _{2.5}
Construction																
Asphalt paver, 130 HP	1	1.0	29	130	59	0.38	4.59	2.07	0.36	0.35	0.12	0.00	0.01	0.00	0.00	
Backhoe loader, 48hp	1	16.5	496	48	21	1.47	6.80	6.42	1.01	0.98	0.14	0.01	0.04	0.01	0.00	
Compressor, 250 cfm	1	3.5	105	83	43	0.54	5.42	2.40	0.44	0.43	0.12	0.00	0.02	0.00	0.00	
Concrete pump, small	1	1.4	41	53	43	0.75	6.18	3.03	0.57	0.56	0.12	0.00	0.01	0.00	0.00	
Crane, 90-ton	1	25.9	776	231	43	0.35	5.14	1.30	0.25	0.24	0.11	0.03	0.44	0.02	0.01	
Crane, SP, 12 ton	1	1.4	41	231	43	0.35	5.14	1.30	0.25	0.24	0.11	0.00	0.02	0.01	0.00	
Dozer, 300 HP	1	1.0	29	300	59	0.33	4.72	1.93	0.30	0.29	0.12	0.00	0.03	0.01	0.00	
Front end loader, 1.5 cy	1	26.2	786	93	21	1.47	6.80	6.42	1.01	0.98	0.14	0.02	0.12	0.11	0.00	
Gas engine vibrator	1	2.7	80	6	55	26.08	2.78	696.11	0.18	0.17	0.22	0.01	0.00	0.19	0.00	
Gas welding machine	1	1.0	30	17	68	11.35	3.24	642.74	0.11	0.10	0.21	0.00	0.00	0.25	0.00	
Gradall, 3 ton, 1/2 cy	1	0.9	26	171	59	0.32	4.25	1.64	0.29	0.28	0.12	0.00	0.01	0.00	0.00	
Grader, 30,000 lb	1	2.7	81	204	59	0.32	4.26	1.45	0.28	0.27	0.12	0.00	0.05	0.02	0.00	
Pneumatic wheel roller	1	1.0	29	92	59	0.42	4.77	2.49	0.41	0.40	0.12	0.00	0.01	0.00	0.00	
Pavement removal bucket	1	4.8	143	171	59	0.12	0.28	4.25	1.64	0.29	0.32	0.01	0.07	0.03	0.00	
Roller, vibratory	1	1.0	29	92	59	0.42	4.77	2.49	0.41	0.40	0.12	0.00	0.01	0.00	0.00	
Rollers, steel wheel	1	1.9	57	92	59	0.42	4.77	2.49	0.41	0.40	0.12	0.00	0.02	0.01	0.00	
Total Construction												0.09	0.84	0.79	0.06	0.02
Total 2013 - 2015																
												0.09	0.84	0.79	0.06	0.02

**Table B-4
Proposed Action On-base Truck Emissions**

Stage	No. of days	Trucks/Day	Minutes/Day/Truck	Hours	Emission Factor (lb/hr)						Emissions (tpy)													
					NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂	VOC	NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂									
2012																								
Construction	95	25	120	1,188	0.03	0.21	0.01	0.01	0.00	0.02	0.20	0.13	0.01	0.01	0.00									
Demolition	39	15	120	293	0.03	0.21	0.01	0.01	0.00	0.00	0.05	0.03	0.00	0.00										
2013																								
Construction	95	25	120	1,188	0.03	0.20	0.01	0.01	0.00	0.02	0.20	0.12	0.01	0.01	0.00									
2014																								
Construction	95	25	120	1,188	0.03	0.20	0.01	0.01	0.00	0.02	0.20	0.12	0.01	0.01	0.00									
2015																								
Construction	95	25	120	1,188	0.03	0.19	0.01	0.01	0.00	0.02	0.19	0.11	0.01	0.01	0.00									

**Table B-5
Proposed Action On-base Construction Commuting Vehicle Emissions**

Stage	No. of days	Cars/Day	Minutes/Day/Car	Hours	Emission Factor (lb/hr)						Emissions (tpy)													
					NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂	VOC	NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂									
2012																								
Construction	182	50	20	758	0.01	0.21	0.00	0.00	0.00	0.00	0.01	0.08	0.00	0.00	0.00									
Demolition	39	15	20	49	0.01	0.21	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00										
2013																								
Construction	182	50	20	758	0.01	0.21	0.00	0.00	0.00	0.00	0.01	0.08	0.00	0.00	0.00									
2014																								
Construction	182	50	20	758	0.01	0.20	0.00	0.00	0.00	0.00	0.01	0.08	0.00	0.00	0.00									
2015																								
Construction	182	50	20	758	0.01	0.20	0.00	0.00	0.00	0.00	0.01	0.08	0.00	0.00	0.00									

**Table B-6
Paving Emissions for Proposed Action**

Total Pavement (square yards)	Hot Mix Emission Factor ¹ (lbs/ton)	Emulsified Emission Factor ¹ (lbs/ton)*	Hot Mix Application Rate ² (gal/SY)	Primary Coat Application Rate ³ (gal/SY)	Tack Coat Application Rate ³ (gal/SY)	Hot Mix, Primary & Tack Coat asphalt (tons VOC/SY)	Total VOC (tons)	# of years of construction	Emissions Rate VOC (tons/year)
56,110	0.04	17.90	0.06	0.25	0.30	2.1E-05	1.15	4	0.288
Total Annual Paving VOCs Between 2012-2015									
									0.288

Table B-7 Boiler Emissions for Proposed Action										
Pollutant	Boiler Starting Year	Space (net increase in ft ²)	Total Heat input per ft ² for 30 Btu/ft ² -hr (BTU/hr)	20% Safety Factor (BTU/hr)	Emission Factor (lb/10 ⁶ scf)	Hourly Gas Volume (scf/hr)	Emission Rate (lb/hr)	Tons per month	Months of Heat Usage	Emissions (tons/yr)
VOC	2012	-200,000	-6,000,000	-7,200,000	5.5	-7,058.82	-0.04	-0.01	3	-0.04
NO _x					100		-0.71	-0.26	3	-0.77
PM ₁₀					7.6		-0.05	-0.02	3	-0.06
PM _{2.5}					7.6		-0.05	-0.02	3	-0.06
CO					84		-0.59	-0.22	3	-0.65
SO ₂	0.6	0.00	0.00	3	0.00					
VOC	2013	-415,000	-12,450,000	-14,940,000	5.5	-14,647.06	-0.08	-0.03	3	-0.09
NO _x					100		-1.46	-0.53	3	-1.60
PM ₁₀					7.6		-0.11	-0.04	3	-0.12
PM _{2.5}					7.6		-0.11	-0.04	3	-0.12
CO					84		-1.23	-0.45	3	-1.35
SO ₂	0.6	-0.01	0.00	3	-0.01					
VOC	2014	-615,000	-18,450,000	-22,140,000	5.5	-21,705.88	-0.12	-0.04	3	-0.13
NO _x					100		-2.17	-0.79	3	-2.38
PM ₁₀					7.6		-0.16	-0.06	3	-0.18
PM _{2.5}					7.6		-0.16	-0.06	3	-0.18
CO					84		-1.82	-0.67	3	-2.00
SO ₂	0.6	-0.01	0.00	3	-0.01					
VOC	2015	-595,000	-17,850,000	-21,420,000	5.5	-21,000.00	-0.12	-0.04	3	-0.13
NO _x					100		-2.10	-0.77	3	-2.30
PM ₁₀					7.6		-0.16	-0.06	3	-0.17
PM _{2.5}					7.6		-0.16	-0.06	3	-0.17
CO					84		-1.76	-0.64	3	-1.93
SO ₂	0.6	-0.01	0.00	3	-0.01					
VOC	After 2015	-555,000	-16,650,000	-19,980,000	5.5	-19,588.24	-0.11	-0.04	3	-0.12
NO _x					100		-1.96	-0.71	3	-2.14
PM ₁₀					7.6		-0.15	-0.05	3	-0.16
PM _{2.5}					7.6		-0.15	-0.05	3	-0.16
CO					84		-1.65	-0.60	3	-1.80
SO ₂	0.6	-0.01	0.00	3	-0.01					

Table B-8 Proposed Action CO₂ Emissions	
Year	Emissions (tons/yr)
Construction Equipment	
2012	152.85
2013	90.14
2014	90.14
2015	90.14
Trucks and Commuting Vehicles	
2012	58.39
2013	48.40
2014	48.42
2015	48.43
Boilers	
2012	-927.53
2013	-1,924.62
2014	-2,852.15
2015	-2,759.40
After 2015	-2,473.89

**Table B-9
Total Annual Emissions for Proposed Action**

Emission Source	Pollutant (tons/year)						
	VOC	NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂	CO ₂
2012							
Construction Diesel Equipment	0.24	1.42	4.22	0.13	0.13	0.03	157.17
Construction Motor Vehicles	0.06	0.64	0.59	0.02	0.02	0.00	142.20
Boiler	-0.06	-1.16	-0.97	-0.09	-0.09	-0.01	-1,391.29
Asphalt Paving	0.36	-	-	-	-	-	-
Total Emissions for 2012	0.60	0.91	3.84	0.06	0.06	0.03	-1,091.93
2013							
Construction Diesel Equipment	0.19	0.95	3.95	0.09	0.08	0.02	100.95
Construction Motor Vehicles	0.06	0.58	0.55	0.02	0.02	0.00	133.27
Boiler	-0.12	-2.16	-1.81	-0.16	-0.16	-0.01	-2,587.81
Asphalt Paving	0.36	-	-	-	-	-	-
Total Emissions for 2013	0.48	-0.63	2.69	-0.06	-0.06	0.01	-2,353.59
2014							
Construction Diesel Equipment	0.19	0.95	3.95	0.09	0.08	0.02	100.95
Construction Motor Vehicles	0.06	0.58	0.54	0.02	0.02	0.00	133.32
Boiler	-0.10	-1.76	-1.48	-0.13	-0.13	-0.01	-2,117.26
Asphalt Paving	0.36	-	-	-	-	-	-
Total Emissions for 2014	0.51	-0.24	3.01	-0.03	-0.03	0.01	-1,882.99
2015							
Construction Diesel Equipment	0.19	0.95	3.95	0.09	0.08	0.02	100.95
Construction Motor Vehicles	0.06	0.56	0.52	0.02	0.02	0.00	133.34
Boiler	-0.08	-1.37	-1.15	-0.10	-0.10	-0.01	-1,646.72
Asphalt Paving	0.36	-	-	-	-	-	-
Total Emissions for 2015	0.53	0.14	3.32	0.00	0.00	0.01	-1,412.42
2016							
Construction Diesel Equipment	0.19	0.95	3.95	0.09	0.08	0.02	100.95
Construction Motor Vehicles	0.06	0.56	0.51	0.02	0.02	0.00	133.37
Boiler	-0.07	-1.22	-1.02	-0.09	-0.09	-0.01	-1,459.35
Asphalt Paving	0.36	-	-	-	-	-	-
Total Emissions for 2016	0.53	0.29	3.44	0.01	0.01	0.02	-1,225.02
After 2016							
Boiler	-0.07	-1.22	-1.02	-0.09	-0.09	-0.01	-1,459.35

Table B-10 Total Annual Emissions for Corporate Office Alternative							
Emission Source	Pollutant (tons/year)						
	VOC	NO_x	CO	PM₁₀	PM_{2.5}	SO₂	CO₂
2012							
Construction Diesel Equipment	0.25	1.52	5.73	0.12	0.11	0.04	174.35
Construction Motor Vehicles	0.07	0.74	0.69	0.02	0.02	0.00	163.79
Boiler	-0.06	-1.16	-0.97	-0.09	-0.09	-0.01	-1,391.29
Asphalt Paving	0.46	-	-	-	-	-	-
Total Emissions for 2012	0.72	1.10	5.44	0.05	0.05	0.03	-1,053.15
2013							
Construction Diesel Equipment	0.19	0.99	5.43	0.07	0.07	0.02	111.65
Construction Motor Vehicles	0.07	0.67	0.63	0.02	0.02	0.00	153.84
Boiler	-0.13	-2.38	-2.00	-0.18	-0.18	-0.01	-2,852.15
Asphalt Paving	0.46	-	-	-	-	-	-
Total Emissions for 2013	0.58	-0.71	4.07	-0.09	-0.09	0.01	-2,586.66
2014							
Construction Diesel Equipment	0.19	0.99	5.43	0.07	0.07	0.02	111.65
Construction Motor Vehicles	0.07	0.66	0.62	0.02	0.02	0.00	153.90
Boiler	-1.10	-1.82	-1.53	-0.14	-0.14	-0.01	-2,185.39
Asphalt Paving	0.46	-	-	-	-	-	-
Total Emissions for 2014	0.61	-0.26	4.49	-0.06	-0.06	0.01	-1,919.84
2015							
Construction Diesel Equipment	0.19	0.90	5.39	0.06	0.06	0.02	111.65
Construction Motor Vehicles	0.06	0.65	0.60	0.02	0.02	0.00	153.93
Boiler	-0.07	-1.27	-1.06	-0.10	-0.10	-0.01	-1,518.63
Asphalt Paving	0.46	-	-	-	-	-	-
Total Emissions for 2015	0.64	0.29	4.93	-0.01	-0.02	0.02	-1,253.05
After 2015							
Boiler	-0.07	-1.27	-1.06	-0.10	-0.10	-0.01	-1,518.63

**Table B-11
Total Annual Emissions for Hotel, Conference Center, and Office Alternative**

Emission Source	Pollutant (tons/year)						
	VOC	NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂	CO ₂
2012							
Construction Diesel Equipment	0.47	2.63	11.31	0.21	0.21	0.06	284.51
Construction Motor Vehicles	0.17	1.71	1.51	0.05	0.05	0.00	370.20
Boiler	-0.06	-1.16	-0.97	-0.09	-0.09	-0.01	-1,391.29
Asphalt Paving	0.12	-	-	-	-	-	-
Total Emissions for 2012	0.70	3.18	11.85	0.18	0.17	0.06	-736.58
2013							
Construction Diesel Equipment	0.41	2.10	11.01	0.16	0.16	0.05	221.81
Construction Motor Vehicles	0.16	1.63	1.44	0.06	0.05	0.00	360.34
Boiler	-0.13	-2.38	-2.00	-0.18	-0.18	-0.01	-2,852.15
Asphalt Paving	0.12	-	-	-	-	-	-
Total Emissions for 2013	0.56	1.35	10.46	0.04	0.02	0.04	-2,270.00
2014							
Construction Diesel Equipment	0.41	2.10	11.01	0.16	0.16	0.05	221.81
Construction Motor Vehicles	0.16	1.60	1.41	0.05	0.05	0.00	360.49
Boiler	-0.13	-2.38	-2.00	-0.18	-0.18	-0.01	-2,852.15
Asphalt Paving	0.12	-	-	-	-	-	-
Total Emissions for 2014	0.56	1.32	10.43	0.03	0.02	0.04	-2,269.86
2015							
Construction Diesel Equipment	0.41	2.10	11.01	0.16	0.16	0.05	221.81
Construction Motor Vehicles	0.15	1.57	1.36	0.05	0.05	0.00	360.56
Boiler	-0.09	-1.65	-1.39	-0.13	-0.13	-0.01	-1,982.59
Asphalt Paving	0.12	-	-	-	-	-	-
Total Emissions for 2015	0.59	2.02	10.98	0.09	0.08	0.04	-1,400.23
2016							
Construction Diesel Equipment	0.41	2.10	11.01	0.16	0.16	0.05	221.81
Construction Motor Vehicles	0.15	1.55	1.33	0.05	0.05	0.00	360.64
Boiler	-0.06	-1.02	-0.86	-0.08	-0.08	-0.01	-1,228.79
Asphalt Paving	0.12	-	-	-	-	-	-
Total Emissions for 2016	0.62	2.62	11.48	0.13	0.13	0.04	-646.35
2017							
Construction Diesel Equipment	0.41	2.10	11.01	0.16	0.16	0.05	221.81
Construction Motor Vehicles	0.10	1.02	0.93	0.03	0.03	0.00	361.08
Boiler	-0.01	-0.26	-0.22	-0.02	-0.02	0.00	-312.39
Asphalt Paving	0.12	-	-	-	-	-	-
Total Emissions for 2017	0.62	2.86	11.72	0.18	0.17	0.05	270.50
2018							
Construction Diesel Equipment	0.41	2.10	11.01	0.16	0.16	0.05	221.81
Construction Motor Vehicles	0.10	0.99	0.90	0.03	0.03	0.00	361.19
Boiler	0.02	0.37	0.31	0.03	0.03	0.00	441.41
Asphalt Paving	0.12	-	-	-	-	-	-
Total Emissions for 2018	0.65	3.46	12.23	0.22	0.22	0.05	1,024.40
After 2018							
Boiler	0.07	1.29	1.08	0.10	0.10	0.01	1,542.92

**Table B-12
Total Annual Emissions for Automotive Retail Center Alternative**

Emission Source	Pollutant (tons/year)						
	VOC	NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂	CO ₂
2012							
Construction Diesel Equipment	0.16	1.37	1.09	0.11	0.11	0.03	152.85
Construction Motor Vehicles	0.03	0.27	0.24	0.01	0.01	0.00	58.39
Boiler	-0.04	-0.77	-0.65	-0.06	-0.06	0.00	-927.53
Asphalt Paving	0.41	-	-	-	-	-	-
Total Emissions for 2012	0.55	0.86	0.68	0.06	0.06	0.03	-716.29
2013							
Construction Diesel Equipment	0.09	0.84	0.79	0.06	0.06	0.02	90.14
Construction Motor Vehicles	0.02	0.21	0.20	0.01	0.01	0.00	48.40
Boiler	-0.09	-1.60	-1.35	-0.12	-0.12	-0.01	-1,924.62
Asphalt Paving	0.41	-	-	-	-	-	-
Total Emissions for 2013	0.44	-0.55	-0.36	-0.05	-0.06	0.01	-1,786.08
2014							
Construction Diesel Equipment	0.09	0.84	0.79	0.06	0.06	0.02	90.14
Construction Motor Vehicles	0.02	0.21	0.20	0.01	0.01	0.00	48.42
Boiler	-0.13	-2.38	-2.00	-0.18	-0.18	-0.01	-2,852.15
Asphalt Paving	0.41	-	-	-	-	-	-
Total Emissions for 2014	0.40	-1.26	-0.95	-0.11	-0.11	0.01	-2,620.82
2015							
Construction Diesel Equipment	0.09	0.84	0.79	0.06	0.06	0.02	90.14
Construction Motor Vehicles	0.02	0.20	0.19	0.01	0.01	0.00	48.43
Boiler	-0.13	-2.30	-1.93	-0.17	-0.17	-0.01	-2,759.40
Asphalt Paving	0.41	-	-	-	-	-	-
Total Emissions for 2015	0.40	-1.26	-0.95	-0.11	-0.11	0.01	-2,620.82
After 2015							
Boiler	-0.12	-2.14	-1.80	-0.16	-0.16	-0.01	-2,573.89

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