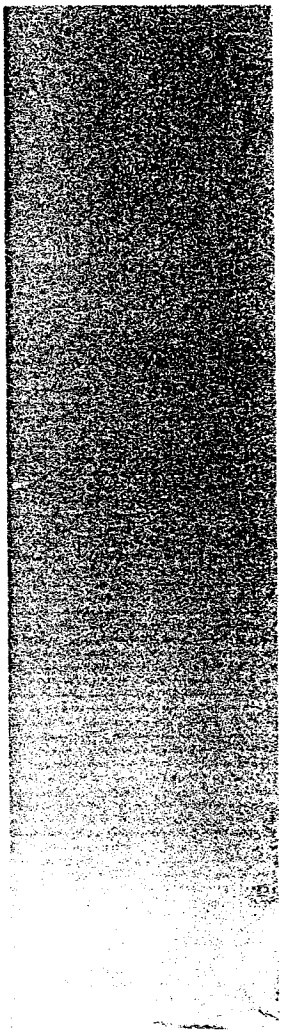

SAN BRUNO REDEVELOPMENT PROJECT AREA PLAN

Draft Environmental Impact Report

SCH# 98112029

March 1999

Prepared by the

City of San Bruno
Planning and Building Department

ESA

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City of San Bruno
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225 Bush Street
Suite 1700
San Francisco,
California
94104
(415) 896-5900

1000 Broadway
Suite 410
Oakland,
California
94607
(510) 839-5066

700 University Avenue
Suite 130
Sacramento,
California
95825
(916) 564-4500

4221 Wilshire Boulevard
Suite 480
Los Angeles,
California
90010
(213) 933-6111

ESA Environmental Science Associates

980422

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SUMMARY

A. THIS EIR

This environmental impact report (EIR) has been prepared by the Redevelopment Agency of the City of San Bruno, California, pursuant to the applicable provisions of the California Environmental Quality Act (CEQA) and its implementing guidelines (*CEQA Guidelines*). The Redevelopment Agency is the lead agency for this EIR, which examines the overall effects of the proposed San Bruno Redevelopment Project Area Plan and indicates the steps needed to avoid unnecessary significant adverse environmental effects.

B. PROJECT OVERVIEW

The Redevelopment Plan is proposed for a Project Area that encompasses approximately 717 acres within the City of San Bruno. The Project Area includes two subareas, Subarea A (699 acres) in eastern San Bruno and Subarea B (18 acres) along the western edge of San Bruno. Subarea A includes commercial areas along San Bruno Avenue, El Camino Real, San Mateo Avenue, Montgomery Avenue, and Tanforan Shopping Center; a number of residential neighborhoods; a mixed-use area in the northeastern part of San Bruno that is north of I-380 and east of the Southern Pacific railroad tracks; and the U.S. Navy military facilities and the U.S. Navy Reserve property currently leased by the U.S. Marine Corps. Subarea B includes the Skycrest Shopping Center and other adjacent commercial parcels at the intersection of San Bruno Avenue and Skyline Boulevard.

The San Bruno Redevelopment Project Area Plan is intended as a guide for planning and implementing revitalization activities in the Project Area and for establishing a financing method to fund these activities. The proposed Redevelopment Plan identifies general approaches to be employed to protect and enhance the environment in the Project Area and to attract and stimulate private investment. In so doing, the Plan would seek to alleviate physical and economic conditions in the Project Area that interfere with successful revitalization of commercial areas and conservation of residential neighborhoods.

The project sponsor, the City of San Bruno Redevelopment Agency, proposes a redevelopment plan to direct the planning and implementation of activities to revitalize the San Bruno Redevelopment Project Area, and to establish a financing method to fund these activities. The San Bruno Redevelopment Project Area Plan (Redevelopment Plan) is proposed to be generally consistent with the City's General Plan and Zoning Ordinance. The Redevelopment Plan would provide a legal framework for redevelopment activities with the basic goal of improving

commercial, residential, and industrial areas and circulation in the Project Area in order to alleviate undesirable physical and economic conditions.

For the residential portions of the Project Area, the proposed Redevelopment Plan would provide for establishing residential conservation areas to preserve and protect the designated residential neighborhoods. The residential conservation areas would be formalized as planning areas to ensure that redevelopment activities would protect, revitalize, and enhance the residential neighborhood quality of these areas. The Redevelopment Plan would direct that a minimum of 20 percent of tax increment proceeds be allocated for the purposes of increasing, improving, and preserving the supply of low- and moderate-income housing.

For commercial areas in the Project Area, the proposed Redevelopment Plan would encourage revitalization of established commercial areas and development of new commercial uses. The Redevelopment Plan would capitalize on changes resulting from the BART extension to San Francisco International Airport, relocation of the Caltrain Station, expansion of the San Francisco International Airport, and other transportation improvements, and the potential conversion of the military facilities in San Bruno.

For industrial areas in the Project Area, the proposed Redevelopment Plan would focus on the redevelopment of older, nonconforming properties in identified areas, and also encourage the development of light industrial uses, removal of non-conforming uses in industrial areas, consolidation of parcels, and provision of public parking for transit, airport, and industrial uses.

To improve circulation in the Project Area, the proposed Redevelopment Plan provides that selected existing streets within the Project Area may be vacated, widened, or otherwise modified, and additional streets may be created as necessary for proper pedestrian and/or vehicular circulation.

C. SUMMARY OF PROJECT IMPACTS, MITIGATION MEASURES, AND LEVELS OF IMPACT AFTER MITIGATION

Table S.1 presents the summary impact statements, mitigation measures, and residual levels of impact after mitigation described in Chapter III, Environmental Setting, Impacts, and Mitigation.

D. ALTERNATIVES

The California Environmental Quality Act requires that a reasonable range of project alternatives be discussed in an EIR. This EIR identifies and analyzes such a reasonable range of alternatives; identifies the environmental effects of each alternative; and compares the environmental effects of each alternative with the environmental setting, with the effects of each other alternative, and with the project. The determinations of the City of San Bruno concerning the feasibility, acceptance, or rejection of each and all alternatives considered in this EIR will be addressed and resolved in the City's findings, as required by CEQA. The alternatives consist of the following:

- Alternative 1: No Project Alternative

  The No Project Alternative would consist of implementation of the existing General Plan without implementation of a Redevelopment Plan. Under this alternative, the proposed project would not be approved and the project area would continue to be available for the level of development allowed by the existing General Plan and existing zoning requirements. Under this alternative, the site would still eventually be expected to develop with a variety of uses, as permitted under the General Plan land use designations for the area.

- Alternative 2: Reduced Development Alternative

  Alternative 2, the Reduced Development Alternative, would consist of a level of development similar to that assumed for the proposed project, with the exception of the Navy and Navy Reserve (Marine Corps) areas. In these areas, under the Reduced Development Alternative, it is assumed that approximately 30 percent of the level of development assumed for the project would occur.

TABLE S.1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Population, Employment, and Housing		
A.1: Operation of the Redevelopment Plan could potentially induce population growth in Redevelopment Subarea A. (Less than Significant)	None required.	
A.2: Operation of the Redevelopment Plan could potentially result in displacement of substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere. (Less than Significant)	None required.	
A.3: The operation of the Redevelopment Plan could potentially displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. (Less than Significant)	None required.	
A.4: The project could potentially add cumulatively to population growth in or near Subarea A. (Significant)		
Land Use and Applicable Land Use and Plans and Policies		
B.1: The Redevelopment Plan could physically divide established neighborhoods during construction. (Less than Significant)	**B.1:** If construction activities are planned that would disrupt circulation, the City of San Bruno shall ensure that a phased and well-publicized street construction schedule be established that provides adequate information to residents (by mail, the City's website at http:// www.ci.sanbruno.ca.us, or other public notices including street signs) about the construction schedule and alternate routes, and maintains adequate access to all affected areas. (Identified in This Report)	Less than Significant

TABLE S.1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Land Use and Applicable Land Use and Plans and Policies (cont.)		
B.2: The Redevelopment Plan could physically divide established neighborhoods during operation. (Less than Significant)	None required.	
B.3: The San Bruno Redevelopment Plan may allow projects that would conflict with the San Mateo County Comprehensive Airport Land Use Plan. (Significant)	None required.	
B.4: Development allowed under the Redevelopment Plan may conflict with the City's General Plan and the City of San Bruno Zoning Ordinance. (Significant)	None required.	
B.5: The San Bruno Redevelopment Plan may conflict with an applicable habitat conservation plan or natural community conservation plan. (Less than Significant)	None required.	
Traffic, Circulation, and Parking		
C.1: The project would result in increased traffic on the surrounding roadways. (Less than Significant)	C.1: Each substantial project development, as determined by the City, will be required to complete a traffic study that includes an assessment of site-specific impacts on the surrounding intersections and freeway segments. If significant impacts are identified, due to unique site characteristics that were not anticipated as part of the project, mitigation measures will be identified and implemented. (Identified in This Report)	Less than Significant
C.2: The project would generate an increase in transit use. (Less than Significant)	None required.	

TABLE S.1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Traffic, Circulation, and Parking (cont.)		
C.3: Project development may generate increased demands for on- and off-street parking. (Less than Significant)	**C.3.a:** Each project development would be required to assess parking impacts for that site. (Identified in This Report) **C.3.b:** Each project development would be subject to the City of San Bruno permit review process, at which time compliance with City parking requirements will be assessed. (Identified in This Report)	Less than Significant
C.4: The project would increase traffic volumes on roadways in the study area, increasing potential safety hazards on the transportation network for pedestrians and bicyclists. (Less than Significant)	**C.4.a:** Each substantial project development, as determined by the City, would be required to complete a traffic study that includes an assessment of site-specific impacts on adjacent bicycle facilities and pedestrian access. If significant impacts are identified, due to unique site characteristics that were not anticipated as part of the project, mitigation measures would be identified and implemented. (Identified in This Report)	Less than Significant
Public Services, Facilities, and Utilities		
D.1: Implementation of the Redevelopment Plan may lead to an increase in the need for police protection, fire protection, and emergency medical services, and require the construction of new facilities for additional staff. (Less than Significant)	None required.	
D.2: Implementation of the Redevelopment Plan could cause the City to exceed its current wastewater treatment capacity. (Less than Significant)	**D.2:** If the increment of wastewater volume created by projects developed under the Redevelopment Plan results in exceeding San Bruno's wastewater treatment capacity, the City shall ensure that water conservation programs are implemented in order to reduce the wastewater volume to an acceptable level. (Identified in This Report)	Less than Significant

TABLE S.1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Parks, Recreation, and Open Space		
E.1: Occupation of the residential structures assumed for Redevelopment Subarea A could result in a substantial increase in the use of existing neighborhood or regional parks and facilities such that substantial physical deterioration of the facilities could occur or be accelerated. (Less than Significant)	None required.	
E.2: Occupation of the planned residential structures assumed for Redevelopment Subarea A could result in the City's inability to meet its stated policy of 2.5 acres of parkland per 1,000 residents. (Significant)	None required.	
Biology		
F.1: Proposed construction for the Airport Lands Redevelopment Plan Area within Subarea A may impact individual sensitive plant species, such as marsh and horsetail, stink bells, Dudley's lousewort, Choris's popcorn-flower, Hickman's cinquefoil, and San Francisco campion. (Significant)	F.1: If construction is planned for the Lion's Field area, the City of San Bruno shall have sensitive plant species surveys conducted by a qualified botanist during the appropriate blooming period to determine their presence or absence. (Identified in this Report)	Less than Significant
F.2: Construction of projects within Subarea A under the Redevelopment Plan could result in impacts to potentially jurisdictional wetlands/waters of the United States and streambeds and banks under the jurisdiction of the California Department of Fish and Game. Potential impacts include sedimentation of the channels outside of the construction area during trenching activities, and loss of riparian vegetation and stream function as wildlife and fishery habitat. (Significant)	F.2: A wetland delineation will be conducted prior to any construction within or adjacent to potential jurisdictional wetlands, which includes seasonal ponding areas, permanent ponded areas, drainage ditches, and relict streams and creeks. (Identified in this Report)	Less than Significant

TABLE S.1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Biology (cont.)		
F.3: Improper erosion-control plantings and other slope-stabilization plantings in either Subarea A or Subarea B of the Project Area could introduce exotic plant species. (Significant)	**F.3:** Along with the erosion-control plan, described in Section III.G, Hydrology, Water Quality, and Flooding, an invasive vegetation-control plan and a native vegetation replanting plan should be implemented prior to construction in the Project Area. (Identified in this Report)	Less than Significant
F.4: Projects under the Redevelopment Plan may result in the removal of, or root damage to, heritage or significant trees identified by the County of San Mateo. (Significant)	**F.4:** The City, to the extent feasible, will avoid all heritage trees within the Project Area. If infeasible, placing new buildings or sidewalks outside the drip-line and away from tree roots would reduce or avoid damage to heritage trees and significant trees within the Project Area. (Identified in this Report)	Less than Significant
F.5: Construction within Lion's Field and adjacent areas may adversely affect habitat and individuals of San Francisco garter snake (SFGS), a state and federally listed endangered species, and California red-legged frog (CRLF), a federally listed threatened species. (Significant)	**F.5:** To reduce impacts to the SFGS and CRLF, complete avoidance of the site should be attempted. (Identified in this Report)	Less than Significant
F.6: Renovation, re-roofing, or removal of Navy buildings or mature trees under the Redevelopment Plan may cause direct, significant impacts to several bat species through loss of individuals and either their maternity roosts and/or winter hibernacula. (Significant)	**F.6:** A survey for bats by a qualified bat biologist shall be conducted prior to removal of any trees or any demolition, renovation or re-roofing of a building. (Identified in this Report)	Less than Significant

TABLE S.1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Hydrology, Water Quality, and Flooding		
G.1: Operation of land uses within the redevelopment subareas could result in increases in local storm runoff volumes due to increased impervious surface area. The local increases in stormwater volume could increase flood potential in the local area and downstream of the discharge area, thereby affecting the watershed drainage. (Significant)	**G.1a:** The City of San Bruno shall use Best Management Practices for design and installation of the stormwater drainage systems and discharge points shall be used to reduce the risk of localized and downstream flooding. (Identified in This Report) **G.1b:** The City of San Bruno shall strongly recommend the use of high infiltration measures at redevelopment sites to reduce stormwater discharge to the greatest extent feasible. (Identified in This Report) **G.1c:** The City of San Bruno shall strongly recommend or require that dispersed stormwater from Redevelopment projects shall be directed into the landscape, cultivated landscape, or natural vegetation where feasible. (Identified in This Report) **G.1d:** If it is not possible to retain stormwater runoff on site at applicable design storm levels, the City of San Bruno shall require that a plan of the site storm drain system and capacity for Redevelopment projects would be provided to, reviewed and approved by the San Bruno Public Works Department. (Identified in This Report)	Less than Significant
G.2: Operation of individually proposed structures in the redevelopment subareas and their cumulative whole could result in increased nonpoint-source pollution entering stormwater runoff and entering the regional storm drain system or surrounding water resources. (Significant)	**G.2a:** The City of San Bruno shall strongly recommend, for incorporation into all redevelopment designs, that stormwater collected from new parking lots and other impervious areas be moved through vegetated drainage swales or other vegetated drainage areas prior to any discharge into storm drain systems. A more technical option is the inclusion of oil/water separators built for stormwater inflows. (Identified in This Report)	Less than Significant

TABLE S.1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Hydrology, Water Quality, and Flooding (cont.)		
	G.2b: To help minimize the amount of runoff containing urban pollutants, streets and parking areas in the redevelopment subareas shall be frequently cleaned by the City of San Bruno using street-sweeping equipment, and the collected material properly disposed. (Identified in This Report)	
G.3: Redevelopment of the subareas could induce construction-related erosion. (Significant)	**G.3a:** The City shall require all contractors to develop and implement a SWPPP, as required by the State Water Resources Control Board, for areas to be disturbed by construction activities of five acres or more. The City would additionally require contractors on construction projects of less than five acres that have the potential to degrade water quality to prepare an SWPPP even though they are not required by law to do so. (Identified in This Report)	Less than Significant
Geology, Soils, and Seismicity		
H.1: In the event of a major earthquake in the region, seismic groundshaking could potentially injure people and cause collapse or structural damage to existing and proposed structures. Groundshaking could potentially expose people and property to seismic-related hazards, including localized liquefaction and related ground failure. (Significant)	**H.1a:** The City of San Bruno shall insure that buildings, roadways, and other facilities constructed or altered under the Redevelopment Plan comply with applicable City policies and appropriate engineering investigation practices necessary for the reduction of the damaging effects of groundshaking and ground failure. (Identified in This Report) **H.1b:** Design and construction of structures and other facilities shall be in accordance with all applicable local, state, and federal policies, codes, and regulations. (Identified in This Report)	Although the hazard of groundshaking and subsequent seismically induced ground failure cannot be eliminated, implementation of the mitigation measures listed above would reduce the impact and lead to a more acceptable level of risk. As a consequence, the impact would be reduced to a less-than-significant level.

TABLE S.1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Geology, Soils, and Seismicity (cont.)		
H.2: In the event of a major San Andreas Fault Zone earthquake, Subarea B, located adjacent to the fault and within the Alquist-Priolo Fault Hazard Zone, would be susceptible to surface fault rupture. Such an earthquake could expose people and property to the hazards associated with surface fault rupture. (Significant)	**H.2:** Redevelopment projects within Subarea B shall comply with the requirements of the Alquist-Priolo Earthquake Fault Zoning Act, policies of the San Bruno Seismic Safety and Safety Element, and the San Mateo County Seismic and Safety Element. (Identified in This Report)	Although fault rupture can be considered unavoidable and the hazards of such an occurrence cannot be eliminated, implementation of the mitigation measure listed above would reduce the impact and lead to a more acceptable level of risk. As a consequence, the impact would be reduced to a less-than-significant level.
H.3: Redevelopment Plan subareas in San Bruno could be subjected to geologic hazards, including expansive soils, landsliding, and differential settlement. (Less than Significant).	**H.3:** The City of San Bruno shall insure that facilities constructed or altered under the Redevelopment Plan comply with applicable City policies and appropriate engineering investigation practices necessary to reduce the potential detrimental effects of expansive soils, landsliding, differential settlement, and erosion. (Identified in This Report)	With implementation of the mitigation measures listed above, hazards of expansive soil conditions, landsliding, settlement, and erosion from groundshaking and subsequent seismically induced ground failure would be reduced to a less-than-significant level.
Seismic and Fire Emergency Preparedness		
Seismic Hazard		
I.1.1: Operation of the Redevelopment Plan would increase the exposure of structures and persons to potential seismic hazards. (Less than Significant)	None required.	
Fire Hazard		
I.2.1: Redevelopment of Subarea A could improve the fire preparedness of the City of San Bruno and reduce the fire hazard potential for urban fires in this high-density area. (Beneficial)	None required.	

TABLE S.1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Fire Hazard (cont.)		
I.2.2: Redevelopment of Subarea B could have an effect on the potential fire hazard at Crestmoor Canyon, the eucalyptus stands in Rollingwood and Crestmoor neighborhoods, Junipero Serra, or the Peninsula Watershed. (Less than Significant)	None required.	
Airport Safety		
J.1: The proposed Redevelopment Plan would expose residents and occupants of project facilities within Subarea A to a negligible level of risk associated with possible aircraft accidents at SFIA. (Significant)	**J.1.a:** All building heights and associated roof structures proposed as part of the Redevelopment Plan will be made consistent with the height limitations defined by FAR Part 77. (Identified in This Report) **J.1.b:** Any use that would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing will be prohibited. (Identified in This Report)	Less than Significant
Air Quality		
K.1: Fugitive dust generated by construction and demolition activities under the proposed Redevelopment Plan could result in health and nuisance-type impacts in the immediate vicinity of individual construction sites. (Significant)	**K.1a:** The City shall condition approval of individual development proposals under the Redevelopment Plan on implementation of an appropriate dust abatement program, patterned after the BAAQMD approach described below. (Identified in This Report)	Less than Significant

TABLE S.1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	K.1b: In the case where a specific development proposal under the Redevelopment Plan would entail the demolition of a building containing asbestos materials, the City shall require that the project sponsor consult with BAAQMD staff concerning the specific requirements of BAAQMD Regulation 11, Rule 2. (Identified in This Report)	
Air Quality (cont.)		
K.2: Development under the proposed Redevelopment Plan would contribute to the cumulative effect of Bay Area development on regional ozone and PM-10 concentrations. (Significant)	**K.2:** The City shall ensure the implementation, to the extent feasible, of additional TCMs identified in Table III.K.4 into the design of individual Redevelopment Plan projects. (Identified in This Report)	Significant and Unavoidable.
K.3: Development under the Redevelopment Plan could expose existing and proposed residences to nuisance odors. (Less than Significant)	None required.	
Noise		
L.1: Development under the proposed Redevelopment Plan would result in temporary noise impacts related to construction activities. (Significant)	**L.1:** Noise-generating construction activities shall be limited to reasonable daytime hours, such as between the hours of 7:00 a.m. and 7:00 p.m. on weekdays, and 8:00 a.m. and 6:00 p.m. on Saturdays and Sundays. Information concerning construction-related activities and construction hours should be distributed throughout the affected areas and incorporated into the City of San Bruno web site. (Identified in This Report)	Given the temporary nature of construction noise impacts, the above mitigation measures would reduce the impact to less than significant.
L.2: Project-generated vehicle traffic associated with the Redevelopment Plan would result in an increase in ambient noise levels on local roadways. (Less than Significant)	None required.	

TABLE S.1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
L.3: Under the Redevelopment Plan, new noise-sensitive uses could be developed in areas where noise levels are unacceptable for such uses. (Significant)	**L.3:** The City shall require noise insulation for all residential areas proposed under the Redevelopment Plan that would be located in areas that exceed 65 dBA, CNEL. Noise insulation should be such that interior noise levels do not exceed 45 dBA, L_{dn}, as required under Title 24. (Identified in this Report)	Less than Significant
<u>Aesthetics: Urban Design, Visual Quality, and Community Character</u>		
M.1: Development resulting from the project may block existing views of ridgelines to the north and west from Subarea A. (Less than Significant)	None required.	
M.2: Development resulting from the Redevelopment Plan could block existing views of San Bruno Mountain from Subarea B. (Less than Significant)	None required.	
M.3: Development resulting from the Redevelopment Plan may block ridgeline or Bay views from other parts of the city, or may be visually obtrusive from viewpoints throughout the city. (Less than Significant)	None required.	
M.4: Development resulting from the project may increase existing building intensities and may potentially be incompatible with existing development in scale or character. (Potentially Significant)	**M.4a:** The City of San Bruno should develop a Specific Plan for the Navy and Navy Reserve properties that establishes intensity and height limits for the site. (Identified in this Report) **M.4b:** Intensity, height, and bulk standards for the San Bruno Lumber site should be established by the City of San Bruno before development is permitted to proceed. (Identified in this Report)	Less than Significant

TABLE S.1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Aesthetics: Urban Design, Visual Quality, and Community Character (cont.)		
M.5: Development resulting from the Redevelopment Plan may increase the amount of development visible from the eastern segment of Sneath Lane, a City-designated scenic highway, which runs through Subarea A. (Significant)	M.5a: The City of San Bruno should develop guidelines for appropriate building heights, setbacks, and upper-story step-backs for development along Sneath Lane, to ensure that new development does not interrupt the low-intensity, tree-lined visual quality of Sneath Lane west of El Camino Real. Such strategies could also preserve views down Sneath Lane from its higher-elevation western segments. (Identified in This Report)	Less than Significant
M.6: Projects under the Redevelopment Plan could create new sources of light or glare that could adversely affect day or nighttime views in the area. (Potentially Significant)	M.6a: The City of San Bruno should ensure that projects approved under the Redevelopment Plan use nonglare windows, in addition to night lights that are compatible with the *San Mateo County Comprehensive Airport Land Use Plan.*	Less than Significant
Cultural Resources		
N.1: The proposed Redevelopment Plan could result in the disruption or destruction of a unique archaeological resource or of the significance of a historical resource during construction-related excavation. (Significant)	N.1a: The City of San Bruno should itself conduct, or require all projects involving excavation in Subarea A under the Redevelopment Plan to conduct, further archival and field study of the subarea by a qualified cultural resource consultant or archaeologist to reduce or eliminate the possibility of accidentally destroying such resources. (Identified in This Report) N.1b: If cultural resources are encountered during construction of a project under the Redevelopment Plan, the resources and their context shall not be further disturbed until a qualified cultural resource consultant has evaluated the situation. Identified cultural resources should be recorded on proper historical properties forms. (Identified in This Report)	Less than Significant

TABLE S.1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
N.2: If changes to historical buildings or sites are made under the Redevelopment Plan, a substantial adverse change in the significance of the building or sites may occur. (Potentially Significant)	N.2: When application is made for a construction permit for a project that may involve a structure or site of possible historical significance, whether due to its age or other considerations, the City of San Bruno shall ensure that an evaluation of the building or site by a qualified and appropriate cultural resources consultant is completed prior to alteration of the potential resource.	Less than Significant

CHAPTER I
INTRODUCTION

A. INTRODUCTION TO THE EIR

This environmental impact report (EIR) has been prepared by the Redevelopment Agency of the City of San Bruno, California, pursuant to the applicable provisions of the California Environmental Quality Act (CEQA) and its implementing guidelines (*CEQA Guidelines).* The Redevelopment Agency is the lead agency for this EIR, which examines the overall effects of the proposed San Bruno Redevelopment Project Area Plan and indicates the steps needed to avoid unnecessary significant adverse environmental effects.

As a Program EIR (*CEQA Guidelines*, Sections 15168 and 15180), the report does not focus on a specific project or projects, but instead presents reasonable assumptions about the overall types and levels of activities that the project sponsor could undertake under the proposed Redevelopment Plan. Based on these assumptions, the EIR describes potential environmental impacts. Where necessary, the analyses in the EIR are based on conservative assumptions that may tend to overstate project impacts. Additional environmental review may be necessary to assess the environmental impacts of future actions undertaken within the Redevelopment Project Area.

The Redevelopment Plan is proposed for a Project Area that encompasses approximately 717 acres within the City of San Bruno. The Project Area includes two subareas, Subarea A (699 acres) in eastern San Bruno and Subarea B (18 acres) along the western edge of San Bruno. Subarea A includes commercial areas along San Bruno Avenue, El Camino Real, San Mateo Avenue, Montgomery Avenue, and Tanforan Shopping Center; a number of residential neighborhoods; a mixed-use area in the northeastern part of San Bruno that is north of I-380 and east of the Southern Pacific railroad tracks; and the U.S. Navy military facilities and the U.S. Navy Reserve property currently leased by the U.S. Marine Corps. Subarea B includes the Skycrest Shopping Center and other adjacent commercial parcels at the intersection of San Bruno Avenue and Skyline Boulevard.

B. PROJECT OVERVIEW AND BACKGROUND

The San Bruno Redevelopment Project Area Plan is intended as a guide for planning and implementing revitalization activities in the Project Area and for establishing a financing method to fund these activities. The proposed Redevelopment Plan identifies general approaches to be employed to protect and enhance the environment in the Project Area and to attract and stimulate private investment. In so doing, the Plan would seek to alleviate physical and economic

conditions in the Project Area that interfere with successful revitalization of commercial areas and conservation of residential neighborhoods.

Redevelopment activities under the Redevelopment Plan could include the creation or implementation of a wide variety of programs and projects, which would be selected based on the City's needs and market conditions, among other factors. Examples of potential Redevelopment activities would include economic development programs which could provide matching funds for building rehabilitation and façade improvement, low-interest business improvement loans for small businesses, or commercial area cleanup. Circulation improvements could include creating pedestrian walkways and bicycle routes, improved traffic signalization, or redesigned intersections. Residential conservation programs could include low-interest loans for housing rehabilitation, streetscape improvements, or construction of affordable housing. Areawide or infrastructure improvements could include construction of public service facilities such as libraries or a police station, construction of a downtown public plaza, or undergrounding utility lines.

Preparation of a redevelopment plan involves a number of steps, as presented in Table I. . As noted in the table, some of these steps have already been completed.

C. PUBLIC INVOLVEMENT AND REVIEW

The California Environmental Quality Act and the City of San Bruno encourage public participation in the planning and environmental review processes. Opportunities have been and will continue to be provided for the public to present comments and concerns regarding the CEQA and planning process through a CEQA public review and comment period and public hearings or meetings before the San Bruno City Planning Commission, the Project Area Committee (PAC), the Redevelopment Agency, and the City Council. Notification of opportunities to provide public comment has been disseminated through notices mailed to residents and interested parties, the City's web site at www.ci.sanbruno.ca.us, notices and other coverage published in newspapers, announcements on local cable television, and notifications posted at the Civic Center. Written public comments may be submitted c/o Planning and Building Department, 567 El Camino Real, San Bruno, CA 94066 or via the City's web site at www.ci.sanbruno.ca.us at any time during the public review and comment period. Written and spoken comments may also be presented at scheduled public hearings.

In addition, a Project Area Committee (PAC) has been elected pursuant to California's Community Redevelopment Law, formalizing the involvement of residents, businesses, and property owners of the Redevelopment Project Area in formulating the Redevelopment Plan. PAC members, elected in November 1998, are listed below:

Residential Owner-Occupants
Ed Hoff (Chair)
Theresa Cook
Lola Ingalsbe
Michael Rogers
Nancy Truman

TABLE I.1
CITY OF SAN BRUNO
REDEVELOPMENT PLAN ADOPTION PROCESS

Key Step	Date	Status
City Council designates a Redevelopment Survey Area.	August 1998	Completed
Planning Commission designates Project Area boundaries and adopts Preliminary Redevelopment Plan.	September 1998	Completed
Redevelopment Agency prepares and adopts a Preliminary Report on the Redevelopment Plan.	September 1998	Completed
Redevelopment Agency accepts Preliminary Redevelopment Plan and forwards it to taxing entities.	September 1998	Completed
City Council approves process for forming Project Area Committee (PAC).	September 1998	Completed
Community informational meeting on redevelopment, EIR, and PAC processes.	October 1998	Completed
Redevelopment Agency prepares Initial Study and Draft EIR.	October 1998 – January 1999	In process
PAC members elected.	November 1998	Completed
Redevelopment Agency submits required documents to affected taxing entities, City and County auditor, assessor, and tax collector.	November 1998	Completed
Notice of Preparation of EIR mailed to affected agencies and taxing entities.	November 1998	Completed
City Council certifies PAC election.	November 1998	Completed
Introductory workshop for PAC members.	November 1998	Completed
PAC holds meetings.	December 1998 – May 1999	In process
Redevelopment Agency distributes Draft EIR to required recipients, notifies interested parties of its publication and files Notice of Completion.	March 1999	Incomplete
Draft EIR public comment period.	March-April 1999	Incomplete
Redevelopment Agency evaluates and responds to comments on Draft EIR and prepares the Final EIR.	April-May 1999	Incomplete
Redevelopment Agency recommends approval of Preliminary Report, Draft Redevelopment Plan, and EIR to Planning Commission and City Council.	May ~~April~~ 1999	Incomplete
Planning Commission reviews Redevelopment Plan for conformance with General Plan.	May 1999	Incomplete
Redevelopment Agency and City Council certify Final EIR and adopt Redevelopment Plan and Redevelopment Implementation Plan.	June 1999	Incomplete

SOURCE: San Bruno Redevelopment Agency (prepared by Seifel and Associates), Environmental Science Associates

Residential Tenants
Gertrude Kiefer
Joan Hinman Skinner

Residential Owner-Occupant or Residential Tenant
Melodie Tobin (appointed by PAC on 1/21/98 to fill vacancy)

Commercial Property Owners
Rev. Linda Pickens-Jones
Daniel Strazzullo

Business Owners
John Kolbisen
Al Stockton (Vice Chair)

Civic Representative (Chamber of Commerce Appointment)
Harry Costa

Members of the PAC can be contacted c/o the Planning and Building Department, 567 El Camino Real, San Bruno, CA 94066; telephone, (650) 877-8874; fax, (650) 873-6749; or via the City's web site at www.ci.sanbruno.ca.us.

D. INTENDED USES OF THE EIR

This EIR provides the environmental information and evaluation necessary for approving the proposed Redevelopment Plan. In conformance with CEQA, California *Public Resources Code*, Section 21000 *et seq.*, this EIR provides information addressing the environmental consequences of the proposed project, and possible means of reducing or avoiding its potentially significant impacts.

The guidelines for implementing CEQA help define the purpose of this EIR:

> **15121 (a) Information Document.** An EIR is an informational document which will inform public agency decision-makers and the public generally of the significant environmental effect[s] of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information which may be presented to the agency.
>
> **15151 Standards for Adequacy of an EIR.** An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

Public agencies and other entities expected to use the EIR include the following:

- Adjacent cities, including Millbrae, South San Francisco, and Pacifica
- San Mateo County
- The City and County of San Francisco
- The City/County Association of Governments (C/CAG)
- The Airport Community Roundtable
- The Airport Land Use Commission
- Multi-Cities Transportation Systems Management Agency (MTSMA)
- Association of Bay Area Governments (ABAG)
- Metropolitan Transportation Commission (MTC)
- Bay Area Rapid Transit District (BART)
- San Mateo County Transportation Agency (Samtrans)
- Joint Powers Board (Caltrain)
- California Department of Transportation (Caltrans)
- California High Speed Rail Commission
- Flood Control District
- State of California, including Housing and Community Development

Private sector users of the EIR may include the following:

- Homeowners associations, neighborhood organizations, block clubs, etc.
- Developers
- Housing providers and housing advocates
- Social service providers
- Existing and potential residents, business and/or property owners
- Students, researchers, etc.

The proposed Redevelopment Plan is intended to be general to allow the flexibility required to respond to changing market conditions that may prevail during the Plan's duration of 40 years,[1] as provided by the State of California's Community Redevelopment Law. The Redevelopment Plan is defined sufficiently to permit environmental analysis in conformance with CEQA.

The *CEQA Guidelines*, Section 15382, define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project...." Therefore, in identifying the significant impacts of the project, this EIR concentrates on substantial physical effects and upon mitigation measures to avoid, reduce, or otherwise alleviate those effects. CEQA does not require that the EIR discuss, or that the lead agency (the San Bruno Redevelopment Agency) impose, mitigation measures for nonphysical impacts or physical impacts that are less than significant.

CEQA requires decision-makers to balance the benefits of a proposed project against its significant and unavoidable environmental impacts in determining whether to approve a project. If the decision-makers determine that the benefits of a proposed project outweigh its unavoidable

[1] Under California's Community Redevelopment Law, 20 years is the maximum period of time in which redevelopment debt can be incurred; redevelopment projects must be completed within 30 years; the duration of the Redevelopment Plan must not exceed 40 years from the date of adoption; and 50 years is the maximum length of time a for collecting tax increment funds and repaying debt. The time limit for indebtedness may be extended if certain conditions are met.

adverse environmental effects, they may find the adverse environmental effects to be nonetheless acceptable and approve the project.

E. PROJECT APPROVAL PROCESS

The San Bruno Redevelopment Agency has a primary responsibility in approving the proposed San Bruno Redevelopment Project Area Plan, and it therefore is the lead agency responsible for preparation of this EIR (*CEQA Guidelines*, Section 15051). In accord with *CEQA Guidelines*, Section 15080, the EIR preparation and approval process has been combined with the process for planning, reviewing, and approving the proposed Redevelopment Plan.

As lead agency, the San Bruno Redevelopment Agency is responsible for notifying the following entities of the preparation of an EIR (Notice of Preparation): responsible agencies; other state, local agencies that have jurisdiction with respect to the project or the resources that may be affected by the project; federal agencies involved in approving or funding the project (if any); trustee agencies responsible for natural resources affected by the project; and to the California Office of Planning and Research State Clearinghouse. The lead agency is also responsible for reviewing and evaluating comments made on the Draft EIR and preparing responses to them. The lead agency prepares a Final EIR and certifies the adequacy of the EIR. The Redevelopment Agency, as the lead agency, is responsible for submitting the EIR and other prescribed materials to the San Bruno Planning Commission and to the San Bruno Project Area Committee for review and recommendation, and then to the San Bruno City Council for adoption (see Table I.1).

F. ORGANIZATION OF THIS EIR

This Draft EIR has been organized into the following sections.

Summary: The Summary, which precedes this introduction, summarizes the EIR by providing an overview of the project, the environmental impacts that would result from the project, the mitigation measures identified to reduce or eliminate these impacts, and the alternatives to the project.

Chapter I -- Introduction: This chapter, which provides an overview that introduces the project (the Redevelopment Project Area Plan) and the assumptions critical to the environmental analysis; describes the public involvement process; summarizes the intended uses of this EIR; describes the Redevelopment Plan approval process; and outlines the EIR contents.

Chapter II -- Project Description: This chapter discusses the project objectives; provides general information on the project location; describes the project's characteristics; and summarizes assumptions about implementation of the proposed project.

Chapter III -- Environmental Setting, Impact, and Mitigation: This chapter describes the existing setting, discusses the environmental impacts of the project, describes cumulative impacts, and identifies mitigation measures for the environmental impacts examined in this EIR. The primary issue areas addressed in the EIR are population, employment, and housing; land use

and applicable land use plans and policies; traffic, circulation, and parking; public facilities and services; parks, recreation, and open space; biology; hydrology, water quality, and flooding; geology, soils, and seismicity, seismic and fire emergency preparedness; airport safety; air quality; noise; urban design, visual quality and community character; and cultural resources. Within each impact section contained in Chapter III, potential impacts are identified in bold type. Following the discussion of each stated impact, feasible measures that could avoid or alleviate the severity of identified impacts are identified. Mitigation measures that could in themselves cause significant impacts are also identified. Where mitigation measures are proposed as part of the project, these are identified as such.

Chapter IV -- Impact Overview: This chapter summarizes discussions of cumulative impacts, unavoidable significant impacts, and impacts found to be less than significant.

Chapter V -- Alternatives: This chapter presents a reasonable range of alternatives to the proposed project, provides discussion of the environmental impacts associated with each alternative, compares the relative impacts of each alternative to those of the project and the other alternatives, and discusses the relationship of each alternative to the project objectives.

Chapter VI -- Report Preparation: This chapter identifies persons and organizations consulted during report preparation, and lists persons who contributed to report preparation.

References cited throughout the EIR are available for public review as specified herein.

REFERENCES - Introduction

(All printed references are available at the San Bruno Planning and Building Department, City Hall, 567 El Camino Real, San Bruno, unless otherwise noted.)

Governor's Office of Planning and Research, State of California, *Guidelines for Implementation of the California Environmental Quality Act* (hereinafter *CEQA Guidelines)*, as amended, 1998.

San Bruno Redevelopment Agency, *Administrative Draft Preliminary Report for the San Bruno Redevelopment Project*, February 1999.

CHAPTER II
PROJECT DESCRIPTION

This chapter of the EIR describes the Redevelopment Project Area Plan ("the project") in terms of its objectives and characteristics. The Redevelopment Plan and the Redevelopment Project Area are described, expanding on the basic information included in the EIR Introduction and providing the primary description of the focus of this program-level EIR, which is the San Bruno Redevelopment Project Area Plan.

A. PROJECT OBJECTIVES

The project sponsor, the City of San Bruno Redevelopment Agency, proposes a redevelopment plan to direct the planning and implementation of activities to revitalize the San Bruno Redevelopment Project Area, and to establish a financing method to fund these activities. The San Bruno Redevelopment Project Area Plan (Redevelopment Plan) is proposed to be generally consistent with the City's General Plan and Zoning Ordinance. The Redevelopment Plan would provide a legal framework for redevelopment activities with the basic goal of improving commercial, residential, and industrial areas and circulation in the Project Area in order to alleviate undesirable physical and economic conditions.

For the residential portions of the Project Area, the proposed Redevelopment Plan would provide for establishing residential conservation areas to preserve and protect the residential neighborhoods which are described later in this chapter. The residential conservation areas would be formalized as planning areas to ensure that redevelopment activities would protect, revitalize, and enhance the residential neighborhood quality of these areas. The Redevelopment Plan would direct that a minimum of 20 percent of tax increment proceeds be allocated within the residential conservation areas or elsewhere for the purposes of increasing, improving, and preserving the supply of low- and moderate-income housing.

For commercial areas in the Project Area, the proposed Redevelopment Plan would encourage revitalization of established commercial areas and development of new commercial uses. The Redevelopment Plan would capitalize on changes resulting from the BART extension to San Francisco International Airport, relocation of the Caltrain Station, expansion of the San Francisco International Airport, and other transportation improvements, and the potential conversion of the military facilities in San Bruno.

For industrial areas in the Project Area, the proposed Redevelopment Plan would focus on the redevelopment of older, nonconforming properties in identified areas, and also encourage the development of light industrial uses, removal of non-conforming uses in industrial areas, consolidation of parcels, and provision of public parking for transit, airport, and industrial uses.

To improve circulation in the Project Area, the proposed Redevelopment Plan provides that selected existing streets within the Project Area may be vacated, widened, or otherwise modified, and additional streets may be created as necessary for proper pedestrian and/or vehicular circulation.

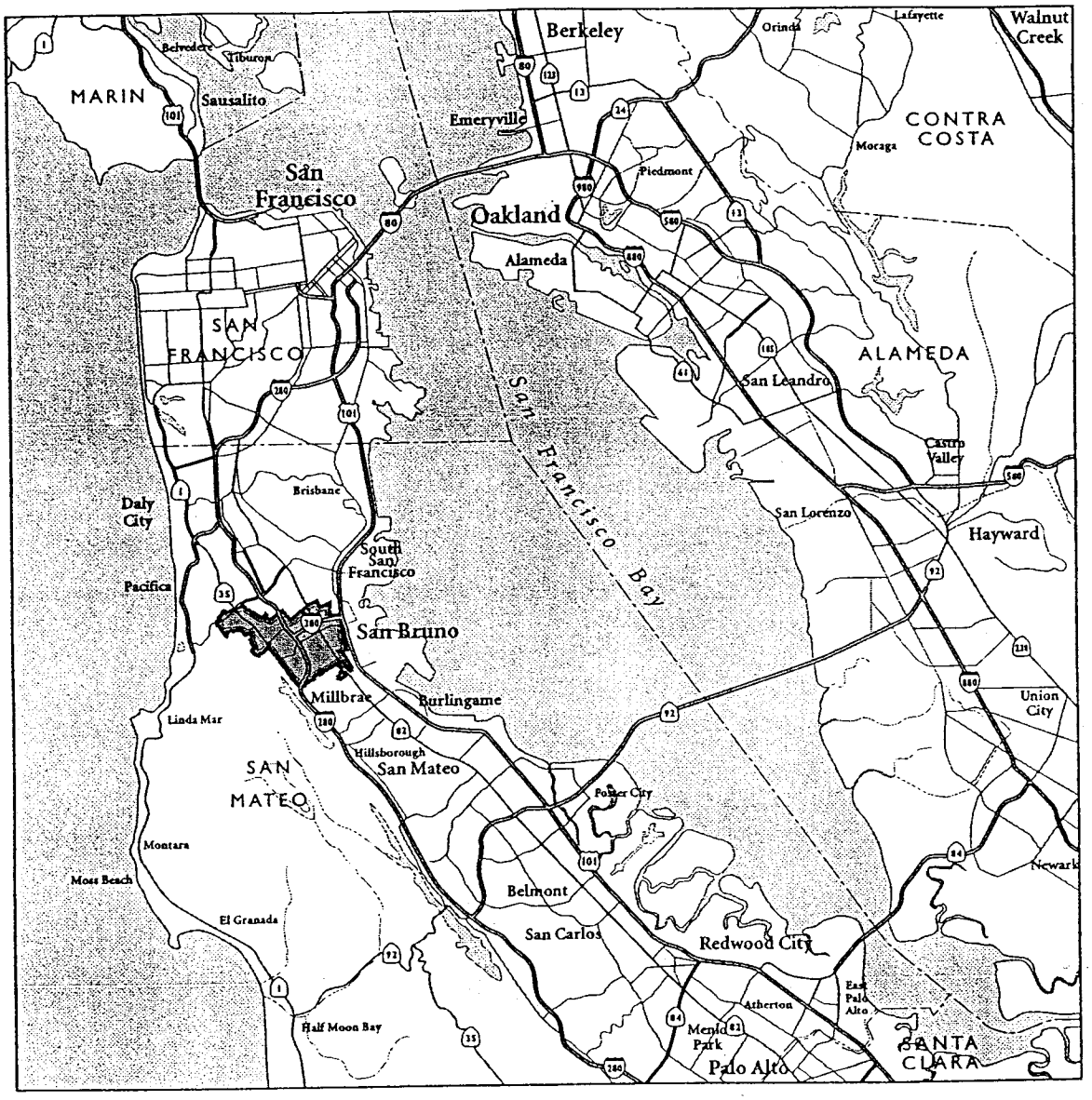
B. PROJECT LOCATION

The San Bruno Redevelopment Project Area is located in an established urban area within the city limits of the City of San Bruno, California, which is located along the western side of San Francisco Bay in San Mateo County (see Figure II.1). The City of San Bruno is located adjacent to and south of the City of South San Francisco, adjacent to and north of the City of Millbrae, and adjacent to and east of the San Francisco Peninsula Watershed, which is also a California State Fish and Game Refuge, located in an unincorporated portion of San Mateo County. A portion of the City of Pacifica adjoins San Bruno's northwestern boundary. San Bruno is west of and adjacent to the boundary of San Francisco International Airport, although the Airport's facilities are located east of San Bruno, across the U.S. 101 corridor.

The San Bruno Redevelopment Project Area encompasses approximately 717 acres of the city's total of approximately 22,050 acres. The Project Area consists of two subareas (see Figure II.2), Subarea A with approximately 699 acres, and Subarea B with approximately 18 acres. The legal description of the subareas is included as Appendix C. Subarea A is located on the eastern side of San Bruno and west of the U.S. 101 corridor and the San Francisco International Airport, and experiences overflights by airplanes landing and taking off. The eastern boundary of Subarea A is coterminous with the city's eastern boundary, from Tanforan Avenue and then south to Santa Helena Avenue. The southern boundary of Subarea A coincides with a portion of the city's southern boundary that follows Santa Helena Avenue to the west, jogs south along San Anselmo Avenue, then west again along San Juan Avenue to El Camino Real. The western boundary of Subarea A generally follows the El Camino Real corridor and then proceeds north as far as Sneath Lane to include the facilities currently used by the U.S. Navy and Marine Corps. The northern boundary of Subarea A proceeds east along Sneath Lane and then extends north to include a U.S. Post Office, continuing east along Tanforan Avenue to the eastern boundary of the city.

Subarea A (see Figure II.3) would include the following portions of San Bruno:

- The predominately commercial areas along San Bruno Avenue in downtown San Bruno, El Camino Real, Montgomery Avenue, and Tanforan Park Shopping Center.
- The residential neighborhoods included in the Fifth Addition, Belle Air Park, San Bruno Park, and Lomita Park areas of San Bruno.
- The residential / industrial mixed-use area bounded by San Mateo Avenue, I-380, the Southern Pacific Railroad (Caltrain) tracks, and Tanforan Avenue.
- The facilities occupied by the U.S. Navy and U.S. Marine Corps.



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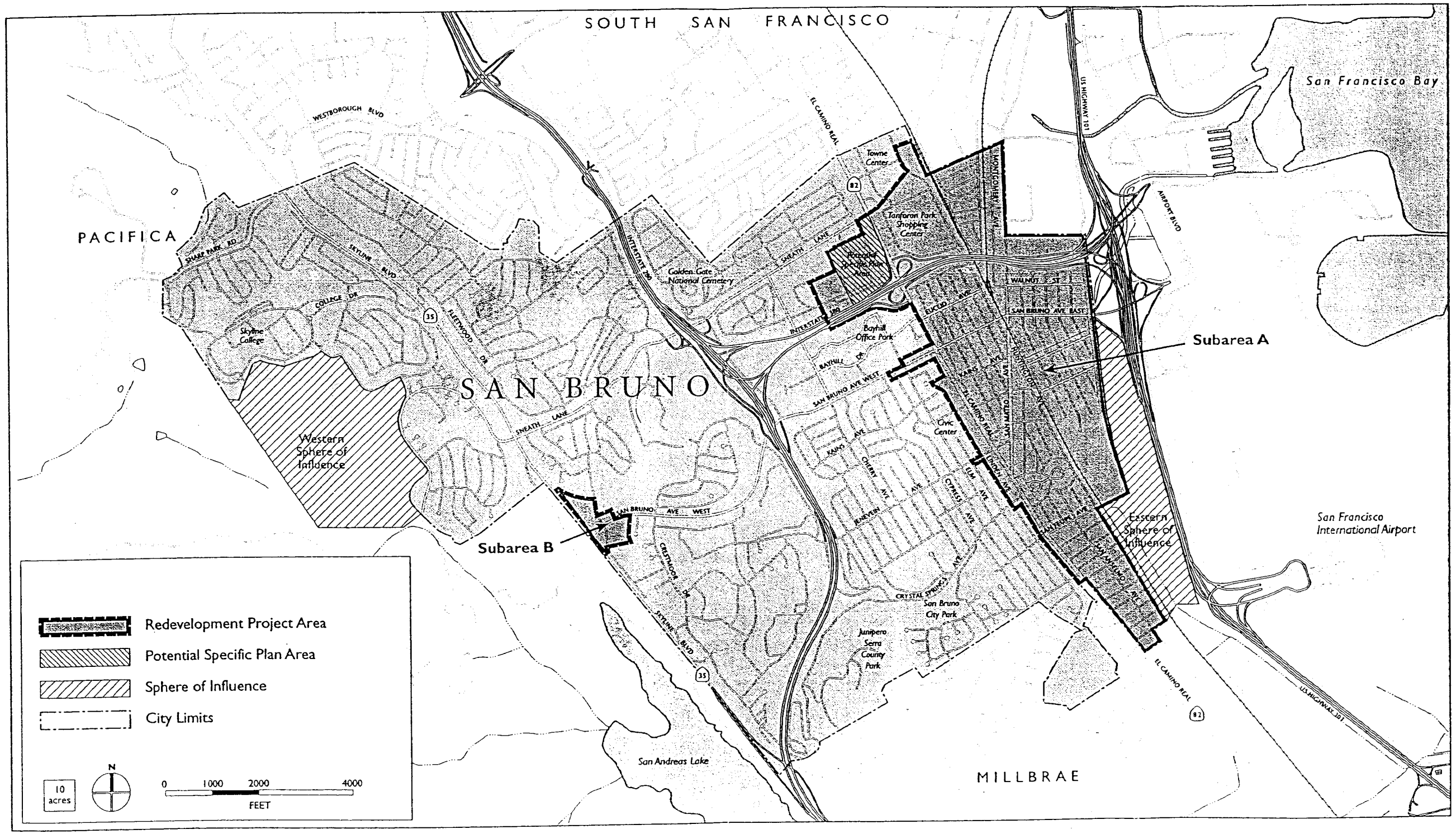
MILES

City of San Bruno Redevelopment Project Area - Figure II.1

Regional Location of San Bruno, California



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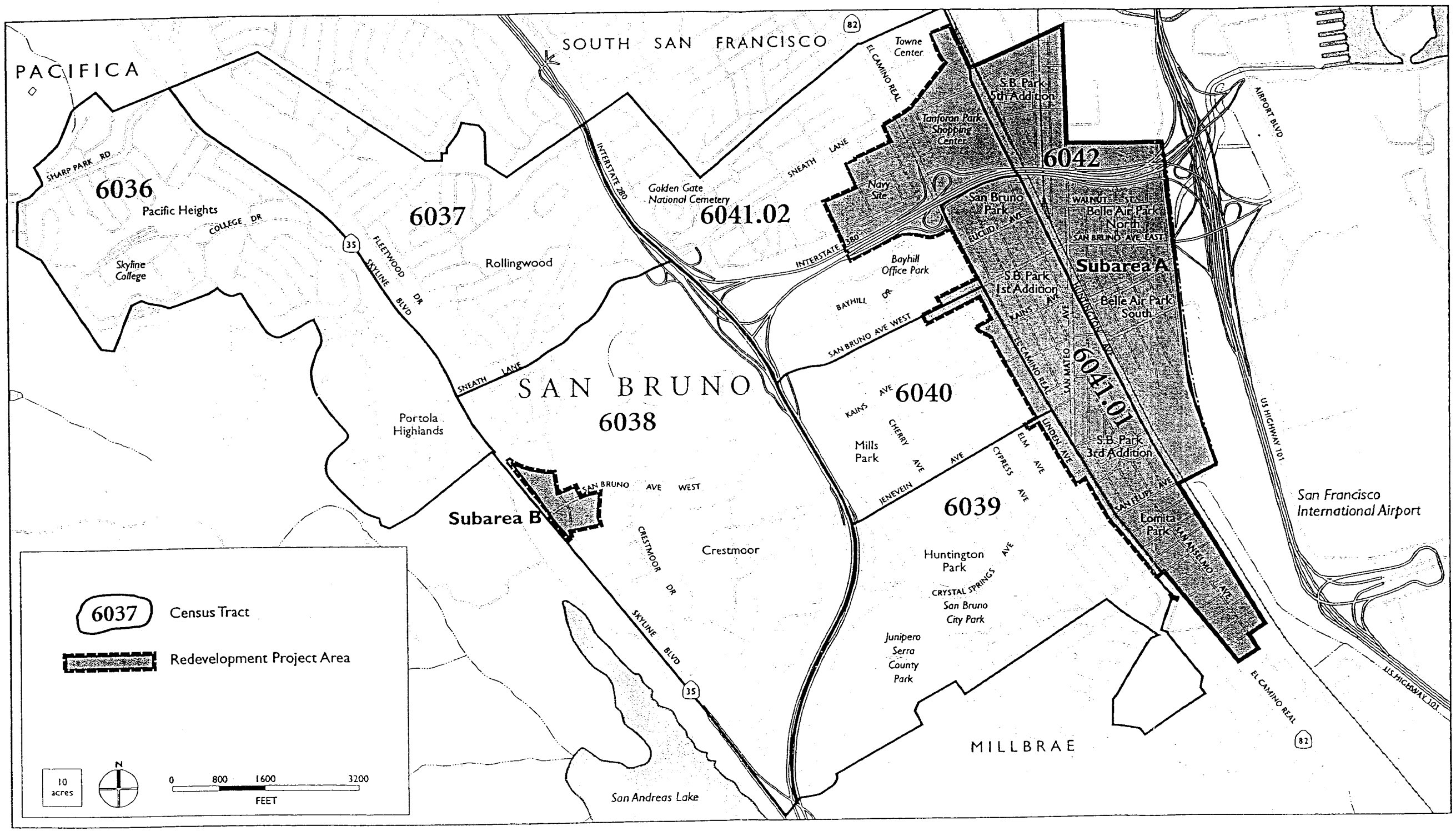
City of San Bruno Redevelopment Project Area - Figure II.2

San Bruno Redevelopment Project Area Subareas A and B



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City of San Bruno Redevelopment Project Area - Figure II.3

Census Tracts and Neighborhood Names

To facilitate discussion of the environmental setting, impact and mitigation of the proposed Redevelopment Plan, census tract boundaries are also referenced (see Figure II.3). All of Census Tract 6042 and Census Tract 6041.01 are included in Subarea A. The portions of Census Tract 6041.02 that encompass the U.S. Navy and U.S. Marine Corps facilities and selected adjacent parcels, the Tanforan Park Shopping Center, the U.S. Post Office, and selected parcels with frontage on San Bruno Avenue are in Subarea A. The portions of Census Tract 6040 and Census Tract 6039 that include selected parcels with frontage on El Camino Real, Crystal Springs Avenue, Linden Avenue, Jenevein Avenue, and San Bruno Avenue are in Subarea A.

The smaller subarea, Subarea B, is located along the western border of the City of San Bruno and includes the Skycrest Shopping Center on Skyline Boulevard and selected commercial uses adjacent to it (see Figure II.3). The boundaries of Subarea B are formed by Skyline Boulevard on the west, following the lot line of a Caltrans parcel east to Glenview Drive, then south to San Bruno Avenue, which crosses Subarea B at midpoint and intersects with Skyline Boulevard. The subarea's boundary follows San Bruno Avenue eastward, then proceeds south paralleling Alpine Way, and then west back to Skyline Boulevard. Subarea B is located east of the San Francisco Peninsula Watershed and State Fish and Game Refuge, separated from it by Skyline Boulevard (State Route 35). The subarea is located within Census Tract 6038. Subarea B is directly adjacent to the San Andreas fault, an active earthquake fault.

A number of major transportation facilities traverse or are close to both San Bruno and the Redevelopment Project Area (see Figure III.C.1). The city and the Project Area are west of the U.S. 101 corridor, which runs north-south along the San Francisco Bay Peninsula, linking San Bruno with the communities of Silicon Valley to the south and San Francisco to the north. As noted above, the Project Area is also west of the San Francisco International Airport. I-280 passes through San Bruno with an orientation roughly parallel to and approximately 1.5 miles west of U.S. 101; and I-380 crosses between U.S. 101 and I-280 and traverses the city in a southwest–northeast orientation. State Route 35 (Skyline Boulevard) coincides with the San Andreas fault at the western edge of San Bruno; State Route 82 (El Camino Real) runs approximately parallel to I-280 and U.S. 101, midway between these two freeways. Caltrain passenger trains use the Southern Pacific Railroad tracks that parallel Huntington Avenue and then Herman Avenue on the eastern side of San Bruno.

C. PROJECT CHARACTERISTICS

The proposed project is the Redevelopment Plan, which is included in this document as Appendix B. It presents a general program for improving commercial, residential, and industrial areas and circulation in the San Bruno Redevelopment Project Area in order to alleviate physical and economic conditions that interfere with the successful revitalization of commercial areas and conservation of residential areas. The proposed project would provide a legal framework for redevelopment activities and direction in planning and implementing revitalization activities in the Project Area and would establish a financing method to fund these activities. The Redevelopment Plan would establish long-term planning goals and implementation policies and procedures for redevelopment in the Redevelopment Project Area.

Under California's Community Redevelopment Law, 20 years is the maximum period of time in which redevelopment debt can be incurred. The duration of the Redevelopment Plan must not exceed 40 years from the date of its adoption, and 50 years is the maximum length of time for collecting tax increment funds and repaying debt, although the time limit for indebtedness may be extended by amendment if certain conditions are met.

The proposed Redevelopment Plan includes general statements about proposed land uses, street circulation, population density, building intensities, and building standards. According to the Redevelopment Plan, land uses under the Plan would conform to the city's General Plan and other applicable state and local regulations and procedures. The Redevelopment Plan proposes the creation of residential conservation areas in Subarea A to ensure that redevelopment activities would protect, revitalize, and enhance the residential neighborhood quality of the conservation areas (see Figure III.B.2). The Redevelopment Plan also proposes that a minimum of 20 percent of tax increment funds be allocated to the San Bruno Redevelopment Agency for the purposes of increasing, improving, and preserving the supply of low- and moderate-income housing.

The proposed project would help to revitalize commercial uses in the Project Area and capitalize on changes resulting from transportation improvements in the vicinity, including the extension of BART to the San Francisco International Airport, expansion of the San Francisco International Airport, and relocation of the Caltrain station.

The proposed project would assist industrial areas by focusing on redeveloping older, nonconforming uses along the industrial portion of San Mateo Avenue, among other possible projects. The Redevelopment Plan would include light industrial uses and removal of nonconforming residential uses in industrial areas, consolidation of parcels, and provision of public parking among the possible actions to assist industrial areas.

The proposed Redevelopment Plan would assist circulation in the Project Area by providing for street improvements, in accord with the City's General Plan, through modifying or creating streets as necessary for proper pedestrian and/or vehicular circulation.

The proposed plan may permit various types of development in the Project Area that might result in changes in population and employment densities. According to the Redevelopment Plan, the changes in densities would conform to ranges designated in the Land Use section of the City's General Plan.

The Redevelopment Plan proposes that building intensities in the Project Area be controlled by limits on the following aspects of development, in accord with the City's General Plan and Zoning Ordinance:

- Percentage of the site ground area covered by the building or buildings.
- Ratio of total floor area of the building(s) to the area of the site.
- Size and location of buildable areas on the site.
- Building height.

In addition, under the proposed Redevelopment Plan, if the height of a building were to exceed three stories (or 50 feet), the building would be subject to the voter approval requirements of City of San Bruno Ordinance 1284 and would be required to comply with this ordinance.

A number of methods are included in the proposed Redevelopment Plan that could possibly be used to accomplish Redevelopment Plan goals (see Appendix B). A method or methods appropriate to the specific project would be selected as needed. The methods presented in the Redevelopment Plan include many different types of strategies, all relating to the central goal of improving the Project Area so as to alleviate certain physical and economic conditions.

In order to adequately evaluate the possible environmental impacts of the general provisions of the proposed project, assumptions have been made about the scope, location, and design of projects that may be implemented under the Redevelopment Plan. A conservative approach has been used in developing these assumptions, which leads to outlining a maximum reasonable level of redevelopment. In this way, the EIR avoids understating the environmental impacts that could occur under the Redevelopment Plan. Actual redevelopment may be less than has been assumed for the purposes of this EIR, with the potential for correspondingly reduced environmental effects.

The assumptions made about redevelopment projects for the purposes of this EIR are presented in Table II.1. It is assumed that the primary focus of intensive redevelopment would be the nonresidential portions of Subarea A that are proximate to planned transit improvements, including BART, Caltrain, and Airtrain service (see Traffic, Circulation and Parking section in Chapter III, Figure III.C.6). The primary redevelopment focus would include the U.S. Navy and Navy Reserve properties, at such time as this part of Subarea A may become available for redevelopment. Post-military uses assumed for this area include housing for seniors, market-rate housing, hotel, conference center, retail (including shops and restaurants), and office. The main redevelopment focus would also include Tanforan Park Shopping Center, with uses assumed as retail (including a major department store, shops, and restaurants), entertainment (movie theater and other facilities), hotel, and office.

While the proposed Redevelopment Plan is anticipated to be generally consistent with San Bruno's General Plan and Zoning Ordinance and Map, several of the hypothetical projects being assumed for the purposes of this EIR could, if constructed, necessitate amendments to San Bruno's General Plan and/or Zoning Ordinance, among other regulations, in order to achieve consistency and compliance. Individual determinations concerning compliance, consistency, environmental effects, and other relevant considerations may be required for projects proposed under the Redevelopment Plan.

TABLE II.1
SAN BRUNO REDEVELOPMENT PROJECT AREA PLAN
LAND USE ASSUMPTIONS

SUMMARY OF LAND USE ASSUMPTIONS

	Assumed Units or Size (New Construction)	Assumed Parking Spaces	Estimated Time Frame
Residential	~515 – 700 units	~550 – 900	2001-10
Hotel / Convention	2,000 – 2,400 rooms[1] 110,000 s.f.	2,390 – 2,750	2001-10
Commercial / Retail / Entertainment	1,400,000 – 1,890,000 s.f[2] 4,000 – 5,000 seats	4,070 – 6,380	2000-10

DETAIL OF LAND USE ASSUMPTIONS

Location – Use	Assumed Units or Size (New Construction)	Assumed Parking Spaces	Estimated Time Frame	Census Tract 6041.02	6041.01	6042	6040	6039	6038
Residential:									
Subarea A --									
Navy Site[3] – Elderly / assisted living housing (TOD)[4]	250 units	75	2001	x					
Navy Site – Market-rate housing (TOD)	75 units	150	2002	x					
Navy Reserve Site (Marine Corps) – Market rate housing (TOD)[5]	75 units	150	2010	x					
Along El Camino Real / San Bruno Ave. – Housing	100 units	150	2002-10		x	x	x	x	
P&R Corporate yard (40,000 s.f.) – Housing (relocate yard from San Felipe & Huntington)	13 units	26	2010		x				

1 Includes development on Navy Reserve Site, which is assumed as either TOD hotel or office, but not both.
2 Includes development on Navy Reserve Site, which is assumed as either TOD hotel or office, but not both.
3 "Navy Site" includes the Navy property, vacant land owned by Mormon Church, the Federal Archives (assumed to remain "as is"), and the commercial property (dental facility) along the west side of El Camino Real adjacent to the Navy property. Total: approximately 22 acres.
4 TOD = Transit-Oriented Development.
5 "Navy Reserve Site" includes Navy Reserve property and commercial property (animal hospital and gas station) along the west side of El Camino Real adjacent to the Navy Reserve property. Total: approximately 6.5 acres.

TABLE II.1 (Continued)
SAN BRUNO REDEVELOPMENT PROJECT AREA PLAN
LAND USE ASSUMPTIONS

DETAIL OF LAND USE ASSUMPTIONS (cont.)

Location – Use	Assumed Units or Size (New Construction)	Assumed Parking Spaces	Estimated Time Frame	Census Tract 6041.02	6041.01	6042	6040	6039	6038
Pacific Bell bldg. at San Bruno Ave. near El Camino – Housing (TOD) **OR** office / retail – **OR** mix [6]	Up to 75 units	Up to 150		x					
Camino Plaza at southwest corner of El Camino & San Bruno Ave. – Housing (TOD) **OR** office / retail – **OR** mix[7]	Up to 100 units	Up to 200					x		
Subtotal – Residential	***~515 – 700 units***	***~550 – 900***	***2001-10***						
Hotel / Convention:									
Subarea A --									
Navy Site – Hotel (TOD)	800 rooms	720	2001	x					
Navy Site – Convention center (TOD)	85,000 s.f.	425	2001	x					
Navy Reserve (Marine Corps) Site – Hotel (TOD) **OR** office (but not both)	Up to 400 rooms	Up to 360	2010	x					
Tanforan Park Shopping Center – Hotel (TOD)	400 rooms	360	2002	x					
Various locations – Other meeting space at hotels in TOD Zone (Tanforan Park Shopping Center, Navy Site, Lumberyard)	25,000 s.f.	125	2001 – 2010	x		x			
Lumberyard triangle – Hotel (TOD)	400 rooms	360	2010			x			
Along El Camino or San Bruno Ave. – Other hotel(s) (non-TOD)	400 rooms	400	2001-10			x	x	x	x
Subtotal – Hotel / Convention[8]	***2,000 - 2,400 rooms 110,000 s.f.***	***2,390 – 2,750***	***2001-10***						

6 Development could be office / retail development OR housing, OR mix of both.
7 Development could be either TOD office / retail development OR TOD housing, or mix of both.
8 Includes development on Navy Reserve Site, which is assumed as either TOD hotel or office, but not both.

TABLE II.1 (Continued)
SAN BRUNO REDEVELOPMENT PROJECT AREA PLAN
LAND USE ASSUMPTIONS

DETAIL OF LAND USE ASSUMPTIONS (cont.)

Location – Use	Assumed Units or Size (New Construction)	Assumed Parking Spaces	Estimated Time Frame	Census Tract 6041.02	6041.01	6042	6040	6039	6038
Commercial:									
Subarea A									
Navy Site – Office (TOD)	600,000 s.f.	1,200	2001-10	x					
Navy Reserve (Marine Corps) Site – Office (TOD) **OR** hotel [9]	Up to 250,000 s.f.	Up to 500	2010	x					
Navy Site – Retail / restaurant (TOD)	150,000 s.f.	500	2002	x					
Navy Reserve (Marine Corps) Site – Retail / restaurant (TOD)	100,000 s.f.	330	2010	x					
Tanforan Park Shopping Center – Retail / Dillard's (TOD)	250,000 s.f.	830	2000	x					
Tanforan Park Shopping Center – Retail / other (TOD)	55,000 s.f.	330	2000	x					
Restaurants – 3 @ 15,000 s.f.	45,000 s.f.	450	2003	x					
Tanforan Park Shopping Center – Office (TOD)	150,000 s.f.	300	2003	x					
Tanforan Park Shopping Center – Theater / entertainment (TOD)	4,000-5,000 seats	Up to 1,000	2003	x					
Lumberyard triangle – Mixed (TOD)	50,000 s.f.	130	2010			x			
Pacific Bell bldg. at San Bruno near El Camino – Office / retail **OR** housing – **OR** mix (TOD) [10]	Up to 70,000 s.f.	Up to 280	2010	x					
Camino Plaza at southwest corner of El Camino & San Bruno Ave. – Office / retail **OR** housing – **OR** mix (TOD[11]	Up to 120,000 s.f.	Up to 480	2010				x		

9 Development could be either hotel OR office, but not both.
10 Development could be office / retail development OR housing, OR mix of both.
11 Development could be either TOD office / retail development OR TOD housing, or mix of both.

TABLE II.1 (Continued)
SAN BRUNO REDEVELOPMENT PROJECT AREA PLAN
LAND USE ASSUMPTIONS

DETAIL OF LAND USE ASSUMPTIONS (cont.)

Location – Use	Assumed Units or Size (New Construction)	Assumed Parking Spaces	Estimated Time Frame	Census Tract 6041.02	6041.01	6042	6040	6039	6038
Subarea B --									
Caltrans parcel –Public storage OR park, on 5 acres.	Up to 50,000 s.f.	Up to 50	2010						x
Subtotal – Commercial[12]	*1,400,000 – 1,890,000 s.f. 4,000 - 5,000 seats*	*4,070 - 6,380*							

Location – Use	Assumed Parking Spaces	Estimated Time Frame	Census Tract 6041.02	6041.01	6042	6040	6039	6038
Transportation:								
Subarea A –								
Montgomery Ave. – Vacate right-of-way, Hermosa Dr. to Walnut Ave. (See also Lumberyard triangle, above.)	--	(NA)			x			
Walnut Ave. – Eliminate part west of San Mateo Ave.	--	(NA)			x			
San Bruno Ave. – Widen from Huntington Ave. to US-101; create 2 lanes each direction, with bike lanes, turn lanes, median, 5-ft sidewalk.	--	(NA)			x			
Angus Ave. – Widen from Huntington Ave. to El Camino; allow 2-way travel + parking,	--	(NA)		x				
Huntington Ave at Angus Ave. – Build new parking garage.	500	(NA)		x				
Sneath & Commodore – New intersection – 2 lanes each direction, extended left pocket on Sneath.	--	(NA)	x					

[12] Includes development on Navy Reserve Site, which is assumed as either TOD hotel or office, but not both.

TABLE II.1 (Continued)
SAN BRUNO REDEVELOPMENT PROJECT AREA PLAN
LAND USE ASSUMPTIONS

Location – Use	Assumed Parking Spaces	Estimated Time Frame	Census Tract					
			6041.02	6041.01	6042	6040	6039	6038
El Camino & Sneath & I-380 – New intersection midblock, to allow enter / exit at Navy site and at Tanforan Park Shopping Center; allow left turns from Tanforan onto El Camino going south.	--	2001	x					
Close to new El Camino-Sneath intersection – Pedestrian overpass connecting Navy site & Tanforan Park Shopping Center.	--	2001	x					
San Mateo Ave. – Widen existing lanes from San Bruno Ave. north to Tanforan Ave., to improve circulation.	--	2003			x			
Subarea B								
Skyline Blvd. – Add parking to Caltrans parcel at Skyline & San Bruno	100	2001						x

SOURCE: City of San Bruno; Environmental Science Associates

REFERENCES – Project Description

(All printed references are available at the San Bruno Planning and Building Department, City Hall, 567 El Camino Real, San Bruno, unless otherwise noted.)

City of San Bruno, *Feasibility Report, Proposed San Bruno Redevelopment Report*, August 1998.

Foulk, Brian Kangas, for the City of San Bruno, *Description of the San Bruno Redevelopment Project Area*, October 22, 1998.

CHAPTER III
ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

This chapter describes the existing setting, discusses the environmental impacts of the San Bruno Redevelopment Plan, describes cumulative impacts (if any), and identifies mitigation measures for the environmental impacts examined in this EIR. The primary issue areas addressed in the EIR are population, employment, and housing; land use and applicable land use plans and policies; traffic, circulation, and parking; public facilities and services; parks, recreation, and open space; biology; hydrology, water quality, and flooding; geology, soils, and seismicity; seismic and fire emergency preparedness; airport safety; air quality; noise; urban design, visual quality, and community character; and cultural resources.

Within each section contained in this chapter, potential impacts are identified in bold type. Following the discussion of each stated impact, feasible measures that could avoid or alleviate the severity of impacts are identified. The level of significance after mitigation is noted. If mitigation measures could in themselves cause significant impacts, these impacts are identified. Where mitigation measures are proposed as part of the project, this is also indicated.

A. POPULATION, EMPLOYMENT, AND HOUSING

SETTING

POPULATION

Population

Population – San Bruno

During the 1950s, San Bruno and surrounding cities experienced rapid population increases (see Figure III.A.1.), often as a result of housing development that sometimes doubled the population in ten years.

Following a recession in the 1970s, San Bruno's population decreased by 2 percent. (See Table III.A.1.) With fewer people and an aging housing stock, the *City of San Bruno 1984 General Plan* projected that San Bruno's population, which reached 36,254 in 1970, would decrease by 2000 to 32,400. Instead, reflecting steady growth throughout San Mateo County, the City of San Bruno's population has increased, and the population on January 1, 1998 was estimated at 41,450.[1] By 2000, San Bruno's population is expected to reach about 42,200, an estimate that is 30 percent higher (or 9,800 persons more) than the projection made in the 1984 General Plan. As of January 1, 1998, the City of San Bruno ranks as the 165th most populous city of 471 California cities.[2]

Population – Subarea A[3]

The population in Subarea A has steadily increased from 1960 through 1990, even between 1970 and 1980 when San Bruno's population decreased overall. Subarea A's 1990 population was estimated at 11,786 (rounded to 12,000 in other sections of this EIR). The U.S. Census figures for 1960-1990 indicate the population in Subarea A increased by 2,595 persons, representing an increase of 28 percent in 30 years (see Table III.A.2).

Subarea A's population increased 5 percent between 1960 and 1970; 6 percent between 1970 and 1980; and 15 percent between 1980 and 1990.

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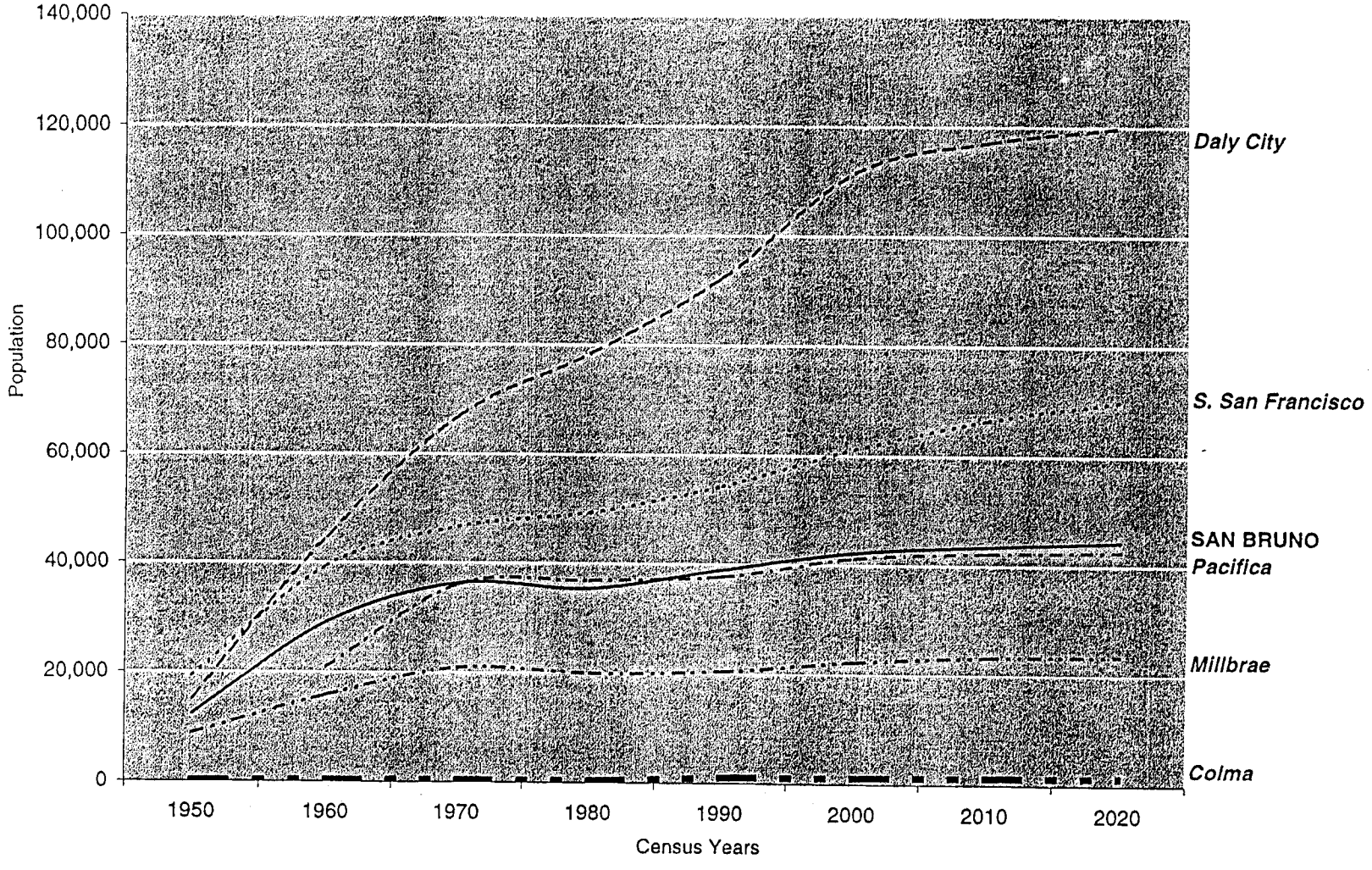
1 State of California, Department of Finance, *City/County Estimates, with Annual Percent Change*, January 1, 1997 and 1998, May 1998, http://www.dof.ca.gov. The Department of Finance uses the Housing Unit (HU) method to estimate total and occupied housing units, household size and population, and group quarters population, using the most recent census as a benchmark. The HU method adds new construction, subtracts demolitions, tracks military changes such as closures, and uses an estimate of persons per occupied household to estimate increases or decreases each year.

2 Comparably sized California cities include San Ramon, Culver City, Lompoc, Newark. Smaller California cities include Danville, Martinez, Albany, El Cerrito, Beverly Hills, Menlo Park, Foster City.

3 Analysis of Subarea A uses U.S. Census tracts 6041.01, 6041.02 and 6042. The total area of these census tracts is larger than Subarea A, but the area outside Subarea A is primarily occupied by businesses and offices.

FIGURE III.A.1

SAN BRUNO AREA POPULATION (1950-2020)



SOURCE: Department of Finance, State of California, *Historical U.S. Census Populations of Places, Towns and Cities in California: 1850-1990*, http://www.dof.ca.gov; Association of Bay Area Governments, *Projections '98*, December 1997.

TABLE III.A.1
CHANGE IN SAN BRUNO AREA POPULATION (Percent): 1950-2020

	Census Year						
	1960	1970	1980	1990	2000	2010	2020
Colma	68%	7%	-26%	179%	9%	3%	6%
Daly City	195%	49%	17%	18%	21%	5%	2%
Millbrae	77%	32%	-4%	2%	9%	5%	1%
Pacifica	*	72%	2%	2%	9%	2%	1%
San Bruno	133%	25%	-2%	10%	8%	3%	2%
South San Francisco	104%	18%	6%	10%	13%	9%	5%
San Mateo County	89%	25%	6%	11%	12%	6%	1%

* Not available

SOURCES: State of California, Department of Finance, *Historical U.S. Census Populations of Places, Towns and Cities in California, 1850-1990*, http://www.dof.ca.gov, December, 1998; Association of Bay Area Governments, *Projections '98*, December 1997; ESA.

TABLE III.A.2
SUBAREA A -- POPULATION (1960-1990)

Census Year			
1960	1970	1980	1990
9,191	9,656	10,220	11,786

SOURCE: U.S. Census Bureau, 1960-1990 Census of Population and Housing

Age Distribution

Age Distribution – San Bruno

1990 age distribution in San Bruno closely matches the age distribution for San Mateo County (see Table III.A.3.), although San Bruno has a slightly younger population with 63 percent of its population under the age of 40. Only 59 percent of San Mateo County's population is under the age of 40. In 1990, San Bruno also had a slightly lower percentage of seniors over the age of 65 than some surrounding areas. (Approximately 19 percent of the City of Millbrae's population was over the age of 65 in 1990.)

Age Distribution – Subarea A

In 1990, 68 percent of Subarea A residents were under the age of 40. This is a younger population than found citywide. Only 59 percent of the population of San Mateo County is under the age of 40. The population over the age of 65 is 9 percent of Subarea A's population, while citywide, the population over the age of 65 is approximately 11 percent. Subarea A has nearly the same proportion of youth under the age of 19 as found throughout San Bruno and, with the exception of Millbrae, in neighboring cities (see Table III.A.3).

TABLE III.A.3
1990 AGE DISTRIBUTION (PERCENT): SAN BRUNO AND AREA

	Age Cohort						
	18 yrs. or less	19-24 yrs.	25-39 yrs.	40-64 yrs.	65-74 yrs.	75+ yrs.	Totals
Subarea A	24%	10%	34%	22%	5%	4%	99%[1]
San Bruno	23%	9%	31%	27%	7%	4%	101%[1]
Daly City	25%	10%	27%	27%	6%	4%	99%[1]
Millbrae	21%	7%	27%	31%	11%	8%	100%
South San Francisco	24%	9%	27%	27%	7%	6%	100%
San Mateo County	23%	8%	28%	29%	7%	5%	100%
State of California	28%	10%	28%	24%	6%	4%	100%

[1] Rounding error

SOURCE:: U.S. Census Data, *1990 U.S. Census Data*, http://www.venus.census.gov/cdrom/lookup, December 1998.

Race[4]

Race - San Bruno

According to the 1990 Census, San Bruno remains predominately white (72 percent). Approximately 18 percent of the population is Asian or Pacific Islander; and 4 percent is African-American. About 19 percent of the population is of Hispanic origin.[5]

Race - Subarea A

According to the 1990 Census, 68 percent of Subarea A's population is white; 18 percent is Asian or Pacific Islander, and 2 percent is African-American. An estimated 30 percent of the population is of Hispanic origin.

Household Income

Household Income – City of San Bruno

In 1990, the mean[6] annual household income in San Bruno was $48,227 (approximately $59,004 in 1995 dollars). In 1995, the average annual household income in San Bruno was estimated at $59,200, close to average household incomes in surrounding areas, but almost one-third lower than the average household income in San Mateo County as a whole (see Table III.A.4.). By 2020, the Association of Bay Area Governments projects that San Bruno could have the third highest average household income among neighboring cities, but incomes could be 41 percent lower than average household incomes in San Mateo County as a whole.

HOUSING

Housing Units

Housing Units – San Bruno

The number of housing units in San Bruno has steadily increased (see Table III.A.5), although the rate of growth slowed between 1980 and 1990 to 3 percent, reflecting built-out conditions in San Bruno. By 1970 and 1980, the number of housing units had increased 29 percent and 22 percent, respectively (see Table III.A.6).

Housing Units – Subarea A

Although the number of dwelling units in Subarea A has increased over the years (see Table III.A.5), the slowest increase in the number of dwelling units corresponds with the period of time when the population was highest. Between 1980 and 1990, the number of dwelling units in Subarea A increased 3 percent, while the population increased 15 percent (see Table III.A.6).

4 The race of all persons responding to the U.S. Census is self-identified.
5 A person of Hispanic origin can be of any race.
6 An average or the total of all household income divided by the total number of households.

TABLE III.A.4
MEAN HOUSEHOLD INCOMES IN THE SAN BRUNO AREA
1990-2020
(1995 Dollars)

	Year						
	1990	1995	2000	2005	2010	2015	2020
Colma	$46,976	$44,700	$48,400	$53,500	$58,500	$60,600	$67,400
Daly City	$56,970	$57,400	$63,400	$68,400	$71,600	$74,000	$78,300
Millbrae	$68,086	$69,900	$72,400	$89,400	$111,400	$117,300	$191,500
Pacifica	$63,710	$65,900	$69,200	$75,000	$82,800	$89,900	$94,200
San Bruno	$59,004	$59,200	$67,700	$72,700	$76,900	$79,300	$83,500
South San Francisco	$55,812	$55,600	$62,000	$65,300	$67,200	$69,300	$74,000
San Mateo County	$72,898	$77,900	$86,800	$95,300	$103,500	$110,800	$117,700

SOURCE: Association of Bay Area Governments, *Projections 98: Forecasts for the San Francisco Bay Area to the Year 2020*, December 1997.

TABLE III.A.5
NUMBER OF SAN BRUNO HOUSING UNITS[1] (1960-1990)

	Census Year			
	1960	1970	1980	1990
Subarea A	3,267	3,708	4,746	4,893
San Bruno	8,815	11,350	14,658	15,178

[1] Includes unoccupied housing units.

NOTE: Subarea B contains no housing units.

SOURCE: U.S. Census Bureau, *1990 U.S. Census Data*, http://www.venus.census.gov/cdrom/lookup, December 1998; U.S. Census of Population and Housing, 1960, 1970 and 1980.

TABLE III.A.6
PERCENTAGE CHANGE IN NUMBER OF SAN BRUNO HOUSING UNITS[1] (1960-1990)

	Census Year		
	1960 - 1970	1970 - 1980	1980 - 1990
Subarea A	13%	28%	3%
San Bruno	29%	29%	4%

1 Includes unoccupied housing units.

NOTE: Subarea B contains no housing units.

SOURCE: U.S. Census Data, *1990 U.S. Census Data*, http://www.venus.census.gov/cdrom/lookup, December 1998; U.S. Census of Population and Housing, 1960, 1970 and 1980.

Although housing construction slowed throughout the City of San Bruno, development in Subarea A has been slower than development citywide. Subarea A has, however, been in a built-out condition longer than the rest of the city.

Residential Overcrowding and Owner-Occupancy

Residential Overcrowding and Owner-Occupancy – San Bruno

The U.S. Department of Housing and Urban Development defines residential overcrowding by number of persons per room in each household. Households with more than one person per room are defined as overcrowded; households with 1.5 persons per room or more are defined as severely overcrowded. In 1990, overcrowded housing in San Bruno and surrounding areas ranged from 21 percent (Daly City) of all occupied housing to 5 percent (Millbrae) of all occupied housing (see Table III.A.7). Countywide, an estimated 9 percent of all housing was overcrowded. A higher percentage of renter-occupied housing was overcrowded; owner-occupied housing was less overcrowded. Severe overcrowding occurred in 2 percent to 11 percent of the housing.

In San Bruno, an estimated 8 percent of all occupied housing was overcrowded according to the 1990 Census: 5 percent was renter-occupied and 3 percent was owner-occupied. An estimated 4 percent of all housing was severely overcrowded.

Over 60 percent of all occupied housing in San Bruno is owner-occupied.

Residential Overcrowding – Subarea A

Overcrowding is more severe in Subarea A than citywide, while the percentage of owner-occupants is approximately 20 percent lower (see Table III.A.8).

TABLE III.A.7
PERCENTAGE OF OVERCROWDED HOUSING UNITS IN THE SAN BRUNO AREA, 1990

	Renter			Owner-Occupied			
	1 Person or Less Per Room	1-1.5 Persons Per Room	1.5+ Persons Per Room	1 Person or Less per Room	1-1.5 Persons Per Room	1.5+ Persons Per Room	Total
Colma	39%	4%	5%	45%	3%	4%	100%
Daly City	31%	5%	7%	50%	5%	4%	102%[1]
Millbrae	32%	2%	2%	63%	1%	0%	100%
Pacifica	30%	2%	1%	64%	2%	1%	100%
San Bruno	32%	2%	3%	59%	2%	1%	99%[1]
South San Francisco	31%	3%	5%	57%	3%	2%	101%[1]
San Mateo County	34%	2%	4%	57%	2%	1%	100%

[1] Due to rounding.

SOURCE: Association of Bay Area Governments, *Projections 98: Forecasts for the San Francisco Bay Area to the Year 2020*, December 1997.

IMPACTS AND MITIGATION MEASURES

APPROACH TO ANALYSIS

This analysis looks at how the proposed Redevelopment Plan would potentially impact population and housing in Redevelopment Subareas A and B under *CEQA Guidelines*.

SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* (revised October 26, 1998) states that a project would significantly impact population and housing if it would:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure);
- Displace substantial numbers of existing residences, necessitating the construction of replacement housing elsewhere;

TABLE III.A.8
PERCENTAGE OF OVERCROWDED HOUSING UNITS IN THE SUBAREA A AND SAN BRUNO, 1990

	Renter			Owner-Occupied			
	1 Person or Less Per Room	1-1.5 Persons Per Room	1.5+ Persons Per Room	1 Person or Less per Room	1-1.5 Persons Per Room	1.5+ Persons Per Room	Total
Subarea A	46%	5%	6%	39%	2%	2%	100%
San Bruno	32%	2%	3%	59%	2%	1%	99%[1]

1 Rounding error.

SOURCE: Association of Bay Area Governments, *Projections 98: Forecasts for the San Francisco Bay Area to the Year 2020*, December 1997

- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

POTENTIAL PROJECT OPERATION IMPACTS

Impact A.1: Operation of the Redevelopment Plan could potentially induce population growth in Redevelopment Subarea A. (Less than Significant)

New development contributed to San Bruno's population increases of the 1950s and 1960s. The population of Redevelopment Subarea A increased from 9,191 in 1960 to 11,786 in 1990. From 1980 to 1990, population growth in Subarea A accounted for over 50 percent of San Bruno's population growth, and that growth represented a 15 percent increase in Subarea A's population. (Subarea B consists of commercial property with no permanent residents.) While the population increased by an estimated 2,600 persons, the number of housing units only increased by 147 (see Table III.A.5.).

The Redevelopment Plan could result in construction of an estimated 515 to 700 new housing units, of which 250 would be housing for the elderly, in Redevelopment Subarea A. Using the 1990 Census estimate of 2.58[7] persons per dwelling unit in San Bruno, new construction could accommodate a range of 935 to 1,410 persons.[8] Although it is unclear if this potential increase would represent residents new to Subarea A or existing residents relocating within Subarea A, new construction could result in additional population by 2010. This potential increase is,

7 U.S. Census Bureau, *1990 U.S. Census Data*, http://www.venus.census.gov/cdrom/lookup, January 25, 1999.
8 Calculated by using the 1990 Census estimate of 2.58 persons per dwelling unit multiplied by the estimated number of market rate housing units (265-450) added to the estimated number of housing units for the elderly (assuming one person per unit: (265-450) market rate housing units x 2.58 person per dwelling unit + 250 persons.

however, less than the 1980-1990 population increase. Approximately 400 of the new units would be built on the 30-acre U.S. Navy site, previously an underdeveloped area.

The population in Subarea A is younger than the population citywide or in surrounding areas (see Table III.A.3), with a high percentage of persons who are 25 to 39 years old and approximately 68 percent of the population under the age of 40. Subarea A also has a slightly higher proportion of youth under the age of 18 than the City of San Bruno at large. With a younger population, household incomes could be lower in Subarea A than in other areas of San Bruno or surrounding areas (see Table III.A.4). An influx of persons with higher incomes or from different racial groups, or persons in age groups different from the existing residents could seem to be substantial. However, these effects are not considered under *CEQA* criteria.

Additional housing is needed in Subarea A to relieve overcrowding. Subarea A contains areas that are underutilized and areas that are overcrowded. In 1990, the U.S. Census reported that 15 percent of all housing in Subarea A is overcrowded, while 8 percent is severely overcrowded, far exceeding rates for the city as a whole (see Tables III.A.8). Redevelopment would relieve overcrowding by supporting construction of housing on underutilized land at the U.S. Navy facility, at the Navy Reserve (Marine Corps) property, and other locations near Caltrans, BART, and other transit points.

Residents in new housing would have adequate housing and parking, and therefore would not strain existing housing or parking. Housing for elderly persons may provide a means of relieving overcrowding in existing housing. Transit-oriented development also relieves the strain of additional residents by orienting residents toward transportation to and from work, away from crowded neighborhoods.

The Redevelopment Plan focuses on large-scale commercial redevelopment in Subarea A and would increase the day-time population (office, business operators), as well as the visitor population (convention center, hotel occupants, business clientele, shoppers). This is not, however, a permanent population.

For the reasons stated above, the operation of this Redevelopment Plan would not result in substantial population growth, directly or indirectly.

Mitigation: None required.

Impact A.2: Operation of the Redevelopment Plan could potentially result in displacement of substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere. (Less than Significant)

Over a ten-year period ending in 2010, operation of the Redevelopment Plan could result in the loss of a minimal number of housing units, none of which are located in the Redevelopment Plan's Residential Conservation Areas. In addition, should any relocation be necessary for

residents from locations outside of Residential Conservation Areas, as provided by federal law, relocation benefits would be provided.

Mitigation: None required.

Impact A.3: The operation of the Redevelopment Plan could potentially displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. (Less than Significant)

Over a ten-year period, operation of the Redevelopment Plan could result in displacement of some residents, although the amount would be minimal. No persons would be displaced from Subarea A's Residential Conservation Areas.

Mitigation: None required.

CUMULATIVE IMPACTS

Impact A.4: The project could potentially add cumulatively to population growth in or near Subarea A. (Significant)

The Redevelopment Project would complete build-out of available land. Other major developments are, however, underway in the City of San Bruno near or in Subarea A: Construction of the Bay Area Rapid Transit (BART) extension to the San Francisco International Airport (SFIA) in Subarea A, expansion of the Gap Corporate Campus about one-half mile from Subarea A on the southeastern corner of Bayhill Drive and Cherry Avenue near I-380, and possible construction of an additional 65 hotel rooms. This additional development would not contribute to population increases in Subarea A, which would be built-out following completion of the Redevelopment Plan, but it could produce day-time and visitor population increases in San Bruno. The combination of Redevelopment Plan activities and the additional development could potentially produce population growth in nearby communities or in other areas of San Bruno. San Bruno could prove attractive because of its increased employment base, its proximity to the San Francisco International Airport and Airport-related businesses, and its well-linked transportation opportunities that could ease commutes throughout the Bay Area.

The City of San Bruno has, however, embarked upon a process to update its General Plan and Zoning Ordinance. Only changes in the General Plan and the Zoning Ordinance would allow additional residential development, which would lead to additional residential population. Day-time and visitor populations are not considered under *CEQA* criteria, and the Redevelopment Plan would complete build-out of available land for residential purposes.

Mitigation: None required.

REFERENCES – Population and Housing

(All printed references are available at the San Bruno Planning and Building Department, City Hall, 567 El Camino Real, San Bruno, unless otherwise noted. Internet resources at the Internet locations noted.)

Association of Bay Area Governments (ABAG), *Projections '98: Forecasts for the San Francisco Bay Area to the Year 2020*, December 1997, *passim.*

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B. LAND USE AND APPLICABLE LAND USE PLANS AND POLICIES

SETTING

EXISTING LAND USES

City of San Bruno

At the confluence of a major highway network and surrounded by diverse land uses, the City of San Bruno occupies a strategic geographical position on the San Francisco Peninsula and is part of a pattern of regional land uses. Covering approximately six square miles, San Bruno also contains and provides access to what can be considered some of the most breathtaking scenery in the Bay Area. Three major freeways, U.S. 101, I-280, and I-380, are connected in San Bruno, with I-380 linking U.S. 101 and I-280, and also providing direct access to San Francisco International Airport.

Most of San Bruno's northern border is shared with the City of South San Francisco, one-third of which is occupied by the scenic Golden Gate National Cemetery. The city's eastern border is shared with the San Francisco International Airport, and its southern border is shared with the City of Millbrae. San Bruno's western and northwestern borders are shared with the City of Pacifica, providing access to portions of the Golden Gate National Recreation Area, including Milagra and Sweeney Ridges, and with the San Francisco Bay National Wildlife Refuge that also includes the San Andreas Reservoir.

Historical Development of Land Uses

San Bruno's development began with commercial uses along El Camino Real near the corner of El Camino Real and San Mateo Avenue. (Once part of U.S. 101, El Camino Real forms one link in a continuous route to Mexico, and is reportedly near the historic "El Camino Real.") The San Jose and San Francisco Railroad furthered San Bruno's development after its construction through San Bruno in 1863.

When San Bruno officially became a city in 1914, its boundaries extended from its present-day eastern boundary westward to about Cherry Avenue, and included the Belle Air Park and San Bruno Park neighborhoods. The first annexation in 1940 consisted of the Golden Gate National Cemetery. The next group of annexations added the tiny El Crystal area (1945) south of City Park, City Park (1946), and the site of Capuchino High School (1946). By 1963, a total of 15 annexations filled in portions of the irregularly shaped city and then expanded the city westward. The most recent additions include Parkview, Lomita Park, and Crestmoor Park (all annexed in 1954), the Western Slope Lands (1955), Pacific Heights (1956), and the Portola Highlands (1963). San Bruno's annexations and the pattern of its streets continue a tradition of well-defined, distinct neighborhoods, served by neighborhood commercial areas, particularly its first neighborhoods.

San Bruno continued its historical role as a city at the crossroads with the construction of a new 12-acre BART station (part of BART's San Francisco Airport Extension), modernization of its Caltrain station, construction of additional hotels, and the development of regional corporate office buildings and shopping centers, further defining its strategic importance.

San Bruno's original neighborhood and commercial districts, however, have not always participated fully in this development. Because San Bruno's zoning districts were not established until 1940, the city inherited earlier land subdivisions in Belle Air Park and San Bruno Park, characterized by small, narrow plots that "often disregarded geotechnical conditions and planning principles."[1] Many of San Bruno's original commercial areas are underutilized because of land use issues, including "impaired access and circulation" and "incompatible land uses."[2]

Land Uses

San Bruno's primary land use is residential, the majority of which is devoted to single-family homes. Public right-of-ways and general open space constitute the next largest categories of existing land use.

Redevelopment Subarea A

Covering 699 acres, or 19 percent of San Bruno, Redevelopment Subarea A is San Bruno's "gateway." Located at the eastern end of San Bruno, this area contains on- and off-ramps for I-380 and is near the I-280/I-380 interchange and on- and off-ramps for U.S. 101, all of which provide direct access to San Bruno's central business district. Subarea A is also located adjacent to a major regional freeway interchange that includes direct access to the San Francisco International Airport. These interchanges also provide primary access to this area's residential neighborhoods.

Over the past 85 years, land use in Subarea A has been affected by a wide variety of events and existing conditions, including highway construction, airport expansion, noise from I-380 and overhead aircraft, the railroad tracks, changing commercial needs, incompatible circulation patterns, and insufficient or substandard lot sizes.

With over 2,750 parcels, residential use is the primary land use in Subarea A; residential use accounts for approximately 70 percent of the uses. Approximately 65 percent of all residential use is devoted to single-family detached homes. Subarea A contains seven proposed residential conservation areas, each circumscribed by major thoroughfares (or an historical separation) with predominantly commercial and/or industrial uses. With the exception of Lomita Park, all of Subarea A's residential conservation areas were within the original 1914 boundaries of the City of San Bruno; all of the conservation areas reflect long-established neighborhoods.

1 City of San Bruno, *Feasibility Report for the San Bruno Redevelopment Project*, August 1998, p. I-1.
2 *Feasibility Report for the Proposed San Bruno Redevelopment Project*, p. I-1.

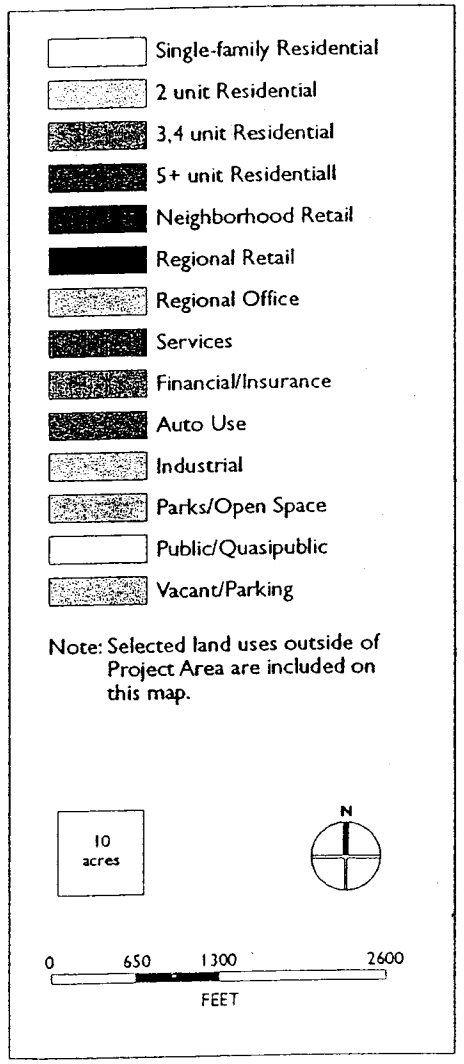
TABLE III.B.1
CITY OF SAN BRUNO
SUMMARY OF MAJOR EXISTING LAND USES

Land Use	Approximate Acres	Percent of City
Residential	1,555.0	41.4%
Community Facilities and Open Space		
Cemeteries	172.0	4.6%
Churches	11.8	.3%
City Facilities	47.5	1.3%
General Open Space	456.0	12.1%
Hospitals (Vet)	2.7	.1%
Parks	205.2	5.5%
Schools (Public and Private)	284.5	7.6%
Utilities	13.0	.3%
Commercial		
General Commercial	150.6	4.0%
Hotels	8.6	.2%
Office	54.7	1.5%
Industrial	42.0	1.1%
Public Right-of-Way	623.0	16.6%
Other	129.4	3.4%
TOTAL	3756.0[a]	100.0%

[a] The City of San Bruno also has 364 acres of unincorporated lands within its sphere of influence: 246 acres at the Jail/Coast Guard site and 118 acres of San Francisco International Airport lands.

The City of San Bruno's central business district is also located in Subarea A, along San Mateo Avenue. Commercial and industrial businesses line most of San Mateo Avenue, San Bruno Avenue East, a portion of San Bruno Avenue West, and much of El Camino Real. Community facilities, including schools, parks, and city-owned buildings are scattered throughout Subarea A.

Figure III.B.1 presents existing land uses in Subarea A. Land uses are intermixed, often inappropriately, along major thoroughfares and near the railroad tracks. Both San Mateo and Montgomery Avenues, north of I-380, contain industrial, retail, single-family residential, multi-family residential (some over five units), and auto-related uses intermixed. The results include single-family homes next to industrial properties; neighborhood retail wedged between long stretches of auto-related and industrial uses. San Bruno Avenue East, which provides an entryway into San Bruno from U.S.101, contains large commercial uses intermixed with single-family residential and multi-family residential use.



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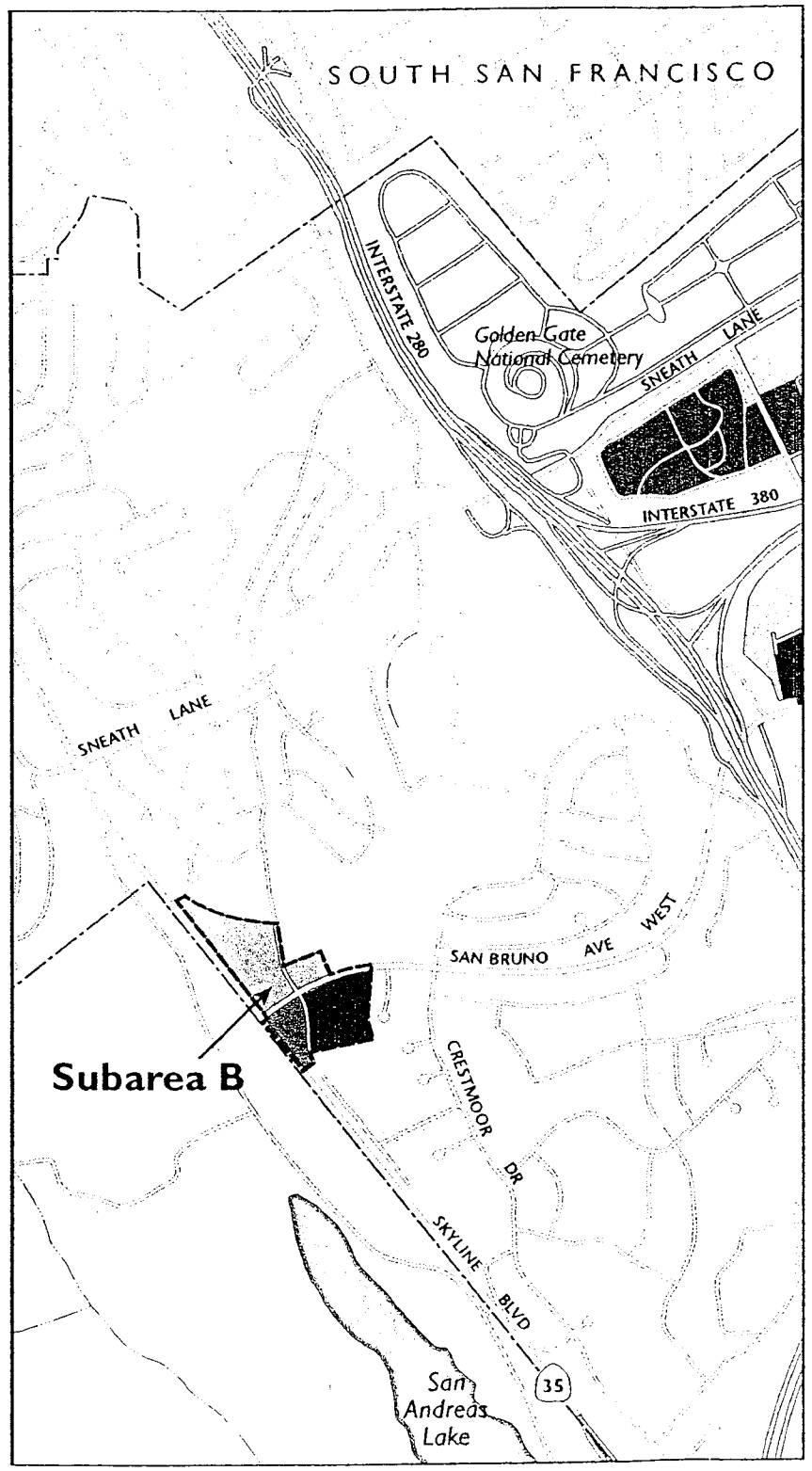
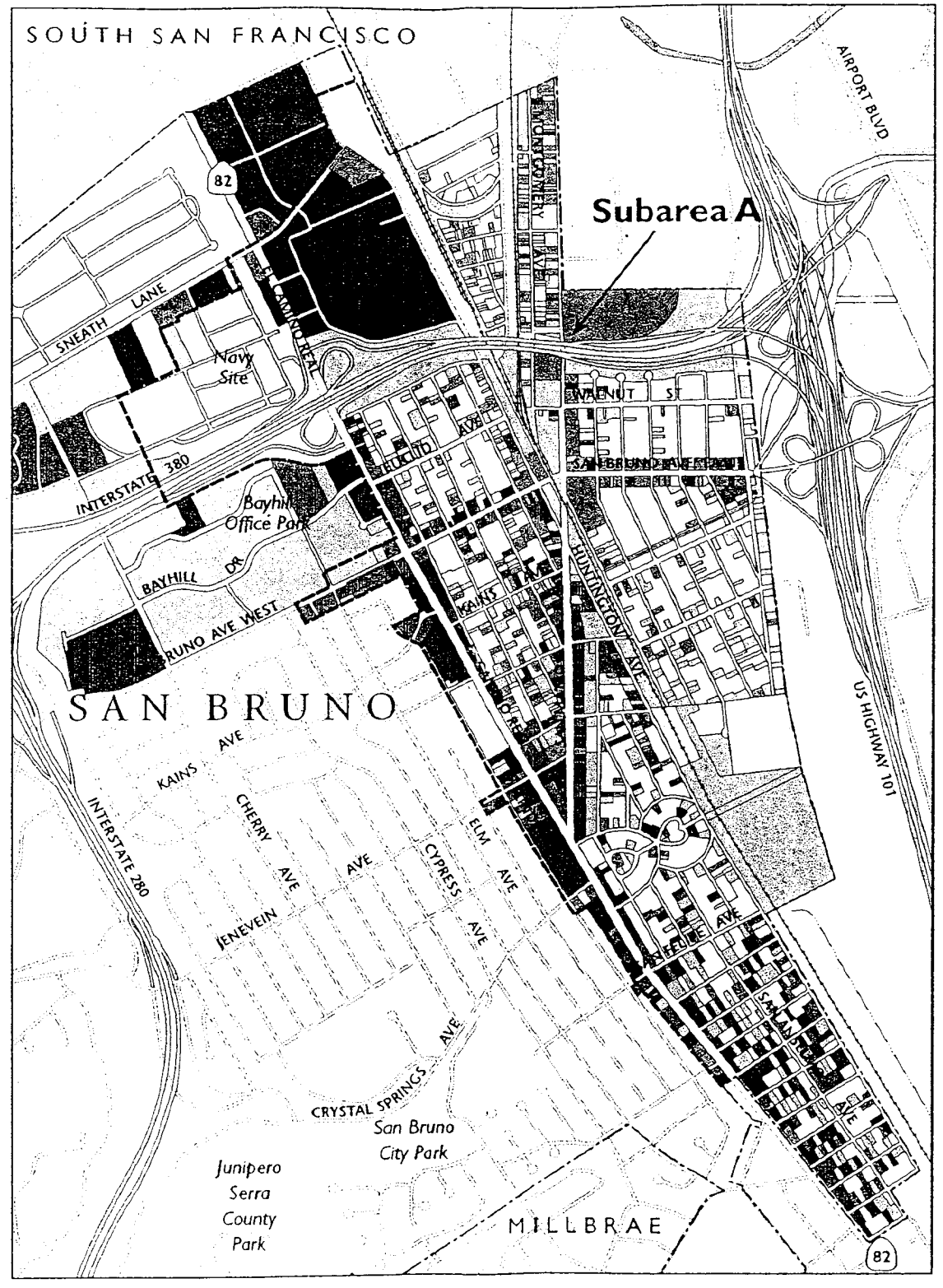




City of San Bruno Redevelopment Project Area - Figure III.B.1

Existing Land Uses in Subareas A and B

Other commercial areas characterized by small, shallow lots include Montgomery Avenue and San Bruno Avenue West.[3] Many of the commercial areas with small lots sizes are also characterized by poorly maintained or outmoded, obsolescent buildings, some of which are vacant or boarded up.[4]

Parcel sizes range from as small as 523 square feet (a parking lot) to 975,000 sq. ft. (government facility). Of its 2,750 parcels, an estimated 140 are less than 2,500 sq. ft. in size; 1,260 parcels are less than 5,000 sq. ft., and another 18 are over 100,000 sq. ft. Most of the larger parcels are related to government and/or civic uses. Most of the parcels under 5,000 sq. ft. are residential parcels; only 171 parcels under 5,000 sq. ft. are used for non-residential purposes. Approximately 125 non-residential parcels are under 2,500 sq. ft. Fifty of these small non-residential parcels are located on San Mateo Avenue, and include parcels in San Bruno's central business district.

Redevelopment Subarea B

Subarea B consists of approximately 18 acres at the western edge of San Bruno, along Skyline Boulevard and east of the San Francisco Bay National Wildlife Refuge. Subarea B is strategically located west of I-280 along San Bruno Avenue, at the western end of one of San Bruno's major east-west arterials. Irregularly shaped, Subarea B encompasses the Skycrest Shopping Center, located at the southeast corner of San Bruno Avenue and Glenview Drive, and the adjacent commercial properties. A supermarket anchors the shopping center, which has about 12 other neighborhood-serving businesses. Surrounding uses include a vacant gas station site and a vacant commercial lot.

The San Andreas fault is located along Skyline Boulevard, near the western border of Subarea B, which is in an Alquist-Priolo Special Studies Zone. (Geological and seismic considerations are discussed in Section II.H, Geology, Soils, and Seismicity.) The proximity of the San Andreas fault affects the ability to finance property improvements in this area. In addition, the vacant gas station is a contaminated site that will require clean-up. As a result, this area has slipped into economic decline.

Figure III.B.1 presents existing land uses in Subarea B.

APPLICABLE LAND USE PLANS AND POLICIES

SAN BRUNO REDEVELOPMENT PLAN

In June 1999, the San Bruno City Council will consider approval of a Redevelopment Plan for San Bruno's proposed Redevelopment Project Area ("the Project Area"). The Project Area includes two subareas already described in this section: Subarea A is an irregularly shaped area, most of which is located east of El Camino Real. Subarea A also includes the Navy and Navy

[3] This analysis is based on a database provided by the City of San Bruno's Planning and Building Department.
[4] San Bruno Redevelopment Agency, *Administrative Draft Preliminary Report for the San Bruno Redevelopment Project*, February 1999, p. II-29.

Reserve (Marine Corps) facilities, located on the western side of El Camino Real, between Sneath Lane and I-380. Subarea B consists of 18 acres of commercial property in the Skycrest Shopping Center and surrounding area, along San Bruno Avenue, Glenview Drive and Skyline Boulevard (see Figure III.B.1).

The Redevelopment Plan proposes the establishment of residential conservation areas which conform to existing neighborhoods and in which to focus efforts to maintain and preserve the existing housing stock (see Figure III.B.2). The Redevelopment Plan would allow projects and programs in non-residential areas of Subarea A: the Navy and Navy Reserve site, Tanforan Park Shopping Center, Camino Plaza, the Pacific Bell Building, the Parks and Recreation corporate yard, the lumberyard triangle, and unspecified sites along El Camino Real. The Plan would allow development including housing for the elderly, market rate housing, moderate-income housing, retail, a new convention center, hotels, a theater/entertainment complex, and office space, as such projects may be allowed by the City's General Plan and Zoning Ordinance. The Redevelopment Plan also assumes several transportation improvements would take place in Subarea A that include street widenings, vacating some portions of streets, new intersections, a parking structure and a pedestrian overpass.

This EIR includes development assumptions for one parcel in Subarea B: development of the Caltrans parcel for public storage, a park and/or public parking for the nearby Sawyer Camp trail, a San Mateo County Park and Recreation Division trail.

The objectives of the San Bruno Redevelopment Plan are included in the Project Description chapter of this EIR (Chapter II), above.

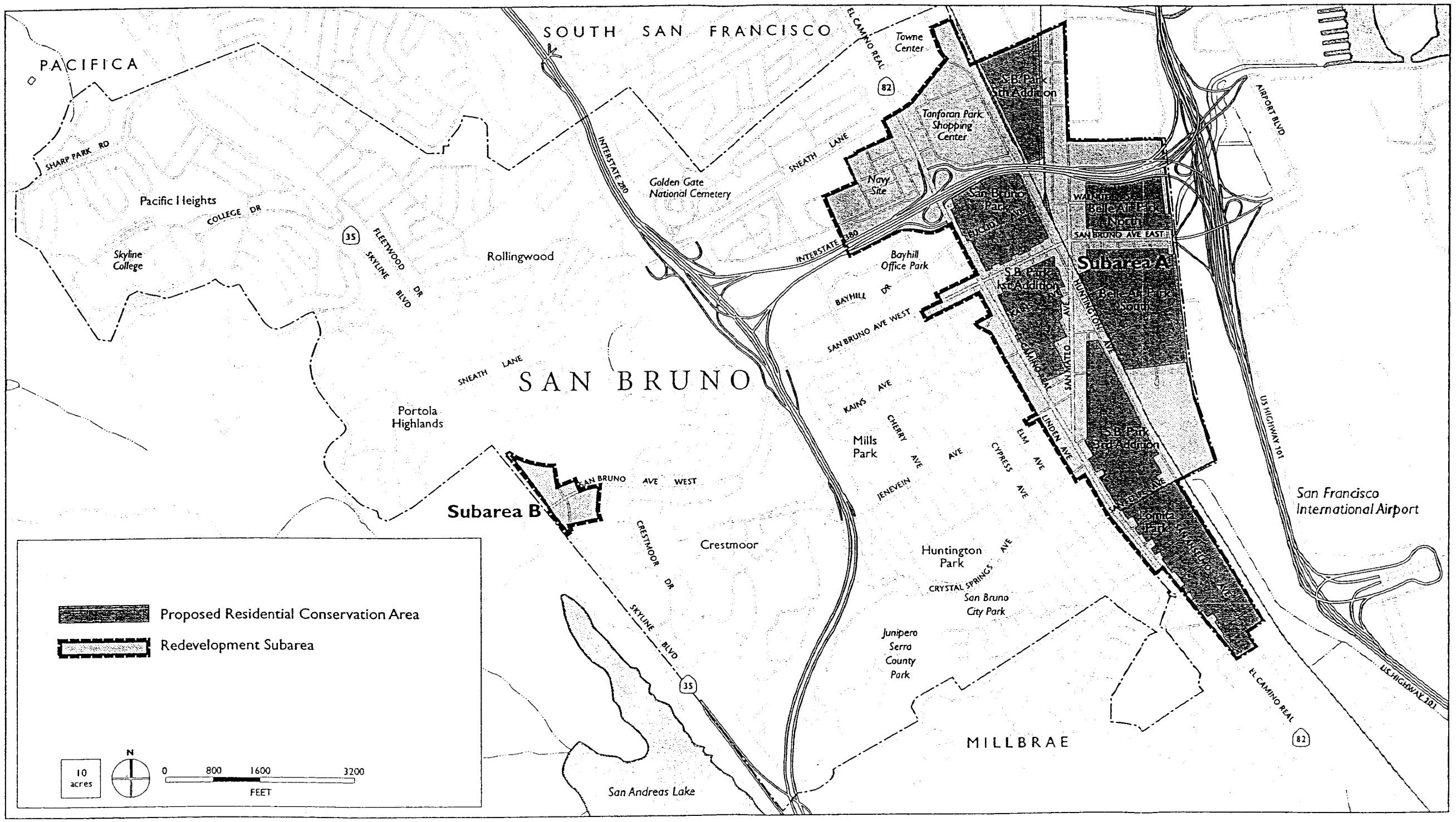
CITY OF SAN BRUNO 1984 GENERAL PLAN

Adopted on June 25, 1984, the City of San Bruno's General Plan provides general parameters for the City's growth and development, and for "maintaining and enhancing the City's social, environmental and economic environment."[5] In 1984, state law required that a General Plan contain nine elements: Land Use, Circulation, Housing, Conservation, Open Space, Seismic Safety, Safety, Noise, and Scenic Highways. San Bruno's General Plan consolidates some of the required elements to provide six discrete sections: Seismic Safety and Safety Elements, the Noise Element, the Open Space, Conservation, Scenic Corridors Elements, the Housing Element, the Circulation Element, and the Land Use Element. Each element directly impacts land use in the City of San Bruno. This section analyzes the Land Use Element of the 1984 General Plan.

Land Use Element

The 1984 General Plan's Land Use Element establishes land use categories, characterized by a population density (persons per acre), maximum allowable structural land coverage (square feet per acre), and maximum allowable building height. The city's zoning law further defines land

[5] City of San Bruno, *City of San Bruno 1984 General Plan and Environmental Impact Report*, adopted June 25, 1984, p. 1.



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City of San Bruno Redevelopment Project Area - Figure III.B.2

Proposed Residential Conservation Areas

use with setback requirements, building size, parking provisions, etc. The General Plan's land use designations for the Project Area are presented in Figure III.B.3.

The 1984 General Plan presents two sets of density figures for each land classification: one for 1980 and the projected density for the year 2000. Because the 1980 U.S. Census reported a decline in San Bruno's population, the General Plan predicted further decline in San Bruno's population by the year 2000, and declining land densities. However, San Bruno's population increased in 1990, and by the year 2000, San Bruno's population will be approximately 42,200, or 30 percent higher than was predicted. Accordingly, the population for the year 2000 is higher than described in the 1984 General Plan.

Planning Areas

The Land Use Element of the 1984 General Plan establishes seven planning areas that represent "one or more cohesive residential neighborhoods or commercial districts" and which correspond to census tract boundaries (see Table III.B.2).[6] These planning areas include some or all of Subarea A or Subarea B.

Spheres of Influence

Two unincorporated areas, one adjacent to San Bruno's western border and another adjacent to its eastern border, are within San Bruno's sphere of influence, as defined by the San Mateo County Local Agency Formation Commission (LAFCO).[7] The western sphere of influence covers approximately 158 acres, partially devoted to open space and the City and County of San Francisco's Jail. The eastern sphere of influence covers an 80-acre area commonly referred to as the "airport lands," adjacent to Subarea A and owned by the City and County of San Francisco. The airport lands are designated by the San Mateo County General Plan as San Francisco International Airport lands, for transportation-related uses.[8]

1984 General Plan Goals, Objectives, and Policies

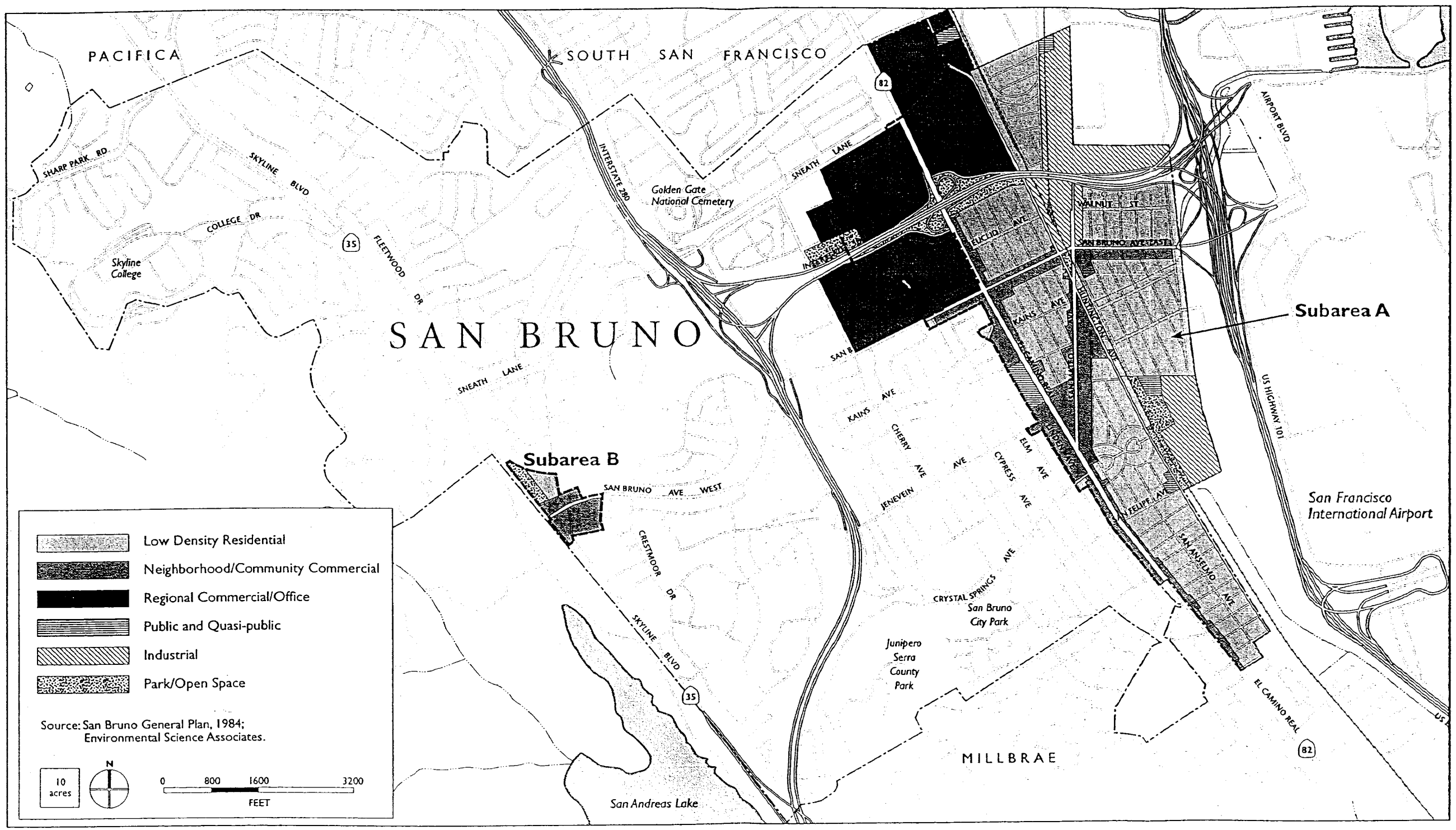
Table III.B.3 summarizes the relevant land use goals, policies, and implementing actions of the *City of San Bruno 1984 General Plan* that may impact Redevelopment Subareas A and B.

The proposed Redevelopment Plan is intentionally a general document and, as such, is consistent with San Bruno's General Plan. However, some of the land uses that have been assumed for analytical purposes would, if implemented, be inconsistent with the General Plan, and an amendment to the General Plan, or change to it as part of the anticipated update would be required to ensure consistency. Examples of assumed land uses that would, if implemented, be inconsistent with the General Plan are residential uses at the Navy site or the Navy Reserve

6 In the General Plan, census tracts 6041.01 and 6041.02 are combined into one planning area, Planning Area 6: Bayhill – Navy Lincoln Center – Tanforan – San Bruno Park – Lomita Park.

7 A LAFCO is a state-mandated local agency that oversees boundary changes to cities and special districts. A "Sphere of Influence" is the physical boundary and service area that a local governmental agency is expected to serve. (California Association of LAFCOs, http://calafco.org, February 7, 1999.)

8 See, San Mateo County *General Plan*, November 1986, Map 8.2M ("North County Area San Mateo General Plan Land Use").



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City of San Bruno Redevelopment Project Area - Figure III.B.3

General Plan Land Use Designations

TABLE III.B.2
SAN BRUNO GENERAL PLAN LAND USE PLANNING AREAS

Planning Area Number	Neighborhood(s)	Portions of Subareas A and B Within Planning Area
1	Pacific Heights – Portola Highlands – Western Sphere of Influence	None
2	Rollingwood – Monte Verde	None
3	Crestmoor	Includes all of Subarea B
4	Huntington Park – Parkview	Includes a portion of Subarea A: two blocks of commercial frontage along El Camino Real, and one square block between El Camino Real, Linden Avenue, Crystal Springs Road, and Jenevein Avenue.
5	Mills Park	Includes a portion of Subarea A: 2 square blocks between El Camino Real and Linden Avenue, and commercial frontage along one and one-half blocks of San Bruno Avenue West.
6	Bayhill – Navy/Lincoln Center – Tanforan – San Bruno Park – Lomita Park	Includes a portion of Subarea A: Tanforan Park Shopping Center, the Navy and Navy Reserve site; all of San Bruno Park; all of Lomita Park.
7	Belle Air – Eastern Sphere of Influence	Includes a portion of Subarea A: all sections of Belle Air Park.

SOURCE: City of San Bruno, *City of San Bruno 1984 General Plan and Environmental Impact Report*, adopted June 25, 1984.

(Marine Corps) site, hotel or meeting space uses at the Lumberyard site, and residential use on the upper stories of buildings along El Camino Real or San Bruno Avenue, among others.

CITY OF SAN BRUNO ZONING ORDINANCE

The *City of San Bruno Zoning Ordinance*, codified May 1, 1995, implements the provisions of the 1984 General Plan, with specific restrictions for each land use classification found in the General Plan. The Zoning Ordinance also establishes conditional uses, providing flexibility to allow uses that support the primary land use. For example, an R-1 and R-1-D district permits single-family dwellings, accessory buildings and uses, small family daycare homes, and special

TABLE III.B.3
SUMMARY OF 1984 GENERAL PLAN GOALS, POLICIES, AND ACTIONS RELEVANT TO SUBAREAS A AND B

Goal, Objective, and/or Policy	Category	Text
Land Use Goal (LUG)-1	General Goal	Ensure that continued development of San Bruno as a predominantly residential community is balanced by a strong commercial and industrial economic base.
LUG-2	General Goal	Protect San Bruno as a clean and desirable place to live and work.
LUG-3	General Goal	Encourage public and private development which is aesthetically sensitive to the surrounding environment and is of the highest quality design and construction.
LUG-5	General Goal	Seek opportunities for residents of San Bruno to live and work in their community to reduce the economic and social burdens of long-distance transportation.
Land Use Policy (LUP)-1	General Policy	Encourage income generating development that is economically beneficial to the City and fulfills community as well as regional needs.
Land Use Action (LUA)-1-A	General Policy	Maintain adequate zoning consistent with General Plan land use designations to allow for economically beneficial uses such as commercial, retail, hotel, restaurants, etc. Encourage mixed uses with flexibility to respond to economic cycles and future demands.
LUP-2	General Policy	Encourage innovative design and site planning in new development and renovation projects which enhance the community's appearance. Assure compatibility with the surrounding scale, character, and intensity of land uses.
LUA-2-A	General Policy	Use the Planned Unit Permit where warranted (i.e., . . . Navy Lincoln Center, . . . and other significant projects – 5+ acres).
LUP-4	General Policy	Assure that new development mitigates impacts on existing services including traffic circulation, water, sewer, and storm drainage systems, parks and recreational facilities, transit service, etc.
LUA-4-A	General Policy	Require by ordinance, or environmental review, as part of project submittal, identification of needed public service improvement and maintenance costs for those projects that may have a significant impact on existing services.
LUP-6	General Policy	Cooperate with regional agencies and neighboring jurisdictions on addressing shared planning concerns.
LUA-6-D	General Policy	Consider regional as well as community impacts of land use decisions in San Bruno.
LUP-1	Residential	Protect the residential character of existing residential neighborhoods.
LUA-1-A	Residential	Maintain current residential densities and height limits.
LUP-2	Residential	Cluster residential development where compatible with the surrounding residential character.

TABLE III.B.3 (Continued)
SUMMARY OF 1984 GENERAL PLAN GOALS, POLICIES, AND ACTIONS RELEVANT TO SUBAREAS A AND B

Goal, Objective, and/or Policy	Category	Text
LUA-2-A	Residential	Continue to use the Planned Unit Permit process to encourage innovative site design and expedite permit review.
LUP-3	Residential	Encourage residential integrity in existing viable neighborhoods by eliminating incompatible uses and by facilitating upgrading of deteriorated structures.
LUP-1	Commercial	Encourage ancillary uses in office complexes primarily to serve employee needs (i.e., café, health club, cleaners, sundries, etc.)
LUA-1-A	Commercial	Review and revise zoning ordinance as necessary to allow employee-related service and retail uses in office complexes.
LUP-2	Commercial	Encourage clustered commercial development with cohesive design and combined parking.
LUA-2-A	Commercial	Require preparation of a master plan for parcels over 5 acres. Continue to use Planned Unit Permit process for smaller projects to encourage innovative site planning.
LUP-3	Commercial	Encourage adequate on-site parking for uses along San Bruno Avenue and El Camino Real.
LUP-3-A	Commercial	Develop incentives for combined parking lots.
LUP-3-B	Commercial	Discourage uses such as auto repair and restaurants that require significant parking areas unless space is available on site.
LUP-4	Commercial	Support upgrading of commercial and office structures citywide, particularly along El Camino Real and San Bruno Avenue, with setbacks, sign controls, and attractive façade and landscaping.
LUA-4-A	Commercial	Continue to require landscaping on properties fronting El Camino Real and San Bruno Avenue.
LUP-1	Central Business District	Upgrade the appearance of the San Mateo Avenue central business district through combined efforts of the City, merchants, and property owners. Improve building appearances, landscaping and amenities to create attractive focal points.
LUP-3	Central Business District	Encourage use of rear parking lots along San Mateo Avenue central business district by improving the appearance of parking lots, encouraging rear entrances to buildings and landscaping walkways to the avenue.
LUP-4	Central Business District	Encourage mix of commercial uses (retail, service, office, hotel) on the vacant Tanforan lands in a comprehensive development plan.
LUP-1	Industrial	Allow for eventual conversion of residential uses in the Fifth Addition (between Montgomery Street and San Mateo Avenue) to a planned industrial park.

TABLE III.B.3 (Continued)
SUMMARY OF 1984 GENERAL PLAN GOALS, POLICIES, AND ACTIONS RELEVANT TO SUBAREAS A AND B

Goal, Objective, and/or Policy	Category	Text
LUP-1-A	Industrial	Designate the Fifth Addition east of Montgomery Street (as shown on the General Plan Land Use Map) for eventual industrial use. Allow residential uses to continue as nonconforming uses. If the area is to become wholly industrial, convert area in cohesive pieces, block by block for example, to a planned industrial park.
LUP-2	Industrial	Encourage upgrading of existing industrial uses. Require industrial development to mitigate adverse impacts on nearby areas from noise, traffic, parking, building appearance, etc.
LUA-2-C	Industrial	Revise Planned Unit Permit ordinance to apply to industrial districts in order to encourage innovative design.
LUP-4	Industrial	Encourage clean industrial uses on the airport lands that will be compatible with nearby residential neighborhoods, the school and recreational areas, and the sensitive wildlife habitat areas on site.
LUP-4-A	Industrial	Designate the airport lands for planned industrial development. Allow light industrial uses (i.e., warehouses, storage, manufacturing or transport facilities) and indoor recreational uses such as racquetball, health clubs, etc., if compatible with nearby uses.

SOURCE: City of San Bruno, *City of San Bruno 1984 General Plan and Environmental Impact Report*, as adopted June 25, 1984, pp. 173-183.

residential care facilities. Churches, schools, parks, playgrounds, mobile home parks, crop and tree farming, and large family daycare homes are also allowed as a conditional use.[9]

Table III.B.4 summarizes the relationship between the provisions of the General Plan and those of the Zoning Ordinance. The provisions of the Zoning Ordinance are more restrictive and do not always provide seamless continuity with the General Plan.

As noted above with respect to consistency with San Bruno's General Plan, the proposed Redevelopment Plan is intentionally a general document. However, some of the land uses that have been assumed for analytical purposes in this EIR would be inconsistent with the Zoning Ordinance, and an amendment to the Zoning Ordinance would be required to ensure consistency for Redevelopment Plan projects.

[9] A "conditional use" is defined in the Zoning Ordinance as "a use which is allowed in a zoning district subject to obtaining a use permit." (p. 12)

TABLE III.B.4
1984 GENERAL PLAN USE DESIGNATIONS, POPULATION DENSITIES, AND BUILDING INTENSITIES

General Plan (GP) Land Use Classification	Current Zoning	GP Population Density (persons/acre, 1980 and 2000)	GP Maximum Allowable Land Coverage/Acre	Minimum Lot Size Permitted in Zoning District	Maximum Height Permitted by GP/ Zoning	Land Use Location in Subarea A	Land Use Location in Subarea B
Residential:[a] **Very Low Density** 1 unit/acre Single-family	No current comparable land use classification	0.57 – 2.28/acre	5,000-17,500 sq. ft. 25% max.	None	35 ft./Not applicable	None	None
Residential:[a] **Low Density** ≤8 units/acre Single-family	R-1 and R-1-D *Single-Family Residential District*	20.56-18.24/acre	17,500 sq. ft. 40% max.	5,000 sq. ft.; 6,000 sq. ft. (corner lots)	35 ft./35 ft.	Belle Air Park (North and South), San Bruno Park (Fifth Addition), San Bruno Park	None
Residential:[a] **Medium Density** ≤22 units/acre Duplexes and medium-density multi-family complexes	R-2 (up to 15 units/acre) *Low-Density Residential District*	38.55-34.2/acre	24,000 sq. ft. 55% max.	5,000 sq. ft.; 6,000 sq. ft (corner lots); 2,900 sq. ft./unit	35 ft./35 ft.	San Bruno Park (First and Third Addition), Lomita Park	None
	R-3 (up to 22 units/acre) *Medium-Density Residential District*	56.54-50.16/acre	60% max.	5,000 sq. ft.; 6,000 sq. ft (corner lots); 1,950 sq. ft./unit	35 ft./ 3 stories or 50 ft., whichever is most restrictive	None	None
Residential:[b] **High Density** ≤30 units/acre Apartments and condominiums	R-4 (up to 30 units/acre) *High-Density Residential District*	77.10-68.40/acre	26,000 sq. ft. 60% max.	5,000 sq. ft.; 6,000 sq. ft. (corner lots); 1450 sq. ft./unit	35 ft./ 3 stories or 50 ft., whichever is most restrictive	None	None
Commercial: **Neighborhood** *Major streets or in neighborhood shopping centers*	C-N *Neighborhood Commercial District*	Not applicable	34,800 sq. ft. 80% max	5,000 sq. ft., 6,000 sq. ft. (corner lots)	50 ft., or 3 stories, whichever is less restrictive/ 35 ft.	Portions of El Camino Real	All

a Also may permit schools, churches, childcare centers, tot lots, uses related to residential use.
b Also may permit rooming and boarding houses, sanitariums, rest homes, as well as schools, churches, childcare centers, tot lots, uses related to residential use.

TABLE III.B.4 (Continued)
1984 GENERAL PLAN USE DESIGNATIONS, POPULATION DENSITIES, AND BUILDING INTENSITIES

General Plan (GP) Land Use Classification	Current Zoning	GP Population Density (persons/acre, 1980 and 2000)	GP Maximum Allowable Land Coverage/Acre	Minimum Lot Size Permitted in Zoning District	Maximum Height Permitted by GP/ Zoning	Land Use in Subarea A	Land Use in Subarea B
Commercial: **Neighborhood (cont.)**	C-1, C-2, CC, -L (Limited Commercial) *General Commercial Districts, Commercial Combining District*		80% max.	50 ft.-width; 60 ft. width on corners	50 ft., or 3 stories, whichever is less restrictive/ 50 ft. or 3 stories, which is more restrictive	Portions of El Camino Real, San Mateo Avenue, San Bruno Avenue	
Commercial: **Community** *Major streets or in neighborhood shopping centers*	C-1, C-2, CC, -L (Limited Commercial) *General Commercial Districts, Commercial Combining District*	Not applicable	35,000 sq. ft. 80% max.	50 ft.-width; 60 ft. width on corners	50 ft., or 3 stories, whichever is less restrictive/ 50 ft. or 3 stories, which is more restrictive	Portions of El Camino Real, San Mateo Avenue, San Bruno Avenue	None
	C-B-D *Central Business District*		43,560 sq. ft. 100% max., less parking and landscaping	2,000 sq. ft. (25 ft. width)	50 ft., or 3 stories, whichever is less restrictive/ 50 ft.	San Mateo Avenue, between El Camino Real and Huntington	
Commercial: **Regional** *Areas with easy accessibility to vehicles and transit*	C-1, C-2, CC *General Commercial Districts*	Not applicable	34,800 sq. ft. 80% max.	50 ft.-width; 60 ft. width on corners	50 ft., or 3 stories, whichever is less restrictive/ 50 ft. or 3 stories, which is more restrictive	Portions of El Camino Real, San Mateo Avenue, San Bruno Avenue	None
	P-D *Planned Development District*	Not specified	Not specified	Not specified	Not specified	Tanforan Park Shopping Center area	
Commercial: **Office** *Areas with easy accessibility to vehicles and transit*	C-O *Commercial Office District*	Not applicable	17,500 sq. ft. 40% max.	20,000 sq. ft.	35 ft.; up to 50 ft. with use permit/35 ft., up to 50 ft. with a use permit	None	None

a Also may permit schools, churches, childcare centers, tot lots, uses related to residential use.
b Also may permit rooming and boarding houses, sanitariums, rest homes, as well as schools, churches, childcare centers, tot lots, uses related to residential use.

TABLE III.B.4 (Continued)
1984 GENERAL PLAN USE DESIGNATIONS, POPULATION DENSITIES, AND BUILDING INTENSITIES

General Plan (GP) Land Use Classification	Current Zoning	GP Population Density (persons/acre, 1980 and 2000)	GP Maximum Allowable Land Coverage/Acre	Minimum Lot Size Permitted in Zoning District	Maximum Height Permitted by GP/ Zoning	Land Use in Subarea A	Land Use in Subarea B
Industrial: *Research and administrative, light manufacturing, warehousing*	M-1, M *combining Industrial District or Industrial Combining District*	Not applicable	26,000 sq. ft. 60% max. 17,500 sq. ft. 40% max.	8,000 sq. ft., width of 60 ft.	40 ft./40 ft.	Montgomery Avenue area, areas north and south of Belle Air Park	None
	A-R *Administrative and Research District*	Not applicable		43,560 sq. ft., width of 100 ft.	40 ft./40 ft.	U.S. Navy (Marine) site	None
Parks/Open Space: *Public and private open and recreational space*	O *Open Space and Conservation District*	Not applicable	Subject to use permit	1 acre	Subject to use permit	Throughout	None
Public and Quasi-Public: *Includes governmental, fire, police, and cemeteries*	No specific zoning district; conditional use	Not applicable	Subject to use permit	Not applicable	Subject to use permit	Scattered throughout	None

a Also may permit schools, churches, childcare centers, tot lots, uses related to residential use.
b Also may permit rooming and boarding houses, sanitariums, rest homes, as well as schools, churches, childcare centers, tot lots, uses related to residential use.

SOURCE: City of San Bruno, *City of San Bruno 1984 General Plan and Environmental Impact Report*, adopted June 25, 1984, pp. 152-153; ESA

City of San Bruno Zoning Ordinance Policy and Purpose

Table III.B.5 summarizes relevant portions of the City of San Bruno Zoning Ordinance policies and purposes governing land use in Subareas A and B.

SAN MATEO COUNTY COMPREHENSIVE AIRPORT LAND USE PLAN

This section analyzes the *San Mateo County Comprehensive Airport Land Use Plan* and its relationship to land use issues in San Bruno and Subareas A and B. Some information presented in this section is repeated in Section III.J, Airport safety. For additional discussion of the regulatory environment that guides airport land use issues, see Section III.J.

TABLE III.B.5
SUMMARY OF CITY OF SAN BRUNO ZONING ORDINANCE POLICIES AND PURPOSES, SUBAREA A AND SUBAREA B

Policy, Purpose		Zoning Ordinance Text
12.76.020	Policy	It is the policy of the city that the development of land and the design and arrangement of structures be subject to the control of the city pursuant to the general plan.
12.76.030	Purpose A.	To provide a precise guide to the physical development of the city in order to achieve the land uses and open spaces described in the general plan.
1276.030	Purpose B.	To promote development that is most appropriate and beneficial to the city.
1276.030	Purpose D.	To provide for adequate off-street parking facilities.
1276.030	Purpose F.	To provide for the appropriate location of public facilities.
1276.030	Purpose G.	To provide for appropriate locations and standards for commercial uses in accord with the general plan in order to strengthen the economic base of the city.
1276.030	Purpose H.	To promote development that enhances its sites and the quality of its neighborhood.

SOURCE: *City of San Bruno Zoning Ordinance*, May 1, 1995, pp. 1-2.

San Mateo County Airport Land Use Commission

Under the State Aeronautics Act, Article 3.5, Section 21670 et seq., all counties that have one or more airports served by a scheduled airline must establish an airport land use commission (ALUC). The ALUC is then required to develop and adopt comprehensive airport land use plans (CLUP)[10] for areas surrounding its airports. The CLUP must: "(1) specify how much land near airports is to be used, based on safety and aircraft noise considerations; (2) develop height restrictions and airspace protection for proposed land development; and (3) set construction standards for buildings near airports, including soundproofing requirements for proposed

[10] This section of the EIR uses the abbreviation "ALUC" to refer to both the San Mateo Airport Land Use Commission and to the San Mateo County Land Use Committee. The San Mateo County Airport Land Use Commission has delegated its work concerning airport/land use planning issues to the Airport Land Use Committee. Therefore, the San Mateo County CLUP refers to the San Mateo County Land Use Committee as the ALUC. However, the San Mateo County Airport Land Use Commission makes all final decisions regarding airport/ land use planning issues. In addition, the abbreviation is more commonly used to refer to the Commission, as noted in the State of California Department of Transportation's *Airport Land Use Planning Handbook*, pp. 1-1-1-2.

buildings."[11] In San Mateo County, the City/County Association of San Mateo County (C/CAG) has been designated to act as the ALUC.[12]

The San Mateo County ALUC has the authority to review and determine whether or not a local agency's land use policies—including general plans, general plan amendments, specific plans, specific plan amendments, and/or rezonings near an airport—are compatible with the CLUP. Table III.B.6 summarizes the sources of the CLUP's standards.

San Mateo County Comprehensive Airport Land Use Plan

The San Mateo County ALUC developed and implements the *San Mateo County Comprehensive Airport Land Use Plan* (CLUP), adopted in December 1996. The CLUP incorporates three individual airport land use plans, including the San Francisco International Airport (SFIA) Land Use Plan. The CLUP also establishes the procedures by which the Land Use Commission reviews proposed local agency actions that affect land within San Mateo County's airport land use areas. The City of San Bruno is located within the SFIA Airport Land Use Plan area. Subarea A would be the area most affected by height restrictions, safety guidelines, and the 65 dB CNEL noise impact boundary.[13]

The City of San Bruno Airport Land Use Restrictions

The "San Francisco International Airport Plan" section of the San Mateo County CLUP states that: "Airport/land use compatibility is determined by comparing a proposed land use policy action with the aircraft noise/land use compatibility standards, the relevant FAR Part 77 height restrictions, and safety criteria contained in [the CLUP]. A proposed land use policy action must be compatible with each of these elements for the Airport Land Use Commission (C/CAG) to determine that the proposed action is consistent with the relevant policies, standards, and criteria contained in the . . . [CLUP]."[14]

Noise Impact Reduction

Both the SFIA 1995 Federal Aviation Administration (FAA)-accepted Noise Exposure Map (NEM) (complies with the FAR 150 Noise Compatibility Program) and the State of California Noise Standards (monitored by the State Aeronautics Program), establish the noise contour lines that affect land use in the City of San Bruno (see Section III.J). The State of California standards define 65 dB as the maximum noise level acceptable to a "reasonable person" living near an airport. Large portions of Subarea A are located within the 65 dB and 75 dB noise contour lines (see Figure III.L.1), that include Belle Air Park North, Belle Air South, San Bruno

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11 City/County Association of Governments of San Mateo County (C/CAG) (in its designated role as the Airport Land Use Commission for San Mateo County, California), *San Mateo County Comprehensive Airport Land Use Plan*, December 1996, p. I.-1.

12 C/CAG is a Joint Powers Authority that prepares, adopts, and enforces all state-mandated countywide plans in San Mateo County.

13 The abbreviation for decibels, the unit for measuring the relative loudness of sound, is dB. "CNEL" is the abbreviation for Community Noise Equivalent Level.

14 C/CAG, pp. V.-19 and V.-20.

TABLE III.B.6
SAN MATEO COUNTY AIRPORT LAND USE COMMISSION (C/CAG)
SOURCE OF REQUIRED STANDARDS

Required Standard	Source of Standard
Height Standards/Airspace Protection Parameters	Federal Aviation Regulations (FAR) Part 77, *Objects Affecting Navigable Airspace*
Airport Noise Levels	California Administrative Code, Title 21, Subchapter 6, *Noise Standards*
	FAR Part 150, *Noise Compatibility Program*[15]
Airport Safety Guidelines	Determined by the Airport Land Use Commission based on aircraft and airport operational parameters

SOURCE: City/County Association of Governments of San Mateo County (C/CAG), *San Mateo County Comprehensive Airport Land Use Plan*, December 1996, pp. II.7-II.10.

Park (Fifth Addition), San Bruno Park, a portion of San Bruno Park (First Addition), Tanforan Park Shopping Center and most of the Navy (Navy Reserves) site.

The CLUP specifies land uses compatible with noise levels higher than 65 dB. Compatibility standards for the CLUP's noise standards are summarized in Table III.B.7.

Airport Safety Guidelines

The "San Francisco International Airport Plan" section of the San Mateo County CLUP outlines airport safety guidelines to be used with the airport noise contour map and the relevant FAR Part 77 height restrictions to determine consistency with the CLUP. The CLUP states, "These safety guidelines are not intended to be a specific development plan, do not set forth specific uses for any parcel of land, and are not retroactive with respect to existing incompatible uses" (p. V.-19). The following land uses are, however, recognized as hazardous:

- Any use that would direct a steady or flashing light of white, red, green, or amber color toward n aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing, other than FAA-approved navigational lights.
- Any use that would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following takeoff or engaged in a straight final approach toward a landing.
- Any use that would generate smoke or rising columns of air.

[15] For the *San Francisco International Airport Land Use Plan* only.

TABLE III.B.7
AIRCRAFT NOISE/LAND USE COMPATIBILITY STANDARDS FOR SAN FRANCISCO INTERNATIONAL AIRPORT PLAN AREA[1]

Land Use	CNEL Range	General Land Use Criteria	Applicability to City of San Bruno
Residential *(includes schools, libraries, churches, hospital, nursing homes, and auditoriums)*	Less than 65 dB	Compatible, with little noise impact; requires no special noise insulation for new construction	Most of San Bruno west of El Camino Real, Portions of Subarea A, including Belle Air School, San Bruno Park (First and Third Addition), Lomita Park
	65 dB to 70 dB	Conditionally compatible	Portions of Subarea A, including most of Belle Air Park South, San Bruno Park, portions of San Bruno Park (First Addition) and Belle Air Park South
	Greater that 70 dB	Incompatible; no new construction or development should be undertaken	Portions of Subarea A, including San Bruno Park (Fifth Addition) and Belle Air Park (North), a portion of Belle Air Park (South).
Commercial *(includes movie theaters, motels/hotels, sports arenas, playgrounds, cemeteries, golf courses)*	Less than 70 dB	Compatible	Most of San Bruno west of El Camino Real, most of the central business district
	70 dB to 80 dB	Conditionally compatible	Most of Subarea A, including the Navy (Marine) site, Tanforan Park Shopping Center, San Bruno Avenue East.
Industrial	Less than 75 dB	Compatible	All of the City of San Bruno.
Open Space *(includes agriculture, mining, fishing, spectator sports, and some recreational facilities)*	Less than 75 dB	Compatible	All of the City of San Bruno.

1 City/County Association of Governments, *San Mateo County Comprehensive Airport Land Use Plan*, "San Francisco International Airport Plan," pp. V.-13-V.-14.

- Any use that would attract large concentrations of birds within approach-climbout areas.
- Any use that would generate electrical interference that may interfere with aircraft communications or aircraft instrumentation. (p. V.-19)

The San Francisco International Airport Plan does not specify preferred land densities. Section III.J, Airport Safety, of this EIR, outlines density guidelines suggested by the *Airport Land Use Planning Handbook*, prepared for the California Department of Transportation's (Caltrans) Division of Aeronautics.

Height Restrictions

Height restrictions in the San Francisco International Airport Plan are determined by FAR Part 77, "Objects Affecting Navigable Airspace," which establishes imaginary surfaces that limit the height of natural and constructed objects in the vicinity of SFIA. The entire City of San Bruno falls within restricted height zones, some of which are more restrictive than FAR Part 77 (see Section III.J, Airport Safety, for a full discussion of FAR Part 77, and Figure III.J.2 for a diagram of SFIA's FAR Part 77 Airspace Plan).

Height restrictions vary according to distance from the end of a runway and the slope needed to land an aircraft. The Caltrans *Airport Land Use Planning Handbook* also notes:

> Limiting the heights of structures to the heights indicated by the Part 77 surfaces provides an ample margin of safety for normal aircraft operations. The guidance provided by Part 77 is not absolute, however. Deviation from the Part 77 standards does not necessarily mean that a safety hazard exists, only that offending objects must be evaluated by the Federal Aviation Administration and that mitigative actions such as marking or lighting be taken if appropriate.[16]

San Mateo CLUP Goals, Objectives, and Policies

Table III.B.8 summarizes the land use goals, objectives, and policies of the San Mateo County CLUP that may affect development in the City of San Bruno and in Subarea A.

OTHER PLANS AND POLICIES AFFECTING LAND USE

San Mateo County General Plan

The San Mateo County General Plan provides policy guidelines for San Bruno's Junipero Serra Park, a 108-acre park owned and managed by San Mateo County. Junipero Serra is classified by the San Mateo County General Plan as a recreational facility that "provides family and group picnicking, playgrounds, hiking and nature trails, and youth daycamping, as well as views of San Francisco Bay and the San Francisco Airport."[17]

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[16] Division of Aeronautics, California Department of Transportation, *Airport Land Use Planning Handbook*, December 1993, p. 9-31.

[17] Department of Environmental Management, Planning and Development Division, San Mateo County, General Plan, November 18, 1996, p. 6.8A.

TABLE III.B.8
SUMMARY OF RELEVANT GOALS, OBJECTIVES, AND POLICIES OF THE SAN MATEO COUNTY COMPREHENSIVE AIRPORT LAND USE PLAN

Goal, Objective, or Policy	Text
Goal	Specifically, airport land use plans (CLUPs) have two purposes: • To 'provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the commission. . .' • To 'safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general.' (p. II.-1, citing section 21675[a], State Aeronautics Act)
General Policy (GP) – Administration of the CLUP (Admin): 1(b)	The policies contained in this CLUP are intended to help achieve compatibility between proposed land use development and/or proposed airport development with airport and aircraft operations. The policies contained herein do not apply to existing development in an airport environs area. (p. II.-7)
GP – Admin: 1(c)	Existing incompatible development in an airport environs area is recognized by the Airport Land Use Commission (C/CAG) as incompatible with the relevant policies and criteria contained in this [CLUP]. (p. II.-7)
GP – Airport/Land Use Compatibility Issues (Compatibility)/Noise Impact Reduction: (b)	The 65 dB CNEL[1] noise contour shall define the noise impact boundary for San Francisco International Airport, based on the operating and noise characteristics of the air carrier aircraft that operate at that airport. (p. II.-8)
GP – Compatibility/Noise Impact Reduction: (c)	The [ALUC] shall be guided by the aircraft noise/land use compatibility criteria table for each airport, as contained here (see individual airport land use plan chapters), when considering the consistency of a proposed local agency land use policy action with the relevant airport land use plan. (p. II.-8)
GP – Compatibility/Safety: (d)	The [ALUC] shall be guided by the safety/land use compatibility table for each airport, as contained here (see safety sections of the individual airport land use plan chapters), when considering the consistency of a proposed local agency land use policy action with the relevant airport land use plan. (p. II.-10)
GP – Compatibility/Height Restrictions/Airspace Reduction (Height): (a)	The applicable provisions of Federal Aviation Regulations (FAR) Part 77, 'Objects Affecting Navigable Airspace' are hereby incorporated, by reference, into this CLUP, to establish height restrictions and airspace protection in the vicinity of each airport located in San Mateo County. (p. II.-11)
GP – Compatibility/Height: (b)	The [ALUC] shall be guided by the relevant provisions in FAR Part 77 when considering the consistency of a proposed local agency land use policy action with the relevant airport land use plan. (p. II.-11)

TABLE III.B.8 (Continued)
SUMMARY OF RELEVANT GOALS, OBJECTIVES, AND POLICIES OF THE SAN MATEO COUNTY COMPREHENSIVE AIRPORT LAND USE PLAN

Goal, Objective, or Policy	Text
GP – Compatibility/Height: (c)	Any object or structure that would penetrate any of the imaginary surfaces defined in FAR Part 77, for each airport located in San Mateo County, shall be considered as an obstruction to air navigation, and therefore, inconsistent with the relevant airport land use plan. (p. II. 11)
GP – Compatibility/Height (d)	The [ALUC] shall inform the local agency and the project developer of the federal requirement to notify the FAA of proposed land development in the vicinity of an airport, via notice requirements contained in FAA Form 7460-1, "Notice of Proposed Construction or Alteration." (p. II.-11)

1 dB is decibel; CNEL is Community Noise Equivalent Level.

SOURCE: City/County Association of Governments of San Mateo County (C/CAG), *San Mateo County Comprehensive Airport Land Use Plan*, December 1996, pp. II.6-II.12.

The San Mateo County General Plan outlines the policies guiding use of county-owned parklands. Specifically, San Mateo County regulates park encroachment, design of new park facilities, park access, and restoration of damaged parkland.

California Department of Transportation

Caltrans is responsible for maintenance and/or changes to San Bruno's interstate and state routes, including U.S. 101, I-280, I-380, State Route (SR) 35 (Skyline Boulevard), and SR 82 (El Camino Real). Any new curb cuts along El Camino Real within Subarea A or along Skyline Boulevard within Subarea B would be subject to a State Encroachment Permit, as required by the *California Permit Handbook*. The City is negotiating with Caltrans to allow the City to issue minor encroachment permits along El Camino Real.

IMPACTS AND MITIGATION MEASURES

APPROACH TO ANALYSIS

This section discusses how the proposed San Bruno Redevelopment Plan may impact land use and land use policies in the City of San Bruno. Because specific details concerning the Redevelopment Plan's projects are unspecified at this time, the analysis will be general.

For purposes of analysis, this EIR land uses under the proposed Redevelopment Plan. These projects are listed in the Project Description (Chapter II) as "San Bruno Redevelopment Project

Area Plan Land Use Assumptions" (see Table II.2). These assumptions indicate potential projects; ; actual projects undertaken would depend on the economic conditions prevailing at the time the project is being considered, among other factors.

SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* (revised October 26, 1998) states that a project could significantly impact land use if it would:

- physically divide an established community.
- conflict with any applicable land use plan, policy, or regulation or an agency with jurisdiction over the project, including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance adopted for the purpose of avoiding or mitigating an environmental effect.
- conflict with any applicable habitat conservation plan or natural community conservation plan.

PROJECT CONSTRUCTION IMPACTS

Impact B.1: The Redevelopment Plan could physically divide established neighborhoods during construction. (Less than Significant)

Construction of the projects proposed under the Redevelopment Plan could result in temporary street closures as a result of proposed street widenings, and/or construction activities that could temporarily obstruct circulation throughout neighborhoods. The possible widening of Angus Avenue could temporarily disrupt circulation along the southern end of San Bruno Park, a heavily commercial area. When combined with construction of parking structure at Angus Avenue and Huntington Avenue, circulation along San Mateo Avenue and/or cause traffic to spill over into San Bruno Park (First Addition) residential streets. The widening of San Bruno Avenue could disrupt circulation between the Belle Air Park North and Belle Air South neighborhoods, as well as businesses along that portion of San Bruno Avenue. Housing construction at San Bruno's Parks and Recreation corporate yard could disrupt access to the "Heart Area," in San Bruno Park (First and Third Addition).

Construction activities proposed for the lumberyard triangle, the Pacific Bell building, and Camino Plaza could also pose temporary disruption to circulation, businesses and neighborhood cohesiveness.

Mitigation Measure B.1: If construction activities are planned that would disrupt circulation, the City of San Bruno shall ensure that a phased and well-publicized street construction schedule be established that provides adequate information to residents (by mail, the City's website at http:// www.ci.sanbruno.ca.us, or other public notices including street signs) about the construction schedule and alternate routes, and maintains adequate access to all affected areas. (Identified in This Report)

Because the potential street construction would be temporary, occurring as a natural result of construction, and would lead to improved circulation, project construction would not cause long-term disruptions and, after mitigation, is not expected to physically divide an established neighborhood.

Significance after Mitigation: Less than Significant.

PROJECT OPERATION IMPACTS

Impact B.2: The Redevelopment Plan could physically divide established neighborhoods during operation. (Insignificant)

The Redevelopment Plan would not physically divide established neighborhoods during implementation of the Plan. As described in this EIR section, the San Bruno Redevelopment Plan would establish two separate subareas. Subarea B encompasses an underutilized shopping center and surrounding commercial areas, and is a already discrete and well-defined area separate from Subarea A. All proposed redevelopment activities would take place within this well-defined area.

Subarea A encompasses established neighborhoods and commercial areas. The historical basis of the neighborhoods is evident from the City of San Bruno's annexation map, included in the City's General Plan (p. 12), which gives the dates that different neighborhoods were annexed. Most annexations after 1914 use neighborhood names. The same neighborhood names appear in the 1984 General Plan and have been carried forward as the names of San Bruno's larger planning areas.

Redevelopment projects proposed for Subarea A are largely located along the periphery of existing neighborhoods. Street improvements along the periphery of existing neighborhoods would improve access to residential and commercial areas, inviting economic rejuvenation and increasing overall neighborhood safety and security. These street improvements would also increase linkages between neighborhoods.

Residential projects proposed for the Navy and Navy Reserve (Marine Corps) sites could create a neighborhood by new opening up a site formerly closed to general public access. Development at the Parks and Recreation site would expand the San Bruno Park (First and Third Addition) to include a site that logically should be a part of the San Bruno Park area.

The San Bruno Redevelopment Plan would not divide existing neighborhoods.

Mitigation: None required.

Impact B.3: The San Bruno Redevelopment Plan may allow projects that would conflict with the San Mateo County Comprehensive Airport Land Use Plan. (Significant)

SFIA is the fifth busiest airport in the United States, with almost 40 major passenger airlines, 13 cargo airlines, and four commuter airlines. The airline also plans to expand.[18] The City of San Bruno is located less than 1 mile from an SFIA runway. Subarea A's Belle Air Park neighborhood is closest to SFIA. Because of its proximity to SFIA, development in San Bruno is constrained by the provisions of the San Mateo County Comprehensive Airport Land Use Plan (CLUP). The CLUP is "directed at preventing future incompatible land uses from developing in the vicinity of each airport in San Mateo County, not at removing existing incompatible uses" (p. II.5). The CLUP also states: "This Plan is not a specific development plan. It neither sets forth specific land uses for any particular parcel or parcels of land, nor is it retroactive with respect to any existing incompatible land uses" (p. II.5).

The CLUP requires that the San Mateo County ALUC determine the consistency of any proposed local agency action with the CLUP. The ALUC must therefore review any general plan, specific plan, and/or zoning ordinance/rezoning for consistency with the CLUP, vis-a-vis residential densities, types of nonresidential land uses, open space uses, height limits, architectural features, materials, sound insulation requirements, exposure to aircraft noise and overflight, and potential impact on airspace protection. "As applied in airport land use planning, 'consistency' *does not* require being identical. It only means that the concepts, standards, and physical characteristics and/or resulting consequences of a proposed local agency action do not conflict with the intent of the CLUP to which the comparison is being made."[19]

Although projects under the Redevelopment Plan would be impacted by the CLUP's standards for noise reduction, safety, and height restrictions, a review of the Redevelopment Plan by the ALUC would assure consistency with the CLUP. In addition, none of the projects have yet been designed or finalized.

In addition, San Bruno participates in the FAA and the San Francisco Airport Commission's joint program for noise insulation, which provides noise insulation to noise-sensitive land uses, including residences, churches, and schools. The goal is to insulate every eligible dwelling unit by the year 2000 to an interior noise level of 45 dB CNEL. To date, over 2,300 residential dwelling units in San Bruno have been insulated under this program.

Mitigation: None required.

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18 San Francisco International Airport, http://www.sfoairport.com, February 11, 1999.
19 City/County Association of Governments of San Mateo County, *San Mateo County Comprehensive Airport Land Use Plan*, December, 1996, p. II.-15.

Impact B.4: Development allowed under the Redevelopment Plan may conflict with the City's General Plan and the City of San Bruno Zoning Ordinance. (Significant)

Some projects assumed for purposes of analysis in this EIR would conflict with the 1984 General Plan. Specifically, residential development along El Camino Real and residential and/or hotel development at the Navy (Navy Reserve) site are examples of land uses that would conflict with both the 1984 General Plan and with the Zoning Ordinance. See Table III.B.8 for a description of land uses permitted by the General Plan and the Zoning Ordinance in Subareas A and B.

The City of San Bruno is aware of inconsistencies between the 1984 General Plan and the Zoning Ordinance. The City is also aware that land uses proposed under the Redevelopment Plan may be inconsistent with both the 1984 General Plan and the Zoning Ordinance. As a result, the City has embarked upon a process to update both its General Plan and its Zoning Ordinance. "As detailed in the September 1998 Preliminary Plan for the San Bruno Redevelopment Project, any redevelopment proposed under the Redevelopment Plan would be in conformance with the adopted General Plan of the City of San Bruno, the City of San Bruno Zoning Ordinance and all other applicable state and local building codes and guidelines and be subject to all review and procedural requirements in effect as development and redevelopment take place within the Project Are boundaries."[20]

In addition, the proposed Redevelopment Plan complies with the intent of the 1984 General Plan. The land use goals, policies, proposed actions and planning area boundaries reflect an intent to achieve many of the goals of the Redevelopment Plan.

Mitigation: None required.

Impact B.5: The San Bruno Redevelopment Plan may conflict with an applicable habitat conservation plan or natural community conservation plan. (Insignificant)

The City of San Bruno does not have any habitat conservation or natural community conservation plans in effect within its city limits.

The Federal Endangered Species Act establishes the definition for a "habitat conservation plan" (HCP). Implemented primarily by the U.S. Fish and Wildlife Service, the Endangered Species Act defines a habitat conservation plan as a plan that sets aside land for a specific species to minimize the effects of an "incidental take." A take is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species. . . . Harm may include significant habitat modification where it actually kills or injures a listed species through impairment of essential behavior."[21] An "incidental" take is committed when the take is not the

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[20] San Bruno Redevelopment Agency, *Administrative Draft Preliminary Report for the San Bruno Redevelopment Project*, February 1999, p. I-12.

[21] U.S. Fish and Wildlife Service, "Habitat Conservation Plans and the Incidental Take Permitting Process," http:www.fws.gov/r9enspp, February 11, 1999.

focus of an intended activity, such as residential development. This legislation allows state, local governments, and private landowners to apply for an Incidental Take Permit for otherwise lawful activities that may harm listed species or their habitats. To obtain a permit, an applicant must submit an HCP outlining measures to "minimize and mitigate" the impact of the permitted take on the listed species.[22]

The Natural Community Conservation Plan (NCCP) program is implemented by the California Resources Agency and the California Department of Fish and Game and establishes the definition of an NCCP. An NCCP identifies and provides for the regional or areawide protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity.[23]

The City of San Bruno neither has an established HCP nor is it a participant in an NCCP.

Mitigation: None required.

REFERENCES – Land Use and Applicable Land Use Plans and Policies

(All printed references are available at the San Bruno Planning and Building Department, City Hall, 567 El Camino Real, San Bruno, unless otherwise noted. Internet resources may be found at the Internet locations noted.)

A Citizen's Guide to Habitat Conservation Plans, http://www.audobon.org/campaign/esa, February 11, 1999.

San Bruno Redevelopment Agency, *Administrative Draft Preliminary Report for the San Bruno Redevelopment Project*, February 1999.

California Association of LAFCOs, http://www.calafco.org, February 7, 1999.

California Department of Transportation, Division of Aeronautics, *Airport Land Use Planning Handbook*, December 1993.

California Resources Agency, *Natural Community Conservation Planning*, http://www.ceres.ca.gov/CRA, February 11, 1999.

City/County Association of Governments of San Mateo County (C/CAG), *San Mateo County Comprehensive Airport Land Use Plan*, pp. I.1-II.19, V.1-V.23, Appendices, December 1996.

City of San Bruno, *City of San Bruno 1984 General Plan*, June 25, 1984, pp. 1-12, 152-189, 1984.

City of San Bruno, *City of San Bruno*, http://www.ci.sanbruno.ca.us, December-February, 1999.

22 The first HCP approved under this provision of the Endangered Species Act was for the nearby San Bruno Mountain in 1983.

23 California Resources Agency, *Natural Community Conservation Planning*, http://www.ceres.ca.gov/CRA, February 11, 1999.

City of San Bruno, *Feasibility Report for the San Bruno Redevelopment Project*, August 1998, p. I-1.

County of San Mateo, 1986. Department of Environmental Management, Planning and Development Division, County of San Mateo, *General Plan*, pp. 6.1-6.25A, 7.1-7.25, November 18, 1986.

San Bruno Redevelopment Agency, *Administrative Draft Preliminary Report for the San Bruno Redevelopment Project*, February 1999, p. II-29.

San Francisco International Airport, http:www.sfoairport.com, February 11, 1999.

C. TRANSPORTATION, CIRCULATION, AND PARKING

This section describes the project setting in terms of access and circulation opportunities, the potential impacts of the proposed redevelopment project on the transportation and circulation system, and proposed mitigation measures for the identified impacts. The transportation section includes descriptions of existing traffic conditions and future traffic conditions under the proposed Redevelopment Plan. For the purpose of this EIR, "existing" is defined as November 1998, which is consistent with the Notice of Preparation. In addition, future traffic conditions without the proposed Redevelopment Plan are provided for comparative purposes.

This analysis focuses on intersection level of service, local transit impacts, pedestrian and bicycle impacts, parking availability and demand, and the number of new vehicle trips generated by the project. The analysis evaluates the full and effective implementation of the San Bruno Redevelopment Plan Amendment for the future year 2020. It is expected that most of the development will occur along transit corridors, to encourage transit use.

SETTING

EXISTING ROADWAY NETWORK

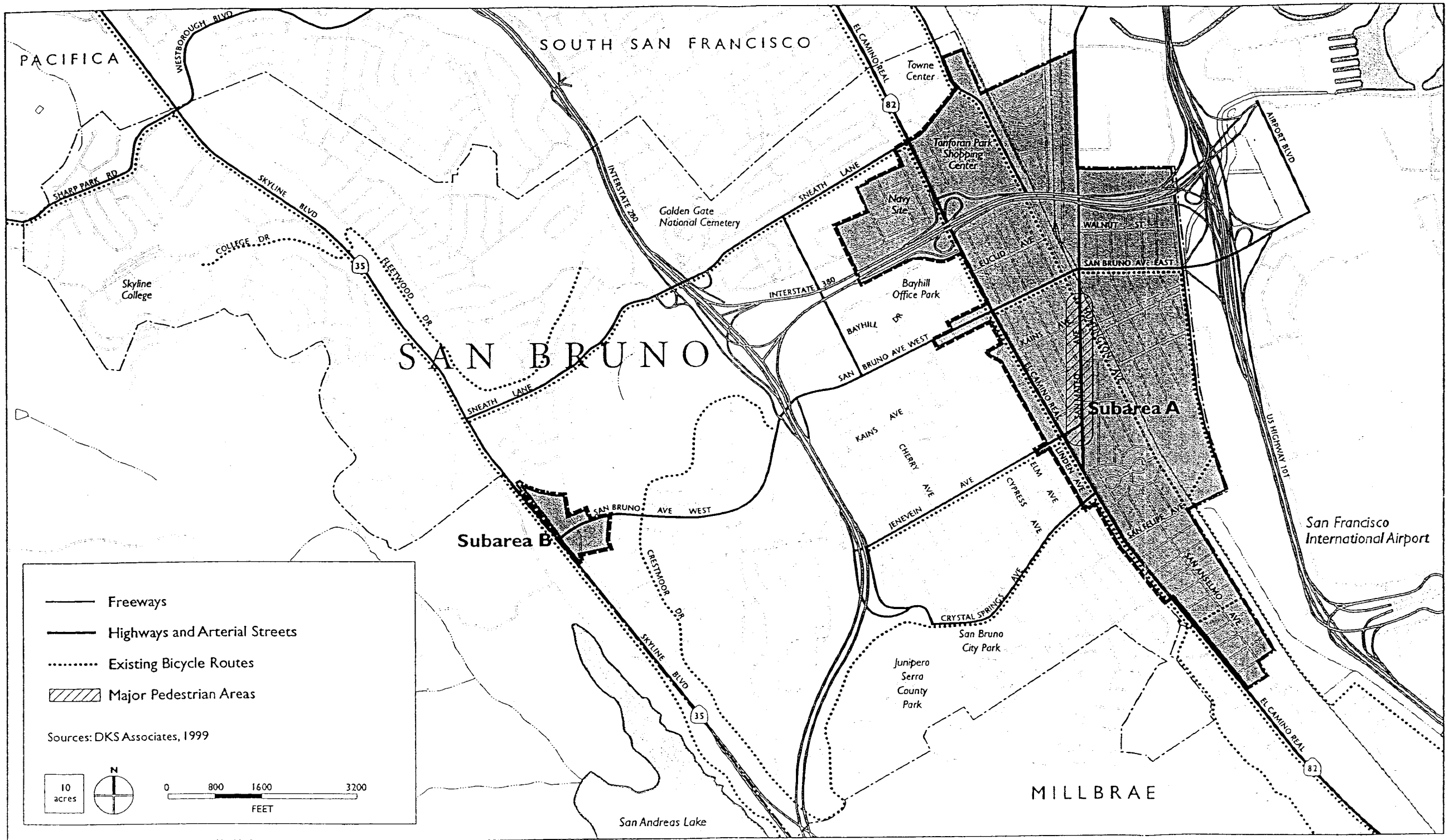
Regional Access

Figure III.C.1 provides a map of the existing transportation network. Regional access to the project area is provided via U.S. 101, I-280, I-380, El Camino Real (SR82), and Skyline Boulevard (SR35). These five roadways constitute Congestion Management Program (CMP) facilities as outlined in the 1997 San Mateo County CMP. Average daily traffic volumes for these roadways are from the *1997 Traffic Volumes on California State Highways* report (Caltrans, 7/98) and are illustrated in Figure III.C.2.

U.S. 101 is an eight- to ten-lane freeway within San Mateo County. In the vicinity of the study area, it is an eight-lane freeway except in the segment between Millbrae Avenue and I-380 where it is a ten-lane facility. The average daily traffic (ADT) on U.S. 101 between San Bruno Avenue and the San Francisco International Airport interchange is 257,000 vehicles.

I-280 is a six- to twelve-lane facility within San Mateo County. In the vicinity of the study area, I-280 has four lanes in each direction with the exception of the alignment through the I-380 interchange, where there are three northbound and five southbound lanes. The ADT on I-280 north of Sneath Lane is 195,000 vehicles and is 108,000 vehicles south of San Bruno Avenue.

El Camino Real (SR82) is a four- to six-lane arterial that extends from the Santa Clara County line to the San Francisco County line. El Camino Real has six lanes in the vicinity of the project. The ADT on El Camino Real is 41,500 vehicles immediately south of I-380 and is 47,000 vehicles immediately north of I-380.



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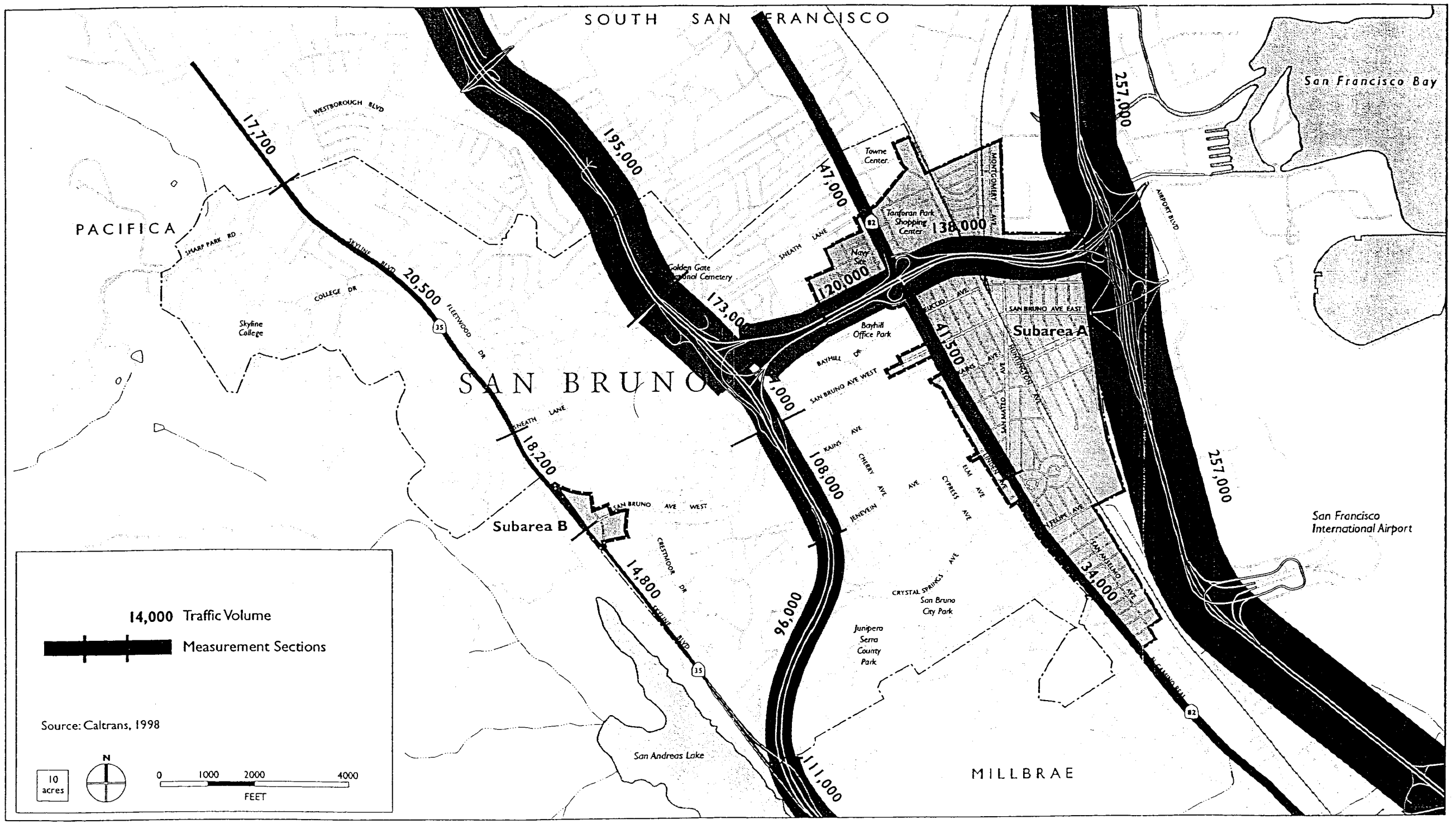
City of San Bruno Redevelopment Project Area - Figure III.C.1

Existing Transportation Network



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City of San Bruno Redevelopment Project Area - Figure III.C.2

Regional Roadways Average Daily Traffic Volumes

Skyline Boulevard (SR35) varies in roadway type and number of lanes. SR35 is a two-lane arterial to the signalized intersection of Sneath Lane, then a four-lane arterial north of Sneath Lane to Sharp Park Road, and a two-lane arterial north of Sharp Park Road to Hickey Boulevard. The ADT for SR35 is 18,200 vehicles south of Sneath Lane, and 20,500 vehicles north of Sneath Lane.

There are currently no high-occupancy vehicle (HOV) lanes in the vicinity of the study area.

Local Access

Local access to the project area is provided via Sneath Lane, San Bruno Avenue, San Mateo Avenue, and Huntington Avenue. In the vicinity of El Camino Real (SR82), these roadways are four-lane arterials (see Figure III.C.1). *Sneath Lane* provides local access between Skyline Boulevard (SR35) and Huntington Avenue. In the vicinity of El Camino Real (SR82), Sneath Lane is a four-lane facility. *San Bruno Avenue* is a local arterial that parallels I-380. In the vicinity of El Camino Real (SR82), San Bruno Avenue is a four-lane facility. In general, *San Mateo Avenue* and *Huntington Avenue* are local two-lane roadways. These local roadways are not CMP facilities.

Local Intersection Operations

Study intersections evaluated as part of this analysis were selected in cooperation with the City of San Bruno staff. Project study intersections are listed in Table III.C.1, and graphically depicted on Figure III.C.3. Weekday intersection operations were evaluated, using the *Circular 212* and *HCM 1994* methodologies with existing traffic volumes and lane geometries, in terms of "level of service" (LOS), which is a measure of driving conditions and vehicle delay. Levels of service range from LOS A (best) to LOS F (poorest). LOS A, B and C indicate satisfactory conditions where traffic can move relatively freely. LOS D describes conditions where delay is more noticeable. LOS E indicates conditions where traffic volumes are at or close to capacity, resulting in significant delays and average travel speeds that are one-third the uncongested speeds or lower. LOS F characterizes conditions where traffic demand exceeds available capacity, with very slow speeds (stop-and-go) and long delays (over a minute) and queuing at signalized intersections.

All study intersections operate at LOS D or better in the a.m. peak hour (see Table D.4 in Appendix D).[1] In the p.m. peak hour, two intersections operate at LOS E and two operate at LOS F. A detailed analysis of each intersection is provided in Attachment D.1, which is available at City of San Bruno offices (567 El Camino Real).

Public Transit

Two major public transit operators currently provide service in the project vicinity.

- Joint Powers Board (Caltrain)
- San Mateo County Transit District (SamTrans)

[1] The weekday a.m. peak hour and p.m. peak hour are the one-hour periods that occur during the two-hour peak-periods, from 7:00 to 9:00 a.m., and from 4:00 to 6:00 p.m., respectively.

TABLE III.C.1
STUDY INTERSECTION LOCATIONS

1. El Camino Real/ Westborough Boulevard [1]
2. El Camino Real/ Noor Avenue [1,2]
3. El Camino Real/ Sneath Lane
4. El Camino Real/ I-380 WB off-ramp
5. El Camino Real/ I-380 EB off-ramp
6. El Camino Real/ San Bruno Avenue [3]
7. El Camino Real/ San Mateo Avenue/ Taylor
8. El Camino Real/ San Felipe Avenue
9. Sneath Lane/ I-280 SB on-/ off-ramps
10. Sneath Lane/ I-280 NB on-/ off-ramps
11. Sneath Lane/ Cherry Avenue
12. Sneath Lane/ Commodore Drive [2]
13. Sneath Lane/ Huntington Avenue [2]
14. Tanforan Avenue/ Dollar Avenue/ Herman Street [2]
15. Herman Street/ Scott Street [2]
16. San Bruno Avenue/ Skyline Boulevard
17. San Bruno Avenue/ I-280 SB on-/ off-ramps
18. San Bruno Avenue/ I-280 NB on-/ off-ramps
19. San Bruno Avenue/ Huntington Avenue
20. San Bruno Avenue/ San Mateo Avenue
21. San Bruno Avenue/ 3rd Avenue
22. San Bruno Avenue/ S. Airport Boulevard
23. San Mateo Avenue/ Huntington Avenue [2]
24. Huntington Avenue/ Angus Avenue [2]

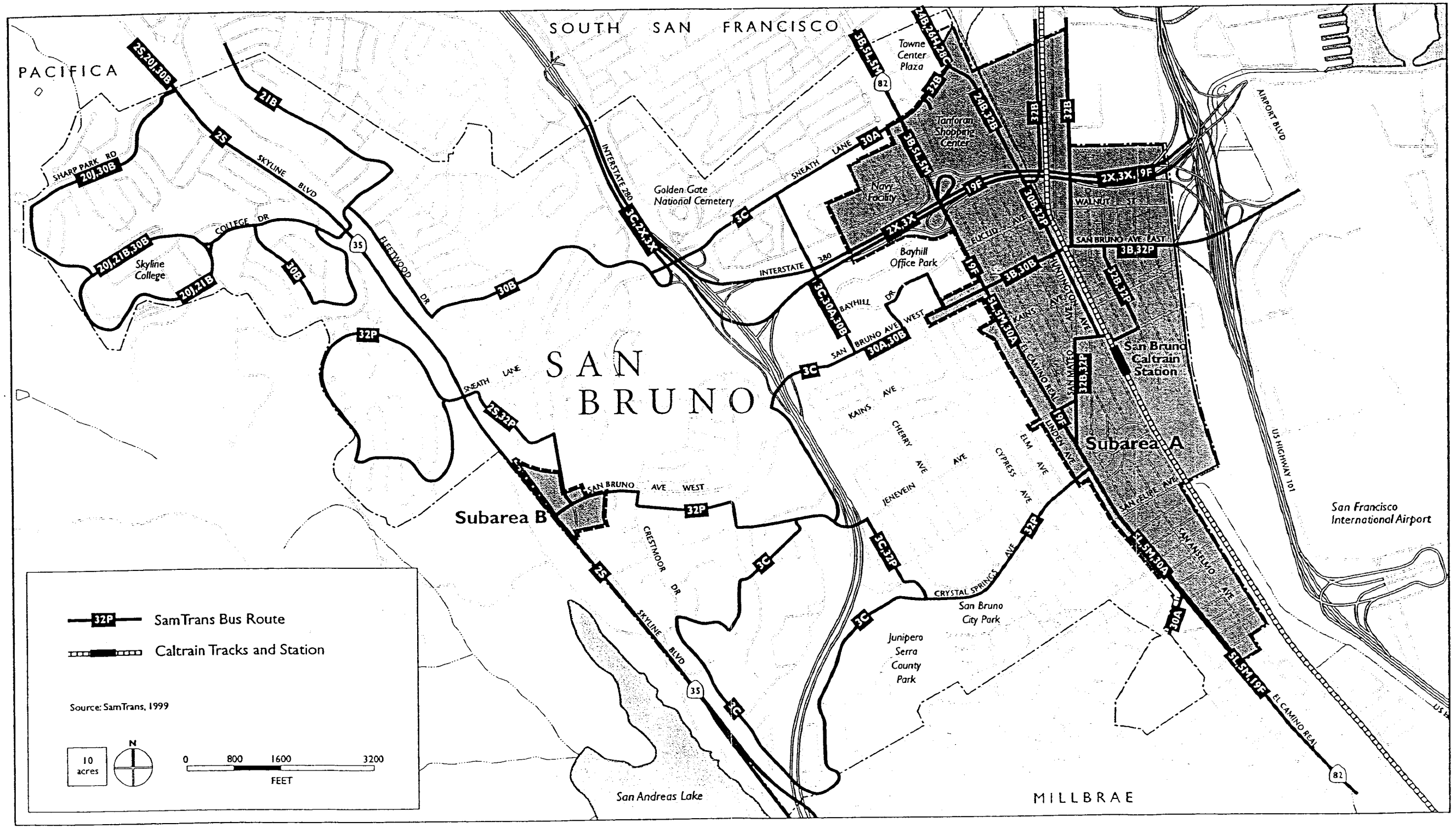
1 Intersection located in the City of South San Francisco.
2 Stop-controlled intersection.
3 CMP Intersection.

SOURCE: DKS Associates, 1999

Figure III.C.4 provides a map of transit facilities in the study area.

Caltrain is a commuter rail service operating on the Peninsula between San Francisco and Gilroy. The alignment consists of approximately 77 miles of track and serves 33 stations. The San Bruno Station located near Huntington Avenue provides Caltrain service to local residents. During the BART-to-SFO construction, the Caltrain station is temporarily moved to I-380 and Herman Street. Daily ridership averaged 27,967 passengers in 1998, with approximately 650 passengers accessing Caltrain each day via the San Bruno Station.

SamTrans operates fixed-route and paratransit bus routes in San Mateo County. SamTrans offers approximately 80 routes each weekday, carrying approximately 65,000 to 70,000 riders per day. Within the study area, for the existing condition, SamTrans offers the following bus services.



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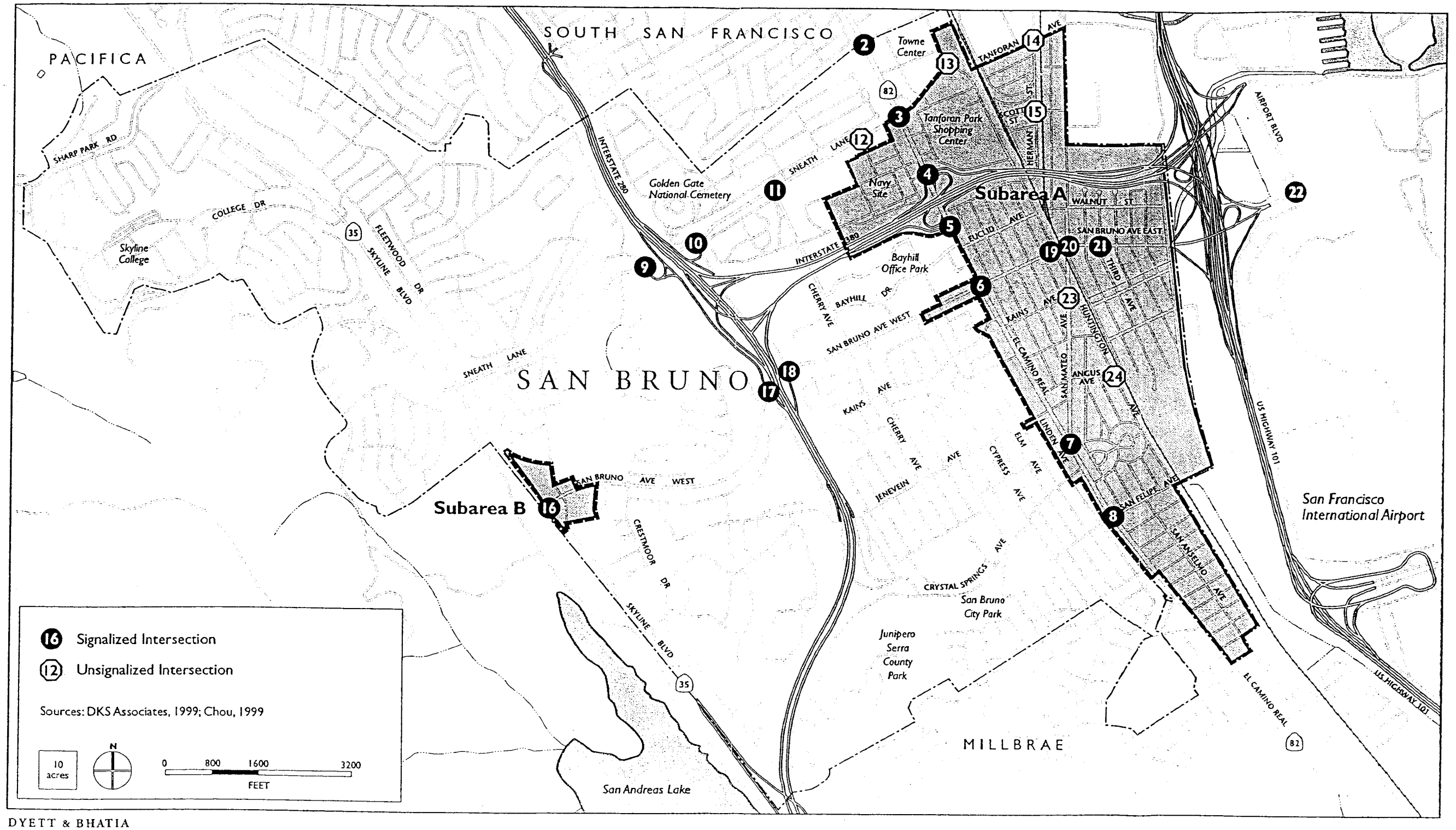
City of San Bruno Redevelopment Project Area - Figure III.C.4

Existing Transit Network and Facilities



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City of San Bruno Redevelopment Project Area - Figure III.C.3

Traffic Volume Measurement Locations

Route 2X begins at the United Airline Maintenance Base at the San Francisco International Airport, travels directly through San Bruno via I-380, and terminates in Pacifica near the San Pedro Regional Park.

Route 2S begins at the Daly City BART Station, travels through a number of jurisdictions including Burlingame, Daly City, Colma, and San Bruno, and terminates at the south end of Millbrae near Skyline Boulevard. Within San Bruno, Route 2S travels mainly on Skyline Boulevard and I-280.

Route 3B begins at the San Francisco International Airport and ends at the Stonestown Shopping Center in San Francisco. It traverses San Bruno, South San Francisco, Colma, and Daly City.

Route 3C provides San Bruno residents with access the Colma BART Station. This route travels along a number of major arterials in San Bruno including, Crestmoor Drive, Crystal Springs Avenue, San Bruno Avenue, and Sneath Avenue.

Route 3X is an express route that provides San Francisco International Airport passengers and employees with direct access to the Colma BART Station. It passes through San Bruno, using I-380, US 101, and I-280 to reach the San Francisco International Airport.

Routes 5L and 5M travels through a number of jurisdictions including Menlo Park, Atherton, North Fair Oaks, Redwood City, San Carlos, Belmont, Hillsdale, San Mateo, Burlingame, San Bruno, South San Francisco, Colma, Daly City, and San Francisco. It provides access to BART, San Francisco MUNI, and Caltrain via the transfer centers at the Colma and Daly City BART Stations.

Route 19F is an express route that provides commuters from the cities of San Mateo, Burlingame, Millbrae, and San Bruno with access to Downtown San Francisco. Route 19F travels mainly along El Camino Real between San Mateo and San Bruno. After its last stop in San Bruno, Route 19F travels directly to downtown San Francisco via I-380 and US 101. Route 19F provides a number of stops within downtown San Francisco before reaching its terminus at the Transbay terminal.

Route 20J connects Skyline College in San Bruno with Serramonte Shopping Center, Seton Medical Center, and the Colma BART Station. This route traverses Colma, Daly City, and San Bruno.

Route 21B connects Skyline College in San Bruno with Serra Center, Serramonte Shopping Center, Seton Medical Center, and the Colma BART Station. This route travels mainly along Oakmont Drive, College Drive, and Junipero Serra Boulevard.

Route 24B begins in San Bruno at the Tanforan Park Shopping Center. It traverses South San Francisco, and terminates at the north end of Brisbane, near San Francisco.

Route 26H traverses a number of cities including San Bruno, South San Francisco, Colma, and Daly City. This route provides access to a number of key destination points including the Colma BART station, the Serramonte Shopping Center in Daly City, the Metro Center in Daly City and the Tanforan Park Shopping Center in San Bruno.

Route 28C begins at the Tanforan Park Shopping Center in San Bruno, travels through Colma, and terminates in South San Francisco.

Route 30A serves a number of jurisdictions including South San Francisco, San Bruno, Millbrae, and Burlingame. Within San Bruno, Route 30A travels along Sneath Lane, Cherry Avenue, San Bruno Avenue, and El Camino Real and provides access to the Tanforan Park Shopping Center.

Route 30B begins at the Pacific Manor Shopping Center in Daly City and terminates at the Tanforan Park Shopping Center in San Bruno. Within San Bruno, Route 30B provides service to Skyline College and travels on a number of local arterials some of which include San Bruno Avenue, Cherry Avenue, and Sneath Lane.

Route 32B is a local route which circles through San Bruno. This route provides local residents with access to the San Bruno Caltrain Station and the Tanforan Park Shopping Center. Route 32B travels mainly along Huntington Avenue, San Mateo Avenue, and Herman Street.

Route 32P serves a number of residential and commercial areas in San Bruno. Route 32P begins in the residential area near Portola Highlands Park and travels along a number of roadways including Claremont, Glenview, Princeton, Crystal Springs Avenue, San Bruno Avenue, San Mateo Avenue, and El Camino Real, and terminates at the Tanforan Park Shopping Center.

Bicycle and Pedestrian Facilities

In San Bruno and the surrounding areas, responsibility for planning and providing bicycle facilities rests with the county, local cities, and Caltrans. Some of these bicycle facilities include:

- Along Sharp Park Road, west of Skyline Boulevard
- Along Fleetwood Drive and College Drive, providing bicycle access to Skyline College
- Along Jenevein Ave between Cunningham Way and El Camino Real
- Along Crestmoor Drive between I-280 and San Bruno Avenue
- Along El Camino Real throughout the City of San Bruno
- Along Crystal Springs Avenue betwee, I-280 and El Camino Real
- Along eastern development boundary, west of US 101 from San Bruno Avenue to south of SFO
- Along Huntington Avenue from the northern end of San Bruno to Santa Inez, Park Place and Magnolia Avenue

- Along Sneath Lane between El Camino Real and Skyline Boulevard
- Along Skyline Boulevard, throughout the City of San Bruno
- Along Sawyer Camp Trail in the vicinity of San Andreas Lake

In the existing condition, exclusive pedestrian facilities such as pedestrian trails and pedestrian bridge crossings are not provided in the study area. Sidewalks are typically provided along major arterials and residential roadways, and pedestrian crosswalks and signals are provided at most major intersections within the City of San Bruno.

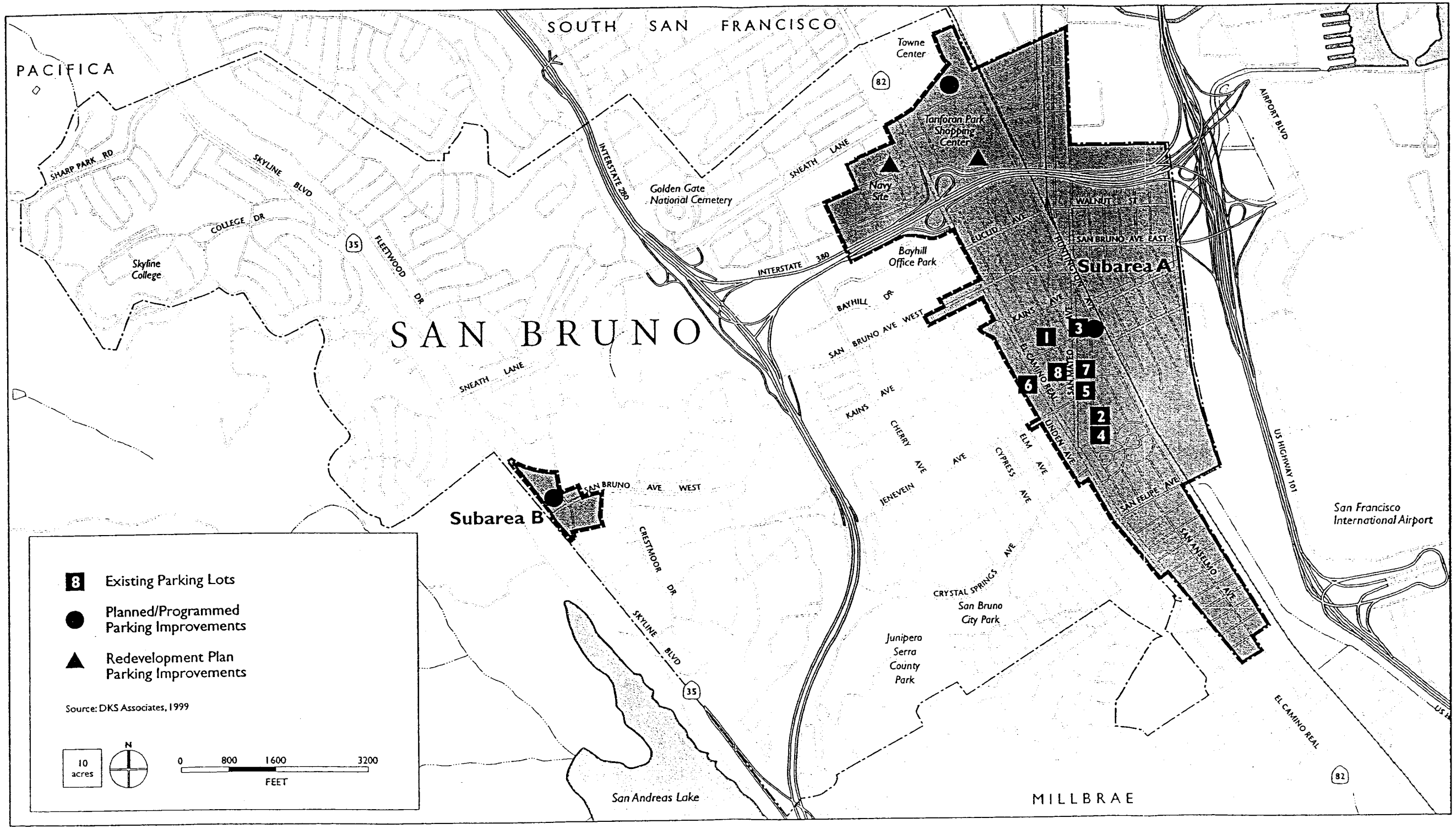
Parking Facilities

Both on- and off-street parking is provided within the City of San Bruno. On-street parking is provided along most of the major arterials and is allowed on most of the residential streets. A field investigation was conducted on a midweek day in February 1999. That investigation indicated that, in general, there is adequate on-street parking available in most areas; however, there are some areas where parking is in heavy demand. These areas were mainly along retail-oriented corridors, such as those on San Mateo Avenue and San Bruno Avenue.

There are currently eight off-street public parking facilities operated by the City of San Bruno, providing a total of 446 off-street parking spaces. The locations of the existing parking lots are illustrated in Figure III.C.5. A parking survey was conducted on February 25, 1999 between the hours of 1:00 to 2:00 PM. The results of the parking survey are summarized in Table III.C.2. Some of the parking lots were filled nearly to capacity, but overall the occupancy rate was about 77 percent. Of the 446 total parking spaces, 104 off-street parking spaces remained empty.

PLANNED/PROGRAMMED TRANSPORTATION FACILITY IMPROVEMENTS

Within the study vicinity, a number of transportation facility improvements are planned/ programmed for installation. Over the past ten years, the City of San Bruno has been conducting a number of traffic studies. These traffic studies have analyzed potential traffic impacts of planned/programmed land use developments within the City, including the impacts of some of the developments proposed within the Redevelopment Plan Area. Of particular note are the *North San Bruno Areawide Traffic Study* (conducted in 1986) and its corresponding update study conducted in 1998. These studies looked specifically at a number of the developments proposed at the Tanforan Park Shopping Center and Navy Sites. As a result of these studies, the City of San Bruno has already identified a number of potential roadway improvements that would help improve traffic conditions in the future. Some of these improvements include widening of El Camino Real between Sneath Lane and I-380, installation of a new signal at the Tanforan Park Shopping Center entrance at El Camino Real, and modifications to a number of intersections within the City of San Bruno. These and other roadway improvements planned within the project vicinity are described below, and are illustrated in Figure III.C.6.



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City of San Bruno Redevelopment Project Area - Figure III.C.5

Off-Street Parking Lots

TABLE III.C.2
EXISTING OFF-STREET PARKING

Parking Lot Number	Parking Supply (Number of Spaces)	Parking Demand (Number of Spaces)	Number of Vacant Spaces	Occupancy Rate
1	37	29	8	78%
2	70	36	34	51%
3	61	60	1	98%
4	24	22	2	92%
5	103	89	14	86%
6	68	54	14	79%
7	27	20	7	74%
8	56	32	24	57%
Total	**446**	**342**	**104**	**77%**

NOTE: Refer to Figure III.C.5 for parking lot locations

SOURCE: DKS Associates, 1999

ROADWAY IMPROVEMENTS

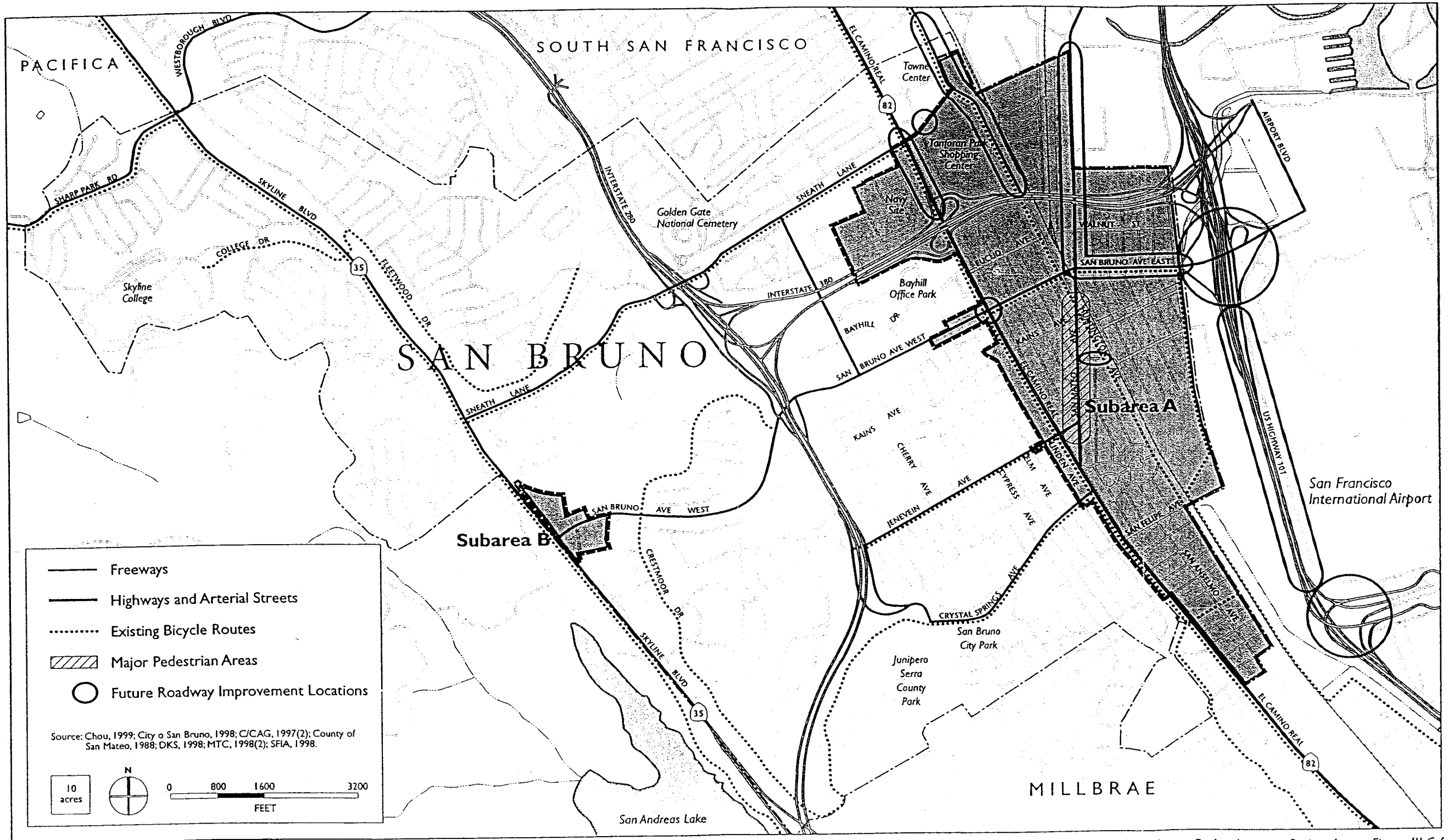
Regional Routes of Significance

US 101/San Francisco International Airport Ramp Modifications

As part of the San Francisco International Airport (SFO) Master Plan Project, the interchanges at SFO and San Bruno Avenue are to be modified. At SFO, the US 101 freeway ramps are to be modified to accommodate the future SFO International Terminal and Parking Garages. These SFO ramp modifications will allow direct access from US 101 to both the proposed elevated circular roadways serving the International facilities and the at-grade roadways that currently exist at SFO. For a more detailed description of the US 101 SFO ramp improvements, please refer to the 1994 San Francisco Airport Master Plan.

US 101/San Bruno Avenue Interchange Modifications

As part of the SFO Master Plan Project, the San Bruno Avenue Interchange is to be modified from the existing cloverleaf design to a partial cloverleaf design. With the proposed ramp modifications, traffic on US 101 southbound will exit the freeway just north of San Bruno Avenue, effectively increasing the southbound capacity via the addition of the collector/distributor roadway. Traffic from the SFIA International Terminal heading onto US 101 northbound or I-380 westbound will get onto the viaduct that parallels US 101 northbound. From the viaduct they will take a new slip-ramp onto US 101 northbound, or remain on the viaduct to access I-380



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City of San Bruno Redevelopment Project Area - Figure III.C.6

Future Transportation Network

westbound. The overall goal of the collector/distributor roadway system will be to separate streams of traffic (airport ingress and egress traffic and US 101 freeway mainline traffic).

US 101/Millbrae Avenue Interchange Improvements

To facilitate the proposed Millbrae BART Station, the Millbrae Avenue Interchange is to be modified from the existing cloverleaf configuration to a partial cloverleaf. The two existing northbound US 101 off-ramps (loop ramp off to westbound Millbrae Avenue and diamond ramp off to westbound Millbrae Avenue) are to be combined into a single three-lane diamond off-ramp. All movements off southbound US 101 also will be facilitated by a single three-lane diamond ramp with the planned interchange improvements. The Millbrae interchange off- and on-ramp intersections will be signalized. This improvement will eliminate weaving beneath the Millbrae Avenue overpass between vehicles entering and exiting the freeway.

US 101 Auxiliary Lanes between San Bruno Avenue and Sierra Point

North and Southbound Auxiliary lanes may be installed between San Bruno Avenue and Sierra Point. These new auxiliary lanes are currently not funded; however, they are included as one of the projects on the Strategic Plan priority list contained in the 1997 San Mateo County CMP.

El Camino Real Improvements between Sneath Lane and I-380 Westbound On-Ramps

Between Sneath Lane and the I-380 Westbound on-ramps, northbound El Camino Real is to be widened to accommodate new exclusive right turn lanes. At the El Camino Real/Sneath Avenue Intersection, the east leg of Sneath Lane is to be modified to accommodate two left turn lanes, two through lanes, and one right turn lane. The southbound approach lanes are to be restriped in order to increase the width of the right turn lane. Currently the intersection at El Camino Real and the Tanforan Park Shopping Center Entrance has three approaches, a fourth approach is to be added to provide access to the new developments at the existing Navy Site. This intersection is to be signalized and a portion of the median island along El Camino Real is to be removed in order to facilitate the new signal. Dual left turn pockets will be added along southbound El Camino Real for access to Tanforan Park Shopping Center at the El Camino Real/Tanforan Park Shopping Center Entrance. At the El Camino Real/San Bruno Avenue intersection, dedicated right turn lanes will be added.

Local Roadways

Huntington Avenue Improvements between Forest Lane and Sneath Lane

Roadway improvements along Huntington Avenue are planned as part of the BART to SFO Extension Project in order to facilitate the proposed San Bruno BART station near the Huntington Avenue/Sneath Lane Intersection. Huntington Avenue is to be realigned between Forest Lane and Sneath Lane. The Sneath Lane/Huntington Avenue intersection is to be signalized and the existing 3-legged intersection is to be converted into a 4-legged intersection (with access to the new BART station and the adjacent shopping center via the new south leg). A new BART Station passenger dropoff and bus transfer station is to be built along Huntington and

two of the existing Tanforan Park Shopping Center entrances along Huntington Avenue are to be signalized.

Sneath Lane Improvements

Three intersections along Sneath Lane are to be modified as part of the BART to SFO Extension including: El Camino Real/Sneath Lane, Sneath Lane/Tanforan Park Shopping Center Entrance, and Huntington Avenue/Sneath Lane. The existing Sneath Avenue/Tanforan Park Shopping Center Entrance is to be signalized. Descriptions of the El Camino Real/Sneath Lane improvements and the Huntington Avenue/Sneath Lane intersections are provided in previous sections of this report.

Vacation of Montgomery Avenue between Hermosa Street to Walnut Avenue

This section of Montgomery Avenue is to be eliminated in order to create room for the proposed Lumberyard Triangle Development.

Vacation of Walnut Avenue, west of San Mateo Avenue

Walnut Avenue, west of San Mateo Avenue is to be vacated to provide additional development potential on Lumberyard Triangle Site.

San Bruno Avenue Striping/Widening between Huntington Avenue and US 101

A new striping configuration will be implemented on San Bruno Avenue. If needed, San Bruno Avenue may also be widened, with bicycle lanes, additional turning lanes, and a median island.

Angus Avenue Widening between Huntington Avenue to El Camino Real

Field observations indicate that this section of Angus Avenue is fairly narrow in width and is heavily congested during peak hours. In order to improve circulation, this street may be widened.

San Mateo Avenue Widening between San Bruno Avenue and Tanforan Avenue

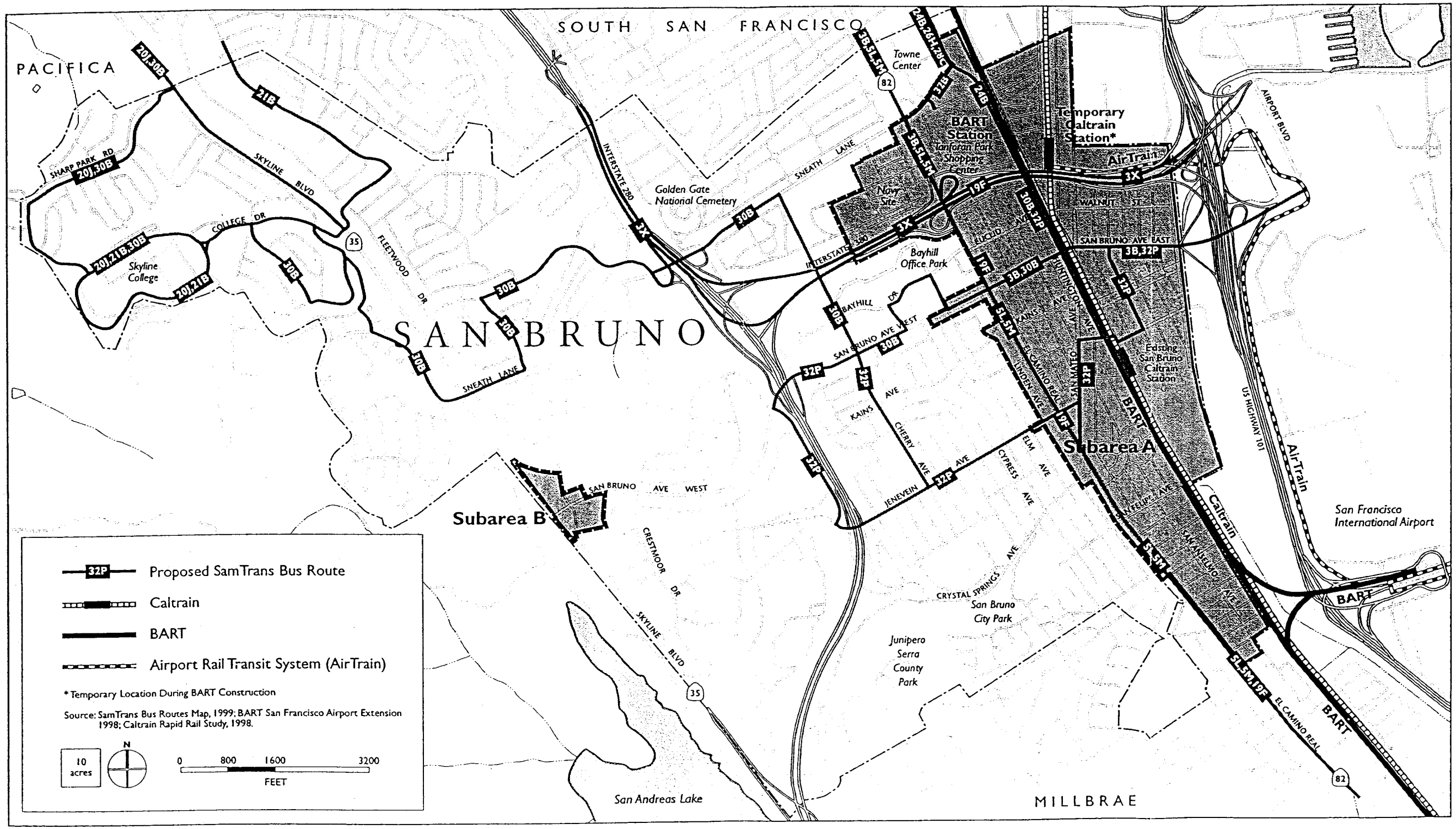
In order to improve circulation in the industrial area, San Mateo Avenue between San Bruno Avenue and Tanforan Avenue is to be widened, using the existing 66-foot right-of-way.

TRANSIT IMPROVEMENTS

There are a number of transit facility improvements planned for the near future. These improvements are described below and are illustrated in Figure III.C.7.

BART

BART is planning to construct four new stations in the West Bay that extend south from the existing Colma Station. The new stations are expected to be operation by the year 2002 and will be located in South San Francisco, San Bruno, at the San Francisco International Airport, and in Millbrae.



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City of San Bruno Redevelopment Project Area - Figure III.C.7

Future Transit Network and Facilities

Once the BART SFO/Millbrae Extension has been completed, it is anticipated that the number of BART trains operated during the peak period will increase from the current 56 trains to 63 trains. By 2005, three more trains may be available for service.

Caltrain

In order to accommodate increasing ridership demand, Caltrain is planning to increase its train service. Currently, Caltrans is considering increasing the number of trains operating per weekday by approximateiy 12 percent by 2001. This would increase service to 74 operating trains per weekday. During the BART to SFO construction, the Caltrain station is temporarily moved to I-380 and Herman Street. The permanent location of the Caltrain station is currently being evaluated, with the existing and temporary sites included as options.

SamTrans

According to SamTrans Five-Year Improvement Plan, SamTrans is planning a number of improvements to their transit facilities over the next five years. These improvements are to be implemented in five stages and include modifications that will provide effective access to the four new BART stations planned by the Bay Area Rapid Transit District. Within San Bruno, there would be changes to Routes 2S, 2X, 3C, 5L, 5M, 20J, 21F, 30B, and 32P. Routes 2S, 2X, and 3C would be discontinued in 1999. Route 30A would be discontinued in 2000. Route 30B would be modified to provide access to the new San Bruno BART Station. It would no longer travel along Fleetwood Drive, but would instead serve a portion of Sneath Lane before resuming the current route on Rollingwood Drive. Route 32P would be restructured around Jenevein Avenue and Shelter Creek. Frequency of this route would be increased to 30 minutes through the day. Route 32 would be consolidated with Route 32P. Route 5L service will be increased from every 60 minutes to every 30 minutes by 2000. Both Routes 5L and 5M will be reevaluated once the new BART stations are implemented.

Airtrain

The San Francisco International Airport is planning to construct a new Airtrain System as part of their terminal expansion project. The Airtrain System would transport passengers and employees from airport parking areas to the main terminal complex. It would provide a link between BART and SFIA, with a connection point at the SFO BART station. As previously indicated in Figure III.C.7, the currently proposed alignment for the Airtrain System runs from SFIA to the Lot DD airport employee parking garage.

There are also plans for two potential extensions of the Airtrain System, one that would link the Airtrain with the proposed San Bruno Caltrain station and one that would extend along North Access Road. These potential extensions are currently under evaluation. An additional Airtrain extension that could be considered is to the redeveloped Navy Site.

PARKING IMPROVEMENTS

Two new parking facilities are planned within the City of San Bruno (previously identified in Figure III.C.5). These include the new private parking garage for Artichoke Joe's at Huntington Avenue and Angus Avenue (500 spaces) and the new park-and-ride lot that would be installed at the new San Bruno BART station (about 1,000 parking spaces). In addition to these new facilities, an additional 100 parking spaces will be added to the Caltrans parcel at Skyline Blvd and San Bruno Avenue.

As part of the Redevelopment Plan, a number of parking improvements are planned at the Tanforan Park Shopping Center and the Navy Site. At the Tanforan Park Shopping Center, a new 830 space parking structure would be constructed by the year 2000. In addition to the new parking structure, each of the new developments would provide additional parking to accommodate their patrons and employees. At the Navy Site, additional parking is to be provided with each proposed site development. There would be a net total of 3,025 new parking spaces provided at the Navy Site (4,050 new parking spaces are to be developed at the Navy Site, while approximately 1,025 parking spaces are demolished).

BICYCLE AND PEDESTRIAN IMPROVEMENTS

There are a number of planned bicycle facility improvements in San Bruno. Listed below are some of the major bikeway improvements in the vicinity of the study area.

- Implementation of the Bay Trail Project. This project is currently being prepared by the Association of Bay Area Governments (ABAG) and includes a new bike trail near SFIA. Several alignment options are being considered. The preferred alignment would connect Bayfront Park south of SFIA to North Access Road at South Airport Boulevard. The general alignment would travel west of US 101, and provide access to the future Millbrae BART station and Lion's Field Park in San Bruno. SFIA has been working in cooperation with ABAG and BCDC to refine alignment alternatives and funding opportunities.

- Implementation of Class II bike lanes (with signs on the roadway and separated from traffic by roadway striping) along South Airport Boulevard beginning at San Bruno Avenue and extending northerly into South San Francisco. The timing of these bicycle lanes along South Airport Boulevard would be contingent on the phasing of private development in South San Francisco.

Additional facility improvements include a 10-foot dedicated bicycle/pedestrian lane on Huntington Avenue between Angus Avenue and Sneath Lane, bike lanes on San Bruno Avenue, and an extension of the Sawyer Camp Trail to Redevelopment Plan Subarea B. As part of the Redevelopment Plan, pedestrian improvements will be examined for El Camino Real between the Navy Site and the Tanforan Park Shopping Center.

IMPACTS AND MITIGATION MEASURES

APPROACH TO ANALYSIS

Three study scenarios are examined in this analysis:

- Existing Condition (see Setting)
- No Project Condition (2020 conditions consistent with General Plan)
- Project Condition (No Project Condition, modified by proposed Redevelopment Plan)

Intersection operations are evaluated in terms of "level of service" (LOS), which is a measure of driving conditions and vehicle delay. Levels of service range from A (best) to F (poorest). LOS A, B and C indicate satisfactory conditions where traffic can move relatively freely. LOS D describes conditions where delay is more noticeable. LOS E indicates conditions where traffic volumes are at or close to capacity, resulting in significant delays and average travel speeds that are one-third the uncongested speeds or lower. LOS F characterizes conditions where traffic demand exceeds available capacity, with very slow speeds (stop-and-go) and long delays (over a minute) and queuing at signalized intersections.

For signalized intersections, the Transportation Research Board (TRB) *Circular 212* Planning method is the selected level of service calculation method for the designated intersections in the San Mateo County's CMP Roadway System. A signalized intersection's level of service, according to the method described in TRB *Circular 212*, is based on dividing the sum of the critical volumes by the intersection's capacity. This calculation yields the volume-to-capacity ratio (V/C). The critical movements are the combinations of through movements plus right-turn movements if there is not exclusive right-turn lane, and opposing left-turn movements that represent the highest per-lane volumes. Descriptions of levels of service for signalized intersections, together with their corresponding V/C's, are presented in Appendix D (Table D.2).

For unsignalized intersection analysis, each traffic movement that yields to another movement is evaluated separately and assigned a level of service. The level of service is based on the relative ability of yielding traffic to find adequate gaps in conflicting traffic flows. *The Highway Capacity Manual* (Transportation Research Board, Special Report No. 209, 1994) methodology results in a separate LOS for individual movements and also provides an intersection average level of service. Descriptions of levels of service for unsignalized intersections, together with their corresponding delay values, are presented in Appendix D (Table D.3).

SIGNIFICANCE CRITERIA

The San Mateo County CMP identifies the following level of service standards for the CMP roadway network:

- if the existing level of service is LOS F, then the standard is set to LOS F;
- if the existing or future level of service is or will be LOS E, then the standard is also set to be LOS E;

- on SR82 (El Camino Real), the standard is set to be LOS E; and
- for the remaining intersections, the standard is set to be LOS E.

The level of service standards for intersections within the City of San Bruno are assumed to be consistent with San Mateo County CMP level of service standards.

The project would cause a significant impact at a signalized intersection if the traffic associated with the project condition were to violate established level of service standards for an intersection that is in compliance with those standards under the No Project condition.

The significance criterion for unsignalized intersections is the conformance with traffic signal warrant guidelines. The project would represent a significant impact in the event that traffic associated with the project condition were to necessitate the installation of a traffic signal per Caltrans' signal warrant guidelines for an intersection in compliance with signal warrant guidelines in the No Project condition.

Level of service standards for freeway segments vary from LOS D to LOS F in the study area (See Appendix D). The project would represent a significant impact in the event that traffic associated with the project condition were to violate established level of service standards for a freeway segment in compliance with level of service standards in the No Project condition.

Transit-related impacts of the project would be considered significant if the operation of the project were to increase the demand sufficiently to require new transit vehicles, transit routes, or an increase in service frequency.

Project impacts to pedestrians and bicyclists would be considered significant if operation of the project were to create safety problems for pedestrians or cyclists.

NO PROJECT CONDITIONS

Future estimated turning movement volumes under No Project conditions were developed using travel demand forecasting tools, specifically the CCAG/San Mateo travel forecast model. Travel demand forecasting conducted for this study is described in Appendix D.

Intersection operations were evaluated for the No Project condition with forecast traffic volumes and anticipated future lane geometries. Peak-hour traffic conditions generally would worsen from existing conditions. During the a.m. peak hour, two study intersections would operate at LOS E and one at LOS F (see Table D.5 in Appendix D). During the p.m. peak hour, one intersection would operate at LOS E and four at LOS F. A detailed analysis of each intersection is provided in Attachment D.1, which is available at City of San Bruno offices.

PROJECT CONDITIONS

The Project condition consists of the No Project condition plus potential increased traffic volumes and roadway improvements initiated by the Redevelopment Plan that are in addition to

the policies and land uses in the General Plan. The operations of the study intersections for the project condition were evaluated using traffic trips and anticipated future roadway geometries under Project conditions. There are no planned intersection geometric improvements to study intersections planned as part of the Redevelopment Plan.

Trip generation for proposed development under the Redevelopment Plan was based on trip generation rates published in the Institute of Transportation Engineers, *Trip Generation*, 6th Edition Update, 1997. It is anticipated that the proposed new development (beyond that which is contained within land use projections in the San Bruno General Plan) would generate about 383 a.m. peak-hour vehicle trips and about 438 p.m. peak-hour vehicle trips (see Table D.6 in Appendix D). Distribution and assignment of the project trips were based on travel demand model results; see Table D.7 (Appendix D) for the anticipated trip distribution percentages.

Impact C.1: The project would result in increased traffic on the surrounding roadways. (Less than Significant)

Intersection operations were evaluated for the project condition with future traffic volumes and anticipated future lane geometries. Peak-hour level of service conditions would remain unchanged from No Project conditions. There are intersections in the study area that would operate at LOS E or F during the a.m. and p.m. peak hours, but as discussed above, those intersections are projected to operate at LOS E/F under No Project conditions, and project-generated traffic would increase the V/C ratio by no more than 0.01 at any of these congested intersections, and the project impact would be less than significant, and the project's contribution to cumulative conditions would not be considerable.

Future freeway traffic projections for No Project conditions were obtained from travel demand model results. Anticipated traffic volumes under Project conditions were based upon the manual addition of project traffic to the No Project condition freeway volumes. Tables D.10 and D.11 (Appendix D) present 2020 No Project and Project analysis results for the a.m. and p.m. peak hours. The project is expected to add traffic to freeway segments that are projected to operate below CMP level of service standards (see Table D.9 in Appendix D) in 2020, but as shown in the tables, level of service results for the Project condition are identical to those for the No Project condition, and the project would add no more than 0.01 to the volume-to-capacity ratios. The project would not be expected to cause a freeway segment in conformance with CMP policy in the No Project condition to violate the CMP policy in the project condition. The project impact would be less than significant, and the project's contribution to cumulative conditions would not be considerable.

Mitigation Measure C.1: Each substantial project development, as determined by the City, will be required to complete a traffic study that includes an assessment of site-specific impacts on the surrounding intersections and freeway segments. If significant impacts are identified, due to unique site characteristics that were not anticipated as part of the project, mitigation measures will be identified and implemented. (Identified in This Report)

Significance after Mitigation: Less than Significant.

Impact C.2: The project would generate an increase in transit use. (Less than Significant)

Mode share percentages for public transit were extracted from the travel demand model. Based on the mode share and the anticipated project trip generation, the project would be anticipated to generate approximately 46 a.m. peak-hour transit trips and 46 p.m. peak-hour transit trips. It is anticipated that there would be adequate capacity in the future transit network to accommodate the growth in transit passengers associated with the project. The project would not be anticipated to require additional transit vehicles or increased frequency of service on regularly scheduled routes. To encourage increased transit use, new employers should work with the Multi-City TSM Agency to provide shuttle bus service between employment sites and both the BART and Caltrain stations in San Bruno.

The project also is not anticipated to require enhancements in paratransit service. Although the project consists of a senior assisted-living facility, it is assumed that residents of that facility would be incapable of public transit usage due to health constraints. The project impact would be would be less than significant.

Mitigation: No mitigations required.

Impact C.3: Project development may generate increased demands for on- and off-street parking. (Less than Significant)

Project developments under the Redevelopment Plan would continue to be subject to City of San Bruno site design review and would need to be designed for adequate parking circulation and access. The parking demand increases due to the project are not expected to cause significant adverse impacts on parking. It is anticipated that all of the project developments would be required to provide a supply of on-site parking that meets the City of San Bruno parking requirements.

Mitigation Measure C.3.a: Each project development would be required to assess parking impacts for that site. (Identified in This Report)

Mitigation Measure C.3.b: Each project development would be subject to the City of San Bruno permit review process, at which time compliance with City parking requirements will be assessed. (Identified in This Report)

Significance after Mitigation: Less than Significant.

Impact C.4: The project would increase traffic volumes on roadways in the study area, increasing potential safety hazards on the transportation network for pedestrians and bicyclists. (Less than Significant)

The project is not anticipated to significantly reduce the safety of the transportation network for pedestrians and bicyclists. Each development, however, should be individually evaluated for potential site-specific bicycle and pedestrian impacts at site access points and within on-site circulation areas.

Mitigation Measure C.4.a: Each substantial project development, as determined by the City, would be required to complete a traffic study that includes an assessment of site-specific impacts on adjacent bicycle facilities and pedestrian access. If significant impacts are identified, due to unique site characteristics that were not anticipated as part of the project, mitigation measures would be identified and implemented. (Identified in This Report)

Significance after Mitigation: Less than Significant.

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(All printed references are available at the San Bruno Planning and Building Department, City Hall, 567 El Camino Real, San Bruno, unless otherwise noted.)

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D. PUBLIC SERVICES, FACILITIES, AND UTILITIES

This section addresses the impact of the proposed San Bruno Redevelopment Plan on the provision of public services and utilities. Topics analyzed in this section include police, fire; and emergency medical services; library services; cable television; youth and senior services; sanitary sewer services; solid waste disposal; and gas and electricity. Both water and storm water service are analyzed in Section III.G, Hydrology, Water Quality, and Flooding.

SETTING

POLICE PROTECTION

The San Bruno Police Department provides police services in the City of San Bruno. The Department operates one station, located in the San Bruno Civic Center, at 567 El Camino Real (see Figure III.D.1). Fully staffed, the Department has an authorized strength of 50 sworn officers, 19 civilian employees, and nine reserve police officers. In 1997, the Department responded to 25,097 calls for service; in 1998, the Department responded to 25,951 calls. Plans for a new facility are being discussed as a part of the San Francisco Airport Extension project of Bay Area Rapid Transit (BART), which would provide a combined facility for both BART Police and the San Bruno Police Department.

The Department deploys officers in a beat management system, which divides the City of San Bruno into three beats. From 6:30 a.m. to 4:30 p.m., at least one patrol car (one officer) is assigned to each beat. The two evening shifts[1] overlap so that from 9 p.m. to 2 a.m. and briefly each morning, each beat has two patrol cars. Reserve officers—volunteers who have graduated from the Police Academy—often provide a second officer for patrol cars. Traffic officers on motorcycles provide assistance where needed.

Beat One covers an irregular area roughly bordered by the City of San Bruno's northern, eastern, and southern city limits, and a western perimeter that follows Huntington Avenue to San Bruno Avenue East, then follows San Bruno Avenue further west to I-280. Between the hours of 11:00 a.m. and 9:00 p.m., the Tanforan Park and Towne Center Shopping Centers constitute a separate beat, or a fully staffed sub-beat within Beat One. In 1998, Beat One generated 36 percent of all calls to the Police Department for service. Tanforan and Towne Center accounted for about 75 percent of all calls in Beat One. (Towne Center is outside of the Project Area to the north.) In addition, the two shopping centers together accounted for about 55 percent of all crime reports, 80 percent of all incident reports, and 75 percent of all accident reports.

Beat Two covers the area bordered by San Bruno Avenue East to the north, Huntington Avenue to the east, and I-280 to the west, and extends to the southern city limits. This area accounts for approximately 38 percent of all calls to the Department.

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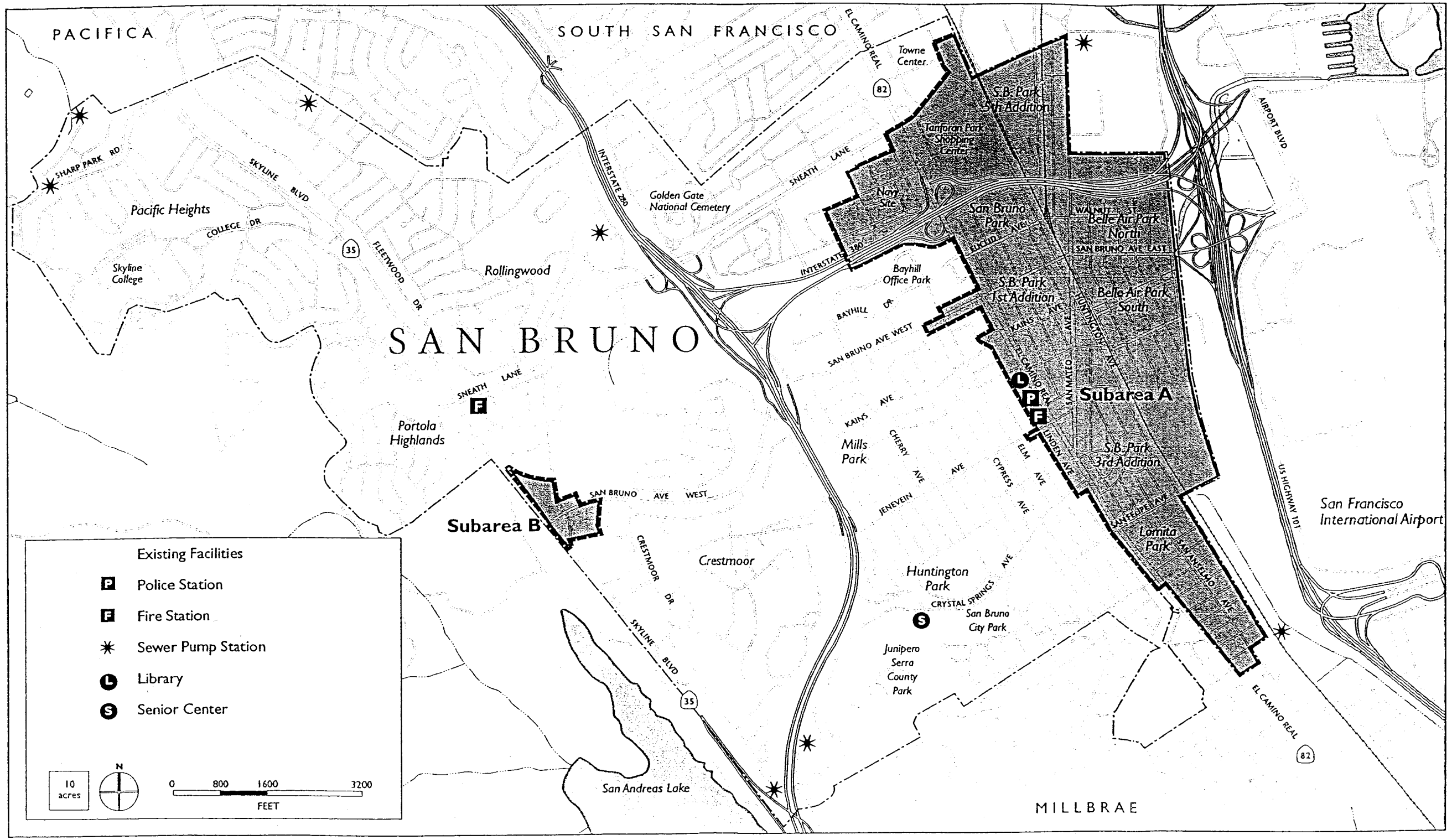
[1] The two evening shifts are from 4 p.m. to 2 a.m. and from 9 p.m. to 7 a.m.



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City of San Bruno Redevelopment Project Area - Figure III.D.1

Existing Public Facilities

Beat Three covers the area west of I-280 and accounts for 26 percent of all calls to the Department.

San Bruno does not have a municipal jail, but transports detainees to the San Mateo County Jail in Redwood City. Persons with alcohol-related infractions are usually referred to an alcohol treatment program, First Chance, in South San Francisco.

The Department's mission statement reflects its emphasis on community-oriented policing. It states that its employees are:

> . . . dedicated to maintaining public peace and providing a quality of life whereby people within the City have a sense of safety, security and freedom in their daily activities; dedicated to maintaining a viable proactive Police Department that recognizes and effectively responds to current and future community needs and makes maximum use of available resources, personnel and technology; [and] committed to the prevention of criminal activity through highly visible police presence and vigorous enforcement of laws and regulations throughout the City.[2]

In 1997 and 1998, the Department made less than 1,400 arrests, 70 to 75 percent of which were adult arrests. The City experienced one homicide in 1998 and none in 1997.

FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

General Background

The San Bruno Fire Department provides fire protection and emergency medical services in the City of San Bruno. The Fire Department operates two fire stations and employs 24 full-time firefighters, one chief, three battalion chiefs, and six captains. In addition, the Department strives to maintain 25 "Paid Call Reserves," trained on-call firefighters paid on an hourly basis. The Department responds to calls concerning medical emergencies, fires, rescues, and hazardous materials. In 1996, the Department responded to an estimated total of 2,600 calls; 1,744 (67 percent) were medical calls and total fire losses are estimated at $400,000. In 1998, the Department responded to an estimated 2,800 calls. Response times averaged two to three minutes, measured against a countywide standard of nearly seven minutes (six minutes and 59 seconds). Overall, on a scale from one (best) to ten (worst), based on the Public Protection Classifications (PPC) of the Insurance Services Office, Inc., , the San Bruno Fire Department has an overall PPC rating of three, considered a top rating.[3]

The Department addresses its staffing needs by emphasizing compliance with Uniform Fire Code and Uniform Building Code requirements for sprinklers and smoke detectors. Before a residential property can close escrow in San Bruno, it must be inspected by the San Bruno Fire

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2 City of San Bruno, *Police Department*, http://www.ci.sanbruno.ca.us/Police, January 22, 1999.

3 The Insurance Services Office, Inc. (formerly the American Insurance Association) developed a Public Protection Classification (PPC) for insurance rating purposes. The schedule measures the major elements of a community's fire suppression system, including water supply and distribution systems, dispatching procedures, firefighting equipment, staff training, etc.

Department for working smoke detectors. Sprinklers must be inspected annually in residential and nonresidential structures.

The San Bruno Fire Department recently joined the County of San Mateo's countywide dispatch system. With a few exceptions, all municipalities in San Mateo County are now linked and dispatched by proximity to the call. As a result, the San Bruno Fire Department has access to extensive mutual aid.

Fire Stations

Station #51, at 555 El Camino Real, has primary responsibility for the area east of I-280 and is located in Subarea A of the Project Area on the south side of the City Hall complex (see Figure III.D.1). Equipped with one first-line engine and one reserve engine, one first-line truck, the battalion chief's vehicle and the chief's vehicle, Station #51 is staffed by the chief, one battalion chief, one captain, and four firefighters on a three-four schedule.[4] This station responded to an estimated 2,000 calls in 1998, or an average of five to six calls each day. Structurally, Station #51 may be unable to accommodate any increased staffing levels, and currently it does not meet the access requirements of the Americans with Disabilities Act or provide facilities for female personnel.

Station #52, at 1999 Earl Avenue, is within one-half mile of Subarea B of the Project Area and has primary responsibility for the area west of I-280. It is a smaller station, equipped with one first-line engine and one reserve engine, and staffed by one captain and two firefighters, also on a three-four schedule. This station responded to an estimated 800 calls in 1998, or an average of two to three calls each day. Station #52 is located within a few feet of the San Andreas fault, within an Alquist-Priolo Zone, but has not been seismically retrofitted.

Emergency Medical Services

The Fire Department provides the first response for all of San Bruno's emergency medical calls. All firefighters are trained in the use of defibrillators and are trained Emergency Medical Technicians (EMTs). Four firefighters are also certified paramedics; by May 1999, an additional seven firefighters are expected to be certified as paramedics. American Medical Response, which is based in Burlingame, provides ambulance service through its contract with the County of San Mateo.

Building Inspections and Other Services

In addition to inspections of smoke detectors and sprinklers, the San Bruno Fire Department issues fumigation permits and conducts underground tank inspections, hood and duct inspections, annual inspections of nursing home and childcare facilities, and annual inspections of multi-residential properties. The Fire Department also oversees brush clearance in Crestmoor Canyon.

[4] The Fire Department's "three-four" schedule requires each firefighter to work three 24-hour days, with one day off between the first and second day, and another day off between the second and third day, followed by four days off. Overlapping schedules (differing "off" days) assure adequate staffing.

LIBRARY SERVICES

The San Bruno Public Library has been located in San Bruno's Civic Center since 1955 at 701 Angus Avenue West, which is in Subarea A of the Redevelopment Project Area. The library is open a total of 63 hours per week, during various hours of every day: Monday through Thursday, 10:00 a.m. to 9:00 p.m.; Friday, 10:00 a.m. to 6:00 p.m.; Saturday, 10:00 a.m. to 5:00 p.m.; and Sunday, noon to 4:00 p.m. The Library is closed on holidays and most holiday weekends.

In addition to its complete reference collection and more than 100,000 circulating items, the Library participates in the Peninsula Library System, a consortium of 32 libraries located in San Mateo County that provides access to the collections of all public and community college libraries in the county. The Library's information resources include traditional print, video and audio, and electronic media. The Library provides free access to the Internet as well as free classes to learn how to use it. Word-processing computers are also available at the Library. To assist in finding materials, a reference librarian is on duty at all times.

The Library offers a variety of services for different groups. The Children's Department of the Library offers regular preschool storytimes, a summer reading club, after-school specials, a computer challenge for fifth-graders, and other services for young persons. Special collections of Spanish- and Japanese-language materials are included in the Library's collection. The Library offers outreach services for homebound San Bruno residents to deliver and pick up Library materials upon request.

The Library's mission statement is that it provides materials and services of popular interest to the community, emphasizing and encouraging reading by children, supplementing the educational needs of the community, and furnishing timely, accurate information.

CABLE TELEVISION SERVICE

San Bruno has one of the largest city-owned cable television systems in the United States, San Bruno Municipal Cable TV, located at 398 El Camino Real, which is within Subarea A of the Redevelopment Project Area. The cable system serves the community of San Bruno with a capacity for 117 channels, including 78 analog channels, two-way communication, internet access, digital deployment, and interdiction delivery. Service includes Channel 3, the community channel that offers air time for nonprofit organizations and television coverage of local government meetings and community events. Channel 3 staff work with local schools to teach basic video techniques and program production.

The mission of San Bruno Municipal Cable TV is to provide high quality programming in a diversified format while endeavoring to offer timely and efficient service at a fair and reasonable rate. The system emphasizes the importance of input from the community and keeping its rates affordable.

The first phase of San Bruno's cable system was built in 1971, with succeeding phases financed using revenues generated by the original system. The systems capabilities have been upgraded several times since then, and in 1998, a high capacity hybrid coaxial and fiber system was installed. Service to all subscribers is being converted to the new system.

San Bruno Municipal Cable TV offers its basic service of 49 channels at a rate of $24.50 per month and serves 12,125 residences in San Bruno. Cable connection is possible for a total of 15,100 residences in the city. generates annual revenue in excess of $4.5 million and contributes 5 percent of its gross revenue to the City's General Fund, and transfers another 10 percent as equity earnings transfer.

YOUTH AND SENIOR SERVICES

Youth Services

The City of San Bruno provides a variety of programs designed for youth, including after-school, organized sports and pre-school programs, through the San Bruno City Recreation Center in City Park. Classes are tailored for three age groups: pre-school, children (5-12) and teens. Fees are discounted for San Bruno residents. Teen programs include self improvement classes, etiquette, ice skating (at Belmont Iceland), Jujitsu, and soccer. The City Recreation Center also features a "Teen Room" that provides pool tables, air hockey, ping pong, bumper pool, Nintendo, shuffle board and fooseball. The Teen Room is open after school, five days a week; with extended hours during the summer and school holidays. Children's programs include "Camp Bruno" during Spring Break, arts classes, Kung Fu, Judo, Karate, Judo, ice skating, gymnastics, tennis, soccer , self-improvement classes and organized sports after school. Pre-school programs include a "tiny tots" program, gymnastics, ballet, ice skating, arts and crafts, aerobics and Judo.

The City also offers an after-school program at Allen School, that includes snacks. The City provides an ongoing schedule of swimming and tennis lessons for youth of all ages. City sports fields are used by individual youth sports leagues that include soccer, football, and baseball.

Senior Services

In 1987, the City of San Bruno opened a 12,700 sq. ft. senior center on Crystal Springs Road, between City Park and Junipero Serra County Park. Public transportation, three parking lots and a City-owned 21-passenger bus make the Senior Center accessible to senior residents throughout San Bruno. The Senior Center provides lunches and a wide-ranging schedule of classes, programs, workshops, and seminars daily for over 250 adults over the age of 50. Activities at the Center include art, hiking, exercise, music and dance classes, a computer club, a variety of drop-in activities that include billiards, bocce ball, bridge, etc., and special/holiday events and programs.

SANITARY SEWER SYSTEM

The City of San Bruno's Public Works Wastewater Division provides sanitary sewer services in the City of San Bruno for all areas except Capuchino High School, which is connected to the City of Millbrae's sewer system. Located at 225 Huntington Avenue, the Wastewater Division maintains all mains, manholes, and seven lift stations. It also implements a rat abatement program, responds to three to nine emergency calls daily, provides contract administration for contracted projects, and ensures compliance with the Environmental Protection Agency, the State Water Quality Control Board, the Regional Water Quality Control Board, County Health mandates, and the National Pollution Discharge Elimination System permit requirements.

The City of San Bruno shares a sewage treatment plant with the City of South San Francisco. The City of San Bruno has is entitled to use one-third of the plant's capacity, while the City of South San Francisco is entitled to the remaining two-thirds. The City of San Bruno pumps its sewage through the Shaw Road Pump Station to the jointly owned treatment facility located adjacent to the San Francisco Bay, along Colma Creek, on Belle Air Road, just north of San Francisco International Airport. The City of South San Francisco staffs the plant, which uses a secondary treatment process to disinfect wastewater. This plant also provides dechlorination for Burlingame, Millbrae, and the San Francisco International Airport. The treated wastewater is discharged at a point three miles out into the San Francisco Bay from a 60-inch joint outfall pipeline shared by the cities of San Bruno, South San Francisco, Millbrae, Burlingame, Colma, and the San Francisco Airport. The plant is undergoing expansion to allow a dry-weather capacity of 13 million gallons per day and a wet-weather capacity of 62 million gallons per day. Based on its current entitlement, San Bruno's share of this expanded capacity would be 4.29 million gallons per day during dry weather and 20.46 million gallons per day during wet weather. The expanded plant will be ready in 2001, at which time the treatment plant's Joint Powers Authority will consider if there is a need for further expansion.

The City of San Bruno now generates estimated peak flows of 4.7 million gallons of wastewater per day during the dry season and 20 million gallons per day during the wet season. During the wet season, infiltration of the City's wastewater system has been a continuing problem. The City estimates average discharges of 75 gallons per day per capita for residential users, 1,000 gallons per day per acre for commercial use, and 2,000 gallons per day per acre of industrial use.

San Bruno's General Plan projected a declining population for the City, and therefore anticipated a volume of 2.94 million gallons of wastewater per day for a population of 32,700. At 1998, the City has an estimated population of 41,450. The City's wet-weather discharge currently exceeds its treatment plant capacity. In addition, the City's Public Works staff currently receives three to nine emergency calls each day related to sewage line breaks or leaks. Wastewater infrastructure in Subarea A is currently the source of many emergency calls because of its age.

A Wastewater Sewage Treatment Master Plan is expected to be available for public review in early 1999 and is expected to address these issues.

SOLID WASTE DISPOSAL

The San Bruno Garbage Company, located at 101 Tanforan Avenue in San Bruno, provides solid waste disposal services to the City of San Bruno. The San Bruno Garbage Company is owned by Norcal Waste Systems, headquartered in San Francisco. The San Bruno City Manager administers the City's contract with San Bruno Garbage Company; the term of the current contract, including renewal options, extends from July 1, 1998, through June 30, 2009.

The San Bruno Garbage Company collects approximately 80 tons of garbage daily from San Bruno, or a yearly average of 20,800 tons. Garbage is taken to the San Bruno Garbage Company's transfer station, also at 101 Tanforan Avenue, and transported by truck to Ox Mountain Sanitary Landfill, located along State Route 92 between Half Moon Bay and the City of San Mateo.

The 173-acre Ox Mountain facility is a Class III landfill (nonhazardous waste) owned by Browning-Ferris Industries (BFI), a Texas-based company with more than 100 U.S. landfills, and is overseen by San Mateo County. Since 1995, and including both independent and industrial haulers, the City of San Bruno has deposited between 42,000 and 49,000 tons of garbage at the Ox Mountain Landfill each year. San Mateo County estimates that the landfill, which also serves other municipalities, will reach capacity in 2017; an expansion is underway that may add as much as eight years to the landfill's capacity (Puls, 1999). The Ox Mountain fill is permitted to accept 3,598 tons of waste per day; its remaining capacity, as of January 1, 1998, was an estimated 22.6 million cubic yards.

GAS AND ELECTRICITY

The Pacific Gas & Electric Company (PG&E) is regulated by the California Public Utilities Commission and is the primary provider of gas and electrical power to the City of San Bruno. Deregulation of gas and electricity utilities allows PG&E to purchase both gas and electrical power from a variety of sources, including other utility companies. Deregulation also provides some latitude for customers to purchase from other utility companies. The customer service/business office nearest to San Bruno is located at 275 Industrial Road, San Carlos. PG&E's service area extends from Eureka to Bakersfield (north to south), and from the Sierra Nevada to the Pacific Ocean (east to west).

Electrical power is provided to the City of San Bruno from eight different distribution feeders (see Table III.D.1): four Sneath Lane feeders are fed from the Sneath Lane substation in San Bruno, two feeders are fed from the East Grand substation in South San Francisco, one is fed from the Airport substation, and one originates from the Millbrae substation in Millbrae. Most of these feeders also serve other cities, including Pacifica, Millbrae and South San Francisco, and are linked to other distribution feeders, assuring greater reliability. Although PG&E now owns the main Airport substation (Airport 1101), it will be turned over to San Francisco International Airport to own and operate after it is upgraded this year. Airport 1101 will then be transferred to nearby 12-kilovolt circuit ties. This transfer process is still in the planning stages.

TABLE III.D.1
ELECTRIC POWER CAPACITY FOR THE CITY OF SAN BRUNO

Distribution Feeder	Capacity (Amperes)		Existing Peak Load(Amperes)
	Summer	Winter	
Sneath Lane 1101	438	595	106
Sneath Lane 1102	342	460	135
Sneath Lane 1106	438	595	142
Sneath Lane 1107	462	600	119
East Grand 1101	541	557	450
East Grand 1108	600	600	438
Airport 1101	600	600	480
Millbrae 1108	462	525	384

SOURCE: Mosuela, Raul, Electric Distribution Engineer, Pacific Gas and Electric Company, Memorandum, January 26, 1999.

Gas is provided to the City of San Bruno by PG&E from three gas lines stretching from Milpitas to San Francisco. Gas is delivered from basins in Canada and/or Texas by transmission mains and deposited at PG&E's Milpitas Gas Terminal.

IMPACTS AND MITIGATION MEASURES

PUBLIC SERVICES

Significance Criteria

Appendix G of the *CEQA Guidelines* (revised October 26, 1998) states that a project would significantly impact public services if it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services.

Project Operation Impacts and Cumulative Impacts

Impact D.1: Implementation of the Redevelopment Plan may lead to an increase in the need for police protection, fire protection, and emergency medical services, and require the construction of new facilities for additional staff. (Less than Significant)

Full build-out of the proposed Redevelopment Project Area could increase the population and the number of businesses in the City of San Bruno. At full build-out, the possible increase of the population in Subarea A by 935 to 1,410 persons could create the need for an additional one to

two firefighters. The possible addition of 2,000 to 2,400 hotel rooms could also increase the need for police, fire, and emergency medical services.

The addition of hotels with as many as 2,400 rooms under the Redevelopment Plan could result in a need to reconfigure the police beat system and possibly a need for more police officers. A reconfiguration of the police beat system might also result from plans now underway to construct a new San Bruno Police Station that will be a part of the new BART station in San Bruno as part of the San Francisco Airport BART extension.

With respect to fire protection services, additional firefighters cannot be accommodated at Fire Station #51 (Dawson, 1999). Fire Station #52 is near an active earthquake and has not been seismically retrofitted. The Fire Department has access to extensive mutual aid through the San Mateo County dispatch system, which dispatches calls by proximity to the incident. By emphasizing proper use of sprinklers, annual inspections, and proper installation of smoke detectors, the Department actively minimizes losses due to fire. The number of calls is relatively low, with an average of eight calls each day between the two fire stations, and few fire-related calls.

Implementation of the Redevelopment Plan in Subareas A and B may provide funding for resources for both the Police and Fire Departments. In addition, widening streets, building code enforcement, and new structures that meet current building standards that may result from implementation of the Redevelopment Plan would result in improved access by both the Fire Department and Police Department, reduced potential fire hazards and overcrowding, and new buildings that would meet all the Uniform Fire Codes and the Uniform Building Codes.

Because improvements to the fire stations would likely be made at or near existing facilities in the Civic Center area and near Skyline Boulevard, construction of any new facilities or alteration of existing facilities would be unlikely to cause significant environmental impacts or adverse physical impacts. The possible need for increased staff is not, by itself, considered a significant impact under CEQA.

Mitigation: None required.

PUBLIC SERVICES

Significance Criteria

Appendix G of the *CEQA Guidelines* (revised October 26, 1998) states that a project would significantly impact public utilities if it would:

- exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;

- require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- require new or expanded water entitlements;
- result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs;
- Fail to comply with federal, state, and local statutes and regulations related to solid waste.

Impact D.2: Implementation of the Redevelopment Plan could cause the City to exceed its current wastewater treatment capacity. (Less than Significant)

As noted above, the *City of San Bruno 1984 General Plan and Environmental Impact Report* projected a declining population for the City, and an anticipated volume of 2.94 million gallons of wastewater per day for a population of 32,700. The City has an estimated population of 41,450 in 1998, and the City of San Bruno's existing wastewater system may be unable to accommodate further increases in flow. The City's wet-weather discharge currently exceeds its treatment plant capacity and approaches its wastewater treatment entitlement for the treatment plant expansion expected to be completed in 2001. It is difficult to estimate what increases in wastewater volume would occur under the proposed Redevelopment Plan, but applying the City's rates for estimating wastewater discharge volumes yields the following: at 75 gallons per day per capita for residential use, the estimated increase of 935 to 1,410 persons in the Project Area would lead to an estimated maximum increase of 105,750 gallons of wastewater per day; and at 1,000 gallons per day per acre of commercial use, the 25.9 acres of military and adjacent properties, plus an additional estimated 40 acres[5] of commercial uses located elsewhere in the Project Area, would lead to an estimated maximum increase of 65,900 gallons per day of wastewater. These totals do not take into account the reductions in wastewater that would occur due to commercial uses that are replaced by redevelopment projects, such as the military uses at the Navy and Navy Reserve properties. As such, these totals represent a conservative estimate that may overstate the increase in wastewater volume, and in any case represent less than 4 percent of the City's current dry-weather wastewater volume, and less than 1 percent of its wet-weather volume, in either case a small percentage.

Implementation of the Redevelopment Plan would provide additional resources to address the problems of aging infrastructure. The City of San Bruno is also currently working to resolve

[5] This figure would more than include acreage at Tanforan Park Shopping Center, the lumberyard, and other properties located along El Camino Real, San Bruno Avenue, San Mateo Avenue in the Project Area that may be used for commercial purposes under the Redevelopment Plan.

some of these issues, including long-term expansion of the wastewater treatment plant. The expanded plan is expected to have sufficient capacity to accommodate increases in wastewater that could result from implementation of the Redevelopment Plan. In addition, the City anticipates completion of its a Wastewater Master Plan soon.

Mitigation Measure D.2: If the increment of wastewater volume created by projects developed under the Redevelopment Plan results in exceeding San Bruno's wastewater treatment capacity, the City shall ensure that water conservation programs are implemented in order to reduce the wastewater volume to an acceptable level.

REFERENCES – Public Services, Facilities, and Utilities

(All printed references are available at the San Bruno Planning and Building Department, City Hall, 567 El Camino Real, San Bruno, unless otherwise noted. Internet resources at the Internet locations noted.)

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E. PARKS, RECREATION, AND OPEN SPACE

SETTING

The City of San Bruno's open space, and its parks and recreational opportunities are discussed in this section. Natural resources, safety, public facilities, and cultural resources are discussed in other sections of this report.

CITY OF SAN BRUNO

The City of San Bruno forms a link in a system of accessible public recreation areas that extends throughout the Bay Area and includes beaches, playgrounds, parks, playgrounds, natural reservations, bicycling, and hiking trails. To the west is the Golden Gate National Recreation Area (GGNRA) with 23,000 acres in San Mateo County. Operated by the National Park Service, GGNRA preserves open space lands of significant natural, historic, scenic, and recreational value. Two San Mateo County parks are also to the west: the 232-acre Milagra Ridge park and the 58-acre Sweeney Ridge Skyline Preserve. To the southwest is a 1,863 acre portion of the San Francisco Bay National Wildlife Refuge, owned by the Federal government and operated by the Fish and Wildlife Service of the U.S. Department of the Interior. To the south, within city limits, is the 108-acre Junipero Serra Regional Park, another San Mateo County park. Three miles north of San Bruno's city limit is the 2,064-acre San Bruno Mountain State and County Recreation Area. Both the San Francisco Bay and the Pacific Ocean, which provide sources of water recreation, are less than two miles away.

San Bruno is also in the middle of a system of bicycling and hiking trails that interconnect throughout the Bay Area, including the Bay Trail that will encircle the San Francisco and San Pablo Bays.

Parks and Recreation Areas

The City of San Bruno maintains 21 outdoor parks and recreational areas, covering 97.25 acres and managed by San Bruno's Parks and Recreation Department. (See Table III.E.1 for a complete list.) Parks and recreation areas range from small tot lots of less than one-half acre in size to the 31-acre City Park. Parks are located throughout the city, although the larger parks are west of El Camino Real.

Based on criteria established by the *City of San Bruno 1984 General Plan*, San Bruno instituted a citywide goal of an average 2.5 acres of parkland per 1,000 residents,[1] a goal based on a 1980 population of 35,417, and a projected population of 32,700 in 2000, at which time San Bruno's parklands would average an estimated 2.7 acres per 1,000 persons. The Association of Bay Area Governments (ABAG) now estimates that the population of San Bruno, will reach 42,200 by

[1] *City of San Bruno 1984 General Plan*, p. 79.

TABLE III.E.1
CITY OF SAN BRUNO PARKS AND RECREATION AREAS

Park	Description	Location	Acres	Acres in Proposed Redevelopment Area
Bayshore Circle Park	Play equipment and basketball courts	North Bayshore Circle	1	1
Belle Air Park and Lion's Field	Picnic tables, baseball fields, restrooms, barbecues, play equipment	South end of First and Third Avenues	3	3
Buckeye Park	Picnic tables, barbecues, play equipment	Rosewood Drive near Madison Avenue	7	0
Catalpa Tot Lot	Picnic tables, barbecues, play equipment, basketball equipment	Catalpa Way at Toyon Drive	.5	0
City Park	Tennis courts, swimming pool, picnic tables, baseball fields, restrooms, exercise course, barbecues, play equipment	Crystal Springs and Oak Avenues	31	0
Commodore Park	Picnic tables, baseball fields, restrooms, exercise course, barbecues, play equipment	Commodore Drive and Cherry Avenue	4	40
Crestmoore High Athletic Fields	Soccer fields, baseball fields, restrooms, exercise field	Top of Courtland Drive	12	0
Earl and Glenview Park	Play equipment	Earl Avenue and Glenview Drive	2	0
Fleetwood Tot Lot	Play equipment, basketball courts	Fleetwood Drive, near Rollingwood Drive	.5	0
Forest Lane Park	Picnic tables, barbecues, play equipment, basketball courts	Forest Land and Green Avenue	4	4
Grundy Park	Picnic tables, barbecues, play equipment, basketball courts	Cherry Avenue at Park Avenue	4	0
Herman Tot Lot	Play equipment	Diamond and Herman Streets	.25	.25
Lomita Park	Picnic tables, play equipment	500 San Anselmo Avenue	.25	.25
Monte Verde Park	Picnic tables, play equipment	Oakmond Drive at Evergreen Drive	5	0
Pacific Heights Park	Baseball field, play equipment, basketball courts	Longview Drive at Goodwin Drive	5	0
Ponderosa Park	Play equipment	Pacific Heights Drive and Seacliff Way	4	0
Portola Park	Picnic tables, barbecues, play equipment	Amador Avenue and Lake Drive	8	0

TABLE III.E.1 (Continued)
CITY OF SAN BRUNO PARKS AND RECREATION AREAS

Park	Description	Location	Acres	Acres in Proposed Redevelopment Area
Posy Park	Benches, drinking fountain	San Mateo Avenue and Huntington Avenue	.25	.25
Sandburg Field	Dog run, soccer field, baseball fields	Maywood and Evergreen Drives	4	0
Seventh Avenue Park	Picnic tables, play equipment	7th Avenue and Pine Street	.5	.5
Seventh and Walnut Park	Play equipment, basketball courts	7th Avenue and Walnut Avenues	1	1
TOTAL ACREAGE			97.25	10.25

SOURCE: Peter O'Shea, Director, Parks and Recreation Department, City of San Bruno, telephone conversations, December, 1998, various pages, January 6, 1999; City of San Bruno Parks and Recreation Department website: http://www.ci.sanbruno.us/Parks.

2000[2]. By 2000, the City of San Bruno would provide a citywide average of 2.3 acres of parkland per 1,000 residents.[3]

The County of San Mateo owns and operates the 108-acre Junipero Serra Regional Park, a foothill park located within San Bruno's city limits along Crystal Springs Road, adjacent to City Park to the east and the City of Millbrae to the south. If Junipero Serra Regional Park is included, the City's total park acreage increases to 205.25 acres, or 4.8 acres per 1,000 residents in 2000.

The City of San Bruno plans no additional parks; all parks provided for in the City's General Plan are built out (O'Shea, 1999).

Bicycle Routes and Hiking Trails

Safe, well-marked bicycle routes are increasingly important to a city's overall transportation strategy, and can serve as an important resource for recreational bicyclists and hikers. The *City of San Bruno 1984 General Plan* designates four bicycle routes within the city: (1) College Drive from Skyline Boulevard to Skyline College; (2) Crestmoor Drive; (3) Fleetwood Avenue; and (4) Jenevein Avenue. According to the 1984 General Plan, only some of the routes are marked with appropriate signage. The City is considering additional bicycle routes.

2 ABAG, *Projections 98: Forecasts for the San Francisco Bay Area to the Year 2020*, December 1997, p. 188.
3 Calculated by dividing the total park acreage (97.25) by the thousands of population (42.2) which equals 2.304, rounded to 2.3.

The San Mateo County General Plan designates six additional regional bicycling paths within San Bruno city limits: (1) Sneath Lane, between El Camino Real and Skyline Boulevard; (2) El Camino Real; (3) San Bruno Avenue (also a part of the Bay Trail), between El Camino Real and Airport Boulevard; (4) Skyline Boulevard; (5) Crystal Springs Road; and (6) the Muni right-of-way along the railroad tracks.[4] County bicycling paths are the joint responsibility of San Mateo County and the City of San Bruno.

Hiking trails are located throughout nearby county, state and national parks. The Bay Trail, although not completed, will either enter San Bruno along San Bruno Avenue and continue through the city alongside the Muni right-of-way, or follow the eastern perimeter of the city through lands owned by San Francisco International Airport. As both a hiking trail and bicycling route, the Bay Trail will link nine Bay Area counties and 42 cities. The City is considering the possibility of establishing additional trails, including a trail that would link Junipero Serra Regional Park, City Park and the Bay Trail, and a trail through Crestmoor Canyon.

Open Space

The City of San Bruno maintains several open space areas "for the protection of public health, safety, and welfare."[5] The *City of San Bruno 1984 General Plan* permits lands subject to flooding, liquefaction, seismic and geologic problems, erosion and other hazards, environmentally sensitive habitat areas, and archaeological sites to be set aside as open space. Currently, the City maintains approximately 12 open space areas. With the exception of Lion's Field, all of the open space areas are west of I-280, in the hilly areas of San Bruno. The largest open space area is Crestmoor Canyon, located between Sneath Lane and Crestmoor Drive.

Land Owned by the California Department of Transportation (Caltrans)

The California Department of Transportation (Caltrans) currently owns an undetermined number of acres adjacent to or in its rights-of-way, under freeways. Although the City provides maintenance for these areas, there are no current plans to work with Caltrans to use this land for recreational purposes.

Subarea A

Redevelopment Subarea A covers 699 acres and includes 10.25 acres of parkland. (See Table III.E.1 for a complete listing of parks, locations, and acreages.) The largest park is the three-acre Belle Air Park and Lion's Field (also a designated open space area), located adjacent to the Belle Air Park (South) Residential Conservation Area. City Park is an estimated six blocks from the Lomita Park Residential Conservation Area, while Commodore Park is near the U.S. Navy and Navy Reserve facilities, along Commodore Drive.

Subarea A contains four of the six designated County of San Mateo bicycle routes that are located in San Bruno: (1) a portion of the Sneath Lane bicycle route, between El Camino Real and the

4 Department of Environmental Management, Planning and Development Division, *General Plan*, November 1986, Map 12.3M.

5 *City of San Bruno 1984 General Plan*, p. 74.

U.S. Navy facility; (2) El Camino Real; (3) San Bruno Avenue (also a part of the Bay Trail), between El Camino Real and Airport Boulevard; and (4) the Muni right-of-way along the railroad tracks. In addition, construction of a 10-foot wide bicycle and pedestrian lane is part of the widening of Huntington Avenue, between Angus Avenue and Sneath Lane.

Subarea B

Redevelopment Subarea B covers 18 acres and consists of commercial uses. Subarea B does not currently include parks or recreational facilities. It is, however, located across Skyline Boulevard from the San Francisco Bay National Wildlife Refuge, and is near the Crestmoor Canyon open space area. One of several trailheads for the Sawyer Camp Trail is located at the intersection of Skyline Boulevard and Crystal Springs Road, west of Subarea B. Used by an estimated 300,000 hikers each year,[6] this paved six-mile trail is located outside San Bruno city limits and is maintained by the San Mateo County Parks and Recreation Division. The vacant lot in Subarea B, owned by Caltrans, would provide parking for Sawyer Camp Trail hikers.

The Open Space, Conservation, Scenic Corridors Element

The *Open Space, Conservation, Scenic Corridors Element* ("Open Space Element") of the *City of San Bruno 1984 General Plan and Environmental Impact Report* is the policy document that guides the development of San Bruno's outdoor parks and outdoor recreation areas.

The Open Space Element discusses a variety of standards for determining how much land should be devoted to outdoor parks, recreation, and general open space. Anticipating a future projected population of 32,700 by 2000, the Open Space Element adopted a standard of 2.5 acres per 1,000 residents (Policy 9, p. 79).[7] The Open Space Element noted that if the 93.3-acre Junipero Serra Regional Park (a San Mateo County park located within San Bruno city limits) were included, the standard would jump to approximately 5.2 acres per 1,000 residents.

Since 1984, when the General Plan was adopted, San Bruno has experienced a population increase, instead of the decline predicted by ABAG. Population for 2000 is now projected to reach 42,200. In addition, Junipero Serra Regional Park now includes 108 acres. The City of San Bruno now provides an average of 2.3 acres of parkland per 1,000 residents. If Junipero Serra Regional Park is included in the calculations, the average increases to 4.8 acres of parkland per 1,000 residents.

The Open Space Element states that the "updated General Plan recommends no further acquisition of parkland due to presently limited funds for development and maintenance, and because the current and projected citywide parks per population ratios more than satisfy the desired standard. Some planning areas are, however, still deficient in convenient recreational opportunities. In these areas, in particular, it is important to retain use of school grounds and to

6 County of San Mateo County, *Welcome to San Mateo County*, http://www.co.sanmateo.ca.us/dinetpubwwwroot/county/citzrpt.dir/environ.html, February 25, 1999.

7 At the time the *City of San Bruno 1984 General Plan* was adopted, San Bruno had 18 parks totaling approximately 90 acres.

provide on-site recreational facilities and open space for residents in new large residential developments."[8]

Table III.E.2 summarizes the relevant goals, objectives and policies of the 1984 Open Space Element that pertain to the Redevelopment Plan.

IMPACTS AND MITIGATION MEASURES

APPROACH TO ANALYSIS

This analysis uses past and projected population estimates as the basis of analysis. The *City of San Bruno 1984 General Plan* projected population in 2000 at 32,700. However, the Association of Bay Area Governments (ABAG) now estimates that San Bruno's population could reach 42,200 in 2000, a total of 9,500 more persons than estimated in the 1984 General Plan. By the year 2010, the population could reach an estimated 43,400 persons.[9] Redevelopment could add an additional 935 to 1,410 persons to Subarea A by the year 2010[10].

SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* (revised October 26, 1998) states that a project would significantly impact parks and recreational open space if it would:

- conflict with established recreational, education, religious or scientific uses of the area;
- substantially increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated;
- include recreational facilities or require the construction or expansion of recreational facilities which might have a substantial adverse physical effect on the environment.

A project could also significantly impact the environment if it would exceed the standard established by Policy 9 of the *Open Space, Conservation, and Scenic Corridors Element* ("Open Space Element") of the *City of San Bruno 1984 General Plan and Environmental Impact Report*, which states:

> Maintain the present citywide average of 2.5 acres of parkland per 1,000 population. Assure that parks and recreational facilities are well distributed throughout residential neighborhoods and employment centers.

8 *City of San Bruno 1984 General Plan*, p. 65.
9 ABAG, p. 188.
10 Calculated by using the 1990 Census estimate of 2.58 persons per dwelling unit multiplied by the estimated number of market rate housing units (265-450) added to the estimated number of housing units for the elderly (assuming one person per unit: (265-450) market rate housing units x 2.58 person per dwelling unit + 250 persons.

TABLE III.E.2
SUMMARY OF GOALS, POLICIES AND ACTIONS
1984 GENERAL PLAN
OPEN SPACE FOR OUTDOOR RECREATION, PARKS AND GENERAL OPEN SPACE
SUBAREAS A AND B

Goal, Objective and/or Policy	Text
Open Space for Outdoor Recreation, Parks and General Open Space (OS/REC) Goal 1	To recognize open space as an integral part of planning for the overall improvement of the City.
OS/REC Goal 2	To generate an awareness through public discussion of the importance of open space that will guide both public and private actions.
OS/REC Goal 3	To recognize that open space fulfills basic human needs – psychological, physical, social, educational, and safety – and to establish a firm commitment to fulfill those needs for this and future generations.
OS/REC Goal 5	To recognize the importance to the City, State and nation of protecting the natural environment and its wildlife.
OS/REC Goal 6	To recognize the areas of overlapping jurisdiction with respect to open space, and wherever possible, to coordinate the City's plan with efforts of other agencies.
Parks and Open Spaces for Outdoor Recreation (POS/Rec) Policy 8	Provide recreational opportunities for a wide variety of ages, abilities, and interests.
POS/Rec Action 8-A	Consider needs for adult recreational programs. Continue efforts to provide a senior citizen recreational facility.
POS/Rec Policy 9	Maintain the present citywide average of 2.5 acres of parkland per 1,000 population. Assure that parks and recreational facilities are well distributed throughout residential neighborhoods and employment centers.
POS/Rec Action 9-A	In new residential subdivisions where land is dedicated for park or recreational purposes, continue to require the developer to be responsible for continued maintenance of park/facilities.
POS/Rec Action 9-B	Continue to work with the school districts to allow public recreational use of school grounds, particularly in neighborhoods where parkland is deficient. Retain public recreational use of a portion of closed school grounds.
POS/Rec Policy 10	Maintain existing City parks and make improvements where feasible to meet park users' needs.
POS/Rec Action 10-A	Before new projects are approved, assure that long term maintenance needs are considered, including need for future staff and equipment.
POS/Rec Action 10-B	Encourage community organizations and private citizens to help the City maintain public parks and open spaces.

TABLE III.E.2 (Continued)
SUMMARY OF GOALS, POLICIES AND ACTIONS
1984 GENERAL PLAN
OPEN SPACE FOR OUTDOOR RECREATION, PARKS AND GENERAL OPEN SPACE
SUBAREAS A AND B

Goal, Objective and/or Policy	Text
POS/Rec Policy 15	a. Assure provision of landscaped open space areas for public and employee use in the build-out of Bayhill and Tanforan lands. b. Consider development of a sportsfield/park and commuter parking facilities on Caltrans/City lands near I-380/I-280 interchange as long term possibility.
POS/Rec Policy 16	a. Landscape along the railroad tracks to buffer noise effects on nearby residential areas. Use vegetation that will not impede visibility for trains yet will buffer noise and improve the area's appearance (i.e., maximum six feet high). Design landscaping for low maintenance. b. Retain a safe means of access across the railroad tracks and right-of-way to Belle Air Park. c. Encourage landscaping of sidewalks, rear parking lots and connecting walkways, as part of the beautification of San Mateo Avenue.
POS/Rec Policy 17	a. Protect open space values and public recreational use of parts of the airport lands if they develop. b. Consider a linear recreational area with a jogging/bicycle path and landscaping in the Muni right-of-way from the existing railroad station south to Millbrae.
Open Space for Public Health, Safety and Welfare (OS/PubH) Policy 26	Conserve open space lands and maintain as necessary for public health, safety, and welfare. Consider open space lands which are: a. subject to geologic or seismic hazards, erosion, flooding, liquefaction, or other hazards unless such hazards can be adequately mitigated to assure public health and safety for the life of the project; b. those portions of property which have significant value to the public as scenic resources, aesthetic or recreation purposes.
OS/PubH Action 26-A	Review City ordinances and zoning and revise as necessary to require open space easements or deed restrictions on undevelopable property. Through the development review process, require recordation of open space easement, deed restriction, dedication or other legal means of permanently restricting development of open space lands.
OS/PubH Action 26-B	Review open space requirements (percentage of parcel, uses allowed, etc.) for planned developments, PUP's, office complexes, commercial and industrial development and revise as necessary to provide adequate landscaped and open space areas for residents'/employees' use and to enhance the project's exterior appearance.

SOURCE: City of San Bruno, *City of San Bruno 1984 General Plan*, June 25, 1984, pp. 76-83.

PROJECT OPERATION IMPACTS

Impact E.1: Occupation of the residential structures assumed for Redevelopment Subarea A could result in a substantial increase in the use of existing neighborhood or regional parks and facilities such that substantial physical deterioration of the facilities could occur or be accelerated. (Less than Significant)

The City of San Bruno building code requires that developers of subdivisions "provide adequate and appropriate recreational facilities for the subdivision by the dedication of land in the subdivision or by the payment of fees in lieu thereof, in accordance with the conditions and requirements of this section."[11] These fees could provide the opportunity to build additional recreational facilities and diminish the impact of population increases in Subarea A resulting from anticipated residential construction.

Mitigation: None required.

Impact E.2: Occupation of the planned residential structures assumed for Redevelopment Subarea A could result in the City's inability to meet its stated policy of 2.5 acres of parkland per 1,000 residents. (Significant)

The estimated 1990 population in Redevelopment Subarea A is approximately 12,000.[12] If population growth in Subarea A is assumed to be at least equal to population growth citywide, Subarea A could have a population of 12,960 by 2000 with no development under the Redevelopment Plan. To meet the 1984 General Plan's standard of 2.5 acres per 1,000 residents, Subarea A should have a minimum of 32 acres of outdoor park and recreation areas. It currently has a total of 10.25 acres of parks and recreation areas, which would amount to less than 0.8 acres per 1,000 residents for 2000, assuming a population of 12,960 persons. Schools provide a possible source for an additional 5.2 acres of land in Redevelopment Subarea A, which could increase the parkland average to approximately 1.3 acres per 1,000 residents.

Redevelopment in Subarea A would not be expected to result in additional population increases by 2000. However, by the year 2010, the combination of anticipated citywide population increases of 3 percent (see Section A, Population, Employment and Housing) and the addition of 935 to 1,410 persons as a result of new housing units assumed for the subarea could result in a parkland average of 0.7 acres per 1,000 persons.[13] The difference between 0.7 acres per 1,000 residents (assuming an additional population increase would result under the Redevelopment Plan) and 0.8 acres per 1,000 residents (assuming the anticipated population increase occurs, with no additional population added due to redevelopment projects) would be insubstantial.

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11 City of San Bruno, Building Code section 12.44.140, p. 12-64.

12 Statistics for Subarea A are computed using U.S. Census tracts 6041.1, 6041.2 and 6042. Census tract 6041.2 includes a small area outside the project area, but which is lightly populated.

13 Calculated by increasing the 12,000 base population for 1990 by 11 percent to 13,348 for the year 2010, and adding the total anticipated increase due to redevelopment, 935 to 1,410. The population increase was divided by the total existing parkland, 10.25 acres. When rounded, the figure was .7 acres per 1,000 persons both for 935 additional persons and for 1,410 additional persons.

Redevelopment that could occur under the proposed Redevelopment Plan would not, therefore, add enough additional residents to substantially affect the existing ratio of parkland acres per 1,000 residents.

Redevelopment under the Redevelopment Plan would not by itself result in the City's inability to meet its stated goal of 2.5 acres of parkland per 1,000 residents and would not significantly affect the City's existing parkland acreage/population ratio.

In addition, the 1984 General Plan recommended and the City adopted a policy to continue to work with the school districts to allow public recreational use of school grounds, particularly in neighborhoods where parkland is deficient. Schools maintain more than five acres of recreational area in Subarea A and more than 100 acres citywide. Although negotiating with the number of school districts with schools in the City of San Bruno may pose a challenge, the use of school grounds could provide a substantial increase in the amount of available parkland.

Mitigation: None required.

REFERENCES – Parks, Recreation, and Open Space

(All printed references are available at the San Bruno Planning and Building Department, City Hall, 567 El Camino Real, San Bruno, unless otherwise noted. Internet resources at the Internet locations noted.)

Association of Bay Area Governments, http://www.abag.ca.gov/bayarea/baytrail, February 23, 1999.

City of San Bruno Planning Code, section 12.44.140.

City of San Bruno, *City of San Bruno*, http://www.ci.sanbruno.ca.us, December-January, 1999.

City of San Bruno, *City of San Bruno 1984 General Plan and Environmental Impact Report*, adopted June 25, 1984, *various locations*.

City of San Bruno, *City of San Bruno 1984 General Plan Summary*, adopted June 1984, *various locations*.

City of San Bruno, *Final Environmental Impact Report on the San Bruno Community Improvement Project Area Plan*, May 1989, *various locations*.

County of San Mateo, *Welcome to San Mateo County*, http://www.co.sanmateo.ca.us/dinetpubwwwroot/county/citzrpt.dir/environ.html, February 25, 1999.

O'Shea, Peter, Director, City of San Bruno Parks and Recreation Department, telephone conversations, December 1998, January 6 and 26, 1999.

Padovan, Steve, Associate Planner, City of San Bruno Planning Department, telephone conversation, February 24, 1999.

F. BIOLOGY

INTRODUCTION

Several federal and state agencies are involved directly and indirectly in the evaluation of potential and significant impacts to sensitive species and their habitats. This introduction provides a brief overview of the regulatory agencies involved when endangered species or their habitats may be affected. Please refer to the Impacts and Mitigation Measures section for a more detailed description of each of those agencies. The Federal Endangered Species Act (FESA) provides programs to conserve endangered and threatened species and the ecosystems used by these species. Determination of the status of these species falls under the jurisdiction of the U.S. Fish and Wildlife Service (USFWS). The Clean Water Act mandates that the filling of wetlands be avoided unless it can be demonstrated that no practicable alternatives to filling such wetlands and waters of the United States exist. The potential filling of wetlands and waters of the United States falls under the jurisdiction of the U.S. Army Corps of Engineers (Corps), U.S. Department of Agriculture's Natural Resource Conservation Service (NRCS), U.S. Environmental Protection Agency (EPA), USFWS, and the National Marine Fisheries Service (NMFS).

In California, three separate statutes affect endangered and threatened species: the California Endangered Species Act (CESA), the California Native Plant Protection Act (CNPP) and the Natural Community Conservation Planning Act (NCCP). The California Department of Fish and Game (CDFG) is required to regulate actions that might effect endangered species and their habitat. are Streams, both perennial and annual, are also under its jurisdiction.

APPROACH TO ANALYSIS

Sources used in the preparation of this section include previous field surveys and records from biological literature; CDFG and USFWS compilations of federal- and state-listed species by county; review of California Native Plant Society (CNPS) literature (CNPS, 1998 and 1994); and the CDFG's California Natural Diversity Data Base (CDFG, 1998), which contains reported occurrences of sensitive species by U.S. Geologic Survey (USGS) 7.5-minute topographic quadrangles. Two USGS quadrangles were used for this project: South San Francisco and Montara Mountain. The area reviewed consisted of the entire City of San Bruno, the "footprints" for possible facilities, and siting areas for possible development. For each sensitive species, the analyst assessed habitat requirements and compared these to the habitats present in the Project Area. However, no species-specific surveys were conducted. Factors such as habitat quality and species distribution were also considered in evaluating the likelihood of sensitive species occurring in the Project Area. Please see Tables III.F.1 and III.F.2 for a list of the special-status species that potentially occur within the Project Area and their habitat requirements.

Based on the regulations stated above, project-related impacts to species or their habitats listed under FESA, CESA, and CNPP would be considered significant for the purposes of this EIR. Impacts to wetlands and waters of the United States would also be considered significant. Section F.2.1 provides a detailed description of the regulations and authorities listed above.

TABLE III.F.1
SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROPOSED SAN BRUNO REDEVELOPMENT PROJECT AREA

Scientific Name Common Name	Listing Status USFWS/ CDFG/ CNPS	Habitat Requirements	Suitable Habitat Found along Ridge Trail Route	Flowering Period
Acanthomintha duttonii San Mateo thorn-mint	FE/SE/1B	Grassland and chaparral on serpentine soils	Low – suitable habitat does not occur within the RPA*	April-June
Arabis blepharophylla Coast rock cress	FC3c/--/4	Broadleafed upland forests, coastal prairie, coastal scrub; often in rocky places	Low – suitable habitat does not occur within the RPA	February-April
Arctostaphylos imbricata San Bruno Mtn. Manzanita	FC/SE/1B	Chaparral habitat on San Bruno Mountain	Low – suitable habitat does not occur within the RPA	February-May
Arctostaphylos montaraensis Montara manzanita	FC/--/1B	Maritime chaparral and coastal scrub	Low – suitable habitat does not occur within the RPA	January-March
Arctostaphylos regismontana Kings Mtn. Manzanita	--/--/4	Chaparral and conifer forests	Low – suitable habitat does not occur within the RPA	January-April
Calandrinia breweri Brewer's calandrinia	--/--/4	Burns and disturbed areas in coastal scrub and chaparral	Low – suitable habitat does not occur within the RPA	March-June
Chorizanthe cuspidata var. cuspidata San Francisco Bay spineflower	FSC/--/1B	Coastal bluff scrub, coastal dunes, and coastal prairie on sandy soils	Low – suitable habitat does not occur within the RPA	April-July
Chorizanthe robusta var. *robusta* Robust spineflower	FE/--/1B	Coastal scrub, coastal dunes, and openings in oak woodlands	Low – extirpated from county, and suitable habitat does not occur within the RPA	May-September
Cirsium andrewsii Franciscan thistle	--/--/4	Broadleafed upland forests and coastal bluff scrub, sometimes on serpentinite	Low – suitable habitat does not occur within the RPA	June-July
Cirsium fontinale var. fontinale Fountain thistle	FPE/SE/1B	Grassland and openings in chaparral and in serpentinite seeps	Low – suitable habitat does not occur within the RPA	June-October

* RPA = Redevelopment Project Area

TABLE III.F.1 (Continued)
SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROPOSED SAN BRUNO REDEVELOPMENT PROJECT AREA

Scientific Name Common Name	Listing Status USFWS/ CDFG/ CNPS	Habitat Requirements	Suitable Habitat Found along Ridge Trail Route	Flowering Period
Collinsia multicolor San Francisco collinsia	--/--/4	Closed-cone coniferous forests and coastal scrub	Low – suitable habitat does not occur within the RPA	March-May
Cypripedium fasciculatum Clustered lady's-slipper	FSC/--/4	Lower montane coniferous forests, North Coast coniferous forests, usually in serpentinite seeps and streambanks	Low – suitable habitat does not occur within the RPA	March-July
Cypripedium montanum Mountain lady's-slipper	FC3c/--/4	Broadleafed upland forests, lower montane coniferous forests	Low – suitable habitat does not occur within the RPA	March-July
Dirca occidentalis Western leatherwood	--/--/1B	Broadleafed upland forests, closed-cone coniferous forests, chaparral, cismontane woodland, North Coast coniferous forests, riparian forests, riparian woodland; mesic sites	Low – suitable habitat does not occur within the RPA	January-April
Elymus californicus California bottle-brush grass	FC3c/--/4	North Coast coniferous forests	Low – suitable habitat does not occur within the RPA	June-August
Equisetum palustre Marsh horsetail	--/--/3	Marshes	**Medium – within seasonal wetlands on Airport lands**	perennial herb (rhizomatous)
Eriogonum luteolum var. *caninum* Tiburon buckwheat	FC3c/--/3	Chaparral, coastal prairie, grasslands, usually on serpentinite	Low – suitable habitat does not occur within the RPA	June-September
Eriophyllum latilobum San Mateo woolly sunflower	FE/SE/1B	Cismontane woodland, on serpentinite, often on roadcuts	Low – suitable habitat does not occur within the RPA	May-June
Erysimum franciscanum San Francisco wallflower	FSC/--/4	Coastal dunes, coastal scrub, grasslands, often on serpentinite or granitic soils	Low – suitable habitat does not occur within the RPA	March-June
Fritillaria agrestis Stink bells	--/--/4	Valley and foothill grasslands, oak woodlands; on clay flats; sometimes on serpentine	**Medium – within grasslands in Lion's Field**	March-April

*RPA = Redevelopment Project Area

TABLE III.F.1 (Continued)
SPECIAL-STATUS PLANT SPECIES POTENTIALLY OCCURRING WITHIN THE PROPOSED SAN BRUNO REDEVELOPMENT PROJECT AREA

Scientific Name Common Name	Listing Status USFWS/ CDFG/ CNPS	Habitat Requirements	Suitable Habitat Found along Ridge Trail Route	Flowering Period
Plagiobothrys chorisianus var. *chorisianus* Choris's popcorn-flower	--/--/3	Chaparral, coastal prairie, coastal scrub, on mesic sites	**Medium – within grasslands on Airport lands**	April-June
Potentilla hickmanii Hickman's cinquefoil	FC/SE/1B	Coastal bluff scrub, closed-cone coniferous forests, meadows and marshes, mesic sites	**Medium – within grasslands on Airport lands**	April-August
Sanicula hoffmannii Hoffman's sanicle	FC3c/--/4	Broadleafed upland forests, chaparral, coastal scrub, often on serpentinite or clay	Low – suitable habitat does not occur within the RPA	March-May
Sidalcea hickmanii ssp. *viridis* Marin checkerbloom	FSC/--/1B	Chaparral, usually on serpentinite	Low – suitable habitat does not occur within the RPA	May-June
Silene verecunda ssp. verecunda San Francisco campion	FSC/--/1B	Coastal bluff scrub, chaparral, coastal prairie, coastal scrub, grasslands	**Medium – within grasslands on Airport lands**	March-June
Triphysaria floribunda San Francisco owl's-clover	FSC/--/1B	Coastal prairie and grasslands, on serpentinite	Low – suitable habitat does not occur within the RPA	April-May

FEDERAL: (U.S. Fish and Wildlife Service)
FE = Listed as Endangered by the Federal Government
FT = Listed as Threatened by the Federal Government
FPE = Proposed for Listing as Endangered
FPT = Proposed for Listing as Threatened
FC = Candidate for Federal listing
FSC = Federal Species of Concern (former Category 2 Candidate)
FC3c = Species removed from the listing package

CALIFORNIA NATIVE PLANT SOCIETY
List 1A = Plants presumed extinct in California
List 1B = Plants rare, threatened, or endangered in California and elsewhere
List 2 = Plants rare, threatened, or endangered in California but more common
List 3 = Plants about which more information is needed
List 4 = Plants of limited distribution

STATE: (California Department of Fish and Game)
SE = Listed as Endangered by the State of California
ST = Listed as Threatened by the State of California
SR = Listed as Rare by the State of California

SOURCES: CDFG, 1998; USFWS, 1998; CNPS, 1994; ESA, 1999.

*RPA = Redevelopment Project Area

TABLE III.F.2
SPECIAL-STATUS ANIMAL SPECIES POTENTIALLY OCCURRING WITHIN THE PROPOSED SAN BRUNO REDEVELOPMENT PROJECT AREA

Scientific Name Common Name	Status	Habitat Requirements	Potential for Species to Occur in the Project Area	Period of Identification
Insects:				
Adella oplerella Opler's longhorn moth	FSC	Serpentine grassland habitat	Low – suitable habitat does not occur within the RPA	March-May
Danaus plexippus Monarch butterfly	*	Eucalyptus groves (winter sites)	**Medium – within the eucalyptus groves on Airport lands**	Winter
Euphydryas editha bayensis Bay checkerspot butterfly	FT	Serpentine grasslands	Low – suitable habitat does not occur within the RPA	March-May
*Hydrochara ricksecker*i Ricksecker's water scavenger beetle	FSC	Found in freshwater ponds, shallow water of streams, marshes, and lakes	**Medium – within the seasonal wetlands on Airport lands**	January-July
Hydroporus leechi Leech's skyline diving beetle	FSC	Found in freshwater ponds, shallow water of streams, marshes, and lakes	Low – suitable habitat does not occur within the RPA	January-July
Icaricia icarioides missionensis Mission blue butterfly	FE	Grassland with *Lupinus albifrons*, *L. formosa*, and *L. varicolor*	Low – suitable habitat does not occur within the RPA	March-June
Incisalia mossii bayensis San Bruno elfin butterfly	FE	Found in coastal scrub	Low – suitable habitat does not occur within the RPA	March-April
Calcina minor Edgewood microblind harvestman	FSC	Found under serpentine rock outcrops	Low – suitable habitat does not occur within the RPA	Autumn
Nothochrysa californica San Francisco lacewing	FSC	Riparian and wetland habitats	**Medium – within the seasonal wetlands on Airport lands**	Spring
Speyeria adiaste adiaste Unsilvered fritillary butterfly	FSC	Found in native grasslands with *Viola penduculata* as larval food plant	Low – suitable habitat does not occur within the RPA	Spring
Speyeria callippe callippe Callipe silverspot butterfly	FE	Found in native grasslands with *Viola peduculata* as larval food plant	Low – suitable habitat does not occur within the RPA	Spring
Speyeria zerene myrtleae Myrtle silverspot butterfly	FE	Found in native grasslands with *Viola peduculata* as larval food plant	Low – suitable habitat does not occur within the RPA	Spring
Fishes:				
Eucyclogobius newberryi Tidewater goby	FE	Occurs in brackish shallow lagoons	Low – suitable habitat does not occur within the RPA	Spring
Oncorhynchus Mykiss Central Coast steelhead salmon	FT	Migrates to marine waters after one year in freshwater	Low – suitable habitat does not occur within the RPA	Spring

TABLE III.F.2 (Continued)
SPECIAL-STATUS ANIMAL SPECIES POTENTIALLY OCCURRING WITHIN THE PROPOSED SAN BRUNO REDEVELOPMENT PROJECT AREA

Scientific Name Common Name	Status	Habitat Requirements	Potential for Species to Occur in the Project Area	Period of Identification
Amphibians:				
Rana aurora draytonii California red-legged frog	FT/CSC	Freshwater ponds and slow streams with emergent vegetation for egg attachment	**Known within the seasonal wetlands of Lion's Field**	April-June
Reptile:				
Clemmys marmaorata Western pond turtle	FSC/CSC	Freshwater ponds and slow streams edged with sandy soils for laying eggs	**Medium – within the seasonal wetlands of Lion's Field**	warm days
Thamnophis sirtalis tetrataenia San Francisco garter snake	FE/SE	Freshwater ponds and slow streams with emergent vegetation	**Known within the seasonal wetlands of Lion's Field**	warm days
Birds:				
Accipiter cooperi Cooper's hawk	CSC	Nests in riparian growths of deciduous trees and live oaks	**High – within areas of dense groves of trees**	March-July
Ardea herodias Great blue heron	CSC	Nests in trees along lakes and estuaries	**Medium – within areas of dense groves of trees**	March-July
Brachyramphus marmoratus Marbled murrelet	FT/SE	Nests in dense, old growth forests along coast	Low – suitable habitat does not occur within the RPA	May-August
Circus cyaneus Northern harrier	CSC	Nests and forages in wet meadows and pastures	**Medium – within grasslands of 'Airport owned lands**	all year
Elanus caeruleus White-tailed kite	3511	Nests in trees near wet meadows and open grasslands	**Medium – within grasslands of 'owned lands**	March-July
Falco columbarius Merlin	CSC	A winter visitor of woodlands, foothills, and valleys	Low – suitable habitat does not occur within the RPA	Winter
Haliaeetus leucocephalus Bald eagle	FT/SE	Nests and forages on inland lakes, reservoirs, and rivers	Low – suitable habitat does not occur within the RPA	Winter
Pandion haliaetus Osprey	CSC	Nests near freshwater lakes and large streams on large snags	Low – suitable habitat does not occur within the RPA	March-June
Pelecanus erythrorhynchos American white pelican	CSC	Nests on protected islets near freshwater lakes for protection from predators	Low – suitable habitat does not occur within the RPA	May-July
Rallus longirostris obsoletus California clapper rail	FE/SE	Nests in tidal salt marshes with an extensive system of tidal sloughs	Low – suitable habitat does not occur within the RPA	March-June
Sterna antillarum browni California least tern	FE/SE	Nests on sandy beaches and alkali flats	Low – suitable habitat does not occur within the RPA	March-June

TABLE III.F.2 (Continued)
SPECIAL-STATUS ANIMAL SPECIES POTENTIALLY OCCURRING WITHIN THE PROPOSED SAN BRUNO REDEVELOPMENT PROJECT AREA

Scientific Name Common Name	Status	Habitat Requirements	Potential for Species to Occur in the Project Area	Period of Identification
Birds (cont.):				
Strix occidentalis occidentalis California spotted owl	FSC/CSC	Nests in old growth forests	Low – suitable habitat does not occur within the RPA	March-Sept.
Mammals:				
Plecotus townsendii Townsend's big-eared bat	FSC/CSC	Roosts in caves, old buildings, and under bark. Forages in open lowland areas and forms large maternity colonies in spring.	**Medium – within the buildings of the Navy compound**	Jan.-Feb. and Aug.-Oct.
Antrozous pallidus Pallid bat	CSC	Roosts in caves, old buildings, and under bark. Forages in open lowland areas and forms large maternity colonies in spring.	**Medium – within the buildings of the Navy compound**	Jan.-Feb. and Aug.-Oct.
Myotis ciliolabrum Small-footed myotis	FSC	Roosts in caves, old buildings, and under bark	**Medium – within the buildings of the Navy compound**	Jan.-Feb. and Aug.-Oct.
Myotis evotis Long-eared myotis	FSC	Roosts in caves, old buildings, and under bark. Forms maternity colony in the spring.	**Medium – within the buildings of the Navy compound**	Jan.-Feb. and Aug.-Oct.
Myotis thysanodes Fringed myotis	FSC	Roosts in caves, old buildings, and under bark. Forms maternity colony in the spring.	**Medium – within the buildings of the Navy compound**	Jan.-Feb. and Aug.-Oct.
Myotis volans Long-legged myotis	FSC	Roosts in caves, old buildings, and under bark. Forms maternity colony in the spring.	**Medium – within the buildings of the Navy compound**	Jan.-Feb. and Aug.-Oct.

STATUS CODES:

FEDERAL: (U.S. Fish and Wildlife Service)
FE = Listed as Endangered (in danger of extinction) by the Federal Government.
FT = Listed as Threatened (likely to become endangered within the foreseeable future) by the Federal Government.
FP = Proposed for Listing as Endangered or Threatened.
FC = Candidate to become a *proposed* species.
FSC = Federal Species of Concern. May be endangered or threatened, but not enough biological information has been gathered to support listing at this time.

STATE: (California Department of Fish and Game)
SE = Listed as Endangered by the State of California.
ST = Listed as Threatened by the State of California.
SR = Listed as Rare by the State of California (plants only).
CSC = California Species of Special Concern.
3503.5=Protection for nesting species of Falconiformes (hawks) and Strigiformes (owls).
3511 = White-tailed kite is fully protected under Fish and Game Code 3511.
* = Species considered "rare" in California or of special local interest.

SOURCES: CDFG, 1998; USFWS, 1998; ESA, 1999.

REGIONAL SETTING

The San Francisco coastal region, encompassing the San Francisco Bay and the Coast Mountain Ranges, has a Mediterranean climate; summer temperatures, tempered by morning fog and afternoon sea breezes, range between 45 and 60 degrees Fahrenheit. As a result, this area has a growing season of 200 to 300 days per year. Precipitation ranges between 12 to 60 inches. Once a mosaic of upland oak, mixed evergreen, and redwood forests, native and non-native grasslands, upland scrubs, wetland communities, and riparian scrubs and forests, the historic natural environment of the Bay Area has been significantly altered in the last 150 years. Composition and successional sequence of some plant communities (especially grassland communities) has changed because of plant and animal species introduced between the late 1700s and early 1900s related to grazing, agriculture, forestry, and urbanization. Most of the shoreline and surrounding upland areas have been converted to urban uses. The remaining areas of natural vegetation are scattered and are found only in small, discrete areas. This loss of habitat has been accompanied by the elimination of many wildlife species and the reduction in numbers of many native species in the Bay Area.

As a result of urbanization, the City of San Bruno currently supports several distinct vegetative communities:[1] (1) freshwater wetlands, (2) willow riparian, (3) mixed oak woodland, and (4) non-native annual grassland. Eucalyptus grove and urban/highly disturbed habitats are not vegetative communities *per se*, but are considered to be wildlife habitat. Due to the amount of native vegetation lost to urbanization throughout California, several specific native vegetative communities have been identified as rare and/or sensitive by the California Department of Fish and Game. These natural communities are of special significance because the present rate of loss indicates that additional acreage reductions or further habitat degradation may threaten the viability of dependent plant and wildlife species and possibly hinder the long-term sustainability of the community or species dependent upon the community. As natural communities diminish, the need increases to list dependent plant and wildlife species as rare, threatened, or endangered under state or federal Endangered Species Acts. Loss of some significant natural communities can diminish valued ecosystem functions, such as the roles of marshes in water filtration, or of riparian woodlands in riverbank stabilization.

Some of these natural communities have a rich complement of sensitive species and species-oriented programs that will usually protect them. Other communities do not support rare species and, therefore, species-oriented protection cannot be invoked (CNPS, 1994). Sensitive communities in the Project Area include freshwater wetlands and mixed oak woodland (coast live oak occurs as an upland and riparian community within the project site).[2]

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1 Natural communities are compositions of species that reoccur due to responses to similar combinations of environmental conditions and are not dependent on human intervention. For this discussion, native vegetation pertains to those species present in California prior to colonization by Europeans, while species such as wild oats and brome grasses, which dominate much of the current California landscape, are considered non-native. Vegetative communities that are dependent on human intervention, such as horticultural species, irrigated agriculture, or landscaping, are considered introduced (non-natural) communities.

2 CDFG and CNPS recognize uncommon, vulnerable, or regionally declining habitat types as sensitive or significant communities. These communities are tracked by the CDFG in the California Natural Diversity Data Base. Each community appearing in the database is assigned a rarity and threat ranking that indicates current known acreage of the community, known threats, and the community's sensitivity to perturbation.

The following community descriptions provide ranges, habitat requirements, community sensitivities, and a list of plant species characteristically found in conjunction with each plant assemblage. Descriptions of vegetative communities in this report follow those guidelines set forth by the CDFG (Saywer and Keeler-Wolf, 1995; Holland, 1986) with modification to accurately describe site-specific conditions. Refer to Figure III.F.1 for a map of vegetative communities in the City of San Bruno.

Freshwater Wetland

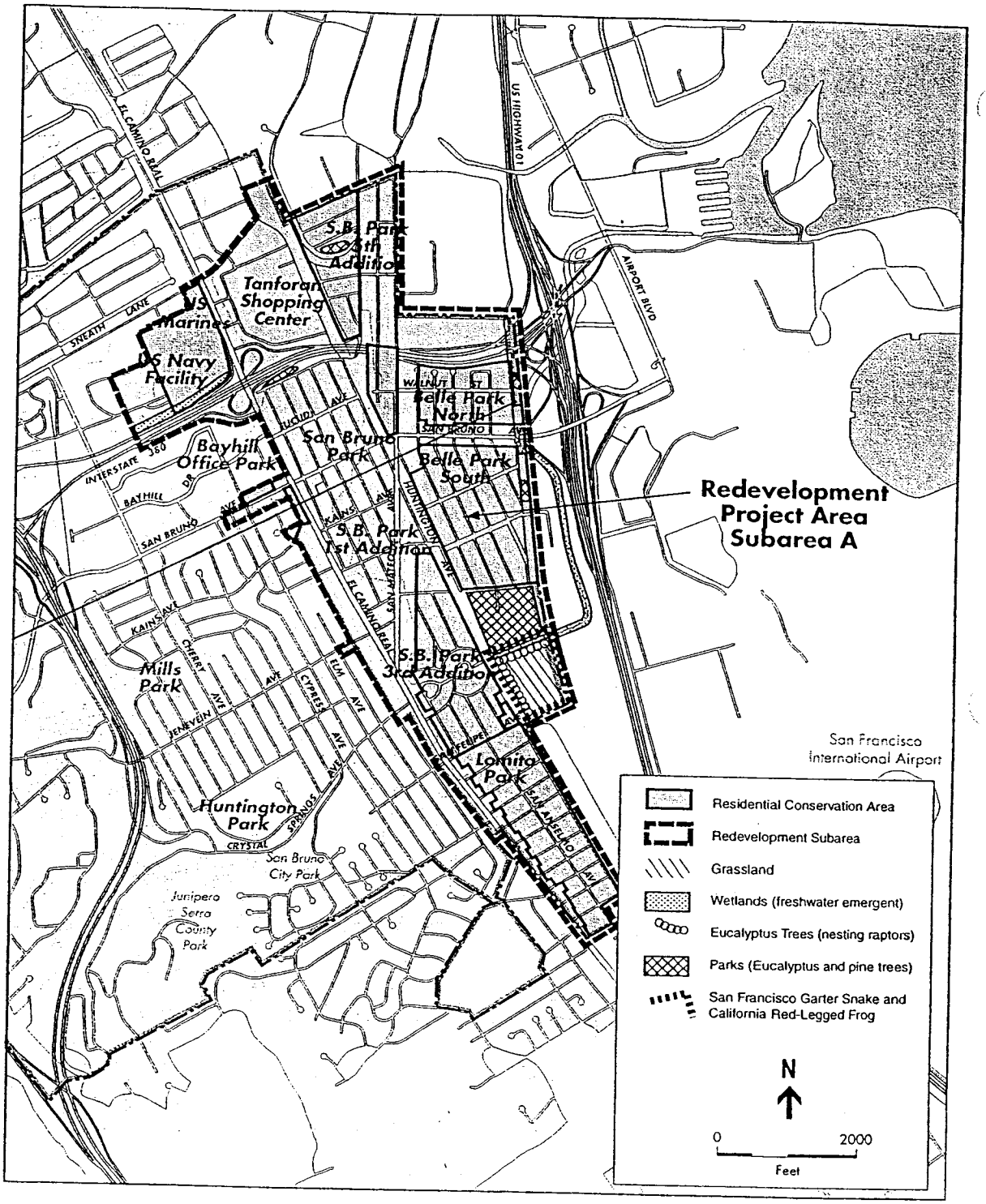
Wetlands are ecologically productive habitats that support a rich variety of both plant and animal life. The importance and sensitivity of wetlands have increased as a result of their role as recharge areas and filters for water supplies and widespread filling and destruction to accommodate urban and agricultural development. This transitional habitat occurs between terrestrial and aquatic systems where water tables are near the surface or land is covered by shallow water. Grasslike plants, which emerge from the water, form a dense canopy. Seasonal and permanent wetlands in the Project Area include coast freshwater marsh, which is dominated by perennial, emergent monocots, often forming completely closed canopies (Holland, 1986). Typical species found in this community include sedges (*Carex* sp.), spike-rush (*Eleocharis* sp.), tule (*Scirpus* sp.), and cattail (*Typha* sp.).

This habitat is one of the most productive habitats for wildlife in that it offers water, food, and cover for a variety of species. Reptiles and amphibians in this habitat include western aquatic garter snake (*Thamnophis couchii*) and tree frogs. Northern harrier (*Circus cyaneus*), black necked stilts (*Himantopus mexicanus*), avocets (*Recurvirostra americana*), red-winged blackbirds (*Agelaius phoeniceus*), and killdeer (*Charadrius vociferous*) use these areas for foraging and nesting. Snowy egret (*Leocophoyx thula*), black-crowned night heron (*Nycticorax nycticorax*), and mallard (*Anas platyrhynchos*) also forage in this habitat. Mammals common in this habitat are meadow voles (*Microtus californicus*) along the edges of the marsh area, raccoons foraging on eggs and invertebrates, striped skunk (*Mephitis mephitis*), and gray fox (*Urocyon cineroargenteus*). This habitat provides important foraging and drinking areas for aerial and ground-feeding insectivorous bats, such as *Myotis* species and pallid bats (*Antrozous pallidus*). Please see below for a description of sensitive species potentially occurring in this habitat.

Willow Riparian

This habitat is a low shrubby tree structure that can cover an entire watercourse with an impenetrable understory and includes fallen limbs and other debris. Willow scrub community is a broadleafed, winter-deciduous streamside thicket, which may be open or dense, dominated by any of several willow species, usually as small trees or shrubs. Very little herbaceous understory component is found in dense stands, while more open stands support a number of weedy species characteristic of non-native grasslands (Holland, 1986).

Arroyo willow (*Salix lasiolepis)* is the dominant canopy species occurring in this riparian community throughout the Project Area. Most of the herbaceous understory present is comprised of such non-native grasses as wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), and



City of San Bruno Redevelopment Project Area - Figure III.F.1

Vegetative Communities and Sensitive Species Habitats

Italian rye grass (*Lolium perenne*), as well as various introduced herbs including yellow sweet clover (*Melilotus indica*), burclover (*Medicago polymorpha*), and wild mustard (*Brassica* sp.)

The willow riparian habitat attracts bird species that catch insects by gleaning, such as bushtits (*Psaltriparus minimus*) and Bewick's wren (*Thryomanes bewickii*). Other species such as mallards and snowy egrets use the shallow quiet waters of the river or stream to forage for vegetation, small fish, and invertebrates. The American crow (*Corvus corax*) is found in this habitat and others, feeding on insects, fruits, carrion, amphibians, and reptiles. Raptors (birds of prey), such as sharp-shinned hawks (*Accipiter striatus*) and red-shouldered hawks (*Buteo lineatus*), nest in the high canopy and feed on the smaller birds and amphibians. Omnivores, such as the raccoon (*Procyon lotor*) and striped skunk (*Mephitis mephitis*), forage on invertebrate species, plant parts, amphibians, and fruits.

Mixed Oak Woodland

Mixed oak woodland is often composed of coast live oak (*Quercus agrifolia*), California black oak (*Quercus kellogii*), valley oak (*Quercus lobata*), toyon (*Heteromeles arbutifolia*), and California buckeye (*Aesculis californica*). The understory is dominated by herbaceous vegetation and consists of non-native grasses such as soft chess (*Bromus mollis*) and ripgut grass (*Bromus diendrus*), intermixed with native and non-native wildflowers including mission bells (*Fritillaria affinis*), chickweed (*Stellaria media*), bedstraw (*Galium aparine*), mugwort (*Artemesia douglasiana*), fiesta flower (*Pholistoma auritum*), and miner's lettuce (*Claytonia perfoliata*). The shrub layer of the understory, though sparse, often contains snowberry (*Symphoricarpos albus*), poison oak (*Toxicodendron diversalobum*), and California blackberry (*Rubus ursinus*).

Coast live oak woodland provides water, foraging, nesting, cover, and migrating and dispersal corridors for a variety of wildlife species. Insect eaters, such as ash-throated flycatcher (*Myiarchus cinerascens*), plain titmouse (*Parus inornatus*), and dark-eyed junco (*Junco hyemalis*) are foliage gleaners. Bark gleaner species, such as scrub jay (*Aphelocoma coerulescens*), Stellar's jay (*Cyanocitta stelleri*), and acorn woodpecker (*Melanerpes formicivorus*), feed on insects as well as acorns. California quail (*Lophortyx californicus*) and brown towhee (*Pipilo fuscus*) are the ground foliage gleaners in this habitat. Red-shouldered hawks can be seen foraging on small mammals in the grassland adjacent to the coast live oak riparian forest where the mammals seek protection and the hawks roost. Cooper's hawks and sharp-shinned hawks (see Table III.F.1 for a list of special-status species and their habitat requirements) are often associated with this habitat, where they hunt small birds. Mammals such as gray squirrel (*Sciurus griseus*) forage and nest in the canopy of the trees, while long-tailed weasels (*Mustela frenata*) hunt on the ground for shrews (*Sorex* sp.) and California voles (*Microtus californicus*). Larger mammals, such as Pacific coast black-tailed deer (*Odocoileus hemionus*) utilize the wet understory of this community (i.e. poison oak and black berry bushes) in the form of shelter and food from the berries. Underneath the cover of fallen leaf litter and bark can be found amphibians, such as Pacific slender salamander (*Batrachoseps attenuatus*), rough skinned (*Taricha granulosa*), and ensatina (*Ensatina eschscholtzii*).

Non-Native Annual Grassland

Non-native annual grassland consists of a dense to sparse cover of annual grasses associated with a variety of broadleaf herbs and perennial grasses. The most abundant species are generally non-native annual grasses in the genera *Bromus, Avena, Lolium*, and *Vulpia*. Common broadleaf species are quite variable, but often include the genera *Erodium, Centaurea, Lupinus, Lepidium, Castilleja*, and *Eschscholzia*. In addition to considerable site-to-site variation that is largely based on soils and management practices, there is also much year-to-year variation in species composition in response to the timing and amount of precipitation. In a standard reference on California vegetation, the non-native annual grassland community is equivalent to the California annual grassland series (Sawyer and Keeler-Wolf, 1995).

Annual grasslands are utilized by a wide variety of wildlife. Reptile species typically found in this habitat include western fence lizard (*Sceloporus occidentalis*), western terrestrial garter snake (*Thamnophis elegans*), and western rattlesnake (*Crotalus viridis*). Mammals within this habitat include black-tailed jackrabbit (*Lepus californicus*), western harvest *mouse (Reithrodontomys megalotis*), California vole, and coyote (*Canis latrans*). The principal game species in the Project Area are deer, California quail, and mourning dove. Typical foraging birds include the turkey vulture (*Cathartes aura*), northern harrier (*Circus cyaneus*), American kestrel (*Falco sparverius*), and white-tailed kite (*Elanus leucurus*).

Eucalyptus Grove

This vegetation community is usually monotypic, with only one species providing canopy and very little undergrowth. Structurally, eucalyptus (*Eucalyptus* sp.) create a dense, shady canopy. Volatile chemicals contained in the large amount of bark and leaf litter deposited by eucalyptus create poor growing conditions for most herbaceous and woody understory species. Where fire hazard management techniques have not been applied, the understory of this community consists of a thick layer of bark, leaves, and poison oak (where openings in the canopy allow sufficient light to penetrate to the grove floor), creating high fire hazards.

These forests offer perching and roosting sites for a variety of avian species, with raptors often nesting in groves. The lack of understory growth does not provide much habitat for insects and other invertebrates and, therefore, reptiles that prey upon them would not occur within this habitat. For this same reason, mammals would not regularly use this habitat except for cover and resting areas. However, Myotis bat species and California slender salamanders (*Batrachoseps attenuatus*) have been observed in this habitat.

Urban/Highly Disturbed

The majority of the City of San Bruno contains urban/highly disturbed habitat. In addition to the sites supporting vegetation that can be classified as natural communities, many areas throughout the Project Area have been significantly altered and/or modified by human activity. This category includes any number of conditions commonly encountered in areas with a relatively large human population. Areas included in this category are residential, commercial, and

industrial developments, roadways and roadcuts, quarry pits, buildings, and areas devoid of natural vegetation due to the spraying of herbicides or other direct human intervention.

Portions of the areas characterized as urban/highly disturbed are more aptly described as ruderal in nature and provide low value for wildlife habitat. Ruderal habitat occurs most often as a temporal and spatial transition between more highly disturbed/urban areas, and is characterized by landscaped vegetation and non-native grassland. It is found in upland areas that have at some time been disturbed through grading, scraping, disking, the spraying of herbicides, cultivation, or other human intervention, and is characterized by non-native grasses, invasive weedy species, volunteer shrubs and trees, and landscape plantings. Dominant species include feather top (*Pennisetum villosum*), foxtail brome (*Bromus rubens*), rip-gut grass (*Bromus diandrus*), telegraph weed (*Heterotheca grandiflora*), sweet fennel (*Foeniculum vulgare*), Russian thistle (*Salsola iberica*), black bindweed (*Polygonum convolvulus*), Monterey pine (*Pinus radiata*), Monterey cypress (*Cupresses macrocarpa*), hottentot fig (*Carpobrotus edulis*), ice plant (*Mesembryanthemum crystallinum*), pepper tree (*Shinus mole*), periwinkle (*Vinca major*), pampas grass (*Cortaderia jubata*), and various mustards (*Brassica* sp.).

Generally, ruderal vegetative communities that have a greater composition of grassland species gradually replace vegetation characteristics of highly disturbed areas. Over time, with a lack of human influence, ruderal vegetation becomes dominated by vegetation characteristic of non-native grassland.

Residential parks and disturbed areas provide little habitat for wildlife except for those species adapted to human habitation, such as starlings (*Sturnus vulgaris*), golden-crowned sparrows (*Zonotrichia atricapilla*), and rock pigeons (*Columba livia*). These areas do not provide habitat for the larger mammalian species or for predators, except as possible movement corridors.

PROJECT SETTING

Large expanses of natural vegetation communities have been separated into discrete units within the City of San Bruno. Home to several endemic plant and animal species that only occur on the Peninsula, the City of San Bruno still provides small areas of habitat for these species. However, regional loss of habitat for several of these species has reduced populations to low numbers, resulting in several becoming federally or state-listed as threatened or endangered. (Refer to the Impacts and Mitigation Measures Section for a full definition and description of regulations pertaining to listed and sensitive species.) Smaller species, such as reptiles, amphibians, and invertebrates, are often restricted to certain communities, and several federally listed species occur in small, fragmented areas that were once part of a larger community, such as the San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) and the bay checkerspot butterfly (*Euphydryas editha bayensis*). Because these habitats are diminishing and isolated populations could drastically be affected by an outbreak of disease or increased predation, retention of large areas of habitat is important to a strong population number and therefore the continued existence of the species.

The City of San Bruno comprises three parallel watersheds, Crystal Springs, Huntington Creek and San Bruno Creek, which flow from west to east, with riparian woodland in the upper reaches of the creeks and willow riparian habitat in the lower, slower-moving reaches (City of San Bruno, 1984). The natural habitats associated with these creeks are split into discrete units within the city, with the majority of habitats highly influenced by the surrounding urbanization. However, native vegetation and wildlife still exist in several open space areas, such as the Airport lands adjacent to U.S. 101, which is fed by Crystal Springs Creek; Crestmoor Canyon, which contains San Bruno Creek; a small area adjacent to the Navy Station and east of Commodore Park, which also contains San Bruno Creek; and Junipero Serra County Park, in which Crystal Springs Creek flows. The urban areas, many of them heavily landscaped, support a limited variety of birds and mammals, such as pigeons, starlings, house sparrows, mourning doves, Norwegian rats, and house mice.

The following sections summarize the vegetation communities and associated plant and wildlife species found within the Redevelopment Project Area. Sensitive species that have a high potential or are known to occur within the Project Area are described under each subarea.

SUBAREA A

Habitats Present on Site

A small portion of Subarea A contains high-quality habitat for two federally listed species, the San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) and the California red-legged frog (*Rana aurora draytonii*) (see Figure III.F.1). Identified as land belonging to San Francisco International Airport (SFIA), the parcel is approximately 11 acres in area and located south of Lion's Field (City of San Bruno, 1984). Specifically, the airport land within Subarea A is located south of Seventh Avenue and Cupid's Row Canal and east of Huntington Avenue and is designated as a significant natural resource area (City of San Bruno, 1984). This 11-acre parcel is part of the "West of Bayshore property," a 180-acre area entirely owned by the City and County of San Francisco and administered by SFIA (San Francisco Airport Commission, 1998). The SFIA North Water Main Extension and Telecommunications Duct Bank Negative Declaration identifies this area east of Seventh Avenue and Huntington Avenue as suitable San Francisco garter snake and California red-legged frog habitat (San Francisco Airports Commission, 1998). Although the area contains SFGS and CRLF habitat, as identified in the December 13, 1996, Section 7 Biological Opinion and August 3, 1998, Amendment of the Biological Opinion, the work conducted for the North Water Main Extension and Telecommunications Duct Bank project would be within completely disturbed areas, including the gravel access road, the realigned Cupid Row Canal, and BART and Caltrain Easements, and Huntington Avenue, and would be tunneled underground along most the North Water Main Extension and Telecommunications Duct Bank segment.

Habitat in the area that encompasses the Airport lands consists of non-native grasslands and shrubs, including coyote bush (*Baccharis pilularis* var. *consanguina*) (Larsen, 1994). Most of the site is non-native grasslands; however, during the winter, seasonal wetlands develop from the flow of Colma Creek and drain to the east of the site. These seasonal wetlands support emergent

vegetation such as cattails (*Typha latifolia*), spike-rush (*Juncus efusus*), and water plantain (*Alisma plantago aquatica*) (Larsen, 1994). Two federally listed species are known to occur in this area, the San Francisco garter snake and the California red-legged frog. Another sensitive species that may use the grasslands is the northern harrier, which nests on the ground in tall grasses. A description of these species is provided below.

Eucalyptus trees border the northern and western perimeters of the Airport lands. Although non-native, these trees, when adjacent to grasslands, often provide nesting areas for raptors (birds of prey). Several raptor species may use these trees for nesting, including white-tailed kite, red-shouldered hawks, Cooper's hawk, and sharp-shinned hawk. A description of these species is provided below.

A second area containing native vegetation is along the border of the southern portion of the Federal Archives parking lot adjacent to Commodore Park Drive. This area, which supports willow riparian community, was probably once San Bruno Creek and was diverted when the I-380 interchange was built. The willow riparian community extends from Cherry Avenue to El Camino Real. It is not expected that any sensitive plant or animal species occur in this area because of the isolation of the stream from other natural areas.

A third area that might provide habitat for sensitive species includes the old buildings within the U.S. Navy facility, which may provide roosting habitat for several sensitive bat species. The loss of oak woodland habitat and natural rock crevices have forced bats into using different types of roosting habitat, including buildings.

Description of Sensitive Species Known/Potentially Occurring on Site

The following are short descriptions of sensitive species known or potentially occurring within Subarea A. (Refer to Section F.2.1 for a detailed description of the regulatory agencies by which these species are considered sensitive.)

San Francisco garter snake (SFGS) is federally and state-listed as endangered, with only 59 sites containing reproductive adults and which only occur in San Mateo County (Barry, 1995). This species is known to occur in a variety of habitats during the autumn, with low-lying marsh areas used for feeding and reproduction (Barry, 1995; USFWS, 1985). The chief determinants of prime habitat for this species include emergent vegetative cover (extending from the water's edge to the middle of the water body), bank slope, number of frogs, and basking sites (Barry, 1994). SFGS prefer to move and forage within or immediately adjacent to emergent and bankside vegetation, stalking and capturing prey along and within dense shoreline vegetation rather than on the floating vegetation (McGinnis, 1992, 1998; USFWS, 1985). Female garter snakes emerge in early spring from relatively deep hibernacula on slopes, while males hibernate sporadically in shallow slopes (Barry, 1995). SFGS mating occurs either in the spring or fall but is especially concentrated in the first few warm days in March, with young born in late July or early August (Barry, 1993; USFWS, 1985). The SFGS have been tracked to meadow vole burrows, and one burrow system provided a communal hibernation den (Larsen, 1994). Small mammal burrows in the upland grassland areas of Lion's Field may provide aestivation sites for the snake. SFGS

seeks out winter hibernacula when cool weather begins in late fall. Most SFGS burrows identified had a south, southeast, or southwest aspect (McGinnis, 1998).

California red-legged frog (CRLF) is federally listed as a threatened species and prefers semi-permanent ponds and aquatic habitats that typically dry by late fall (September or October) and fill up during the rainy season, usually beginning in late November or early December (Cook, 1997). Although CRLF inhabit a wide variety of aquatic habitats, ponds with deep water, 27 inches (68.5 centimeters) to approximately 60 inches (150 centimeters), with stands of overhanging willows (*Salix* sp.) and an intermixed fringe of cattails (*Typha latifolia*), tules (*Scirpus* sp.), or sedges (*Carex* sp.) are favored (Cook, 1997; Hayes and Jennings, 1988; H.T. Harvey, 1997). The growing period for most emergent plants is during the spring and summer, which also provide refugia from predators for the frog if water is present. Densely vegetated upper banks also provide terrestrial foraging habitat protected from predatory species (McGinnis, 1998). Adult California red-legged frog begin breeding from late November through early May, when warm rains begin, with the majority of mating in late January and early February (Cook, 1997; H.T. Harvey, 1997). Frog choruses are often in similar locations each year and are usually located in areas where egg-laying occurs (Cook, 1997). This species has been tracked and observed in upland areas, in small mammal burrows, willow root wads, and underneath old boards and debris in the riparian zone (H.T. Harvey, 1997). It is unknown how far this species travels for summer aestivation habitat when the ponds dry up.

A primary requirement for successful CRLF habitat is the absence of exotic amphibian species, such as bullfrog (*Rana catesbiana*), and predatory fish such as centrarchid species (e.g., largemouth bass [*Micropterus salmoides*], green sunfish [*Lepomis cyanellus*], and bluegill [*L. macro*chirus]) (H.T. Harvey, 1997).

Raptors, birds of prey, potentially nesting in any tree over 15 feet in height within the Project Area include, but are not limited to, white-tailed kite (*Elanus leucurus*), red-shouldered hawk (*Buteo lineatus*), Cooper's hawk (*Accipiter cooperi*), and sharp-shinned hawk (*Accipiter striatus*). Another species that could potentially occur within the Project Area is the northern harrier (*Circus cyaneus*). This species nests and forages in wet meadows, sloughs, open grasslands and marshes. All these species are protected under the Migratory Bird Treaty Act (16 United States Code [USC], Section 703, Supp. I, 1989), in which all birds except starlings, English house sparrows, and rock doves are protected. The Fish and Game Code 3503.5 prohibits the taking or destroying of any bird or nest in the order of Falconiformes (falcons, kites, and hawks) and Strigiformes (owls). The white-tailed kite is a California fully protected bird species, under Fish and Game Code 3511. The breeding season for most raptors occurs between the months of February and October, with peak from May to August.

Sensitive bat species include Townsend's big-eared *bat (Corynorhinus townsendii)*, pallid bat (*Antrozous pallidus*), small-footed myotis (*Myotis ciliolabrum*), long-eared myotis (*Myotis evotis*), fringed myotis (*Myotis thysanodes*), and long-legged myotis (*Myotis volans*), all of which are listed by CDFG and USFWS as species of special concern. All of these species have potential to roost in buildings; most of them are ubiquitous in a variety of habitats, although not in large numbers. However, they often have species-specific roost requirements in terms of temperature,

humidity, access, dimension, and height of the roosting area from the ground. The loss of natural habitat and the subsequent extermination from buildings are the main threats to these species (Rainey, 1996).

Bats use different roosts at different times of the year, including maternity and bachelor roosts in the spring, hibernacula roosts during the winter, temporary roosts during migratory stopovers, and roosts used for lekking and reproductive behavior. Maternity colonies, usually containing only females and their young, are generally larger than hibernacula roosts. Night roosts, used only during the night and often different from day roosts, are used for shelter between foraging bouts, for prey manipulation and eating, and for social interactions, including reproductive behavior (Brown, 1996).

SUBAREA B

Habitats Present on Site

The northwestern portion of Subarea B contains ruderal habitat with pine trees between Glenview Drive and I-280 on the north side of San Bruno Avenue. This site was used for drying tailings from a recently cleared drainage ditch, as evidenced by the dark soils and cattails within the mounds. This site contains non-native grasslands with little wildlife habitat value.

The remaining area of Subarea B contains a shopping center, located east of Glenview Drive and south of San Bruno Avenue, and a nonoperating gas station, located north of San Bruno Avenue and east of Glenview Drive. This remaining area has existing buildings and therefore no biological resources.

Description of Sensitive Species Known/Potentially Occurring on Site

It is not expected that any sensitive plant or wildlife species occur in this subarea.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

For the purposes of this EIR, significant environmental effects on biological resources include:

- Substantial interference with the movement of any resident or migratory fish or wildlife species;
- Substantial reduction of habitat for fish, wildlife, or plants (including locally designated species); and
- Impacts to a rare or endangered species of animal or plant (including species of special concern) or its habitat.

Furthermore, *CEQA Guidelines* Sections 15206 and 15380, described below, were also used to determine impact significance.

Impacts are generally considered less than significant if the habitats and species affected are common and widespread in the region and the state.

For the purposes of this EIR, three principal components are considered:

- Magnitude of the impact (e.g., substantial/not substantial)
- Uniqueness of the affected resource (rarity)
- Susceptibility of the affected resource to disturbance (sensitivity)

The evaluation of significance must consider the interrelationship of these three components. For example, a relatively small-magnitude impact (e.g., disturbing a nest) to a state- or federally listed species would be considered significant because the species is at low population levels and is presumed to be susceptible to disturbance. Conversely, a common habitat such as mixed chaparral is not necessarily rare or sensitive to disturbance. Therefore, a much larger magnitude of impact (e.g., removal of extensive vegetation) would be required for it to be considered a significant impact.

Federal Endangered Species Act

Under the Federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as threatened or endangered (16 USC 1533[c]). Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed threatened or endangered species may be present in the project area and determine whether the project would have a potentially significant impact on such species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA, or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536[3], [4]). Therefore, project-related impacts to these species or their habitats would be considered "significant" in this EIR.

The U.S. Fish and Wildlife Service (USFWS) also publishes a list of candidates and other species of concern which receive "special attention" from federal agencies during environmental review, although they are not protected otherwise under FESA. The candidate species are those for which the USFWS or the National Marine Fisheries Service (NMFS) has sufficient biological information to support a proposal to list as endangered or threatened. Project impacts to such species would be considered significant in this EIR.

California Endangered Species Act

Under the California Endangered Species Act (CESA), the California Department of Fish and Game (CDFG) has the responsibility for maintaining a list of threatened and endangered species (California Fish and Game Code 2070). The CDFG also maintains a list of "candidate species," which are species that the CDFG has formally noticed as being under review for addition to either the list of endangered species or the list of threatened species. The CDFG also maintains lists of

"species of special concern" that serve as watch lists. Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project area and determine whether the project would have a potentially significant impact on such species. In addition, the CDFG encourages informal consultation on any proposed project that may impact a candidate species. Project-related impacts to species on the CESA endangered and threatened lists would be considered significant in this EIR. Impacts to species of special concern would be considered significant under certain circumstances.

The Clean Water Act

The regulations and policies of various federal agencies (e.g., the U.S. Army Corps of Engineers [Corps], U.S. Department of Agriculture's Natural Resource Conservation Service [NRCS], U.S. Environmental Protection Agency [EPA], USFWS, and NMFS) mandate that the filling of wetlands be avoided unless it can be demonstrated that no practicable alternatives to filling such wetlands exist. The Corps has primary federal responsibility for administering regulations that concern waters and wetlands within the Project Area. In this regard, the Corps acts under one statutory authority, the Clean Water Act (Section 404), which governs specified activities in "waters of the United States," including wetlands. The Corps requires that a permit be obtained if a project would place structures within navigable waters and/or alteration of waters of the United States below the ordinary high-water mark in nontidal waters.

The state's authority to regulate activities in wetlands and waters at the site resides primarily with the CDFG and the appropriate Regional Water Quality Control Board (RWQCB). The CDFG provides comment on Corps permit actions under the Fish and Wildlife Coordination Act. CDFG is also authorized under the state Fish and Game Code, Sections 1600-1607 to develop mitigation measures and enter into a Streambed Alteration Agreement with applicants that propose a project that would obstruct the flow or alter the bed, channel, or bank of a river or stream (including intermittent and ephemeral streams) in which there is a fish or wildlife resource. The appropriate RWQCB must certify that a Corps permit action meets state water quality objectives (Section 401, Clean Water Act).

In a jurisdictional sense, there are two definitions of a wetland, one definition adopted by federal agencies and a separate definition adopted by the State of California.

Federal Wetland Definition

Wetlands are a subset of "waters of the United States" and receive protection under Section 404 of the Clean Water Act. The term "waters of the United States" as defined in Code of Federal Regulations (33 CFR 328.3[a]; 40 CFR 230.3[s]) includes:

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

2. All interstate waters including interstate wetlands. (Wetlands are defined by the federal government [CFR, Section 328.3(b), 1991] as those areas that are inundated or saturated by

surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.).

3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:

   - which are or could be used by interstate or foreign travelers for recreational or other purposes; or
   - from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
   - which are used or could be used for industrial purposes by industries in interstate commerce.

4. All impoundments of waters otherwise defined as waters of the United States under the definition.

5. Tributaries of waters identified in paragraphs (1) through (4).

6. Territorial seas.

7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1) through (6).

8. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding jurisdiction remains with EPA (328.3[a][8] added 58 CFR 45035, August 25, 1993).

California Wetland Definition

Unlike the federal government, the California Department of Fish and Game and Coastal Commission have adopted the Cowardin (1979) definition of wetlands.

> Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface of the land or is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes (at least 50 percent of the aerial vegetative cover); (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year (Cowardin et al., 1979).

Under normal circumstances, the federal definition of wetlands requires all three wetland identification parameters to be met, whereas the Cowardin definition requires the presence of at least one of these parameters. For this reason, identification of wetlands by CDFG and the Coastal Commission consists of the union of all areas which are periodically inundated or saturated, *or* in which at least seasonal dominance by hydrophytes may be documented, *or* in

which hydric soils are present. The CDFG does not normally have direct jurisdiction over wetlands unless they are subject to jurisdiction under Streambed Alteration Agreements or they support state-listed endangered species. Within the Coastal Zone, CDFG has primary authority over degraded wetlands. Subarea A is within the Coastal Zone and as such is subject to policies of the Local Coastal Program certified by the Coastal Commission.

California Coastal Act

Within the Coastal Zone,[3] applicants for Section 404 permits must include a certification of consistency with the California Coastal Management Program.[4] The entire property is located within the Coastal Zone, and thus it is subject to the California Coastal Act and the Santa Cruz Local Coastal Program. The Coastal Commission's jurisdictional or review area not only includes the wetlands (Cowardin wetlands), but an additional 100-foot-wide buffer, measured from the upland edge of the wetland (14 CCR 12577).

Other water bodies and water-associated habitats on the property that the Coastal Commission would review, as defined in the California Code of Regulations (14 CCR 13577) and Coastal Commission's statewide interpretive guidelines (1982), are:

- Riparian habitats. Associations of plant species that grow next to freshwater streams, lakes, and other systems, plus a 100-foot-wide upland buffer measured from the landward edge of the riparian habitat; and
- Streams. Mapped on U.S. Geological Survey 7.5-minute quadrangle series or identified in a local coastal program, plus a 100-foot-wide buffer measured from the top of the bank.

CEQA Guidelines

CEQA Guidelines Section 15206 specifies that a project shall be deemed to be of statewide, regional, or areawide significance if it would substantially affect sensitive wildlife habitats including, but not limited to, riparian lands, wetlands, bays, estuaries, marshes, and habitats for rare and endangered species as defined by Fish and Game Code Section 903.

Although threatened and endangered species are protected by specific federal and state statutes, *CEQA Guidelines* Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals. This section was included in the *Guidelines* primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a "candidate species" that has not yet been listed by the USFWS, NMFS, or CDFG. Thus, CEQA provides an

[3] The Coastal Zone is defined as areas 1,000 yards inland from mean high tide, except in significant coastal estuarine, habitat, and recreational areas, where it extends inland to the first major ridge line paralleling the sea or five miles from the mean high-tide line, whichever is less (California Coastal Act, 1976).

[4] Under the Federal Coastal Zone Management Act 1972 (16 USC 1451), federal permit applicants must obtain a certification that activities proposed within the Coastal Zone are consistent with state Coastal Zone management programs.

agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

Other Statutes, Codes, and Policies Affording Limited Species Protection

The federal Migratory Bird Treaty Act (16 USC, Section 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Birds of prey are protected in California under the state Fish and Game Code, Section 3503.5, which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFG. Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. This approach would apply to red-tailed hawks, American kestrels, owls, and other birds of prey.

The federal Bald Eagle Protection Act prohibits persons within the United States (or places subject to United States jurisdiction) from "possessing, selling, purchasing, offering to sell, transporting, exporting, or importing any bald eagle or any golden eagle, alive or dead, or any part, nest, or egg thereof."

Vascular plants listed as rare or endangered by the California Native Plant Society (CNPS) (Skinner and Pavlik, 1994), but which have no designated status or protection under federal or state endangered species legislation, are defined as follows:

- List 1A. Plants believed extinct.
- List 1B. Plants rare, threatened, or endangered in California and elsewhere.
- List 2. Plants rare, threatened, or endangered in California, but more numerous elsewhere.
- List 3. Plants about which more information is needed; a review list.
- List 4. Plants of limited distribution; a watch list.

In general, plants appearing on CNPS List 1 or 2 are considered to meet CEQA's Section 15380 criteria, and effects to these species are considered significant.

Local Plans and Policies

CEQA Guidelines specify that a project will normally have a significant impact on the environment if it would physically impact species protected by adopted environmental plans and goals of the community(ies) where they are located. Relevant local standards are summarized below.

City of San Bruno Tree Ordinance

The City of San Bruno has no tree ordinance.

San Bruno General Plan (City of San Bruno, 1984) – Conservation, Open Space, and Scenic Corridors Element

Goal 4. To recognize that open spaces are essential for the conservation of natural resources, including water, air, heat, energy, etc.

Goal 5. To recognize the importance to the City, state, and nation of protecting the natural environment and its wildlife.

Goal 6. To recognize the areas of overlapping jurisdiction with respect to open space and, wherever possible, to coordinate the City's plan with efforts of other agencies.

Policy 1: To protect and conserve San Bruno's natural resources including vegetation, wildlife, soils, water, and air, in accordance with regional, state, and federal laws.

Action 1-A. Through the EIR process, assure that all projects affecting resources of larger than local concern (e.g., the San Francisco garter snake habitat, water and air quality, the San Francisco Fish and Game Reserve) satisfy regional, state, and federal laws.

Action 1-B. As a condition of development of the airport lands, require mitigation of identified impacts to the San Francisco garter snake habitat, as recommended in the Department of Fish and Game study *(and other studies)*. If the existing snake habitat area cannot be protected through site design, require restoration of an equivalent habitat area to replace the damaged area.

Policy 2: Protect natural vegetation in park, open space, and scenic areas as wildlife habitat, to prevent erosion and to serve as noise and scenic buffers.

Action 2-A. Preserve Crestmoor Canyon in a natural state. Minimize changes to natural land forms and vegetation. Continue to remove garbage, replant vegetation, and prevent erosion in the canyon.

Action 2-B. Through development review, assure that development on City lands is compatible with preservation of Junipero Serra Park and San Francisco Watershed lands in a natural state.

Action 2-D. Preserve the trees of the evergreen windbreak and Monte Verde Corridor.

Action 2-E. Protect as many trees as possible on Bayhill properties. Require identification of all trees over 6 inches in diameter and approval of landscaping plans during design review.

Policy 16: San Bruno Park-Belle Air Park

- Landscape along the railroad tracks to buffer noise effects on nearby residential areas. Use vegetation that will not impeded visibility for trains yet will buffer noise

and improve the area's appearance (i.e., maximum 6 feet high). Design landscaping for low maintenance.

- Retain a safe means of access across the railroad tracks and right-of way at Belle Air Park.

- Encourage landscaping of sidewalks, rear parking lots, and connecting walkways as part of the beautification of San Mateo Avenue.

PROJECT CONSTRUCTION IMPACTS

Impact F.1: Proposed construction for the Airport Lands Redevelopment Plan Area within Subarea A may impact individual sensitive plant species, such as marsh and horsetail, stink bells, Dudley's lousewort, Choris's popcorn-flower, Hickman's cinquefoil, and San Francisco campion. (Significant)

Due to the habitat present in the area of the Airport lands, there is potential for several sensitive plant species to occur in Subarea A within seasonal wetland and grassland areas. Development of this area could potentially reduce sensitive populations to even lower levels and cause extinction of one or more species in the region.

Mitigation Measure F.1: If construction is planned for the Lion's Field area, the City of San Bruno shall have sensitive plant species surveys conducted by a qualified botanist during the appropriate blooming period to determine their presence or absence. (Identified in this Report)

A local, regional, or herbarium reference population should be used to obtain a visual image of the species in question. If any of the species are present, a revegetation plan, approved by both the state and federal agencies, be created and approved prior to construction of the component potentially affecting the sensitive plant species.

Significance after Mitigation: Less than Significant.

Impact F.2: Construction of projects within Subarea A under the Redevelopment Plan could result in impacts to potentially jurisdictional wetlands/waters of the United States and streambeds and banks under the jurisdiction of the California Department of Fish and Game. Potential impacts include sedimentation of the channels outside of the construction area during trenching activities, and loss of riparian vegetation and stream function as wildlife and fishery habitat. (Significant)

The Airport lands and the area south of Commodore Drive Way contain potential jurisdictional wetlands. Any proposed filling of the wetlands would require a wetland delineation to determine the extent of the wetlands and consultation with the Corps and possibly CDFG.

Mitigation Measure F.2: A wetland delineation will be conducted prior to any construction within or adjacent to potential jurisdictional wetlands, which includes seasonal ponding areas, permanent ponded areas, drainage ditches, and relict streams and creeks. (Identified in this Report)

A Corps permit will be required for temporary or permanent construction within any wetlands or waters of the United States. In addition, the following will be required after the Corps and/or the CDFG permit has been obtained.

- Prior to construction, the aquatic structure of areas to be disturbed will be photodocumented and measurements of width, length, and depth taken no more than four weeks before construction begins. After construction, the aquatic structure will be photodocumented and measured to ensure that the channel has been restored to its original condition to the extent practicable.

- During construction, a biological monitor will be on site at all times when construction takes place in aquatic habitat. Any activity within ordinary high water will be photodocumented by the site monitor. In addition, a biologist with the appropriate permits to relocate animals will be available for consultation as needed. Please refer to Mitigation Measure F.5 for further requirements. The monitor and biologist will provide an environmental protection workshop for workers prior to construction activities.

- All construction adjacent to wetland vegetation will be regularly monitored to ensure that impacts do not exceed those included in the project description. Work within 100 feet of wetlands during ponding periods will be monitored by qualified staff who will document pre-project and post-project conditions to ensure adequate restoration of disturbed aquatic habitat.

The wetland construction boundary will be fenced to control siltation and disturbance to wetland habitat and to prevent the movement of animals into the construction area. Please refer to Mitigation Measure F.5 for further requirements. Following installation of fencing, its proper location will be verified by a biologist. The monitor will ensure that at no time during construction is vegetation removed outside of the fenced area. If variance in construction requires removal of vegetation outside the fence, the monitor will determine if additional mitigation is warranted. The permitting agencies will also be contacted in the event of any significant deviation from permitting conditions.

Significance after Mitigation: Less than Significant.

Impact F.3: Improper erosion-control plantings and other slope-stabilization plantings in either Subarea A or Subarea B of the Project Area could introduce exotic plant species. (Significant)

Invasive plant species are known to out-compete native species, change the species composition of the vegetation community, and can change the ecological regime of a habitat, such as increasing the fire loads or fire frequency in an area. Invasive species could be defined as incompatible species that are harmful to the surrounding environment (San Mateo General Plan

1986). The following weed species have already been identified as having the potential to spread throughout otherwise undisturbed vegetation in the watershed lands—Australian fireweed (*Erectites minima*), hawthorn (*Crataegus monogyna*), and pampas grass (*Cortaderia jubata*) (SFWD EIR, 1998). These species are capable of spreading into undisturbed habitats such as riparian oak woodland. Pampas grass is already present in some open roadcuts on Sneath Lane. Increased recreational activity may encourage the spread of this species by creating open ground along roadsides, and by people picking and scattering the plume-like flowering stalks of this plant.

Mitigation Measure F.3: Along with the erosion-control plan, described in Section III.G, Hydrology, Water Quality, and Flooding, an invasive vegetation-control plan and a native vegetation replanting plan should be implemented prior to construction in the Project Area. (Identified in this Report)

Factors to be included in the vegetation-control plan include, but are not limited to, the following:

The invasive vegetation plan will include methods for eradicating of non-native plant species, with specific recommendations for timing of mowing (if applicable), and plant-specific herbicide application. Weed removal and dispensation will be detailed in the plan. The most important component in the invasive plant species control plan is the success of the native plantings. Mowers and herbicides are used to prepare the area to be replanted with native vegetation. Once established and healthy, native plants are often able to out-compete invasive species as long as disturbance does not affect the plantings.

The revegetation plan will include only native plants that occur within the specific locality of the Peninsula. For example, the city could install whip cuttings of willow along smaller streams within the Project Area. In higher, drier areas that are eroding, native species include elderberry (*Sambucus mexicana*), California rose (*Rosa californica*), and California blackberry (*Rubus ursinus*). Western redbud (*Cercis occidentalis*) is another possible choice. Several nurseries throughout California and the Bay Area provide native plants for revegetation. It is recommended that cuttings be planted in September or October to allow the plants time to acclimate to new soil conditions.

Significance after Mitigation: Less than Significant.

Impact F.4: Projects under the Redevelopment Plan may result in the removal of, or root damage to, heritage or significant trees identified by the County of San Mateo. (Significant)

Loss of trees such as those described above in Subarea A could decrease wildlife habitat that may potentially provide roosting and nesting for various raptors and other bird species that are protected by California Fish and Game Code 3503 and the Migratory Bird Treaty Act. Many raptors declined during the 1970s, when DDT was in use. However, population numbers for many of the species never recovered to pre-DDT levels. The loss of nesting and foraging habitat

is causing further population declines. For example, the USFWS Breeding Bird Survey shows Cooper's hawks as having a population decrease of 4.8 percent per year over the past ten years (Peterjohn, 1993), and can be potentially attributable to loss of nesting habitat (Goepel, 1997).

Mitigation Measure F.4: The City, to the extent feasible, will avoid all heritage trees within the Project Area. If infeasible, placing new buildings or sidewalks outside the drip-line and away from tree roots would reduce or avoid damage to heritage trees and significant trees within the Project Area. (Identified in this Report)

The city will, in accordance with Sections 12000 and 11000 of the County of San Mateo Ordinance Plan, adhere to the following limitations for construction within and around protected and heritage trees:

- For all development that would encroach into the feeder root zone (drip-line) or a 12-foot radius from the trunk, whichever is greater, of any protected or heritage tree, special construction techniques to allow roots to breathe and obtain water will be required, as determined by the Public Service Director (e.g., use hand equipment for trenching, protect natural resources with highly visible protective fencing, allow only one pass through an area with protected or heritage trees).

- The existing ground surface within the drip-line of any tree will not be cut, filled, or compacted unless otherwise approved by the Public Service Director. Excavation adjacent to any trees, when permitted, will be in such a manner that will cause only minimal root damage. Permission and inspection will be required prior to back-filling.

- There will be no parking or storing of vehicles, equipment, machinery, construction materials, or construction trailers, and no mechanical excavation, construction of buildings, or dumping of oils or chemicals within the drip-lines of any indigenous trees.

- Prior to the start of any clearing, stockpiling, trenching, grading, compaction, paving, or change in ground elevation on a site with saved protected trees, fencing will be installed at the drip-line. Prior to grading or issuance of any permits, the fences may be inspected and the location thereof approved by appropriate county staff. The county requires the installation of a 6-foot-high chain-link fence around the drip-line of saved trees during construction and demolition phases.

If construction requires tree removal, a tree removal permit would be required from the county, depending on the jurisdiction of the site. The city will use a certified arborist to conduct a tree survey, noting species, size, and condition of trees likely to be affected by the proposed project and complete the city or county permit application. The city would assure that the conditions contained within the appropriate tree removal permit would be followed.

Tree removal will not occur during March through June without a bird survey to determine that the tree is unused during the breeding season by avian species that are protected under California Fish and Game Codes 3503, 3503.5, and 3511. Adherence to this mitigation measure would reduce the impacts to heritage and protected trees, as well as protected bird species, to a less-than-significant level.

Significance after Mitigation: Less than Significant.

Impact F.5: Construction within Lion's Field and adjacent areas may adversely affect habitat and individuals of San Francisco garter snake (SFGS), a state and federally listed endangered species, and California red-legged frog (CRLF), a federally listed threatened species. (Significant)

Restricted entirely to San Mateo County, the SFGS population is estimated to be 1,500 individuals, excluding snakes less than one year of age (Barry, 1994). Approximately 65 permanent reproductive populations exist within San Mateo County. The Airport lands area, west of the Bayshore Freeway, has one of the best known populations of SFGS and CRLF (Barry, 1993; Larsen, 1994). The Recovery Plan for the snake lists the West of Bayshore lands as one of the six significant population centers for the snake (USFWS, 1985); it is estimated that the population of SFGS in this area is between 200 and 300 individuals (Barry, 1994; USFWS, 1985). The USFWS Section 7 Biological Opinion, conducted for the West of Bayshore property, states that populations of CRLF and SFGS are known to occur in suitable habitats within this area and could potentially occur in the Cupid Row Canal and various wetland areas near the proposed alignment (SF Airports Commission, 1998).

Mitigation Measure F.5: To reduce impacts to the SFGS and CRLF, complete avoidance of the site should be attempted. (Identified in this Report)

Loss of habitat for these two listed species would be highly significant. Mitigation lands, set aside for perpetuity, providing like or better habitat for SFGS and CRLF and of a greater acreage would be required prior to any agency approval for development on these lands. Although no changes in uses have been assumed in this EIR in this area, if development were to occur here under the Redevelopment Plan, and if avoidance is infeasible and mitigation lands have been designated to the approval of all agencies involved, the following mitigation guidelines prior to and during construction will reduce impacts to both species.

A buffer zone should be created around the sensitive habitat in the Airport lands. This buffer would allow for periodic, seasonal, or ecological changes which could effect the boundaries of sensitive habitats (San Mateo County General Plan, 1986).

- A buffer zone should be created around the sensitive habitat in the Airport lands. This buffer would allow for periodic, seasonal, or ecological changes which could affect the boundaries of sensitive habitats (San Mateo County General Plan, 1986).

- Field surveys for special-status species within these wetland areas and adjacent upland areas will be conducted to determine presence or absence. If species that are listed under either the federal or state Endangered Species Act are present, or are presumed to be present after informal consultation with USFWS and/or CDFG, then a formal consultation and Biological Opinion would be required. Such a consultation would proceed as part of the Corps 404 permitting program and would include, but not be limited to, the following measures:

- Prior to construction, based on the work conducted to determine the extent of wetlands, a map will be prepared to delineate the upland areas from the wetland areas.

- All construction employees will participate in an endangered species/sensitive habitat education program to be presented by a qualified biologist prior to construction activities. The program will cover such topics as identifying wetland habitat and areas used by the SFGS and CRLF, the state and federal Endangered Species Acts, and the consequences of violating the terms of these acts.

- The wetland construction boundary will be fenced to prohibit the movement of animals into the construction area and to control siltation and disturbance to wetland habitat. Following installation of fencing, its proper location will be verified by a biologist. The monitor will ensure that at no time during construction is vegetation removed outside of the fenced area. If variance in construction requires removal of vegetation outside the fence, the monitor will determine if additional mitigation is warranted. The permitting agencies will also be contacted in the event of any significant deviation from permitting conditions.

- Pre-construction surveys within the construction zone will be conducted by a qualified biologist. If no animals are detected during these surveys then construction-related activities will proceed. If adult special-status animals are found within the construction disturbance zone, they will immediately be moved passively, or captured and moved, to suitable upstream sites by the project biologist.

- All construction adjacent to wetland vegetation will be regularly monitored to ensure that impacts do not exceed those included in the project description. Work within 100 feet of wetlands during ponding will be monitored by qualified staff, who will document pre-project and post-project conditions to ensure adequate restoration of disturbed aquatic habitat.

- During construction, a biological monitor will be on site at all times when construction takes place in aquatic habitat. Any activity within ordinary high water will be photodocumented by the site monitor. In addition, a biologist with the appropriate permits to relocate animals will be available for consultation as needed. The monitor and biologist will provide an environmental protection workshop for workers prior to construction activities.

- Vehicles will be confined to existing roads and areas vegetated with non-native species, and preferably to those areas that do not provide upland aestivation habitat, when possible.

- Only necessary trucks will be allowed access to areas within the Airport Lands and no passenger vehicles will be allowed. Workers will limit the number of trips through this parcel.

- Where workers must walk through vegetation, they will use routes selected under the supervision of a biological monitor that will minimize or avoid contact with any wetlands, even if such routes are less direct.

- Where multiple trips are required through a sensitive habitat, workers will choose multiple routes to avoid creating a pathway in the vegetation.

Significance after Mitigation: Less than Significant.

Impact F.6: Renovation, re-roofing, or removal of Navy buildings or mature trees under the Redevelopment Plan may cause direct, significant impacts to several bat species through loss of individuals and either their maternity roosts and/or winter hibernacula. (Significant)

All bats are protected under CDFG Code 4150, as they are indigenous, non-game mammal species. Most of the bat species within California are protected under CDFG's Species of Special Concern, and over half of these species are federal sensitive species or candidates for listing as threatened or endangered under the Endangered Species Act. Approximately 26 species of bats occur in California, 14 of which have the potential to occur within the Project Area. Eleven of the 14 species use man-made structures (such as buildings) for roosting, either for winter roosting (hibernacula) or for forming nursery colonies. Bats are site faithful and will not move from an established roosting area. Hibernation and roosting areas depend on the location and the species; potential roosting areas in the vicinity of project components include mature trees, bridges, and abandoned buildings.

Pierson and Rainey (1998) state that there is a 52 percent loss in the numbers of maternity colonies, a 44 percent decline in the number of roosts, and a 32 percent decrease in the average size of the remaining colonies of *Corynorhinus townsendii* in California. Exclusion of species, even if conducted correctly, may be conducted at the wrong season and cause loss of individuals. For example, disturbance during the hibernation may cause bats to arouse prematurely, elevating their body temperatures and utilizing stored energy reserved that usually cannot be spared (Sheffield et al., 1992). Direct loss of individuals would decrease the population in the area to potentially low unsustainable numbers, thus causing a localized extinction of one or more species in the Project Area.

Mitigation Measure F.6: A survey for bats by a qualified bat biologist shall be conducted prior to removal of any trees or any demolition, renovation or re-roofing of a building. (Identified in this Report)

During design of projects under the Redevelopment Plan, the city will determine if there are mature trees that would require removal for construction. If no evidence of (i.e., guano, staining, strong odors) or individuals are found, no further mitigation is required. If evidence of bats or if individuals are observed, the following measures should be implemented to minimize impacts to the various species:

- A qualified bat biologist should survey the building and identify openings the bats are using to enter and exit. These openings should have one-way exclusion devices placed on them two weeks prior to construction, if conducted during the appropriate season.

- A qualified biologist should conduct surveys to determine whether any mature trees that would be removed during project construction provide hibernacula or nursery colony roosting habitat.

- Exclusion should be conducted at specific times of the year. Winter roosts are generally occupied between October 15 and January 30, and maternity colonies are generally occupied between February 15 and July 30. Therefore, exclusion, if required, should be conducted generally between August 1 and October 15 and between February 1 and February 14. If bats are using trees that need to be removed, the roosting season of the colony should be determined and the removal of the tree conducted when the colony is using an alternate roost.

- On buildings, exclusion devices should be in place after one seasonal colony leaves but before another moves in. If construction begins prior to the winter roosting season, i.e., before October 15, it is assumed that bats will not inhabit the area due to disturbance from construction and, therefore, no loss of individuals will occur.

- It is also preferable that construction begin after the maternity season, i.e., after July 30, and continue into the winter roosting season, when potentially fewer bats would be using the area. Construction should be completed before the maternity roosting season, i.e., after January 30, as activity after this date may preclude females from using the area for a maternity colony.

- No chemicals will be use to eradicate bats from a building.

CUMULATIVE IMPACTS

The further loss of habitat for the SFGS and CRLF on the Airport lands, while not constituting breeding grounds, could indirectly affect these species by removing important seasonal feeding, aestivation, and hibernacula areas. This would be a significant impact.

Avoidance of construction on these lands would reduce this impact to less than significant.

The Redevelopment Plan would not have any cumulative biological impacts to other biological features, given existing built-out conditions and the project area's carrying capacity of harmful elements, such as feral dogs, cats, and red foxes.

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U.S. Fish and Wildlife Service (USFWS), *San Francisco Garter Snake Recovery Plan*, Portland, Oregon, 1985. (Available at ESA.)

The 100-year, 24-hour return-period, precipitation amount is 4.5 inches to 6.5 inches. The 100-year, six-hour return-period precipitation amount is 3.0 inches to 4.0 inches (Western Regional Climate Center, 1998).[1] Both return-period amounts are dependent on location within the city limits (hills versus lowlands).

The City of San Bruno hosts several distinct microclimates due to the topography of the landscape. Temperatures are strongly influenced by the Pacific Ocean, San Francisco Bay, and the Santa Cruz Mountains. This combination of features results in a variety of microclimates, with hill and ridgetop areas experiencing different temperatures and precipitation patterns compared to the valley floor. Prevailing winds are north-northwest at approximately 10.5 miles per hour. On average, San Bruno temperatures range from 50 to 80 degrees Fahrenheit in the summer and 36 to 65 degrees Fahrenheit in the winter (City of San Bruno, 1998).

SURFACE WATER

FLOODING

The risk of flooding in urban areas is dependent on the following variables: preceding soil conditions, amount and intensity of rainfall, and the capabilities of the storm drain system, including its maintenance regime. It is the function of the storm drain system to move surface runoff into gutters, storm drain inlets, channels, creeks, collection basins, and eventually to the receiving body (San Francisco Bay for the City of San Bruno). Maintenance and cleaning of storm drain channels is very important to the proper functioning of the system. Urban areas can experience debris blockage of drainage channels, which can result in flooding. In areas near drainage channels, spot flooding is possible if the channels have not been maintained. The City of San Bruno has 176 curb-miles of streets that need to be drained of surface runoff during storm events (EOA, 1998).

Occasional flooding occurs in San Bruno's low-lying areas located along the San Mateo Avenue central business district, Kains Avenue east of Green Street, San Mateo near City Park south of Crystal Springs Road, and north and east of Capuchino High School (City of San Bruno, 1989). Most of these areas are located within Subarea A. Figure III.G.1 details problematic flooding areas within the City of San Bruno. Significant flood events occurred in January 1982, January 1983, October 1989, and February 1991 (Bissell & Karn, 1991). Flooding occurs in these areas because of inadequate storm drains and the low elevation, which subjects the areas to tidal influences. The City's storm drain system does not operate effectively at times of high tide combined with heavy rain. During a high tide of 4.5 feet or greater and rainfall occurring at a rate of at least 1 inch per hour for one hour preceding the high tide, flooding can occur in the Subarea A neighborhood of Belle Air and along the San Mateo Avenue central business district (City of San Bruno, 1989). Channels and pipelines are not large enough in these lower elevation areas to accommodate the volume of water during the high tides.

[1] "Return-period" indicate how often some amount of precipitation can be expected to fall in a given hourly period for a particular locale. The figure provides a measure for planning storm drain system capacity.

G. HYDROLOGY, WATER QUALITY, AND FLOODING

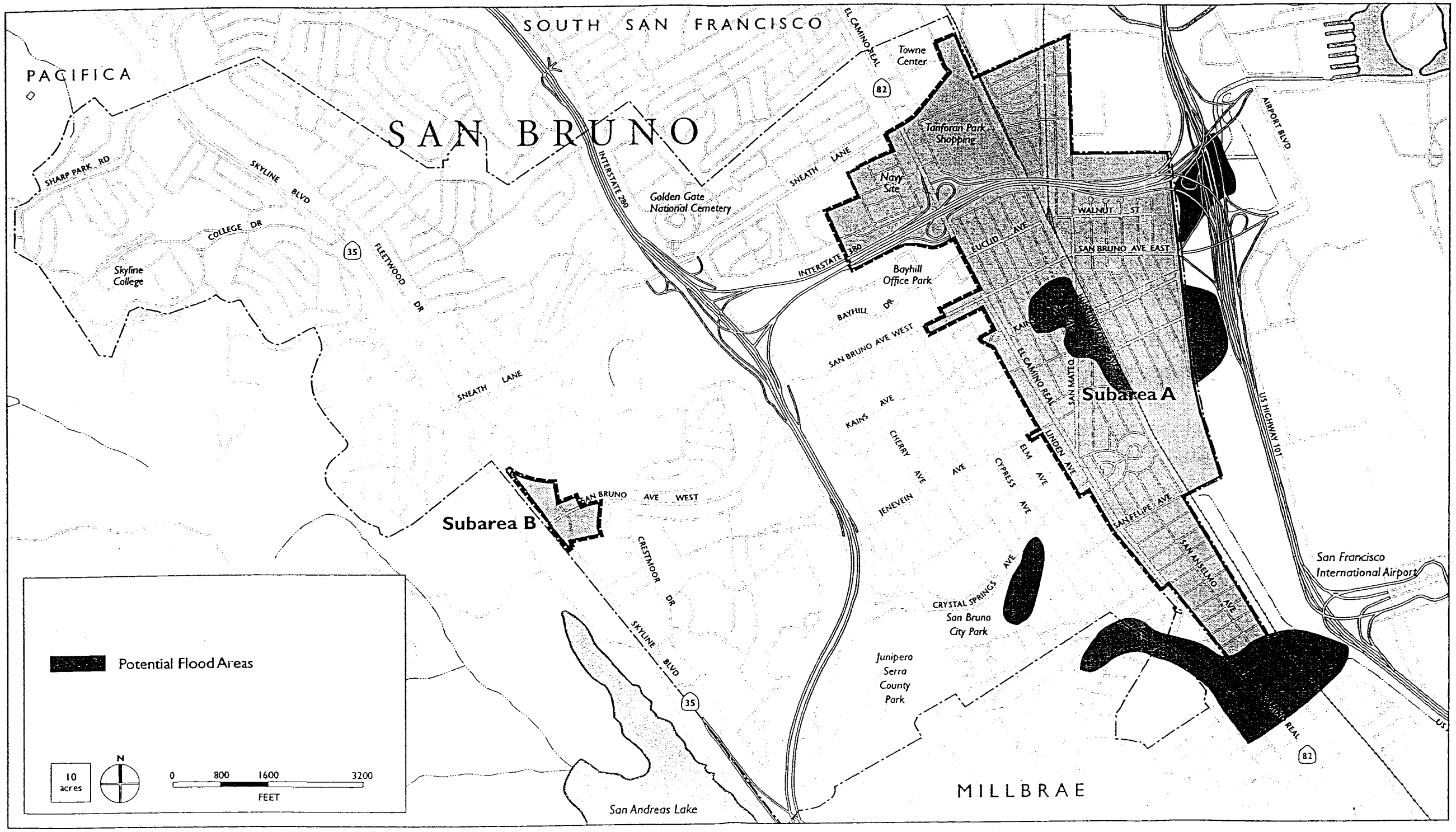
SETTING

San Francisco Bay is the dominant surface water resource in relation to the City of San Bruno. San Francisco International Airport separates the City of San Bruno from San Francisco Bay. The airport is a created landmass, where the original bay shoreline used to exist along what is now the U.S. 101 freeway corridor. There are limited surface water resources within the city limits. San Bruno Creek, Huntington Creek, and Crystal Springs Creek are the main surface water bodies, and they are highly modified, intermittent channels. These creeks are part of the storm drain system maintained by the San Bruno Public Works Department. The City of San Bruno takes advantage of the underlying groundwater resource lying below the city, deriving 57 percent of its water supply from groundwater wells within the city limits (City of San Bruno, 1998). The other 43 percent is purchased from the San Francisco Water Department. The Water Division of the San Bruno Public Works Department supplies potable water to the residents of San Bruno from these two sources. The Wastewater Division of the San Bruno Public Works Department handles wastewater disposal in conjunction with the City of South San Francisco.

The majority of the City of San Bruno is within the San Bruno Creek Watershed (San Bruno Creek, Huntington Creek, and Crystal Springs Creek drainage basins), with a small portion of the northern part of the city in the Colma Watershed and a small southern portion in the Millbrae Watershed (San Mateo County, 1986). A small western portion of the City of San Bruno is outside of the San Bruno Creek Watershed and drains to the Pacific Ocean. A watershed boundary is a surface water definition concerning the movement of surface runoff in relation to a discharge or exit point. Precipitation falling within this boundary and remaining as surface water would exit the watershed through the storm drain system of the city. The San Bruno Creek Watershed drains an approximate area of 4.2 square miles. Due to the city's urban landscape, most surface water resulting from precipitation goes directly into a storm drain system. Three surface water channels (San Bruno, Huntington, and Crystal Springs Creeks) are incorporated into the system and do not exist as natural stream systems, although the upper portions of San Bruno and Crystal Springs Creeks are in a natural state. The discharge point of the San Bruno Creek Watershed is the San Bruno Channel located next to the South San Francisco-San Bruno Water Quality Control Plant just north of San Francisco International Airport.

CLIMATE

The climate of San Bruno is of the semi-arid Mediterranean type, characterized by dry, mild summers and moderately moist, cool winters., San Bruno averages 290 days of sun (City of San Bruno, 1984). Most of the city's precipitation occurs between November and April, and more than 90 percent of the annual surface runoff occurs during these months (San Mateo County, 1986). This seasonal variation is reflected in the monthly streamflows, which often run dry by the middle or late summer. The city is within the rain shadow of the Santa Cruz Mountain Range, which serves as a barrier to storm fronts and coastal fog approaching from the west. The average annual rainfall for the city is approximately 19.71 inches (City of San Bruno, 1998).



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City of San Bruno Redevelopment Project Area - Figure III.G.1

Areas of Potential Flooding

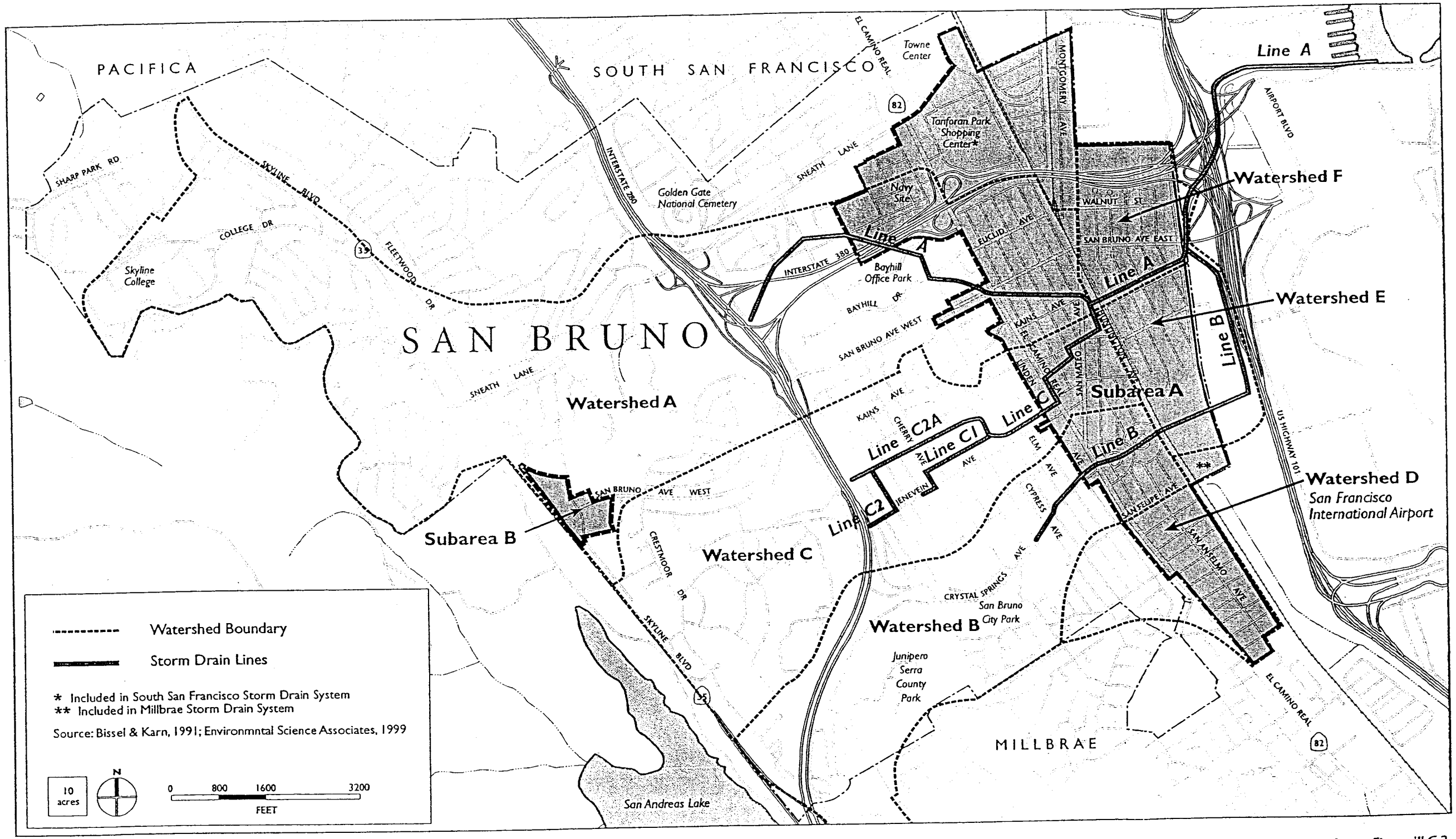
High groundwater in low-lying areas can also contribute to flooding. The City of San Bruno contains areas that exhibit high water tables due to the steepness of the terrain to the west, which tapers off to the flat valley floor to the east (Bissell & Karn, 1991). Areas on each side of Jenevein Avenue have shown a high water table. Water tables fluctuate according to groundwater flow characteristics and inputs.

Storm Drain System

San Bruno's storm drain system serves almost the entire city, collecting and channeling all runoff into Crystal Springs, Huntington, and San Bruno Creeks, which carry the runoff into San Francisco Bay. The northern portion of San Bruno (Tanforan Park Shopping Center, the U.S. Marine Corps Center, Golden Gate National Cemetery, and an area east of Skyline Boulevard and north of Sneath Lane) drains toward South San Francisco and into Colma Creek. Huntington Creek and Crystal Springs Creek are tributaries of San Bruno Creek, which discharges to San Francisco Bay after receiving the tributary inflows along the eastern boundary of the city. The stormwater flows through the San Bruno Channel (all flood-control lines converge near San Bruno Avenue and U.S. 101), which discharges between the South San Francisco-San Bruno Water Quality Control Facility and the boundary of San Francisco International Airport at North Access Road. The storm drain system was originally constructed to follow natural creekbeds east of I-280, and was later expanded to the west as the city grew. A joint City-County flood-control project was completed in 1969, upgrading the drainage system to its present 25-year storm capacity.

The storm drain system comprises six subdrainage basins (Watersheds), with three of the basins (Watersheds A, B, and C) encompassing approximately 80 percent or more of the entire drainage area. The northernmost and largest basin is Watershed A, which is served by flood-control Line A or San Bruno Creek (Bissell & Karn, 1991). Subarea B is located within Watershed A. Watershed C is south of Watershed A and is drained by Line C or Huntington Creek. Watershed B is south of Watershed C and is drained by Crystal Springs Creek or Line B. Subarea A is located within portions of all six subdrainage basins, and all three main flood-control lines (A, B, and C) pass through Subarea A. Figure III.G.2, below, outlines the watersheds, flood-control lines, and the redevelopment subareas.

The San Bruno Creek drainage basin (Watershed A) encompasses an area of 1,186 acres (1.85 square miles) of mostly urbanized land, sloping steeply toward the east. It is bounded on the north by the Colma Creek drainage basin and on the south by the Huntington Creek drainage basin. The western edge of the San Bruno Creek drainage basin begins in the coastal range at the boundary with the City of Pacifica, and continues eastward. This basin is heavily urbanized, with approximately 50 percent or more of the creek running underground through culverts. San Bruno Creek is not a natural creek but is composed of a series of channels, pipes, and detention basins. There are four subareas in the drainage basin, each with a major pipe inlet: Skyline Boulevard, the Willard Engvall School, La Esperanza School, and an inlet slightly upstream of El Camino Real (City of San Bruno, 1989). Both Huntington and Crystal Springs Creeks are tributaries of San Bruno Creek. Huntington Creek's total stream length is more than 3 miles, and its watershed area (Watershed C) is approximately 0.9 square miles (Bissell & Karn, 1991). Huntington Creek



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City of San Bruno Redevelopment Project Area - Figure III.G.2

Watersheds and Storm Drain System

begins just east of Skyline Boulevard and flows through storm drain pipes and culverts to its juncture with Line A (San Bruno Creek) near the intersection of San Bruno and San Mateo Avenues. Crystal Springs Creek originates in Junipero Serra County Park near I-280 and has a total stream length of approximately 4 miles. This small, upland creek supports portions of a natural channel within the park boundaries. The Crystal Springs Creek drainage basin (Watershed B) drains approximately 1 square mile of the southern part of the city. From the eastside of Junipero Serra County Park, Crystal Springs Creek parallels Crystal Springs Avenue and passes through San Bruno City Park. Once through the park, the creek goes underground through the manmade storm drain system. It reappears above ground on the east side of the city after it passes below the Caltrain railroad tracks. The creek then turns north and joins with San Bruno Creek (Line A) near the intersection of San Bruno Avenue and U.S. 101.

Silt and debris in the storm system sometimes cause water to back up and flood surrounding areas. Leaves, branches, household trash, etc., must be removed regularly. The City cleans the storm drains and provides street-sweeping each autumn. These efforts, combined with a warning system to flood-prone areas during high tides and heavy rainfall, usually help to prevent flooding problems. San Mateo County Flood Control District is responsible for maintaining the Crystal Springs and San Bruno Creek channels clear of blockage (City of San Bruno, 1989). Due to the presence of protected species, the County is in the process of modifying its maintenance procedures in order to comply with all state and federal regulations.

Public Works Department

The City of San Bruno's Public Works Department, Street Division, provides street cleaning and sweeping service on a scheduled basis (and otherwise, as necessary), and maintains and repairs the municipal stormwater drain system, which includes catch basins, open ditches and channels, hillside valley-gutters, box culverts, and subsurface drains. Annually, the department is responsible for cleaning more than 1,000 catch basins, flushing plugged storm drain culverts, inspecting and cleaning several thousand feet of valley-gutters, upstream open channels, box culverts, invert and outfall structures, removing accumulated trash, and installing and repairing storm drain facilities.

The San Bruno Public Works Department also administers ongoing inspection and recordkeeping systems for compliance with the National Pollutant Discharge Elimination System (NPDES); coordinates major maintenance with San Mateo Flood Control District, California Department of Transportation, and AMTRAK for cleaning flood-control channels; and maintains complete inventory of the storm drain system design. The Street Division within the Public Works Department is currently responsible for maintaining approximately 87 miles of streets throughout the city, including all storm drains. In addition, the Street Division routinely performs flood-control and geotechnical maintenance work on public lands other than public parks.

Beneficial Uses

It is the policy of the San Francisco Bay Area Regional Water Quality Control Board (RWQCB) (see the Regulatory Context section, below, for a description of the duties of the RWQCB) to

designate beneficial uses for significant water resources in its regulatory region. Beneficial uses of surface and ground water serve as a basis for establishing water quality objectives and discharge prohibitions. The RWQCB has not indicated any beneficial uses for the waters in San Bruno, Huntington, and Crystal Springs Creeks. The creeks are still protected due to their status as "waters of the United States," which the RWQCB is mandated to protect, but due to their size and modified nature, they have not been singled out for listing in the RWQCB's *Water Quality Control Plan* (Basin Plan). The creeks are very important to the City of San Bruno as part of the City's storm drain system, but from a water quality control standpoint, it is the creeks' relationship with San Francisco Bay that requires regulation. San Bruno Creek, Huntington Creek, and Crystal Springs Creek flow into San Francisco Bay in what is considered part of the Lower San Francisco Bay (RWQCB, 1995). This portion of San Francisco Bay has the following existing beneficial uses, as designated by the RWQCB in the current Basin Plan.

GROUNDWATER

A groundwater aquifer is an underground area composed of alluvial or porous material infiltrated by water. A water table develops in unconfined aquifers where the saturated material is not under pressure from a overlaying and confining soil or bedrock layer. The water table responds in kind to infiltration of surface water and withdrawals from groundwater wells. An aquifer can exist below a confining layer, which typically puts the water under pressure creating what is known as an artesian aquifer.

LOCAL AQUIFERS

The source aquifer for the City of San Bruno supply wells is the southernmost portion of the Westside Basin, which is made up of a porous sand formation (San Mateo County, 1995). This basin is part of the San Mateo Plain Aquifer (RWQCB designation, Department of Water Resources Basin No. 2-9A) (RWQCB, 1995). The San Mateo Aquifer is 32.5 square miles in size, with depth to water ranging from 100 to 500 feet. This aquifer has existing beneficial uses of municipal and domestic water supply, industrial water supply, industrial service water supply, and has the potential beneficial use for agricultural water supply (RWQCB, 1995). The San Mateo Plain Aquifer is also considered part of the larger Santa Clara Valley Basin, which is a 580-square-mile basin located in four counties in the San Francisco Bay Area. This larger basin stretches south from Daly City and north to Menlo Park in the County of San Mateo (San Mateo County, 1986). The RWQCB has set water quality objectives for bacteria, organic and inorganic chemical constituents, radioactivity, and taste and odor for groundwater in this area.

WATER SUPPLY

As part of the Department of Public Works, the City of San Bruno's Water Division is responsible for supplying the residents of San Bruno with potable water from groundwater wells and surface water. With the recent addition of the Crystal Springs Well, the City is providing approximately 57 percent of its supply from deep-water wells; the remaining 43 percent is provided by the San Francisco Water Department from the Hetch Hetchy system (City of

TABLE III.G.1
DEFINITIONS OF BENEFICIAL USES OF SURFACE WATERS FOR THE LOWER SAN FRANCISCO BAY

Beneficial Use	Description
Ocean, Commercial, and Sport Fishing	Uses of water for commercial or recreational collection of fish, shellfish, or other organisms in oceans, bays, and estuaries, including uses involving organisms intended for human consumption or bait purposes.
Estuarine Habitat	Uses of water that support estuarine ecosystems, including preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife and the propagation, sustenance, and migration of estuarine organisms.
Industrial Service Supply	Uses of water for industrial activities that do not depend primarily on water quality, including mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, and oil well repressurization.
Fish Migration	Uses of water that support habitats necessary for migration, acclimatization between fresh water and salt water, and protection of aquatic organisms that are temporary inhabitants of waters within the region.
Navigation	Uses of water for shipping, travel, or other transportation by private, military, or commercial vessels.
Preservation of Rare and Endangered Species	Uses of waters that support habitats necessary for the survival and successful maintenance of plant or animal species established under state and/or federal law are rare, threatened, or endangered.
Water Contact Recreation	Uses of water for recreational activities involving body contact with water where ingestion of water is reasonably possible.
Noncontact Water Recreation	Uses of water for recreational activities involving proximity to water, but not normally involving contact with water where ingestion is reasonably possible.
Shellfish Harvesting	Uses of water that support habitats suitable for the collection of crustaceans and filter-feeding shellfish for human consumption, commercial, or sport purposes.
Wildlife Habitat	Uses of waters that support wildlife habitats, including preservation of vegetation, prey species, and water quality.

SOURCE: Regional Water Quality Control Board, Region 2, 1995 *Water Quality Control Plan.*

San Bruno, 1998). While these two water sources blend together in the City's distribution system, the lower elevations and the eastern portion of the city receive a higher percentage of well water. Average water use per year in San Bruno is approximately 1,575 million gallons, or 4.4 million gallons per day, and has changed very little over the years due to the built-out conditions of the city (City of San Bruno, 1989).

The Water Division is currently responsible for four producing wells (Commodore #15, Forest Lane #16, Corp. Yard #17, and Crystal Springs #18), 18 booster pumps, one filtering plant, eight storage tanks, 900 fire hydrants, 9,000 valves, 150 miles of water mains, and 12,000+ metered services (City of San Bruno, 1998). Three of the five producing wells are located within Subarea A. The City Council has also directed that the Department of Public Works investigate increasing the proportion of water from wells. There is no evidence that the present rate of well usage exceeds the long-term safe yield of the groundwater basin (City of San Bruno, 1984). Water from the City wells is generally good quality potable water. Well water hardness ranges from 14 to 18 grains due to high mineral content (City of San Bruno, 1984).

The four groundwater wells within the city draw water from a deep aquifer that extends from 250 to 550+ feet below the surface. This drinking water source aquifer in San Bruno is capped by a 100- to 150-foot clay lens that acts as a barrier to vertical flow from the upper unconfined aquifer (San Mateo County, 1995). This clay layer protects the lower aquifer from surface infiltration and entrained contaminants. The lower aquifer receives recharge from the areas generally west of I-280, where the lower aquifer formation is exposed to percolation (San Mateo County, 1995). Due to the depth of the aquifer and the overlying clay layer, this aquifer is protected from saltwater intrusion from the adjacent and overlying San Francisco Bay.

The shallow aquifer lying below the City of San Bruno and above the deeper source aquifer is not used by the City of San Bruno. It is disconnected from the lower aquifer by the clay aquitard but is hydrologically connected to San Francisco Bay. This unconfined aquifer is the water table, which fluctuates with inflows from infiltrating precipitation and tide levels. The shallow aquifer is not used for drinking water but can carry contaminants to the lower aquifer or to San Francisco Bay. Depending upon the mobility of pollutants and the direction of groundwater flow, contaminants move through the shallow aquifer and may also discharge to surface waters. The water table is very shallow in portions of the city (typically in the low valley areas, Subarea A) and may influence the rate of infiltration.

SOIL EROSION

Erosion and sedimentation are natural processes driven by surface runoff and can be accelerated by human activities such as construction. Unmitigated construction activities contribute the largest single source of localized erosion and sedimentation in the Bay Area (San Mateo County, 1986). During construction, vegetation that binds the soil or impervious areas (concrete, asphalt, etc.) that cover underlying soil are reduced or removed, exposing disturbed soils to precipitation and surface runoff. The process often results in loss of topsoil, creation of rills and gullies, and sediment-filled streams and channels. Erosion potential is determined by four principal factors: the characteristics of the soil, extent of vegetative cover, topography, and climate. Soil texture

and permeability determine the resistance of soil to entrainment by surface runoff. Vegetative cover plays a critical role in controlling erosion by shielding and binding the soil. Slope influences the rate of runoff and is directly correlated with erosion potential. Finally, the intensity and duration of rainfall determines the extent and the capacity for flowing water to detach and transport soil particles.

Erosion and sedimentation cause both environmental and economic impacts. Environmental impacts generally build slowly and may not produce noticeable changes for years. Economic impacts are usually experienced indirectly, resulting from the cleanup required by channel blockage and flooding, or from other costly public services. Environmentally, erosion can contribute to many problems. Eroded soil may contain nutrients, which can cause increased algae or phytoplankton. These increases may reduce water clarity, deplete oxygen, lead to fish kills, or create odors. Erosion may also destabilize streams and channels, causing decreases in the density of riparian vegetation. Reduction of riparian vegetation can further destabilize banks and cause bank failures and loss of valuable habitat for aquatic and terrestrial species. Many economic impacts of soil erosion are hard to quantify. Excessive sedimentation may reduce channel or basin capacities and require increased dredging or cleaning of the channels. Erosion along stream banks can erode nearby property, causing a loss of land or possibly increased flooding. Increased sedimentation may also choke storm drains and channels and lead to flooding during storms that the drainage system should capably handle.

SOILS

The City of San Bruno is dominated by three general soil types (San Mateo County, 1986). The area bordering San Francisco International Airport consists of nearly level, poorly drained, low-valley-bottom clay soils. The majority of San Bruno from El Camino Real to I-280 is characterized by moderately well-drained soils with loamy subsurfaces and very slow to moderately permeable subsoils on gently sloping to moderately steep alluvial terraces. The upper areas of San Bruno in the surrounding hills are characterized by soils that are well-drained, shallow to deep, coarse sandy loam to clay upland soils on igneous rocks. Additional discussion of soil types is provided in the Section H: Geology, Soils and Seismicity.

SOIL CONTAMINATION

Chemical contamination of soils is a problematic issue in developed areas. Contemporary society has come to depend upon chemical products to enhance the quality of life. One consequence of increased chemical use and production has been the extensive and increasing exposure to hazardous materials. Releases, leaks, or disposal of chemical compounds on the surface can lead to contamination of underlying soil, which may remain toxic for many years. Many chemicals are toxic to plants, animals, and humans, and because they are not mobile in soils can accumulate over time. Other chemicals may be highly mobile and move into groundwater, reemerge in surface water at lower elevations, or be transported by surface runoff if the soil is exposed. Disturbance of a contaminated soil area can release potentially toxic amounts of chemicals into surface or ground waters. The use of hazardous materials in the City of San Bruno has centered

around its commercial and industrial areas. Figure III.G.3 indicates areas of possible soil contamination within the city limits and the redevelopment subareas.

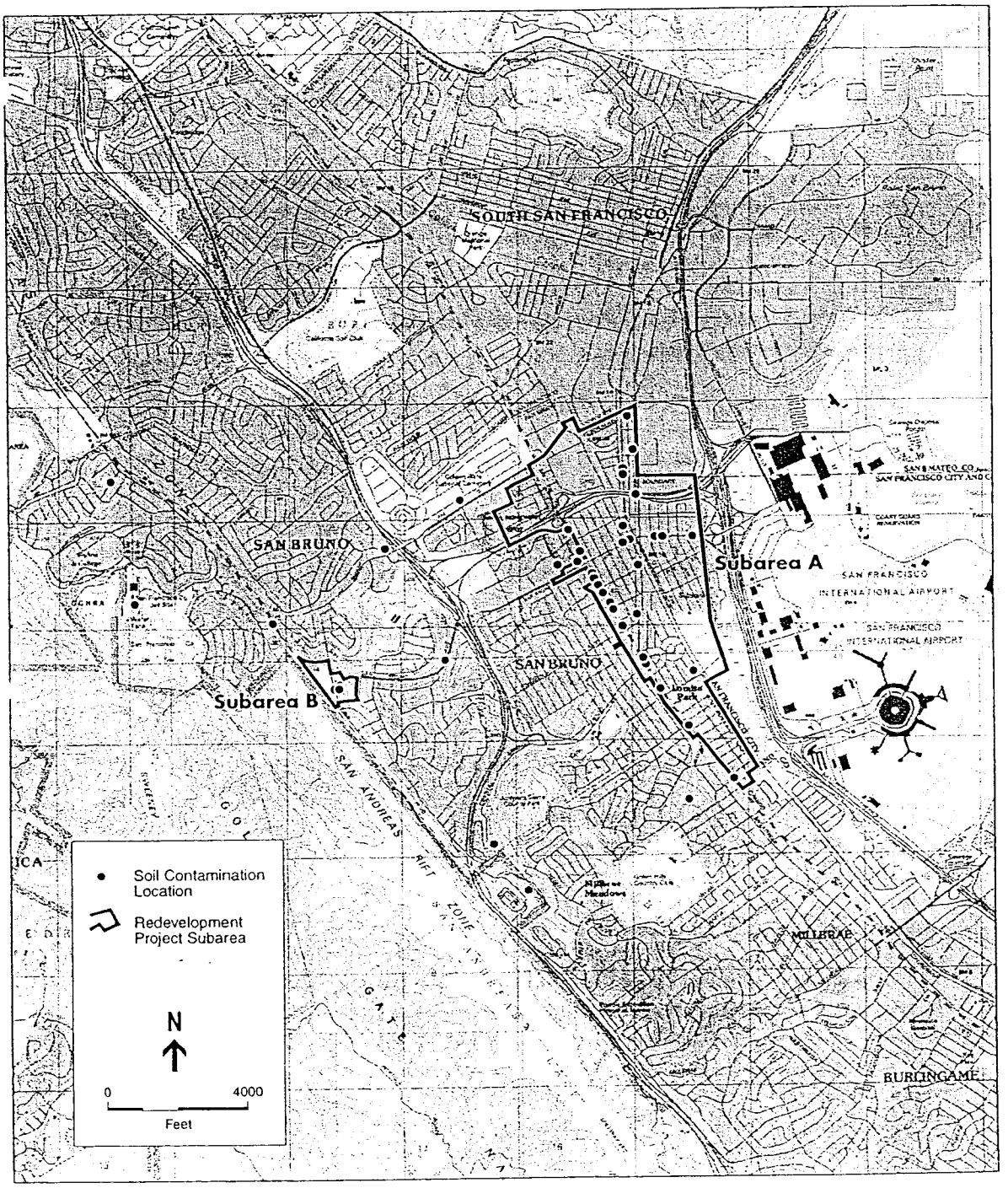
Although statistics are lower than for the majority of Bay Area counties, an estimated 250 major hazardous material spill incidents occur annually in San Mateo County (San Mateo County, 1986). The majority of recorded spills occur within the urban developed area, particularly along the Bayfront, with a group of spill sites clustered near U.S. 101. Approximately 90 percent of the hazardous material spills occur on site (San Mateo County, 1986). The majority of soil contamination sites in the City of San Bruno are a result of leaking underground tanks, which pose the most serious threat to San Bruno's groundwater. A review of the County Environmental Health Division's Fuel Leak List, San Francisco Bay Region RWQCB's Fuel Leak Sites Database, and the RWQCB's Spill, Leak & Investigation & Cleanup Sites List for areas of contaminated soil in San Bruno produced a list of 43 sites of known spill locations (see Figure III.G.3) (RWQCB, 1998). (All sites were collected from the Fuel Leak Sites Database, which mirrored the County's Fuel Leak List (County of San Mateo, 1998). No sites within the San Bruno city limits were listed on the Spill, Leak & Investigation & Cleanup Sites List.) All sites are locations of previously reported leaking underground storage tanks. The status or cleanup of these sites is not presented or discussed in this document.

Although a clay layer separates the upper aquifer from the lower source aquifer for San Bruno wells, contamination by infiltrating pollutants is still a risk. This protective clay layer is not uniform and is not an impenetrable layer. As with any geologic unit, it has a variable formation and thickness. Wells in the lower aquifer (all wells in the area, not just San Bruno wells) are possible sources of contamination. Wells can act as conduits for infiltrating contaminants by providing a pathway around the well where permeability is typically higher than the surrounding formation. Disturbance of, or increases in, soil contamination can increase the possibility of groundwater or surface water contamination. San Mateo County operates a well head protection program for water supply wells run by the County's Environmental Health Division. Under this program, existing wells, creation of wells, and well destruction are regulated for protection of groundwater resources.

DISCHARGES ASSOCIATED WITH THE CITY OF SAN BRUNO

POINT SOURCE

There are no industrial dischargers in the City of San Bruno that are registered with the RWQCB (RWQCB, 1995), but the residents of the City of San Bruno do generate approximately 3.34 million gallons per day of sewage (CALEPA and SWRCP, 1998). Under an agreement with the City of South San Francisco, this effluent is pumped through the Shaw Road Pump Station to be treated at the jointly-owned South San Francisco–San Bruno Water Quality Control Facility. The treatment facility is located at Belle Air Road, just north of San Francisco International Airport in the City of South San Francisco. A staff of 32 City of South San Francisco employees operates and maintains the plant and administers the state-mandated Water Quality Control Program and Industrial Waste Discharge Program. Treated wastewater is discharged into



City of San Bruno Redevelopment Project Area - Figure III.G.3

Points of Previous Soil Contamination

San Francisco Bay through a joint outfall pipeline shared by the Cities of San Bruno, South San Francisco, Millbrae, and Burlingame, the Town of Colma, and San Francisco International Airport.

The current facility has an average dry-weather flow capacity to provide secondary level treatment for 9 million gallons per day (mgd) of domestic, commercial, and industrial wastewater from the Cities of South San Francisco, San Bruno, portions of the City of Daly City, and the Town of Colma. The average annual and dry-weather flow for 1996 at the treatment plant was 9.7 and 8.5 million gallons per day, respectively. The wastewater treatment plant will have a design capacity of 13 mgd after documenting adequate reliability, capacity, and performance of completed plant improvement projects.

The Cities of South San Francisco and San Bruno are members of the North Bayside System Unit (NBSU), which is the Joint Powers Authority responsible for operation of the shared transport and disposal facilities. The NBSU includes the Cities of Millbrae, Burlingame, South San Francisco, San Bruno, and the San Francisco International Airport. The joint effluent is dechlorinated before discharge into San Francisco Bay. The South San Francisco–San Bruno Water Quality Control Plant contributes about 54 percent of NBSU flow. The treated wastewater discharges from the NBSU force main into lower San Francisco Bay, northeast of Point San Bruno, through a submerged diffuser that is located about 5,300 feet offshore at depth of 20 feet below mean lower low water (CALEPA and SWRCB, 1998)

The City of San Bruno's wastewater collection system and the treatment plant receive high flows during the rainy season. The high flows are a result of stormwater inflow and/or groundwater infiltration (I/I) of stormwater in the sewer collection system from leaky pipes and direct cross-connection between storm drains and the sewer system. The sewer collection system currently has insufficient capacity to handle peak wet-weather flows. During heavy storms, the collection system becomes surcharged, and untreated, stormwater-diluted sewage may overflow at various locations and eventually drain to Colma Creek through the storm drain system (CALEPA and SWRCB, 1998).

NONPOINT SOURCE

The increase in impermeable paved surfaces in developed areas can drastically reduce the amount of surface water infiltration while subsequently increasing surface runoff. San Bruno's storm drain system prevents flooding by channeling stormwater runoff into San Francisco Bay. This water is not treated and can entrain pollutants present anywhere on the surface. Stormwater runoff accounts for up to 80 percent of the pollution entering San Francisco Bay in this region (San Mateo County, 1998). Urban stormwater can contain the following pollutants: oil, grease, or antifreeze from leaking cars or trucks; paint or paint products; leaves or yard waste; pesticides, herbicides, and fertilizers from yards and gardens; solvents and household chemicals such as paint thinner, detergents, and water-based paints; animal wastes, litter, decomposing vegetation, or sewer leakage; and construction debris such as fresh concrete, mortar, or cement. These are only some the more common pollutants associated with urban stormwater, but any substance that

moving water can detach and transport can become a pollutant. Many times the pollutants are also a result of wastes that people pour directly into storm drains or creeks.

Municipal Stormwater Permit

The City of San Bruno is part of the countywide Stormwater Pollution Prevention Program (STOPPP) run by the County of San Mateo's Environmental Health Division. STOPPP works to reduce the amount of pollutants that enter the County's storm drain systems by coordinating nonpoint source pollution prevention and control activities. The program is a result of a municipal NPDES permit issued by the RWQCB. The master plan of the program is the Stormwater Management Plan (SWMP), which has five major components: municipal government maintenance activities, industrial and illicit discharge control, public information and participation, new development and construction controls, and watershed monitoring (EOA, 1998). As part of the overall goal of the project, the participating municipalities will attempt to maximize the removal of pollutants during routine maintenance activities such as street sweeping and storm drain cleaning, and to control the discharge of pollutants or illegal dumping of pollutants into storm drains.

As part of the activities under the SWMP, the City of San Bruno removed 1,111 cubic yards of material through street sweeping, from July 1997 to June 1998 (EOA, 1998). During this same period, the City of San Bruno cleaned 1,945 storm drain inlets (multiple cleanings for 950 total inlets), 200 miles of v-ditches, one mile of channels, 1,600 linear feet of culverts, 20 junction boxes, and 20 pump stations from which 111 cubic yards of debris were removed. Also during this period, the City of San Bruno removed 695 cubic yards of leaf material and 486 cubic yards of litter from within the city limits. The City of San Bruno inspected 1,435 industrial, commercial, and residential locations for illicit discharge to the storm drain system. Fifteen of these inspections resulted in identification of illicit discharges of sewage, used motor oil, paint, concrete, construction debris, and yard waste.

REGULATORY CONTEXT

The proposed Redevelopment Plan is subject to the regulatory planning policies of a variety of public agencies. This section describes those agencies, their relevant policies, and the nature of their purview.

PLANNING GUIDELINES

Although impacts of the Redevelopment Plan would affect and potentially require the approval of individual regulatory agencies and departments, the area is under the general jurisdiction of the City of San Bruno. Management of the Redevelopment Plan should consider development standards of the City of San Bruno. Information concerning the *City of San Bruno General Plan* policies is included for reference only.

City of San Bruno

The following policies are contained in the Open Space section of the City of San Bruno's 1984 General Plan:

- **Policy 1.** Protect and conserve San Bruno's natural resources including vegetation, wildlife, soils, water, and air, in accordance with regional, state and federal laws.

- **Policy 2.** Protect natural vegetation in park, open space, and scenic areas as wildlife habitat, to prevent erosion and to serve as noise and scenic buffers.

- **Policy 3.** Prevent soil erosion by retaining and replanting vegetation, and siting development to minimize grading and landform alteration. Prevent siltation and pollution to San Francisco Bay and San Francisco Crystal Springs Reservoir.

  Action 3-A. Require preparation of a drainage and erosion control plan for land alteration and vegetation removal in hillside areas.

- **Policy 4.** Protect the City's well water from overdraft and pollution.

  Action 4-A. Monitor and conserve groundwater, in accordance with the City's 1983 water management study, to prevent overdraft of aquifers.

- Conserve open space lands and maintain as necessary for public health, safety, and welfare. Consider open space lands that are subject to geologic or seismic hazards, erosion, flooding, liquefaction, or other hazards, unless such hazards can be adequately mitigated to assure public health and safety for the life of the project.

REGULATORY AGENCY - REGIONAL WATER QUALITY CONTROL BOARD

The RWQCB is responsible for the protection of beneficial uses of water resources within the San Francisco Bay region. The RWQCB uses planning, permitting, and enforcement authorities to meet this responsibility, and has adopted the San Francisco Bay *Water Quality Control Plan* (Basin Plan) to implement plans, policies, and provisions for water quality planning and management. Beneficial uses of surface waters are described in the Basin Plan and are designated for major surface waters and their tributaries. In addition to identification of beneficial uses, the Basin Plan also contains water quality objectives that are intended to protect the beneficial uses of the basin. Table III.G.1, above, defines the beneficial uses of the nearby San Francisco Bay identified to be hydrologically connected to the Project Area. The RWQCB has set water quality objectives for all surface waters in the region concerning bacteria, bioaccumulation, biostimulatory substances, color, dissolved oxygen, floating material, oil and grease, population and community ecology, pH, salinity, sediment, settleable material, suspended material, sulfide, taste and odor, temperature, toxicity, turbidity, and un-ionized ammonia. Objectives for specific chemical constituents are also regulated dependent upon the beneficial use of the water body. Water quality objectives are listed for groundwater as well, which include parameters such as bacteria, organic and inorganic chemical constituents, radioactivity, and taste and odor.

Municipal Stormwater Permitting

Federal regulations authorize the issuance of system-wide or jurisdiction-wide municipal permits by the RWQCB. The RWQCB regulates municipalities for control of stormwater runoff pollution under the National Pollution Discharge Elimination System (NPDES). Participants in the program are responsible for development and implementation of storm water management plans (SWMP) to prevent the pollution of stormwater within the permitted areas. The SWMP must detail how the permittee will eliminate non-stormwater discharges and apply best management practices, to the maximum extent practicable, to prevent stormwater pollution. The County of San Mateo has created the San Mateo Countywide Stormwater Pollution Prevention Program, of which the City of San Bruno is a participating member. The County received a five-year municipal NPDES permit in 1993[2].

Construction Activity Permitting

Construction activities of five acres or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit) regulated by the RWQCB[3]. The project applicant must submit a Notice of Intent (NOI) to the RWQCB to be covered by the General Permit prior to the beginning of construction. The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must be prepared before construction begins. The plan must include specifications for Best Management Practices (BMPs) that would be implemented during project construction to control contamination of surface flows through measures to prevent the discharge of pollutants from the construction area. Additionally, the plan must describe measures to prevent or control pollutants in runoff after construction is complete and identify procedures for inspecting and maintaining these facilities or project elements. Implementation of the plan starts with the commencement of construction and continues though completion of the project. Upon project completion, the applicant must submit a Notice of Termination to the RWQCB to indicate that construction is completed.

IMPACTS AND MITIGATION MEASURES

APPROACH TO ANALYSIS

Because the Redevelopment Plan is a broad-based approach to improving many facets of the subareas, the analysis of impacts to the hydrology and water quality of the local water resources had to address general changes and actions that could affect these resources as a whole. Typical impacts that might result from individual projects were expanded to cover all related actions in the redevelopment subareas. Thus, redevelopment impacts were analyzed as potential watershed impacts instead of site-specific impacts.

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2 The 1993 permit expired in 1998, but a new five-year permit has not been issued as of February 1999. The new permit is under public review and probably will not be issued until April 1999. The program is operating under the 1993 permit until the RWQCB acts upon the new permit request.

3 The construction area limit of five acres is currently under review by the Environmental Protection Agency and will likely be reduced to one acre in the near future.

SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* (revised October 26, 1998) states that a project would normally result in a significant impact on hydrology or water quality of the area if it would:

a) violate any water quality standards or waste discharge requirements;

b) substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted);

c) substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion of siltation on or off site;

d) substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site;

e) create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

f) otherwise substantially degrade water quality;

g) place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

h) place within a 100-year flood hazard area structures that would impede or redirect flood flows;

i) expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam; or

j) cause inundation due to seiche, tsunami, or mudflow.

PROJECT OPERATIONS AND CUMULATIVE IMPACTS

Impacts related to the completion of the Redevelopment Plan can be discussed both as operating and cumulative impacts. Because the impacts are discussed on a watershed scale, an operational impact is also a cumulative impact.

Impact G.1: Operation of land uses within the redevelopment subareas could result in increases in local storm runoff volumes due to increased impervious surface area. The local increases in stormwater volume could increase flood potential in the local area and downstream of the discharge area, thereby affecting the watershed drainage. (Significant)

The City of San Bruno is a highly developed urban area, but further reduction of overall watershed infiltration capabilities is still possible. Streets, roofs, parking lots, and driveways all

add to the amount of impervious surfaces that prevent rainfall from percolating into the groundwater, and thereby increase stormwater runoff. Increased storm runoff changes the character of the receiving channels and streams by increasing the peak flow during and immediately after storms, and decreases the amount of stream recharge from groundwater between storms and during the summer. In addition to cumulative changes in water runoff characteristics, urban development also adds to the amount of nonpoint-source pollution that may find its way into waterways. It is important to know the possible impacts of urban growth in order to plan for changes in the natural balance of the watershed, and to allow for adjustments to maintain watershed equilibrium and natural function.

Construction within the Redevelopment Area could create impervious surfaces (streets, curbs, roofs, concrete, and asphalt) where permeable soils currently exist. Impervious surfaces would prevent precipitation from infiltrating, causing it to pond or run off. Stormwater runoff from developed sites may concentrate and cause increases in volume of runoff for the area. Discharge of the concentrated runoff may cause localized flooding at storm drain connections or downstream of the discharge location. Each redevelopment site would need to integrate the capacity and drainage patterns of the existing storm drain system into design plans for the particular structure or improvement.

Mitigation Measure G.1a: The City of San Bruno shall use Best Management Practices for design and installation of the stormwater drainage systems and discharge points shall be used to reduce the risk of localized and downstream flooding. (Identified in This Report)

At a minimum, the City of San Bruno should require the use of the 25-year storm criteria for design of stormwater drainage systems to prevent increased flooding potential in the redevelopment subareas. All designs shall incorporate the Department of Public Works stormwater design standards for urban areas.

Mitigation Measure G.1b: The City of San Bruno shall strongly recommend the use of high infiltration measures at redevelopment sites to reduce stormwater discharge to the greatest extent feasible. (Identified in This Report)

Many simple devices can be incorporated into storm drain designs to increase stormwater infiltration and reduce concentrated stormwater runoff. The use of ponds built into landscapes, and unlined runoff channels and dispersion points into landscaped areas, can reduce discharge from the properties into the regional storm drain system. Stormwater should be directed into unlined channels or pipes when possible. All conveyance channels should have high infiltration rates (e.g., rock-lined or vegetated natural channels that allow water to infiltrate the soil quickly). In addition, the amount of permeable landscape should be maximized. Landscaping in parking lots and around building perimeters can reduce the initial generation of stormwater runoff.

Mitigation Measure G.1c: The City of San Bruno shall strongly recommend or require that dispersed stormwater from Redevelopment projects shall be directed into the landscape, cultivated landscape, or natural vegetation where feasible. (Identified in This Report)

Instead of collecting surface runoff from the impervious areas and thereby increasing the flow into the regional storm drain system, surface runoff should be diverted into open areas that have high infiltration capabilities. The discharge should not be concentrated but should be directed to open areas in small amounts and diffused to reduce the possibility of soil erosion. Where possible and technically feasible, roof tops and paved areas should drain into underground dispersal pipes or vegetated percolation beds. By increasing the amount of permeable surfaces around impervious structures, rainfall infiltration rates would increase and thus decrease concentrated runoff.

Mitigation Measure G.1d: If it is not possible to retain stormwater runoff on site at applicable design storm levels, the City of San Bruno shall require that a plan of the site storm drain system and capacity for Redevelopment projects would be provided to, reviewed and approved by the San Bruno Public Works Department. (Identified in This Report)

For upkeep and future upgrades to the main flood-control lines, the San Bruno Public Works Department needs the necessary hydraulic information for determining carrying capacities and routing of stormflows. All applicable storm drain information from redevelopment projects should be provided to the Public Works Department for review and approval.

Significance after Mitigation: Less than Significant.

Impact G.2: Operation of individually proposed structures in the redevelopment subareas and their cumulative whole could result in increased nonpoint-source pollution entering stormwater runoff and entering the regional storm drain system or surrounding water resources. (Significant)

Use of landscaping chemicals (pesticides, fungicides, fertilizers, and herbicides), cleaning solvents, paint, litter or other debris, and accumulation of petroleum products and metals in parking lots are all sources of polluted runoff. Landscaping chemicals can infiltrate to groundwater, enter surface water through interaction with surface runoff, or migrate through subsurface flow into surface water bodies from their application onto open space areas and transport through stormwater runoff or irrigation. Cleaning solvents and other chemicals that are applied outside can enter stormwater runoff due to the presence of impervious areas. Urban debris tends to accumulate in drainage channels by deposition from wind or people. Parking lots are known to develop layers of petroleum products from leaking cars as well as metal compounds from brakes. These products and metals can easily enter surface runoff and be moved off site due to the impervious nature of the parking lots. Nonpoint-source pollution has by nature a cumulative negative impact on water quality in receiving waters in urban areas. Widespread implementation of several positive measures, however, can have an equally beneficial impact on the quality of those waters.

Mitigation Measure G.2a: The City of San Bruno shall strongly recommend, for incorporation into all redevelopment designs, that stormwater collected from new parking lots and other impervious areas be moved through vegetated drainage swales or other vegetated drainage areas prior to any discharge into storm drain systems. A more technical option is the inclusion of oil/water separators built for stormwater inflows. (Identified in This Report)

The movement of collected stormwater through vegetation, such as grasses or other low-lying vegetation, would provide filtration of the runoff. The vegetation acts as a strainer and removes suspended particles and attached chemicals from the stormwater. Vegetation can also absorb nonpoint-source pollutants. Such vegetated swales or drainages can be low-maintenance systems capable of handling the initial pulse of storm events. Vegetated areas would not need to be capable of removing peak pollutant levels; pollutant concentrations typically decrease after the initial flush of runoff from parking lots and other impervious areas due to dilution effects and the limited amount of pollutants.

Oil/water separators have historically been used in industrial applications or in areas of industrial activity in California. Recently, oil/water separators have been applied to stormwater runoff from commercial sites and have targeted runoff from parking areas. An oil/water separator would remove oil and sediments entrained within stormwater runoff from the parking lot or other targeted impervious area. Separators remove high percentages of the entrained pollutants (hydrocarbon products and sediments) and store them for future removal by maintenance personnel.

Mitigation Measure G.2b: To help minimize the amount of runoff containing urban pollutants, streets and parking areas in the redevelopment subareas shall be frequently cleaned by the City of San Bruno using street-sweeping equipment, and the collected material properly disposed. (Identified in This Report)

Collection and removal of nonpoint-source pollutants is a valuable and effective measure against degradation of water resources. It is much easier to reduce the source than to treat the effects of degradation caused by the pollutants. The City of San Bruno currently has a street-sweeping program in place as part of the City's participation in the countywide Storm Water Pollution Prevention Program (STOPPP). The integration of additional areas into the program should be highly feasible.

Mitigation Measure G.2c: The City of San Bruno shall encourage development and use of pesticide and fertilizer management plans for landscaped areas. (Identified in This Report)

The application of chemicals may be considered necessary and valuable tools for maintaining landscaped areas, but they can become nonpoint-sources of pollution if used or handled incorrectly. Planning for appropriate use of these tools includes monitoring to assess the need and proper application rate for fertilizer and pesticides, and follow-up analysis to assess the effectiveness of their use on a site-by-site basis. A management plan could include the following recommendations:

- Apply pesticides and fertilizers only for approved uses, and use proper application according to label instructions. Use periodic hazardous waste collection events to dispose of unused or unneeded toxic products.

- Develop buffer zones and/or adapt application methods to avoid drift of fertilizers and pesticides into waterways or drainage channels.

- Examine the use of buried drip-tube irrigation to decrease water usage and possible over-watering on irrigated fields and landscaped areas. Keep irrigation to efficient levels to avoid runoff or excess leaching into groundwater.

- Store fuel, pesticides, fertilizers, and other chemicals in covered structures away from wells, drainages, and streams, and out of stream floodplains.

Significance after Mitigation: Less than Significant.

PROJECT CONSTRUCTION

Impact G.3: Redevelopment of the subareas could induce construction-related erosion. (Significant)

Construction of proposed facilities could result in increased erosion and sedimentation, with subsequent impacts to water quality and/or storm drain capacity during construction. Additionally, release of fuels or other hazardous materials associated with construction equipment could reduce water quality.

Mitigation Measure G.3a: The City shall require all contractors to develop and implement a SWPPP, as required by the State Water Resources Control Board, for areas to be disturbed by construction activities of five acres or more. The City would additionally require contractors on construction projects of less than five acres that have the potential to degrade water quality to prepare an SWPPP even though they are not required by law to do so. (Identified in This Report)

The City of San Bruno would incorporate into contract specifications the requirement that the contractor comply with, and implement the provisions of, both a SWPPP and the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity. In addition, the City of San Bruno should expand this requirement to include construction areas less than five acres in size, particularly if there is great potential for the degradation of water quality. The objectives of SWPPPs are to identify pollutant sources that may affect the quality of stormwater discharge, to implement control practices to reduce pollutants in stormwater discharges, and to protect receiving water quality. A SWPPP could include, but is not limited to, the following tasks:

- Prepare a site map.

- Describe construction materials, practices, and equipment storage and maintenance.

- List pollutants likely to contact stormwater.
- Estimate size of the construction site area and percentage of impervious area.
- Identify site-specific erosion and sedimentation-control measures, including: soils stabilization, revegetation, and runoff control to limit increases in sediment in stormwater runoff, such as detention basins, straw bales, silt fences, geofabric, drainage swales, and sandbag dikes.
- Develop provisions to eliminate or reduce discharge of materials into stormwater, including practices to minimize the contact of construction materials with stormwater. (Note: Soil stockpiles should be placed as far from the nearest creek or drainage as possible.)
- Discuss BMPs for fuel and equipment storage, refueling activities, and equipment inspections to prevent chemicals from contacting stormwater.
- Describe other waste management practices.
- Describe maintenance and training practices.

Significance after Mitigation: Less than Significant.

REFERENCES – Hydrology, Water Quality, and Flooding

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H. GEOLOGY, SOILS, AND SEISMICITY

TOPOGRAPHICAL SETTING

The City of San Bruno is situated between the upland foothills of the Santa Cruz Mountains and the low-lying flatlands of the San Francisco Bay margin. Elevations range from 700 feet above mean sea level (msl) west of Skyline Boulevard to approximately 20 feet msl at U.S. 101. The City of San Bruno can be divided into three topographic areas:

- The upland areas west of Skyline Boulevard range in elevation from 500 to 700 feet msl. Hill slopes in this area are generally greater than 50 percent (Ellen and Wentworth, 1995). This area is west of the San Andreas Fault Zone and includes Skyline College and the San Francisco Jail site.

- The upland area between Skyline Boulevard and I-280, including Junipero Serra County Park, ranges in elevation from 200 to 500 feet msl. Slopes in this area are moderate, typically between 15 and 50 percent. This area is primarily residential, with some commercial properties along Skyline Boulevard.

  Subarea B is located within this upland area at the intersection of San Bruno Avenue and Skyline Boulevard. Subarea B is approximately 450 feet msl and is relatively flat due to grading associated with previous development. Engineered cut-slopes are present on the south end of the existing shopping center.

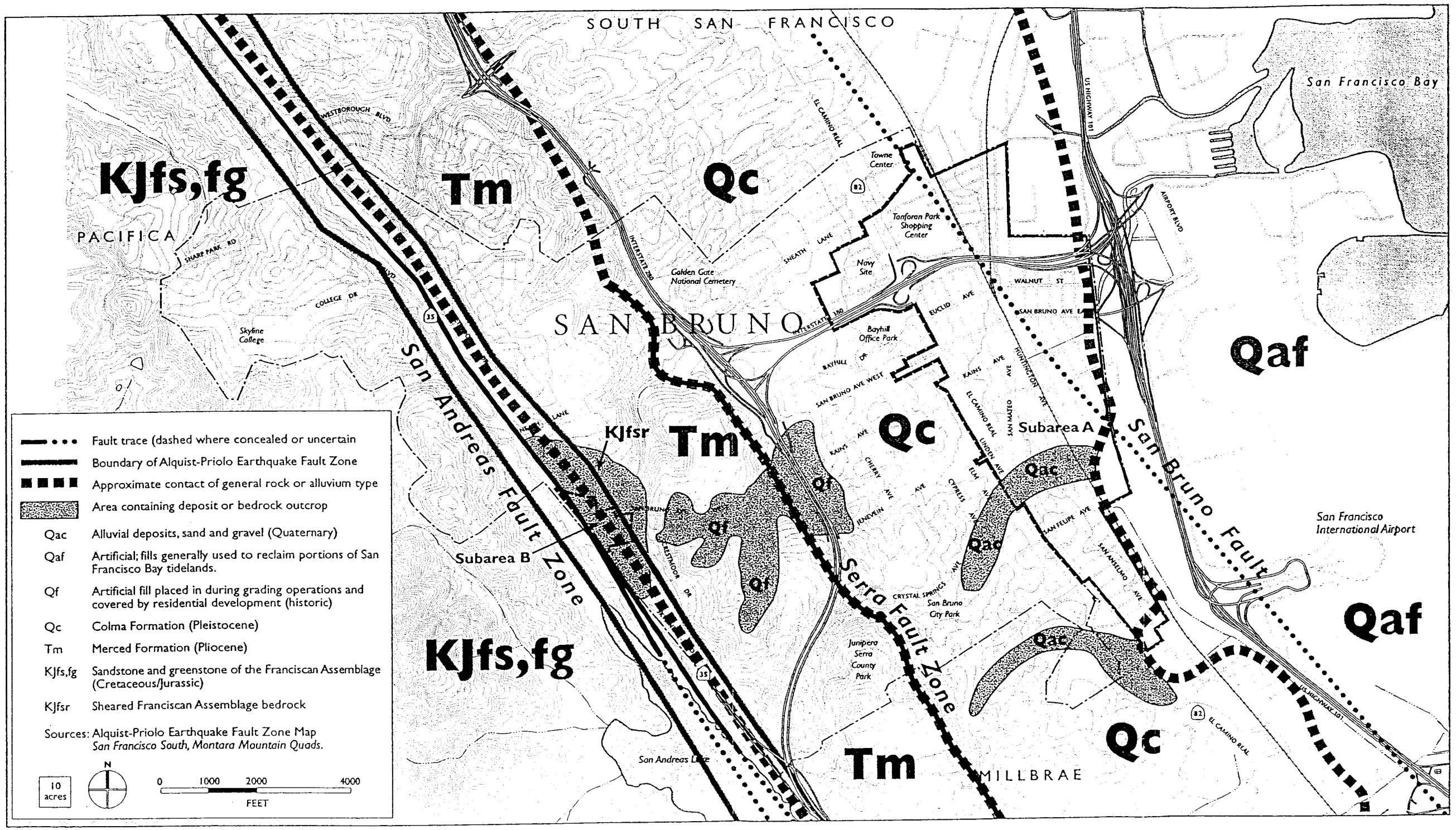
- East of I-280 and Junipero Serra County Park, the elevations range from 150 feet msl to 20 feet msl at the Bayshore Freeway (U.S. 101). Slopes in this area are gentle and range from 0 to 15 percent.

  Subarea A lies within this lower flatland area at a general elevation of 30 feet msl. The topography of this area is typically flat.

GEOLOGICAL SETTING

The City of San Bruno lies within the physiographic region of California referred to as the Coast Ranges geomorphic province. Much of the Coast Range province is composed of marine sedimentary and volcanic rocks that form the Franciscan Assemblage. The Franciscan Assemblage in this region of California is Cretaceous-aged (65 to 136 million years old) and contains primarily greenstone (altered volcanic rocks), basalt, chert (ancient silica-rich ocean deposits), and sandstone that originated as ancient sea floor sediments. These rocks occur in northwest-trending ridges and valleys and extend along the Pacific Coast from Oregon 400 miles south into Southern California (Oakeshott, 1978).

Franciscan Assemblage bedrock consisting of sheared shale, greenstone, and conglomerate make up the Santa Cruz Mountains west of Skyline Boulevard. Erosion of the bedrock material results in deposition of ravine fill, slope wash, and colluvium. East of Skyline Boulevard and extending eastward to about I-280, the rocks consist predominantly of Tertiary-aged (3 to 11 million years old) sedimentary deposits known as the Merced Formation (see Figure III.H.1). The Merced



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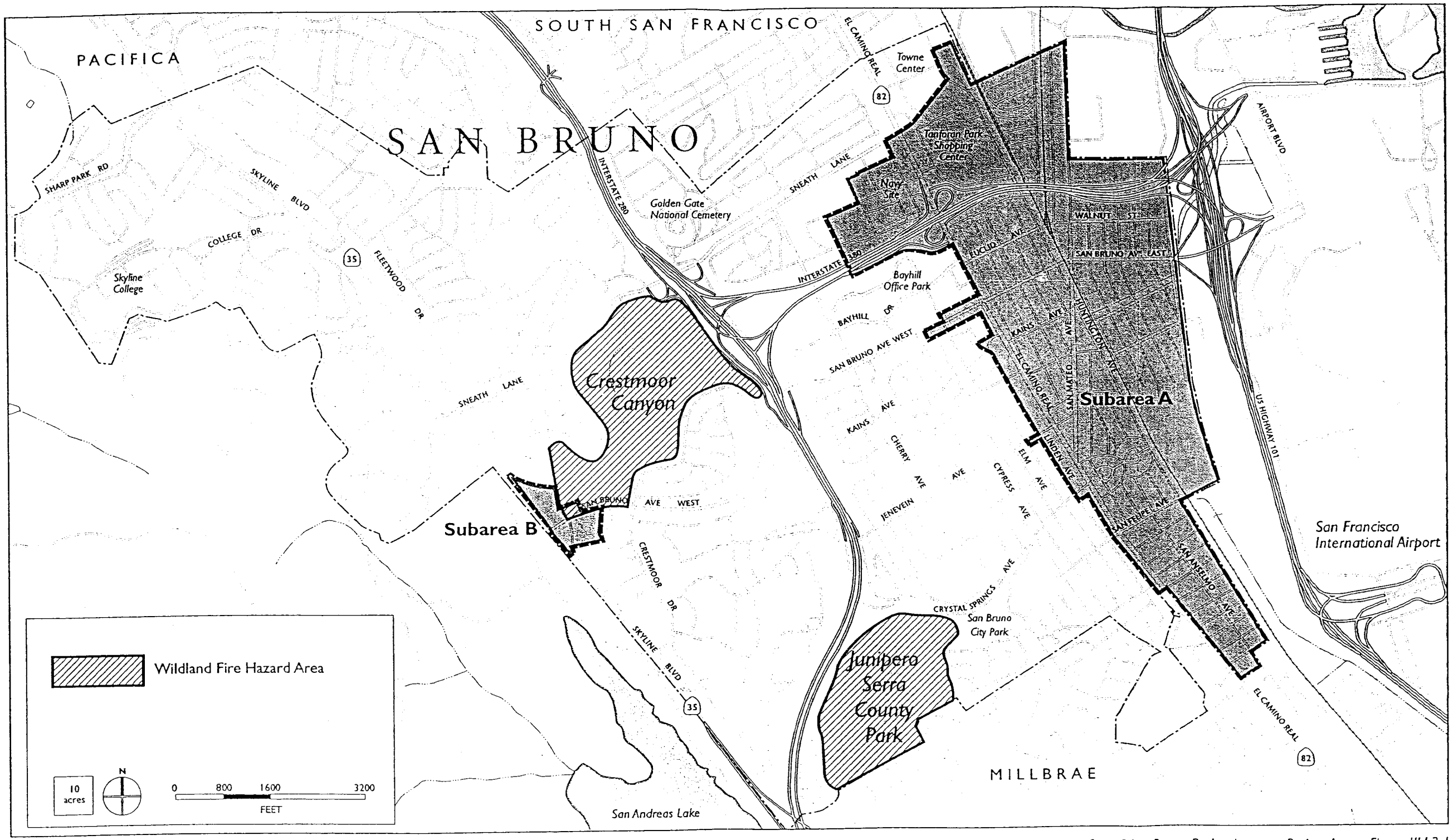
Urban and Regional Planners

City of San Bruno Redevelopment Project Area - Figure III.H.1

Geology, Soils and Seismicity



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City of San Bruno Redevelopment Project Area - Figure III.I.2.1

Wildland Fire Hazard Areas

Formation, deposited in an ancient shallow-water environment, is composed of sandstone, claystone, and siltstone. Ravine areas, especially along streambeds within the Merced Formation, are underlain by younger slope wash and ravine fill composed of silt sand and gravel.

Sheared Franciscan sandstone crops out in various locations within the Merced Formation (Pampeyan, 1994). In San Bruno, these rocks consist predominantly of soft sheared shale and siltstone and are found in Subarea B at San Bruno Avenue and Skyline Boulevard. Sheared Franciscan sandstone underlies the majority of Subarea B.

East of the Merced Formation lies the younger, Quaternary-aged (about 1 million years old) Colma Formation. The Colma Formation is weakly consolidated and consists of gravel, sand, silt, and clay. Deposition of the Colma Formation occurred while the Colma Valley north of San Bruno was an ancient passageway connecting the Bay to the Pacific Ocean (Helley and LaJoie, 1979). Historic streams that flowed towards the Bay from the western uplands of San Bruno deposited younger alluvial sediments consisting of sand and gravel over the Colma Formation. These deposits have been identified in the downtown area at Crystal Springs Road and El Camino Real and underlying the San Bruno Park neighborhood in Subarea A. Similar deposits are present in the southern portion of San Bruno, beneath the Capuchino High School (Pampeyan 1994).

The area from the Southern Pacific Railroad tracks towards the San Francisco Bay is underlain by artificial fill material used to reclaim the Baymarginal tideland. Two types of fill are mapped in the San Bruno area (Pampeyan, 1994). The first type consists of gravel sand, silt, and rock fragments in various combinations used for highways, airports, reservoir embankments, and building site grades. In San Bruno, these materials exist primarily in the areas of the reclaimed marshland, especially beneath the San Francisco International Airport. The second type of fill material consists of locally derived earth materials placed during operations in urban areas and subsequently covered by residential development. In San Bruno, these areas occur locally in the residential areas located between I-280 and Skyline Boulevard.

SOILS

Three major soil associations, as defined by the United States Department of Agriculture (USDA) Soil Conservation Service, characterize surface soil in the City of San Bruno. The Sunnyvale-Castro association underlies the eastern side of San Bruno, west of the San Francisco International Airport. These soils occur on nearly level, low portions of the valley and originally developed from fine-textured alluvium. They drain slowly due to clay content and have developed under surface water runoff and high groundwater levels. In general, these soils have dark clay surface layers with calcareous or lime-cemented subsoils. The Elkhorn-Colma association underlies San Bruno between El Camino Real and I-280. These soils occur on 5 to 15 percent slopes and were developed from old marine sediments. These soils drain well due to sand-clay mixtures, and erosion can be a problem on steeper slopes. These soils occur in areas of San Mateo County where urban development covers most of the land area. Soils of the Sweeney-Mindego association occur on slopes ranging from 30 to 70 percent and underlie the upland areas on the western side of San Bruno. These soils developed from igneous rock and can be well-drained due to silt-sand-clay mixtures. In developed areas, construction cutting and filling have

altered the Sweeney-Mindego association so as to conceal soil characteristics. These soils are referred to as "Made Soils" (USDASCS, 1974).

MINERAL RESOURCES

The California Division of Mines and Geology (CDMG) has classified lands within the San Francisco-Monterey Bay region into Mineral Resource Zones (MRZs) based on guidelines adopted by the California State Mining and Geology Board, as mandated by the Surface Mining and Reclamation Act (SMARA) of 1975 (Stinson et al., 1983). The CDMG classified urbanizing lands within the South San Francisco Bay Production-Consumption Region according to the presence or absence of significant sand, gravel, or stone deposits that are suitable as sources of aggregate. Areas classified as MRZ-1 are areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little or no likelihood exists for their presence. MRZ-2 areas are those where adequate information indicates that significant deposits are present. Areas classified as MRZ-3 contain mineral deposits, but their significance cannot be evaluated from available data. Areas are classified as MRZ-4 where available information is inadequate for assignment to any other MRZ category.

The City of San Bruno west of U.S. 101 and east of I-280 is classified as MRZ-1. Upland areas between I-280 and Skyline Boulevard are classified as MRZ-3 for deposits of Merced Formation sand and gravel. Although test data are lacking, the material may be suitable for aggregate other than artificial fill. The area west of I-280, within the San Bruno city limits, is classified as MRZ-3 for Franciscan Assemblage greenstone and limestone. These deposits lack sufficient material to reach suggested threshold values or have no previous quarry activity. There are no data concerning the quality of the material (Stinson, et al., 1983).

SEISMICITY

The San Francisco Bay Area region contains both active and potentially active faults and is considered a region of high seismic activity.[1] The 1997 Uniform Building Code (UBC) locates the entire Bay Area within Seismic Risk Zone 4. Areas within Zone 4 are expected to experience maximum magnitudes and damage in the event of an earthquake (Lindeburg, 1998).

Earthquakes pose especially high risks to San Bruno because of the city's close proximity to active faults with relatively frequent past movements. The National Earthquake Prediction Evaluation Council, formed after to the 1989 Loma Prieta earthquake, evaluated the probability of one or more earthquakes of Richter magnitude 7 or higher occurring in the San Francisco Bay Area within the next 30 years. The result of the evaluation indicated a 67 percent likelihood that such an earthquake event will occur in the Bay Area between 1990 and 2020 (Schwartz, 1994).

[1] An *active* fault is defined by the State of California as a fault that has had surface displacement within Holocene time (approximately the last 10,000 years). A *potentially active* fault is defined as a fault that has shown evidence of surface displacement during the Quaternary (last 1.6 million years), unless direct geologic evidence demonstrates inactivity for all of the Holocene or longer. This definition does not, of course, mean that faults lacking evidence of surface displacement are necessarily inactive. *Sufficiently active* is also used to describe a fault if there is some evidence that Holocene displacement occurred on one or more of its segments or branches (Hart, 1997).

REGIONAL FAULTS

The City of San Bruno is located adjacent to the San Andreas Fault Zone and approximately 18 miles southwest of the Hayward fault. The San Andreas and the Hayward faults are the two principally active, strike-slip-type faults[2] in the Bay Area and have experienced movement within the last 150 years. The San Andreas fault is a major structural feature in the region and forms a boundary between the North American and Pacific tectonic plates.

Other principal faults capable of producing significant groundshaking in San Bruno are listed in Table III.H.1 and include the San Gregorio–Hosgri Fault Zone, the Rodger's Creek–Healdsburg fault, the Calaveras fault, and the Concord–Green Valley fault (see Figure III.H.2). A major seismic event on any of these active faults could cause significant groundshaking at the site, as was experienced during earthquakes in recent history, namely the 1906 San Francisco earthquake, the 1868 Hayward earthquake, and the 1989 Loma Prieta earthquake. The Serra Fault Zone, San Bruno fault, and Pilarcitos fault are regarded as potentially active. Failure along these potentially active faults could possibly be triggered by activity on the San Andreas fault (Wakabayashi, 1998). Table III.H.1 lists the activity status, historical seismicity, and maximum moment magnitudes for principal regional faults.

The Serra Fault Zone is a zone of reverse faulting that trends to the northwest, approximately 3,500 feet east of the San Andreas fault (Figure III.H.1)[3]. The Serra fault was proposed for zonation as an active fault, but was later removed from consideration due to insufficient evidence of historic or Holocene displacement. However, recent fault trenching and additional study determined that the Serra Fault Zone exhibits evidence of Holocene-aged displacement and thus could potentially be considered active. The Serra Fault Zone is possibly connected as a branch to the San Andreas Fault Zone (Wakabayashi, 1998). The Serra fault represents the contact between the Merced and Colma Formations and marks a topographic boundary between the upland area west of I-280 (inclusive of Junipero Serra Park) and the flatland area in the eastern portion of San Bruno (Pampeyan, 1994).

The Pilarcitos fault trends northwest and extends through the Santa Cruz Mountains approximately 5 miles west of San Bruno. Previous studies suggest that the Pilarcitos fault is an ancestral trace of the San Andreas fault and that it exhibits vertical as well as horizontal movement. The vertical movement could possibly represent the western San Andreas fault counterpart of the Serra fault (Pampeyan, 1994). The Pilarcitos fault is considered potentially active because there is evidence of displacement within the last 1.6 million years (Jennings, 1994).

Existence of the San Bruno fault was first proposed in the early 1900s to explain the contact between Merced Formation bedrock and Franciscan Assemblage sandstone of San Bruno

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2 "Strike-slip" faults primarily exhibit displacement in a horizontal direction, but may have a vertical component.

3 Reverse faults primarily exhibit vertical displacement where the rocks above the fault plane move upward relative to the rock below. When the fault is at a low angle and the rock above the fault plane overrides the rock below, it is referred to as a thrust fault. The major faults in the region (San Andreas, Hayward, Rodgers Creek) are "strike-slip" faults that exhibit displacement in a relatively horizontal direction.

TABLE III.H.1
FAULTS IN THE VICINITY OF THE CITY OF SAN BRUNO

Fault Zone	Location Relative to San Bruno	Recency of Faulting[a]	Historical Seismicity[b]	Slip Rate [c] (mm/year)	Maximum Moment Magnitude [d]
San Andreas (Peninsula and Golden Gate segments)	Adjacent	Historic	M 7.1: 1989 M 8.25: 1906 M 7.0: 1838 Many <M 6	17.0	7.3
San Gregorio–Hosgri Fault Zone	8 miles southwest	Holocene; Late Quaternary	Many M 3-6.4	5.0	7.3
Hayward	18 miles east	Historic	M 6.8: 1868 M 7.0: 1838 Many <M 4.5	9.0	6.9
Calaveras	25 miles east	Historic	M 6.1: 1984 M 5.9: 1979 Many <M 6.5	15.0 (Maximum)	6.8
Concord–Green Valley	30 miles northeast	Historic	Active Creep[e]	6.0	6.9
Healdsburg–Rodgers Creek	36 miles north	Holocene	NA	9.0	7.0
Serra	1 mile east	Quaternary	NA	NA	NA
Pilarcitos	5 miles west	Quaternary	NA	NA	NA
San Bruno	Within San Bruno	Quaternary	NA	NA	NA

a Recency of faulting from Jennings, 1994. Historic: displacement during historic time (within last 200 years), including areas of known fault creep; Holocene: evidence of displacement during the last 10,000 years; Quaternary: evidence of displacement during the last 1.6 million years; Pre-Quaternary: no recognized displacement during the last 1.6 million years (but not necessarily inactive).

b Richter magnitude (M) and year for recent and/or large events.

c Slip Rate = Long-term average total of fault movement including earthquake movement, slip, expressed in millimeters.

d The Maximum Moment Magnitude is an estimate of the size of a *characteristic* earthquake capable of occurring on a particular fault. Moment magnitude is related to the physical size of a fault rupture and movement across a fault. Richter magnitude scale reflects the maximum amplitude of a particular type of seismic wave. Moment magnitude provides a physically meaningful measure of the size of a faulting event (CDMG, 1997). Richter magnitude estimations can be generally higher than moment magnitude estimations.

e Slow fault movement that occurs over time without producing an earthquake.

na = Not applicable and/or not available.

SOURCES: Jennings, C.W. 1994, Fault Activity Map of California (with Appendix), California Division of Mines and Geology, Geologic Data Map No. 6; Peterson, M.D., Bryant, W.A., Cramer, C.H., 1996, Probabilistic Seismic Hazard Assessment for the State of California by the California Department of Conservation, Division of Mines and Geology, Open File Report 96-08, USGS Open-File Report 96-706.

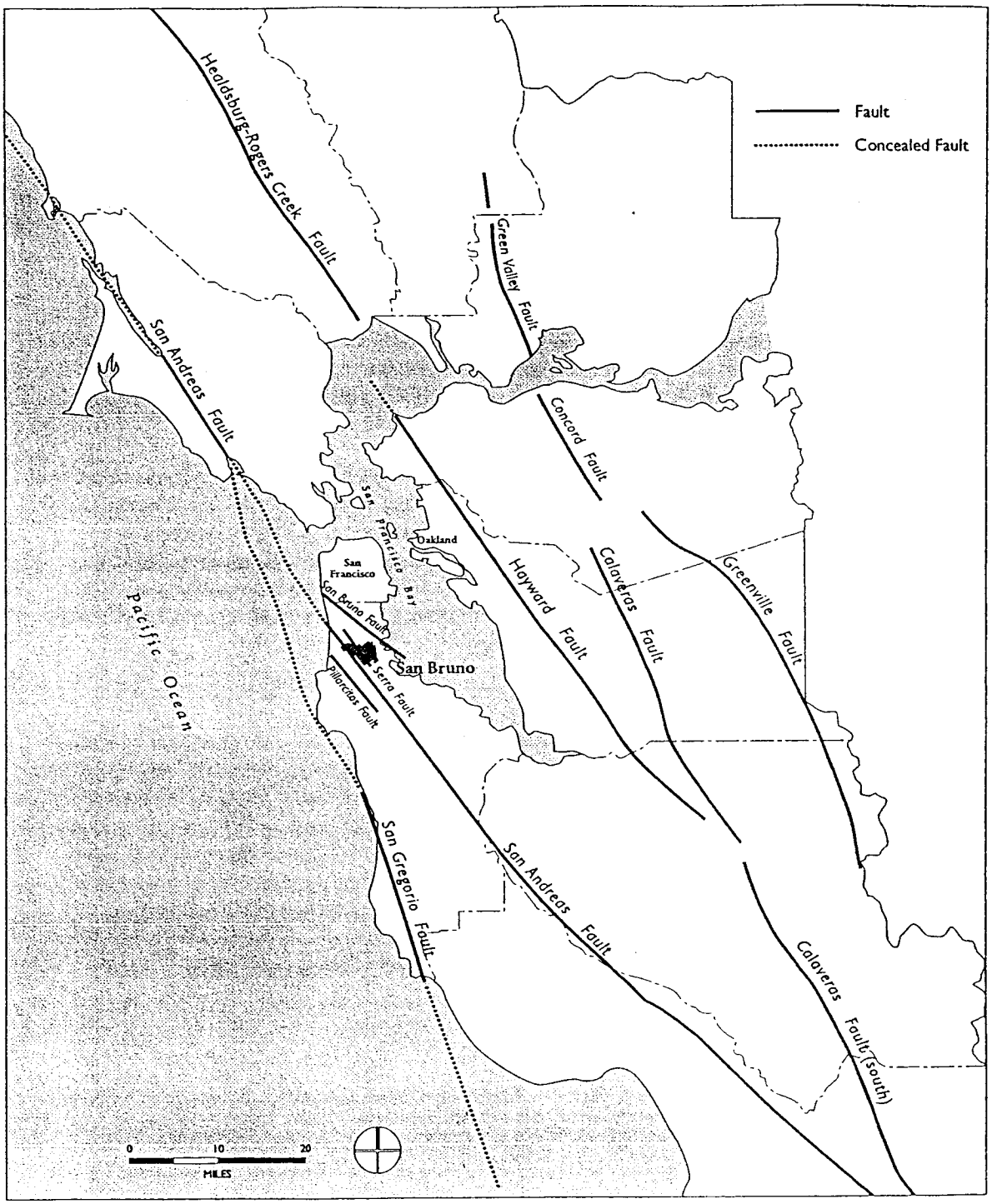

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Figure III.H.2

Principal Active Faults in the San Francisco Bay Area

Mountain. The structure of the Merced Formation, however, offers evidence to suggest that the San Bruno fault may not exist, or at least that it is not as significant as initially proposed (Brabb and Olsen, 1986). There are a few epicenters near the San Bruno fault north of San Mateo County; however, these cannot be differentiated from San Andreas fault activity.[4] Activity northeast of the San Bruno fault may be associated with another potentially active fault referred to as the Hillside fault. There is not enough seismic information to determine the present activity of the San Bruno fault or the Hillside fault (Brabb and Olsen, 1986).

SHAKING INTENSITY

Earthquakes on the various active and potentially active San Francisco Bay Area fault systems are expected to produce a wide range of groundshaking intensities within the City of San Bruno. The estimated maximum (moment) magnitudes (Table III.H.1) represent characteristic earthquakes on particular faults.[5]

While the magnitude is a measure of the energy released in an earthquake, intensity is a measure of the groundshaking effects at a particular location. Shaking intensity can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geologic material. The Modified Mercalli (MM) intensity scale (Table III.H.2) is commonly used to measure earthquake effects due to groundshaking. The MM values for intensity range from I (earthquake not felt) to XII (damage nearly total). MM intensities ranging from IV to X could cause moderate to significant structural damage.[6]

San Andreas Fault

In the vicinity of San Bruno, a characteristic earthquake on the San Andreas fault with estimated moment magnitude of 7.3 could produce MM intensities ranging from very strong (MM-VII) to very violent shaking (MM-X) (ABAG, 1998b). The range of effects typically associated with these intensities could include some structural damage, such as cracks in walls and chimneys, to total building collapse (Table III.H.2). As a comparison, the 1906 San Francisco earthquake, with a moment magnitude of 7.8 located 36 miles north on the San Andreas fault, produced shaking intensities ranging from violent (MM-IX) to very violent (MM-X) within the City of San Bruno. The 1989 Loma Prieta earthquake, with a moment magnitude of 6.9 located 48 miles south on the San Andreas fault, produced moderate (MM-VI) to strong (MM-VII) shaking intensities (ABAG, 1998c).[7]

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4 An epicenter is the point on the earth surface directly above the subsurface location that fault rupture commences.

5 Moment magnitude is related to the physical size of a fault rupture and movement across a fault. Richter magnitude scale reflects the maximum amplitude of a particular type of seismic wave. Moment magnitude provides a physically meaningful measure of the size of a faulting event (CDMG, 1997b).

6 The damage level represents the estimated overall level of damage that will occur for various MM intensity levels. The damage, however, will not be uniform. Some buildings will experience substantially more damage than this overall level, and others will experience substantially less damage. Not all buildings perform identically in an earthquake. The age, material, type, method of construction, size, and shape of a building all affect its performance (ABAG, 1998a).

7 Intensities for the San Francisco and Loma Prieta earthquakes are based on a model of the San Francisco earthquake and do not represent actual measurements (ABAG, 1998c).

TABLE III.H.2
MODIFIED MERCALLI INTENSITY SCALE

Intensity Value	Intensity Description	Average Peak Acceleration
I.	Not felt except by a very few persons under especially favorable circumstances.	< 0.0015 g
II.	Felt only by a few persons at rest, especially on upper floors on buildings. Delicately suspended objects may swing.	< 0.0015 g
III.	Felt quite noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibration similar to a passing of a truck. Duration estimated.	< 0.0015 g
IV	During the day felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.	0.015 g-0.02 g [1]
V.	Felt by nearly everyone, many awakened. Some dishes, windows, etc., broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.	0.03 g-0.04 g
VI.	Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster or damaged chimneys. Damage slight.	0.06 g-0.07 g
VII.	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving motor cars.	0.10 g-0.15 g
VIII.	Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving motor cars disturbed.	0.25 g-0.30 g
IX.	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	0.50 g-0.55 g
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from river banks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.	> 0.60 g

TABLE III.H.2 (Continued)
MODIFIED MERCALLI INTENSITY SCALE

Intensity Value	Intensity Description	Average Peak Acceleration
XI	Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	> 0.60 g
XII	Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.	> 0.60 g

[1] g is gravity = 980 centimeters per second squared

SOURCE: Bolt, Bruce A., *Earthquakes*, W.H. Freeman and Company, New York, 1988.

Hayward Fault/San Gregorio–Hosgri Fault Zone

Shaking intensities ranging from strong (MM-VII) to very strong (MM-VIII) would be expected from a characteristic earthquake (moment magnitude 6.9) on the Hayward fault, located 18 miles east. Similar shaking intensities would be expected on the San Gregorio–Hosgri Fault Zone located 8 miles to the southwest. Earthquakes within this range of intensities are felt by everyone and can cause furniture to overturn, structural damage, and partial collapse in some buildings (ABAG, 1995). As a comparison, the 1868 earthquake on the Hayward fault (approximate magnitude 7) produced shaking intensities ranging from MM-VII to MM-VIII in Redwood City, south of San Bruno, and caused some structural damage and partial building collapse. San Francisco sustained building collapse and underground utility failure. Landsliding occurred in the City of Colma, located just north of San Bruno, but no building collapse was reported (CDMG, 1987).[8]

Other Regional Active Faults

Characteristic earthquakes on the Calaveras, Concord–Green Valley, Rodger's Creek–Healdsburg, and Greenville faults would be expected to produce intensities from light (V) to moderate (VI). An earthquake with these MM intensities would likely be felt by most people but would result in little or no structural damage (ABAG, 1998b).

[8] It is important to note that in 1868, the population density and level of development in San Mateo County were considerably less than at present.

GEOLOGIC HAZARDS

The geology of San Bruno can vary from upland areas underlain by bedrock to alluvial flatlands. Because of this varied geology, geologic hazards that could affect the City of San Bruno include expansive soils, slope instability (landsliding), settlement, and erosion.

EXPANSIVE SOILS

Expansive soils possess a "shrink-swell" characteristic. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying. Structural damage may result over a long period of time, usually the result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils. The Colma Formation, underlying the east side of San Bruno, is described as moderately expansive (Leighton and Associates, 1976).

LANDSLIDING

The susceptibility of land (slope) failure is dependent on the slope and geology as well as the amount of rainfall, excavation, or seismic activities. A landslide is a mass of rock, soil, and debris displaced down-slope by sliding, flowing, or falling. Areas most susceptible to landsliding are characterized by steep slopes and down-slope creep of surface materials. Landslides are least likely in topographically low alluvial fans and at the margin of the San Francisco Bay.

The highest susceptibility to landsliding in San Bruno exists in the upland area east of Skyline Boulevard and west of I-280, including Junipero Serra Park. The potential for landslides in this area, which includes Subarea B, is considered low to moderate with areas of higher potential, especially in the Crestmoor and Rollingswood/Monte Verde neighborhoods (City of San Bruno, 1984). Susceptibility to landsliding could be greater in the Junipero Serra Park area due to the presence of undeveloped, natural slopes. The Merced Formation in these areas is described as moderately stable, with severe landslides occurring in artificial cuts for roads or buildings (Leighton and Associates, 1976). The sheared Franciscan bedrock, such as that underlying Subarea B, is considered to have poor slope stability (Leighton and Associates, 1976). Slope creep is possible in the Merced Formation due to the expansive behavior of the surficial soil mantle.[9]

SETTLEMENT

Settlement is the depression of the bearing soil when a load, such as that of a building or new fill material, is placed upon it. Soils tend to settle at different rates and by varying amounts depending on the load weight, which is referred to as differential settlement. Differential settlement presents a greater hazard than total settlement in the Project Area because of variations in the thickness of previous and new fills, as well as natural variations in the thickness and compressibility of soils across the site. Differential settlement has occurred and caused damage in the Crestmoor and Monte Verde neighborhoods. Areas are susceptible to differential

[9] Slope creep is the slow, imperceptible movement of rock or soil under gravity down-slope (Bates and Jackson, 1984).

settlement if underlain by compressible sediments, such as poorly engineered artificial fill or the "Bay mud" present in the marshland on the San Francisco Bay margin.[10]

EROSION

Erosion is generally not a serious problem in San Bruno east of I-280 because the majority of the property is developed, and slopes are more gradual. During the winter storms in 1982-83, some erosion occurred along the eastern edge of Junipero Serra Park. Steeper hillside properties west of I-280 are subject to soil erosion, particularly where unnatural slope cuts and grading have occurred. Erosion has been a problem in the Crestmoor and Rollingswood/Monte Verde planning areas, including the lower Crestmoor Canyon (City of San Bruno, 1984).

SEISMIC HAZARDS

The City of San Bruno could experience the effects of a major earthquake from one of the active or potentially active faults on the San Francisco Peninsula or in the greater Bay Area. The four major hazards associated with earthquakes are fault surface rupture (ground displacement), groundshaking, ground failure, and settlement.

GROUNDSHAKING

The Project Area could be affected by strong groundshaking caused by a major earthquake during the next 30 years. Groundshaking may affect areas hundreds of miles distant from the earthquake's epicenter. Historic earthquakes have caused strong groundshaking and damage in the San Francisco Bay Area, the most recent being the 6.9 (moment magnitude) Loma Prieta earthquake in October 1989. The epicenter for this event was approximately 44 miles southeast of the Project Area; the earthquake caused strong groundshaking for about 20 seconds and resulted in varying degrees of structural damage throughout the Bay Area.

The composition of underlying soils in areas located relatively distant from faults can intensify groundshaking. Portions of the Bay Area that experienced the worst structural damage were not those closest to the fault, but rather those with soils that magnified the effects of groundshaking.[11] Peak acceleration, peak velocity, and peak displacement values were measured by strong-motion detectors during the Loma Prieta earthquake in several ground and structure strong-motion stations in the Bay Area. For comparison purposes, the maximum peak acceleration value recorded was in the vicinity of the epicenter, near Santa Cruz, at 0.64 g ("g" is the force of gravity). The highest value measured on the San Francisco Peninsula was 0.33 g, recorded at the San Francisco International Airport. The soils at the airport are mapped as artificial fill over Bay mud. The lowest values were recorded in the bedrock on Yerba Buena Island at 0.06 g (CDMG, 1990). Two structure strong-motion detectors placed near the I-280/I-380 interchange in San

[10] "Bay mud" is unconsolidated, water-saturated, dark, plastic, organic-rich, clay, and locally containing lenses of sand (Leighton and Associates, 1976).

[11] Groundshaking can be described in terms of peak acceleration, peak velocity, and displacement of the ground. Areas that are underlain by bedrock tend to experience less groundshaking than those underlain by unconsolidated sediments such as artificial fill.

Bruno recorded peak ground accelerations of 0.16 g and 0.14 g. The accelerations are comparable to MM intensities of MM-VII and MM-VIII (see Table III.H.1). These detectors probably recorded peak ground accelerations in material representative of Colma Formation alluvium.

SURFACE FAULT RUPTURE

Surface expression of fault rupture is typically observed and is expected on or within close proximity to the causative fault.[12] The magnitude, sense, and nature of fault rupture can vary for different faults or even along different strands of the same fault. Future faulting is generally expected along different strands of the same fault (CDMG, 1997). The San Andreas fault is the closest fault to the Project Area with the highest potential for significant fault rupture. Surface fault rupture occurred on the San Andreas fault during the Richter magnitude 7 earthquake in 1838 and was observed to extend from the vicinity of Daly City/Pacifica south to the Town of Woodside (Jennings, 1994). Evidence of fault offset, possibly surface rupture, was identified west of San Bruno on the San Andreas fault following the San Francisco earthquake in 1906. Other faults within close proximity to San Bruno, such as the Serra Fault Zone, the Pilarcitos fault, and San Bruno fault, are considered potentially active, and although surface rupture cannot be ruled out on these faults, it is more likely to occur along a trace of an active fault. Failure along these potentially active faults could possibly be triggered by activity on the San Andreas fault (Wakabayashi, 1998).

The Alquist-Priolo Earthquake Fault Zoning Act (see further discussion under Regulatory Background section, page 13) requires the zonation of active faults in California. The purpose of the Alquist-Priolo Act is to regulate development on or near active fault traces to reduce the hazard of fault rupture. It is important to note, however, that surface fault rupture is not necessarily restricted to the area within the Alquist-Priolo Zone.

Subarea B is located within an established Alquist-Priolo Earthquake Fault Zone. The main trace of the San Andreas Fault Zone extends beneath Skyline Boulevard, just west of Subarea B. Active "splinter" traces have been accurately located within the Redevelopment Area (see Figure III.H.1).

LIQUEFACTION

Liquefaction is the process by which water-saturated soil materials lose strength and become susceptible to failure during strong groundshaking in an earthquake. The shaking causes the pore-water pressure in the soil to increase, thus transforming the soil from a solid to a liquid. Liquefaction has been responsible for ground failures during almost all of California's great earthquakes. Liquefaction can occur in areas characterized by water-saturated, cohesionless, granular materials at depths less than 40 feet (ABAG, 1996). Liquefaction can occur in unconsolidated native or artificial fill sediments located in reclaimed areas along the margin of

[12] Fault rupture is displacement at the earth's surface resulting from fault movement associated with an earthquake (Steinbrugge, et al., 1987).

San Francisco Bay. The depth to groundwater also controls the potential for liquefaction in this area; the shallower the groundwater, the higher potential for liquefaction.

Four kinds of ground failure commonly result from liquefaction: lateral spread, flow failure, ground oscillation, and loss of bearing strength (ABAG, 1996). A *lateral spread* is a horizontal displacement of surficial blocks of sediments resulting from liquefaction in a subsurface layer. Lateral spread occurs on slopes ranging between 0.3 and 3 percent and commonly displaces the surface by several meters to tens of meters. Lateral spreads of only a few feet damaged every major pipeline that broke during the 1906 San Francisco earthquake. *Flow failures* occur on slopes greater than 3 degrees and are primarily liquefied soil or blocks of intact material riding on a liquefied subsurface zone. *Ground oscillation* occurs on gentle slopes when liquefaction occurs at depth and no lateral displacement takes place. Soil units that are not liquefied may pull apart from each other and oscillate on the liquefied zone. Ground fissures can accompany ground oscillation and sand boils and damage underground structures and utilities. The *loss of bearing pressure* can occur beneath a structure when the underlying soil loses strength and liquefies. When this occurs, the structure can settle, tip, or even become buoyant and "float" upwards. Liquefaction and associated failures could damage foundations, disrupt utility service, and cause damage to roadways.

Liquefaction potential is highest in the areas underlain by Bay fills, Bay mud, and unconsolidated alluvium. In San Bruno, soils with the potential to liquefy exist along the eastern edge of Subarea A, within the Belle Air Park neighborhood, due to the presence of variable artificial fill material overlying the Bay mud. Liquefiable soils also exist within in the San Bruno Park area. This area is underlain by potentially liquefiable, coarse-grained alluvial material. Similar conditions also exist south of the Lomita Park neighborhood and in the vicinity of Capuchino High School.

EARTHQUAKE-INDUCED SETTLEMENT

Settlement of the ground surface can be accelerated and accentuated by earthquakes. During an earthquake, settlement can occur as a result of the relatively rapid compaction and settling of subsurface materials (particularly loose, noncompacted, and variable sandy sediments) due to the rearrangement of soil particles during prolonged groundshaking. Settlement can occur both uniformly and differentially (i.e., where adjoining areas settle at different rates). In San Bruno, areas susceptible to this type of settlement include areas underlain by artificial fills, unconsolidated alluvial sediments, and slope wash, and areas with improperly engineered construction fills.

REGULATORY BACKGROUND

ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act), signed into law December 1972, requires the delineation of zones along active faults in California. The purpose of the Alquist-Priolo Act is to regulate development on or near active

fault traces to reduce the hazard of fault rupture and to prohibit the location of most structures for human occupancy across these traces.[13] Cities and counties must regulate certain development projects within the zones, which includes withholding permits until geologic investigations demonstrate that development sites are not threatened by future surface displacement (Hart, 1997). Surface fault rupture is not necessarily restricted to the area within an Alquist-Priolo Zone.

SEISMIC HAZARDS MAPPING ACT

The Seismic Hazards Mapping Act was developed to protect the public from the effects of strong groundshaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a seismic hazard zone, a geotechnical investigation of the site has to be conducted and appropriate mitigation measures incorporated into the project design. Preparation of a Preliminary Seismic Hazards Map for the San Francisco South quadrangle, which includes portions of the City of San Bruno, has not been completed by the California Division of Mines and Geology (Hart, 1998). Until such time that mapping is completed for the San Francisco South quadrangle, the Seismic Safety and Safety Element for the City of San Bruno would be used to determine whether the site is within an area potentially subject to seismic hazards.

CALIFORNIA BUILDING CODE

The California Building Code is another name for the body of regulations known as the California Code of Regulations (CCR), Title 24, Part 2, which is a portion of the California Building Standards Code (CBSC, 1995). Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable (Bolt, 1988).

Published by the International Conference of Building Officials, the Uniform Building Code is a widely adopted model building code in the United States. The California Building Code incorporates by reference the Uniform Building Code (UBC) with necessary California amendments. About one-third of the text within the California Building Code has been tailored for California earthquake conditions (ICBO, 1997).

CITY OF SAN BRUNO SEISMIC SAFETY AND SAFETY ELEMENT

The Seismic Safety and Safety Element of San Bruno's 1984 General Plan provides policies to ensure acceptable protection of people and structures from the risks associated with geotechnical hazards. Various policies are applicable to areas within the City of San Bruno and may be applicable to the proposed Redevelopment Plan, as listed below.

[13] A "structure for human occupancy" is defined by the Alquist-Priolo Act as any structure used or intended for supporting or sheltering any use or occupancy that has an occupancy rate of more than 2,000 person-hours per year.

Policy 1 Development, including remodeling or structural rehabilitation, shall be regulated to assure adequate mitigation of seismic safety and safety hazards on sites having a history or threat of slope instability, erosion, subsidence, seismic dangers (including those resulting from liquefaction, ground failure, ground rupture), and flooding and fire hazards.

Policy 2 Geotechnical investigation shall be required of all sites proposed for development in areas where geologic conditions or soil types are subject to building constraints, slippage, erosion, or seismic hazards. Known hazardous areas are generally indicated on the Geotechnical and Flood Hazards Map.

Policy 3 In accordance with state law (the Alquist-Priolo Earthquake Fault Zoning Act) structures for human occupancy shall not be permitted across an active trace or within 50 feet of an active fault. The exceptions to this are: (1) single-family, wood-frame dwellings as part of a subdivision for which geologic reports have been approved in accordance with the act, or (2) single-family, wood-frame dwellings not exceeding two stories when such a dwelling is not part of a development of four or more dwellings. Permitted development must satisfy safety standards recommended in the geologic report.

Policy 4 The City of San Bruno should help property owners identify structures that do not meet modern earthquake standards for construction, and encourage abatement of these hazards.

Policy 5 The City of San Bruno should identify seismically hazardous school facilities and other places of public assembly, which should be upgraded to meet safety codes or demolished.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

CEQA defines a significant effect on the environment as a substantial, or potentially substantial, adverse change in the physical conditions within the area affected by the project. *CEQA Guidelines* lists several geology-related impacts that would normally be considered significant. These include exposing people or structures to major geologic hazards (expansive soils, landslides) and seismic hazards (fault rupture, groundshaking, liquefaction); erosion or siltation; causing substantial changes in topography; adversely affecting unique geologic or topographic features; or inundation due to dam failure, seiche, or tsunami.

Impact H.1: In the event of a major earthquake in the region, seismic groundshaking could potentially injure people and cause collapse or structural damage to existing and proposed structures. Groundshaking could potentially expose people and property to seismic-related hazards, including localized liquefaction and related ground failure. (Significant)

The City of San Bruno and the Redevelopment Plan subareas would likely experience at least one major earthquake (greater than moment magnitude 7) within the next 30 years. The intensity of such an event would depend on the causative fault and the distance to the epicenter, the moment magnitude, and the duration of shaking. Groundshaking in Subarea B could cause significant

damage, if not collapse of the existing shopping center buildings, in part due to the relative poor stability of the sheared Franciscan bedrock underlying this area (City of San Bruno, 1984). The amount of damage could be higher in Subarea A due to the density of development and the greater number of older structures. Unreinforced masonry buildings and those constructed prior to 1933 would be expected to incur the greatest structural damage. Damage could be high in buildings constructed on improperly engineered fills or artificial fills at the Bay margin. In Subarea A, artificial fills are present in the eastern portion of the Belle Air Park North and South neighborhoods.

In the event of an earthquake in the San Francisco Bay region, seismic hazards related to groundshaking could occur in susceptible areas within San Bruno. Cut slopes in Subarea B could be susceptible to failure during excessive groundshaking, and areas where construction fills are present could experience differential settlement. Landslides could damage property and expose people to rockfall hazards. Differential settlement could cause structural damage to foundations. Liquefaction potential is highest in the areas underlain by Bay fills, Bay mud and unconsolidated alluvium. The eastern edge of Subarea A, within the Belle Air Park neighborhood, could be susceptible to liquefaction failures due to the presence of variable artificial fill material overlying Bay mud. Failures could include lateral spreads, ground oscillation, and loss of bearing pressure. A moderate potential for liquefaction exists within in the San Bruno Park First and Third Addition neighborhoods, in the area bounded by Huntington Avenue, Taylor Avenue, El Camino Real, and Chapman Avenue. This area is underlain by potentially liquefiable, coarse-grained alluvial material and could be susceptible to failures including lateral spreads, ground oscillation, flow failures, and loss of bearing pressure. Similar conditions also exist just south of the Lomita Park neighborhood and in the vicinity of Capuchino High School (outside of the Redevelopment Project Area). Liquefaction-related failures could damage foundations, disrupt utility service, and cause damage to roadways.

Mitigation Measure H.1a: The City of San Bruno shall insure that buildings, roadways, and other facilities constructed or altered under the Redevelopment Plan comply with applicable City policies and appropriate engineering investigation practices necessary for the reduction of the damaging effects of groundshaking and ground failure. (Identified in This Report)

In accordance with applicable City ordinances and policies regarding mitigation of seismic and geologic hazards, a site-specific geotechnical investigation shall be conducted, if required, to obtain City approval for new construction or alteration of proposed buildings or other facilities within Subareas A and B. The study should include generally accepted and appropriate engineering techniques necessary to determine the susceptibility of seismically induced ground failures such as landsliding or liquefaction. Study data and recommendations of a licensed geotechnical engineer should be incorporated into foundation, structure, and pavement design. An adequate seismic evaluation to assess potential geologic and seismic hazards should be conducted in connection with the geotechnical investigation. This evaluation should develop site-specific seismic design criteria necessary for design of structures for this seismic region of California.

Mitigation Measure H.1b: Design and construction of structures and other facilities shall be in accordance with all applicable local, state, and federal policies, codes, and regulations. (Identified in This Report)

Geotechnical and seismic design criteria shall conform with engineering recommendations in accordance with seismic requirements of Zone 4 of the 1994 or 1997 Uniform Building Code (UBC) and the California Building Code (Title 24) additions. In addition, design and construction will be consistent with applicable policies, amendments, additions, and repeals of the San Bruno Seismic Safety and Safety Element.

Significance after Mitigation: Although the hazard of groundshaking and subsequent seismically induced ground failure cannot be eliminated, implementation of the mitigation measures listed above would reduce the impact and lead to a more acceptable level of risk. As a consequence, the impact would be reduced to a less-than-significant level.

Impact H.2: In the event of a major San Andreas Fault Zone earthquake, Subarea B, located adjacent to the fault and within the Alquist-Priolo Fault Hazard Zone, would be susceptible to surface fault rupture. Such an earthquake could expose people and property to the hazards associated with surface fault rupture. (Significant)

Portions of San Bruno, including Subarea B, are located adjacent to the active traces of the San Andreas Fault Zone. Active fault traces of the San Andreas fault have been accurately located within Subarea B. Subarea B is located within the confines of an earthquake fault hazard zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act. This act regulates development near active faults and prohibits the location of most structures for human occupancy across active fault traces to thereby mitigate the hazard of fault rupture. Cities and counties must regulate certain development projects within the zones.

In the event of a San Andreas Fault Zone earthquake, fault surface rupture may occur and affect buildings, pavement, utilities, and roads within Subarea B. When fault rupture occurs on a fault such as the San Andreas, the surface displaces not only laterally, but also sometimes vertically. Surface rupture can damage or collapse buildings, cause severe damage to roads and pavement structures, and cause failure of overhead as well as underground utilities. As a result of the damage, buildings could become uninhabitable, roads would be closed, and utility service disrupted for an undeterminable length of time.

Mitigation Measure H.2: Redevelopment projects within Subarea B shall comply with the requirements of the Alquist-Priolo Earthquake Fault Zoning Act, policies of the San Bruno Seismic Safety and Safety Element, and the San Mateo County Seismic and Safety Element. (Identified in This Report)

Compliance with the Alquist-Priolo Fault Zoning Act shall be required for development projects in Subarea B that are within the fault zone, as defined by the act. This will prohibit the placement of structures for human occupancy, as defined by the act, across the active trace of the fault or

within 50 feet of the fault trace. Geological studies sufficient to address the requirements of the Alquist-Priolo Act shall be performed by state-registered geologists and reviewed by the City of San Bruno and County of San Mateo. Compliance with provisions of the Alquist-Priolo Act and adequately performed earthquake fault and geotechnical studies (as per the act), with necessary regulatory approvals, shall be required to guide design and construction of structures not intended for human occupancy or those exempt from the act.

Significance with Mitigation: Although fault rupture can be considered unavoidable and the hazards of such an occurrence cannot be eliminated, implementation of the mitigation measure listed above would reduce the impact and lead to a more acceptable level of risk. As a consequence, the impact would be reduced to a less-than-significant level.

Impact H.3: Redevelopment Plan subareas in San Bruno could be subjected to geologic hazards, including expansive soils, landsliding, and differential settlement. (Less than Significant).

Expansive soils could be encountered in various locations underlain by the Colma Formation within Subarea A. Typically, soils that exhibit expansive characteristics comprise the upper 5 feet of the surface. The effects of expansive soils could damage foundations of aboveground structures, paved roads and streets, and concrete slabs. Expansion and contraction of soils, depending on the season and the amount of surface water infiltration, could exert enough pressure on structures to result in cracking, settlement, and uplift.

Landsliding due to static forces (not seismically induced) could occur in Subarea B. The Merced Formation has been described as vulnerable to landsliding, especially in areas underlain by the sheared Franciscan sandstone bedrock. Landslide potential increases in areas where construction activity, such as road building or grading for building sites, reduces slope support. Over-steepened slopes, slope saturation in areas of heavy rainfall, and removal of slope vegetation can also increase landslide potential. Landsliding of existing slopes could expose people to rockfall hazards and property damage. Landsliding in cut slopes produced during grading could cause damage and disrupt construction projects.

Differential settlement could occur in both Subareas A and B, depending on the underlying soil materials. In Subarea A, the areas most susceptible to settlement would be those underlain by the Colma Formation or less consolidated alluvial material and artificial fill. In Subarea B, soils with the potential to settle would be those previously placed as construction fills. Differential settlement could damage building foundations, affect underground utilities, and cause settlement in streets and roads. Settlement could be reduced or eliminated in areas that support buildings, because the soils have been allowed to settle over time. Settlement would be a concern in redevelopment areas that have not previously supported structures and where new structures would place loads heavier than the soils could tolerate.

Erosion of the soils would be likely in Subarea B in exposed hillsides and in poorly engineered slope cuts and fills. Construction erosion is further discussed in Section III.G, Hydrology, Water Quality, and Flooding.

Mitigation Measure H.3: The City of San Bruno shall insure that facilities constructed or altered under the Redevelopment Plan comply with applicable City policies and appropriate engineering investigation practices necessary to reduce the potential detrimental effects of expansive soils, landsliding, differential settlement, and erosion.

In accordance with applicable City ordinances and policies regarding mitigation of seismic and geologic hazards, a site-specific geotechnical investigation shall be conducted, if required, to obtain City approval for new construction or for alterations of proposed buildings or other facilities within the Redevelopment subareas. The study should include generally accepted and appropriate engineering techniques for determining the susceptibility of the development sites to expansive soils, landslides, settlement potential, and erosion. A licensed geotechnical engineer should prepare recommendations applicable to foundation design, earthwork, and site preparation prior to or during the project design phase. Recommendations should address mitigation of site-specific, adverse soil and bedrock conditions that could hinder development. Geotechnical design and design criteria will comply with applicable codes and requirements of the 1994 or 1997 UBC with California additions (Title 22), applicable City construction and grading ordinances, and policies of the City of San Bruno General Plan Seismic and Safety Element.

Significance after Mitigation: With implementation of the mitigation measures listed above, hazards of expansive soil conditions, landsliding, settlement, and erosion from groundshaking and subsequent seismically induced ground failure would be reduced to a less-than-significant level.

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I. SEISMIC AND FIRE EMERGENCY PREPAREDNESS

I.1 SEISMIC HAZARD

OVERVIEW

This section briefly reintroduces the regional seismic setting, discusses the potential effects of a major earthquake on the persons, structures, and infrastructure of San Bruno, and outlines the policies and regulations for earthquake preparedness currently in place in the City of San Bruno and San Mateo County. The regulatory framework section discusses applicable laws and policies established by federal, state, and local agencies for earthquakes and earthquake preparedness. Section III.H (Geology, Soils, and Seismicity) of this EIR discusses in depth the geologic and seismic setting of San Bruno and discussed certain impacts that geologic and seismic hazards would have on the proposed Redevelopment Project Area Plan.

REGIONAL SEISMIC SETTING

The City of San Bruno could experience the effects of a major earthquake from one of the active or potentially active faults on the San Francisco Peninsula or the greater Bay Area during the next 30 years. Groundshaking may affect areas hundreds of miles distant from the earthquake's epicenter. Historic earthquakes have caused widespread groundshaking and damage on the San Francisco Peninsula and the throughout the Bay Area. Most recently, the Loma Prieta earthquake, in October 1989, caused strong groundshaking for about 20 seconds, resulting in varying degrees of structural damage in San Bruno and the San Francisco Peninsula. The seismicity of the San Francisco Bay Area and San Bruno is discussed in greater detail in Section III.H, Geology, Soils, and Seismicity.

Earthquakes pose especially high risks to San Bruno because of its close proximity to active faults that have had relatively frequent past movements. The National Earthquake Prediction Evaluation Council, formed subsequent to the 1989 Loma Prieta earthquake, evaluated the possibilities of one or more earthquakes of Richter magnitude 7 or more occurring in the San Francisco Bay Area within the next 30 years. The result of the evaluation indicated a 67 percent likelihood that such an earthquake will occur in the Bay Area between 1990 and 2020 (Schwartz, 1994).

Underlying soils in areas located relatively distant from faults can intensify groundshaking. Portions of the Bay Area that experienced the worst structural damage from the Loma Prieta earthquake were not those closest to the fault, but rather those in areas with soils that magnified the effects of groundshaking. Shaking intensity can vary depending on earthquake magnitude, distance to the fault, focus of earthquake energy, and type of geologic material.

In the vicinity of San Bruno, a characteristic earthquake on the San Andreas fault with estimated (moment) magnitude of 7.3 could result in minor structural damage, such as cracks in walls and

chimneys, to major damage such as total building collapse.[1] An earthquake of similar intensity on the Hayward fault, located 18 miles east, or the San Gregorio-Hosgri Fault Zone, located eight miles to the southwest, would result in groundshaking felt by everyone in San Bruno and could, for example, cause furniture to overturn, structural damage, and partial collapse in some older buildings (ABAG, 1995).

Surface expression of fault rupture is typically observed and is expected on or within close proximity to the causative fault.[2] The magnitude, sense, and nature of fault rupture can vary for different faults or even along different strands of the same fault. The San Andreas is the closest fault to the Project Area with the highest potential for significant fault rupture. Subarea B is located adjacent to the San Andreas fault and lies within an established Alquist-Priolo Earthquake Fault Zone.[3]

EARTHQUAKE EFFECTS ON STRUCTURES AND SERVICES

The City of San Bruno would experience a range of damage in the event of an earthquake, depending on the magnitude and intensity of groundshaking. Effects of a major earthquake could include structural damage or collapse to buildings, road closures, and disruption of available utilities such as natural gas, electricity, and water.

Structural damage to buildings could be highest in unreinforced masonry structures, structures built prior to 1933, and those constructed on poorly engineered fill materials.[4] Common structural damage occurs when houses that are not properly bolted slip off their foundations. Generally, houses that are not bolted are located in older neighborhoods, such as those in Subarea A.

In the event of an earthquake on the Peninsula segment of the San Andreas fault, structural damage could be highest in portions of San Bruno that are adjacent to the fault. There are about 2,775 dwelling units within the Alquist-Priolo Zone that meet seismic codes, and approximately 525 structures (approximately 500 dwelling units and 25 commercial buildings) that were constructed prior to the building codes that required earthquake resistant design (City of San Bruno, 1984).

Damage or collapse of freeway structures and surface displacement in roads could restrict transportation following a seismic event. In the event of a major earthquake, U.S. 101 from

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1 Moment magnitude is related to the physical size of a fault rupture and movement across a fault. Richter magnitude scale reflects the maximum amplitude of a particular type of seismic wave. Moment magnitude provides a physically meaningful measure of the size of a faulting event (CDMG, 1997b). Richter magnitude estimations can generally be higher than moment magnitude estimations.

2 Fault rupture is displacement at the earth's surface resulting from fault movement associated with an earthquake (Steinbrugge, et al., 1987)

3 The Alquist-Priolo Earthquake Fault Zoning Act requires the zonation of active faults in California. The purpose of the Alquist-Priolo Act is to regulate development on or near active fault traces to reduce the hazard of fault rupture. It is important to note, however, that surface fault rupture is not necessarily restricted to the area within an Alquist-Priolo Zone.

4 The Field Act was adopted shortly after the 1933 Long Beach earthquake to control the construction of new public schools and requires supervision and enforcement by the California Division of the State Architect (DSA). The DSA office oversees the plans of any proposed school, enforces the California Building Code, and can act against school districts if they fail to meet design standards.

Menlo Park to Candlestick Point could be closed for more than 72 hours (San Mateo County, 1986).[5] Access to the San Francisco International Airport would be closed for less than 48 hours and could possibly be available by a detour. Collapsed segments of I-280 or I-380 could isolate areas of the city or restrict emergency operations in certain areas. The I-280/U.S. 101 interchange could be closed due to damage for more than 72 hours.

Following an earthquake, emergency services may be temporarily delayed on city streets, main arterials, and freeway on-ramps due to blocked traffic or debris. In the event of a 7.1 (moment) magnitude earthquake on the San Andreas fault, San Bruno could experience significant traffic disruption along the U.S. 101/I-380/I-280 corridors, along Crystal Springs Road between El Camino and I-280, and in the western portion of the city along Skyline Boulevard (ABAG, 1997). Commuter train service along the San Francisco Peninsula could be significantly delayed or inoperable for at least 72 hours (San Mateo County, 1986).

An earthquake of significant magnitude could damage overhead power transmission lines and electrical substations. Damage would likely result in temporary disruption of electricity throughout most of the city. Ground failure associated with seismic shaking or surface fault rupture could damage underground electrical lines and natural gas pipelines. Natural gas pipelines such as the one near the San Francisco International Airport and others near Crystal Springs Reservoir could experience localized rupture, causing service disruption for extended periods. Rupture to natural gas transmission lines could result in localized fire hazards.

Water service could be disrupted for many of the city residents as a result of transmission line rupture and power failure. Rupture of pipelines could result from seismic-related ground failures and could cause localized flooding. The San Andreas Water Treatment Plant could be inoperable for more than 72 hours in the event of a major San Andreas fault earthquake of 7 magnitude or greater (San Mateo County, 1986).

Following a significant earthquake, city emergency services would be overburdened due to a wide array of requests and calls. Response times could be extended, especially considering the potential traffic disruption. However, the level of disruption would depend on the time of day that an earthquake occurs. For instance, if the earthquake were to occur during the morning or evening rush hours, the added commute traffic could severely increase the response time required for emergency services.

EXISTING EARTHQUAKE PREPAREDNESS

City of San Bruno

The City of San Bruno adopted an emergency response plan in 1980 that identifies and assigns responsibilities to city officials in case of an emergency. The plan establishes contingency organizational plans and determines responsibilities to city departments for transportation,

[5] A major earthquake is assumed here to be similar in magnitude to the 1906 San Francisco earthquake. It was used to assess critical and lifeline facility and service disruption in the California Department of Mines and Geology (CDMG) Earthquake Planning Scenario of 1982. The County of San Mateo General Plan uses these estimates for determining damage and post-earthquake loss estimates.

communication, food and shelter, health, and other emergency needs (City of San Bruno, 1984). The San Bruno Emergency Response Plan designates responsibility for establishing routes and assisting in evacuation to the San Bruno police, fire, and public works departments. It also addresses the provision of food, shelter, and welfare to San Bruno residents in the time of emergency. Schools, churches, and private facilities are identified as emergency shelters. The San Bruno City Hall is a designated emergency shelter and emergency response operations center for communication and dispatching services.

Effective emergency response depends on available access to all areas of the city. Streets in the newer portions of San Bruno are generally wide enough to accommodate emergency or fire vehicles. The San Bruno City Code establishes minimum road widths and grades to accommodate safety response needs. Many older streets are narrow and difficult to maneuver and could present access limitations. Effects of seismically induced landsliding could further disrupt access on roads and streets in the upland areas of San Bruno following an earthquake.

Public awareness is crucial for emergency response in an earthquake. The public should be aware of emergency routes, available shelters, hospitals, and precautions for personal safety. It is the responsibility of the City of San Bruno and community organizations to educate the public on potential hazards and proper response procedures (City of San Bruno, 1984).

County of San Mateo

The California Emergency Services Act of 1970 specifies that the state emergency plan be carried out by the state's political subdivisions. San Mateo County and its 20 cities have prepared the San Mateo Operational Area Emergency Plan, which is consistent and compatible with the state emergency plan. The county and its cities have entered into a joint powers agreement for the purpose of carrying out coordinated plans to protect lives and property in the event of an emergency. Member cities and San Mateo County prepare separate emergency response documents for their respective jurisdictions. However, San Mateo County coordinates emergency response planning between agencies. An area administrator is responsible for activating emergency response activities (County of San Mateo, 1986).

State of California

The Office of Emergency Services (OES) was established as part of the Governor's Office in 1950. The OES coordinates overall state agency response to major disasters in support of local government. The office is responsible for assuring the state's readiness to respond to and recover from natural, manmade, and war-caused emergencies, and for assisting local governments in their emergency preparedness, response, and recovery efforts needs (OES, 1999).

During major emergencies, OES may call upon all state agencies for support. Due to their specialized capabilities and expertise, the California National Guard, Highway Patrol, Department of Forestry and Fire Protection, Conservation Corps, Department of Social Services, Department of Health Services, and the Department of Transportation are the agencies most often asked to assist in emergency response activities.

OES may also call on its own response resources to assist local governments. OES also maintains caches of specialized equipment, principally for use by local law enforcement agencies. OES staff members are on call 24 hours a day to respond to any state or local emergency.

REGULATORY FRAMEWORK

FEDERAL EARTHQUAKE HAZARDS REDUCTION ACT

In 1977, Congress adopted the national Earthquake Hazards Reduction Act that resulted in the preparation of the national Earthquake Hazards Reduction Program. The Federal Emergency Management Agency (FEMA) was designated as the coordinating agency for this program, which has three major objectives: (1) predict and prepare for earthquakes; (2) develop ways to incorporate seismic risk into land use decisions; and (3) promote the most up-to-date earthquake-resistant design and construction technologies (San Mateo County, 1986).

FEDERAL DISASTER RELIEF ACT

In 1974, Congress adopted the Disaster Relief Act to clarify the government's role in rendering disaster assistance and to encourage more effective disaster preparedness planning at the state and local levels. Among other roles, this act specifies procedures for states to request disaster funds, encourages earthquake and disaster preparedness on state and local levels, and establishes coordination between federal, state, and local agencies (San Mateo County, 1986).

CALIFORNIA EMERGENCY SERVICES ACT

The California Emergency Services Act, adopted in 1970, insures adequate statewide preparations for natural and manmade disasters. Among other roles, the act: (1) specifies emergency powers to the state government in times of disaster; (2) defines levels of emergency and procedures for their proclamation by the governor; (3) establishes the Office of Emergency Services and requires preparation of the state emergency plan; and (4) provides mutual aid and coordination between other state agencies in implementing emergency plans (San Mateo County, 1986).

CALIFORNIA ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act), signed into law in December 1972, requires the delineation of zones along active faults in California. The purpose of the Alquist-Priolo Act is to regulate development on or near active fault traces to reduce the hazard of fault rupture and to prohibit the location of most structures for human occupancy across these traces.[6] Cities and counties affected by the zones must regulate certain development projects within the zones. This includes withholding

[6] A "structure for human occupancy" is defined by the Alquist-Priolo Act as any structure used or intended to support or shelter any use or occupancy that has a occupancy rate of more than 2,000 person-hours per year.

development permits for such sites until geologic investigations demonstrate that the site is not threatened by future surface displacement (Hart, 1997).

CALIFORNIA FIELD ACT

The Field Act, adopted shortly after the 1933 Long Beach earthquake, requires supervision and enforcement by the California Division of the State Architect (DSA). The DSA office oversees the plans of any proposed school, enforces the California Building Code, and can act against school districts if they fail to meet design standards. The effectiveness of the Field Act has been tested several times, and generally the results have been satisfactory (Bolt, 1988). The original Field Act applied only to new public schools and private schools. In 1969, the Garrison Act was passed by the California legislature to deal with the task of abating hazards posed by the older public schools. The legislation was subsequently amended, and the non-Field Act schools are now replaced or upgraded (Steinbrugge, 1987).

COUNTY OF SAN MATEO SEISMIC AND SAFETY ELEMENT

The San Mateo County General Plan's Seismic Safety Element, adopted in 1976, contains policies that propose strategies to reduce seismic risk to acceptable levels. The element also supports the integration of data on geotechnical hazards into the document review process. The safety element was prepared as an interjurisdictional effort, evaluating seismic and safety issues for a number of areas in the county. Most of the cities in San Mateo County, including San Bruno, adopted the element as their own, with policy variation depending on local conditions.

CITY OF SAN BRUNO SEISMIC SAFETY AND SAFETY ELEMENT

The Seismic Safety and Safety Element (San Bruno General Plan, 1984) provides policies to ensure acceptable preparedness and protection of the persons and property from hazards associated with earthquakes in the City of San Bruno. Various policies are applicable to areas within the City of San Bruno and may be applicable to the proposed Redevelopment Plan, as listed below.

Policy 3 In accordance with state law (the Alquist-Priolo Earthquake Fault Zoning Act) structures for human occupancy shall not be permitted across an active trace or within 50 feet of an active fault. The exceptions to this are: (1) single-family, wood-frame dwellings as part of a subdivision for which geologic reports have been approved in accordance with the act; or (2) single-family, wood-frame dwellings not exceeding two stories when such a dwelling is not part of a development of four or more dwellings. Permitted development must satisfy safety standards recommended in the geologic report.

Policy 4 The City of San Bruno should help property owners identify structures that do not meet modern earthquake standards for construction, and encourage abatement of these hazards.

Policy 5 The City of San Bruno should identify seismically hazardous school facilities and other places of public assembly, which should be upgraded to meet safety codes or demolished.

Policy 6 The City of San Bruno shall encourage earthquake preparedness among public and private organizations.

IMPACTS AND MITIGATION MEASURES

APPROACH TO ANALYSIS

Section III.H, Geology, Soils, and Seismicity addressed the geologic and seismic impacts of the proposed Redevelopment Project Area Plan and presented mitigation to avoid property damage and loss of life that could result from such hazards. This section addresses how the proposed Redevelopment Plan would impact San Bruno's ability to provide sufficient services and protection to its residents in the event that a major earthquake occurred in the region.

SIGNIFICANCE CRITERIA

An impact would be considered significant if it adversely affected the ability of the City of San Bruno to provide adequate protection to its residents in the event of a major seismic event. The inability of the city to provide adequate protection through earthquake preparedness would be considered significant because, according to the *CEQA Guidelines,* it would expose an increased number of persons and structures to major geologic and seismic hazards.

Impact I.1.1: Operation of the Redevelopment Plan would increase the exposure of structures and persons to potential seismic hazards. (Less than Significant)

Redevelopment projects in Subarea A could increase the number of commercial, residential, and other public facilities within certain areas of San Bruno. Redevelopment of subarea properties would attract a greater number of persons to these areas and therefore expose additional persons to potential seismic hazards. Adding additional persons and facilities to these downtown properties would increase the demand on San Bruno's emergency services in the event of a major earthquake. However, considering that proposed development would be designed and constructed using current California building codes and that geotechnical studies performed prior to design would identify geological hazards, the effects from an earthquake on newer buildings would be substantially less than on older structures. Therefore, the magnitude of structural damage and the potential of injury to persons would be considerably reduced and thus the need for emergency services in these areas would likely be less..

Depending on the time of day an earthquake occurs, evacuations from public buildings and temporary relocation of people throughout San Bruno could be required. Failure in water, electricity, and natural gas service within higher density areas could increase the need for temporary emergency assistance. Transportation routes would likely become less accessible, especially in high-density commercial areas from which patrons would attempt to leave. Further, access to other parts of the city provided to emergency vehicles could be reduced due to activity

in the higher density commercial areas. If I-380 and its approaches were temporarily shut down, alternative routes could become hindered by traffic in San Bruno's downtown area.

Redevelopment of properties for residential and commercial use, including hotels, movie theaters, and retail outlets, would attract a greater number of persons to Subarea A, thus increasing the population density over current levels. In the event of a major earthquake, a greater number of persons and buildings could potentially be exposed to the effects, such as structural damage, utility service failure, and disruption in transportation, thus increasing the demand on San Bruno's emergency services.

New construction, such as that proposed in the Redevelopment Plan, would be subject to current design criteria intended to increase resistance to seismic groundshaking in a structure. New design criteria have been developed over the past several years based on information from recent earthquakes such as the 1994 Northridge and the 1989 Loma Prieta earthquakes. These design criteria are set forth in regulations under the California Building Code (Title 24) and the nationally accepted Uniform Building Code (see Section III.H, Geology, Soils, and Seismicity for more information). Prior to design, a site-specific geotechnical study would be performed to identify soil conditions that are susceptible to failure when subjected to seismic groundshaking. Further, current state law regulate construction of structures over active fault traces, as found in Subarea B. Recommendations for earthwork and foundation design would be developed based on the findings of the geotechnical study. These recommendations would be incorporated into the final building design.

New buildings are designed to withstand groundshaking produced from the maximum seismic event capable of occurring on the closest causative fault. Considering that the new construction would be designed under current, more stringent building codes to increase earthquake resistance, the amount of structural damage in the event of an earthquake is expected to be considerably less than anticipated in the older structures. Additionally, the occurrence of utility disruption would be less in more recently installed utilities than in earlier installations, due to improved seismic design standards for power transmission facilities. Overall, new construction is expected to perform substantially better than older structures in the event of a major earthquake.

With less structural and utility damage, as could be expected with new construction, the number of persons injured in the proposed development projects during an earthquake would likely be less. With fewer incidences of structural damage, injury, and fire, the need for emergency assistance would be less in the proposed residential and commercial facilities. More structural damage and injury would be expected in older structures throughout the older neighborhoods of San Bruno. Therefore, the demand on emergency services within San Mateo County and the City of San Bruno would not increase significantly due to added development under the proposed Redevelopment Plan. Furthermore, the proposed plan may result in the replacement of older, less structurally sound buildings and facilities, thus further reducing the need for emergency services to these areas.

Mitigation: None required.

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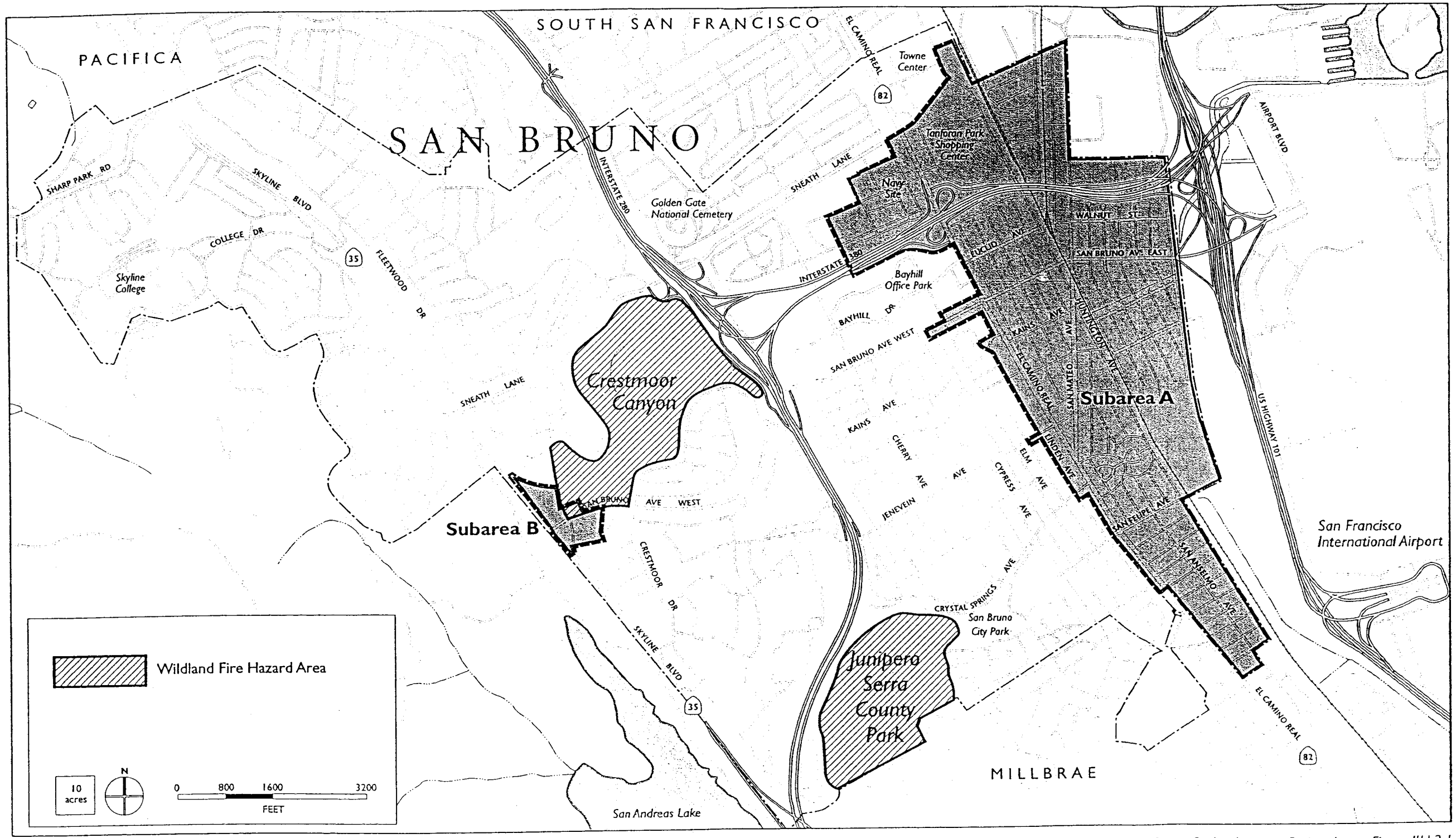

DYETT & BHATIA
Urban and Regional Planners

City of San Bruno Redevelopment Project Area - Figure III.I.2.1

Wildland Fire Hazard Areas

I.2 FIRE HAZARD

REGIONAL OVERVIEW

The degree of fire hazard for an area is dependent on three major components: (1) the natural setting of the wildland or urban area, (2) the degree of human use and occupancy of the wildland or urban area, and (3) the level and ability of public services to respond to fires that do occur. The greatest potential for fire hazards in the City of San Bruno occurs in areas near extensive natural vegetation, such as Crestmoor Canyon, San Francisco Water Department's Peninsula Watershed, and Junipero Serra County Park (see Figure III.I.2.1). Dense stands of eucalyptus also exist within the neighborhoods of Rollingwood and Crestmoor surrounding Crestmoor Canyon. In these areas, highly flammable vegetation mixed with steep topography and long, dry summers create the potential for wildland fires. Fire hazards in urbanized areas are usually due to industrial chemical use, crowded structures, and old buildings. These urban conditions are found in the Fifth Addition and along San Mateo Avenue. Outside of these areas, San Bruno has a very good fire rating (City of San Bruno, 1984). The fire rating is based upon the type and amount of firefighting equipment, number of firefighters, and water flow and pressure. Please refer to Section III.D, Public Services, Facilities, and Utilities, for a discussion of the fire rating and firefighting capabilities of the City of San Bruno Fire Department.

The proximity of Crestmoor Canyon, the Peninsula Watershed, and Junipero Serra County Park to the ocean provides an influx of moisture-laden air that tends to limit ignition of potential fuels. However, the movement of the fog bank also brings with it periods of high-speed winds that blow over the ridgetops. The Peninsula Watershed contains several long ridges that run from the north to the south, creating long expanses of uniform vegetation but also sharp contrasts in vegetation caused by elevation changes. The increased moisture and lack of extensive grazing have encouraged a quick conversion from grass to shrubs and the growth of vegetation with greater biomass and lesser ignitability in Crestmoor Canyon and the Peninsula Watershed. Vegetation density in Junipero Serra County Park is maintained by park personnel. Public access is limited in the Peninsula Watershed and Crestmoor Canyon, but public use of Junipero Serra County Park, with its 168 picnic tables and 206 parking spaces, is encouraged. Fire protection for these areas is provided by the San Bruno Fire Department and the California Department of Forestry (CDF).

Potential fire hazard in the urban areas along San Mateo Avenue and in the Fifth Addition neighborhood is caused by high-density conditions, older buildings, and smaller streets, the latter which may restrict fire service access. The area also contains industrial companies that use various chemicals. Industrial chemical use is a potential fire hazard due to the combustible nature of certain chemicals, and their highly flammable characteristics may hinder suppression. It is possible for high-density areas such as this to have multiple building fires due to existing hazardous conditions and the rapid movement of fire.

ELEMENTS OF FIRE HAZARD AND PROTECTION

Four elements must be considered when addressing fire protection: fire hazard, the resources at risk, fire behavior, and the fire protection system. Thus, although "fire hazard" usually refers only to fuel complexes and their ignitability and difficulty to control, the overall issue of fire management within wildland and high-density urban areas requires consideration of the other three elements as well.

Fire Hazard

Fire hazard refers to the fuels on a site, typically represented by plant biomass (plant material) and its configuration and condition, which may lead to difficult-to-control wildland fires. Plant material fuel complexes within Crestmoor Canyon, the Peninsula Watershed, and Junipero Serra County Park consist of chaparral, grassland, brush, and select stands of trees. For urban areas, wood structures and ignitable chemicals pose the threat of heavy fuel concentrations.

Resources at Risk

Wildland and urban fires pose different risks based on the affected resource.

- Personal Safety. This includes the health and well-being of the public and fire service personnel. The greatest threat to safety generally occurs in areas of dense population with poor access (narrow, windy, and steep roads that serve large numbers of people).

- Property Values. In general, this term refers to high-value resources, such as homes and property items that represent invested resources and high values, and is usually expressed in monetary terms.

- Natural Resources. In the watershed-urban interface, this usually means the flora and fauna on private or public lands, which can be viewed as a public resource for recreation and aesthetics, wildlife habitat, water resources, etc. Fire suppression efforts, typically requiring heavy equipment, can damage vegetation and wildfires, and can create optimal conditions for invasion of non-native species that may displace native species over time. While not directly damaged during a wildfire, both water quality and quantity are affected by wildfire. Increased sedimentation is the primary water quality impact associated with wildfires. In addition, efforts to suppress a fire can result in erosion.

Fire Behavior

The elements of a fire itself that are important in assessing fire hazard are referred to as fire behavior, or the physical parameters associated with a fire. In general, there are two elements of potential fire behavior:

- Frontal Fire Behavior. This element refers to the advancing fire front, both its capacity to ignite adjacent unburned fuels as well as the relative ease with which it can be contained and extinguished.

- Spot Fires. This mechanism of fire spread refers to the capacity of a fire to deposit burning embers into unburned fuel complexes. Spot fires, although accounting for only 1 percent of

all wildland fires in the western United States, are responsible for burning 80 to 96 percent of the area burned (Struass et al., 1989). The potential for this mechanism to drive fire into a "blow-up" phase is evidenced by the Oakland Hills tunnel fire of October 1991, where it is believed that crown fire in trees, and subsequent spotting, dictated the initial rapid advancement of that fire (Sapsis, 1992).

The critical characteristics for analysis of the fire behavior of a site include: slope, surface fire fuel loading and arrangement, and the presence of vertical fuel continuity that would contribute to crowning of aerial fuel complexes (Burgan, 1987; Rothermel, 1983 and 1991). Although conditions contributing to crown fires are relatively rare, when they occur and aerial fuels are engaged in flaming combustion, the potential for spot fires is dramatically increased. Topography plays a role in fire behavior by influencing wind direction, local weather patterns, vegetation types and distribution, and the presence of moisture. Topography can also create microclimates that have localized moisture conditions. By influencing the local wind, fuel, moisture, and heat availability, topography directly and indirectly affects the intensity, direction, and spread rate of wildfires. In addition, topography may create impediments to firefighting.

In addition to the characteristics described above, weather is a physical variable that must be considered in the analysis of fire behavior. Weather conditions can influence both the ignition potential of a fire as well as the intensity, rate, and direction of movement of a fire. Wind, temperature, and humidity are the more important weather variables used to predict fire behavior. In particular, wind conditions can affect the intensity of a fire by supplying oxygen to the combustion process. Wind can also accelerate the movement of the fire front by angling flames and transporting embers. In general, winds in the Bay Area blow from the west in the summer and southwest in the winter; the most severe fire weather occurs with strong north to northeast winds. The steep topography in the Peninsula Watershed creates its own wind, and up-canyon drafts in the morning and down-canyon drafts in the afternoon are common. In addition, the many canyons can divert the wind so that, for example, a prevailing westerly wind can be oriented more to the south.

Fire Protection System

The physical properties of an area and the fire protection infrastructure available (equipment, personnel training, etc.) are important elements in determining the capacity of fire service personnel to protect the resources at risk. Site characteristics such as slope steepness and infrastructure such as fire roads and trails, contribute to the site accessibility, which is also an important factor in fire hazard analysis. Fire defense improvements include fuelbreaks, roads, water sources, gates, and helispots or heliports, which can aid in the effectiveness of fire suppression.

The San Bruno Fire Department provides fire protection and emergency medical services in the City of San Bruno. The fire department operates two fire stations and employs 24 full-time firefighters, one chief, three battalion chiefs, and six captains. In addition, the fire department strives to maintain 25 "Paid Call Reserves," trained on-call firefighters paid on an hourly basis. The Fire Department responds to calls requiring emergency medical treatment, fires, rescues, and hazardous materials. The San Bruno Fire Department recently joined the County of San Mateo's

countywide dispatch system. With a few exceptions, all municipalities in San Mateo County are now linked and dispatched by proximity to the call. As a result, the San Bruno Fire Department has access to extensive mutual aid.

The Peninsula Watershed is located within the California Department of Forestry (CDF) State Responsibility Area and, as such, is protected by the CDF. The CDF station nearest to the watershed is the Belmont Station, located at 20 Tower Road in Belmont, approximately one mile from the center of the watershed (SFWD, 1996).

FIRE HAZARD AREAS

Crestmoor Canyon

Crestmoor Canyon is a steep, heavily vegetated canyon that originates at the intersection of San Bruno Avenue and Glenview Drive near Skyline Boulevard (see Figure III.I.2.1). San Bruno Creek flows through the canyon as part of the City of San Bruno's storm drain system and provides an ample water source for growing vegetation. The canyon is bounded by Crestmoor Drive, Claremont Drive, and Sneath Lane. The upper canyon is very steep and has dense vegetation. Residential neighborhoods surround the canyon ridgetops. Fire protection for Crestmoor Canyon is provided by the City of San Bruno Fire Department. The fire department also oversees brush clearance in Crestmoor Canyon to minimize the potential fire hazard.

Rollingwood and Crestmoor

Within the neighborhoods of Rollingwood and Crestmoor, to the north and south of Crestmoor Canyon, stands of eucalyptus exist in open space areas and tree reserves. These areas present fire hazards due to the size of the groves and density of the eucalyptus trees. Eucalyptus is a tree that burns well due to the oil contained in the leaves and the lack of protective bark. The City of San Bruno Fire Department provides fire protection for these stands and surrounding neighborhoods.

Junipero Serra

Junipero Serra County Park is a 108-acre, heavily wooded hill with steep topography and a mixture of native and non-native vegetation. This foothill park is adjacent to the Cities of San Bruno and Millbrae. The higher elevation vegetation is mainly eucalyptus trees, which limit underbrush growth due to the allelopathic (chemical inhibitors that restrict vegetative growth) effect of the fallen leaves. Fire protection is provided by the City of San Bruno Fire Department and other surrounding fire departments depending upon the County of San Mateo central dispatch system.

Peninsula Watershed

The Peninsula Watershed project site encompasses 23,000 acres of the San Francisco Peninsula, located in central San Mateo County. The Peninsula Watershed includes three primary reservoirs: San Andreas and Crystal Springs adjacent to I-280 in the east and Pilarcitos to the northwest. The City of San Bruno shares a border with the Peninsula Watershed along Skyline

Boulevard. In addition to its primary use for water collection and storage, the Peninsula Watershed serves as a State Fish and Game Refuge; recreation activities, including hiking, bicycling, walking, and golfing (at the Crystal Springs Golf Course) are also permitted in specified areas of the watershed.

Fire Response and History

Several large fires occurred within the Peninsula Watershed in the 50-year time period from 1877 to 1929. The last major fire occurred in 1946, and no large fires have been documented since that time. A few small fires occurred during the 1960s and 1970s, some of which were characterized as suspicious, related to illegal camping, or the result of fireworks. Historically, large fires have been concentrated in the northern portion of the watershed. The roads and highways that bisect and border the Peninsula Watershed have not been a major source of recorded ignitions. Instead, numerous episodes of fire ignitions have occurred off Sawyers Camp Road and Army Road. No threats to private homes have resulted from wildfires within the watershed (SFWD, 1996).

Water sources for fire suppression are meager. There are 13 hydrants on the watershed and seven water tanks scattered on the eastern portion of the watershed. However, fire suppression resources typically cannot access the tanks due to incompatible valves. CDF provides fire protection services for the Peninsula Watershed.

REGULATORY FRAMEWORK

Although impacts of the Redevelopment Plan would affect and potentially require the approval of other regulatory agencies, the area is under the jurisdiction of the City of San Bruno and is within the boundaries of San Mateo County. Management of Redevelopment Plan projects should consider development standards of the City of San Bruno and the San Mateo County concerning potential fire hazards. Information regarding the *City of San Bruno General Plan* and the *San Mateo County General Plan* policies is included for reference only.

City of San Bruno

The following policies are contained in the Open Space section of the City of San Bruno's 1984 General Plan:

Policy 6. Potential fire hazards shall be mitigated in high fire risk areas by proper siting, brush clearance, use of fire-resistive materials, landscaping with fire-resistive materials, installation of early warning systems (alarms and sprinklers), maintenance of adequate clearance around structures, and upgrading of fire hazardous structures.

Action 6-A. The Municipal Code shall be reviewed and amended as necessary to:

1) Require the installation of automatic sprinkler systems in all hotel, motel, and other overnight lodging facilities, in mixed commercial/residential uses, and in buildings of four or more units. The City shall consider requiring sprinklers for all residential uses when sprinkler systems become more economical.

2) Require the use of pressure-impregnated, fire-resistive shingles or shakes.

3) Require buildings of substandard construction to satisfy present code. Ensure that development has adequate access, clearance around and between structures, water supply and pressure, and that landscaping within 50 feet of all buildings is fire-resistive.

Action 6-B. The fire department shall be notified of the change of use of a structure when it involves public assembly, and require that a certificate of occupancy be required before such a change of use is permitted.

Action 6-C. The City shall continue to clear fire hazardous materials from Crestmoor Canyon that pose a threat to nearby residents. Care should be taken to prevent unnecessary harm to healthy vegetation.

Action 6-D. The City should identify buildings, particularly along San Mateo Avenue, that do not meet fire safety codes and encourage use of rehabilitation loans for their upgrading.

Action 6-E. The City shall revise the zoning ordinance to provide fire lanes in parking areas to allow emergency vehicle access to surrounding facilities.

Policy 7. The City's fire response system shall be maintained at a level adequate to meet the community's safety needs.

Action 7-A. The City shall upgrade the water distribution system as necessary to provide adequate water pressure to meet fire safety standards and to respond to emergency peak water supply needs.

San Mateo County

15.1.1 Minimizing Risks from Natural Hazards: Minimize the potential risks resulting from natural hazards, including but not limited to loss of life, injury, damage to property, litigation, high service and maintenance costs, and other social and economic dislocations.

15.29 Review Criteria for Locating Development Outside of Fire Hazard Areas: Insure that fire safety is adequately addressed in the review of new development proposed in unincorporated areas located outside of fire hazard areas through measures including but not limited to referral of proposals for development to appropriate fire protection agencies for conditions of approval.

15.34 Vegetative Clearance Around Structures:

a. Require clearance of flammable vegetation around structures as a condition of approval to new development in accordance with the requirements of the agency responsible for fire protection.
b. Conduct periodic inspections to ensure maintenance of required clearances.

15.35 Fire Retardant Vegetation: Encourage the use of fire retardant vegetation when reviewing new development proposals.

15.40 Support Efforts to Inventory and Abate Structures That are Fire Hazard Risks:

a. Support efforts to inventory and abate structures that do not meet existing fire codes and/or are vulnerable to damage from disastrous fire events.

b. Encourage repair, rehabilitation, or adaptive reuse of structures requiring abatement, rather than demolition.

15.41 Incorporate Fire Hazard Concerns During Review of Proposals for New Development: Incorporate fire hazard concerns into the review of proposals for new development through measures, including but not limited to: (1) regulation of land use and limitation of density, (2) review of access, water supply, and hydrant locations, (3) conformance to defined hazardous areas design criteria, and (4) conformance with established building code requirements.

Other Codes and Regulations

Public Resource Codes 4290 and 4291

The Peninsula Watershed is protected by the California Department of Forestry (CDF) and therefore must comply with the State Public Resource Code (PRC), Sections 4290 and 4291, which require management along structures and roadsides.

All flammable vegetation must be cleared for 30 feet around a structure, and the roof must be maintained free of dead vegetative material. Limbs overhanging roofs must be trimmed of dead material, and branches must be trimmed 10 feet from chimneys, which must have a screen.

Vegetation that is ignited easily (primarily grass) must be removed for a distance of 10 feet from each side of the road. While not a requirement, CDF encourages thinning of native vegetation and all dead material for an unspecified distance on both sides of roads.

PRC 4290 requires posting an address at each driveway entrance and specifies standards for sign size and style. PRC 4290 also includes specifications for any new installation of water supply and storage systems, hydrant/fire valves, and road design and signage.

Legal Issues

Because wildland fires have recently become a cause of litigation, the management of potential wildland fire areas is influenced by the issue of liability. Where fires start or pass through a parcel of land and cause damage elsewhere, it is not unusual for the landowner to be sued. The most common claim has been negligence, where the landowner knew of a hazard but did not mitigate the hazard. Thus, if significant damages from a wildfire are a possibility, landowners often take action to protect themselves from potential lawsuits.

IMPACTS AND MITIGATION MEASURES

APPROACH TO ANALYSIS

Redevelopment of the subareas was examined for the possibility of large-scale fires within or surrounding the City of San Bruno. This approach addressed both the possibility of wildland fires along the western boundary of the city, proximate to Subarea B, or the possibility of an urban or industrial fire in the commercial/residential areas of Subarea A.

SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* (revised October 26, 1998) states that a project would normally result in a significant fire hazard if it would expose people or structures to a significant risk of loss, injury, or death involving wildland fires, both in areas where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

PROJECT OPERATIONS AND CUMULATIVE IMPACTS

Impact I.2.1: Redevelopment of Subarea A could improve the fire preparedness of the City of San Bruno and reduce the fire hazard potential for urban fires in this high-density area. (Beneficial)

Widening of streets, improvements to existing structures, and the building of up-to-date structures with proper fire codes would reduce the potential for a large-scale, multiple-structure fire in the industrial/commercial zone of San Bruno. Redevelopment could also reduce the amount of industrial chemical use in the area, thereby reducing the potential for a large-scale chemical fire.

Mitigation: None required.

Impact I.2.2: Redevelopment of Subarea B could have an effect on the potential fire hazard at Crestmoor Canyon, the eucalyptus stands in Rollingwood and Crestmoor neighborhoods, Junipero Serra, or the Peninsula Watershed. (Not Significant)

Improvements or development of areas in Subarea B would not increase the threat of a wildland fire nor reduce fire preparedness. Redevelopment of Subarea B would not affect the potential fire hazard for these areas due to their distance from Subarea B.

Mitigation: None required.

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J. AIRPORT SAFETY

SETTING

San Francisco International Airport (SFIA) is located adjacent to San Bruno and east of U.S. 101. SFIA has a total of four runways, of which two are east-west runways (10R-28L and 10L-28R) and two are north-south runways (1L-19R and 1R-19L). Figure III.J.1 shows the SFIA runway configuration, generalized flight tracks, and the percentage use by each track. Because all aircraft do not follow a single, specific path in the sky, the tracks shown in Figure III.J.1 should be considered centerlines of flight paths for aircraft arrivals and departures from SFIA. Approximately 90 percent of the arrivals at SFIA occur on Runways 10R-28L and 10L-28R, with approaches over San Francisco Bay. In addition, approximately 70 percent of the departures occur over the Bay from Runways 1L-19R and 1R-19L (FAA, 1998). Portions of San Bruno are situated beneath flight tracks for arrivals and departures on runways 10R-28L and 10L-28R. Arrivals on these runways occur less than 1 percent of the time, while departures occur approximately 16 percent of the time (FAA, 1998).

REGULATORY ENVIRONMENT

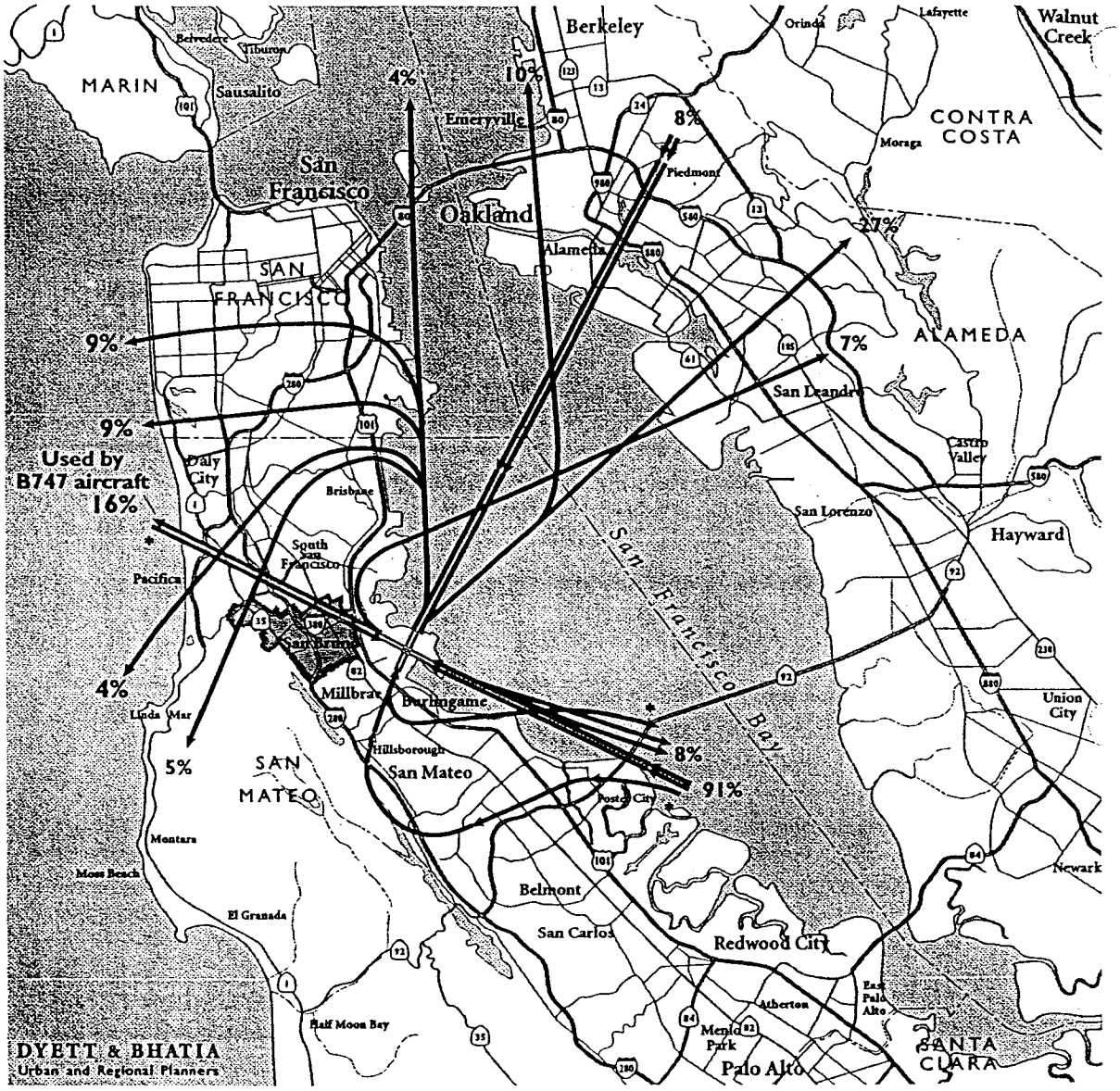
Federal

Federal Aviation Administration

The Federal Aviation Administration (FAA) is the agency of the U.S. Department of Transportation that is charged with (1) regulating air commerce to promote its safety and development; (2) achieving the efficient use of navigable airspace of the United States; (3) promoting, encouraging, and developing civil aviation; (4) developing and operating a common system of air traffic control and air navigation for both civilian and military aircraft; and (5) promoting the development of a national system of airports. As part of its mission, the FAA has established runway protection zones (RPZ), object free areas (OFA), and Federal Aviation Regulation (FAR) Part 77 obstruction criteria.

The RPZ is a ground-level, trapezoidal-shaped area where the placement of obstacles or hazards in the path of landing aircraft is prohibited. The OFA is a rectangular-shaped area at the physical end of each runway designed for safety purposes to ensure that stationary objects are not placed within proximity of the runway.

The FAR Part 77 obstruction clearance criteria are imaginary surfaces that extend outward from the end of a runway and define maximum heights of structures that cannot be exceeded in the airport vicinity without creating a hazard to aircraft navigation. Generally speaking, the FAR Part 77 criteria limit the location and height of structures both on and off airport property. These criteria are intended to prevent buildings and other objects from penetrating the airspace required to effect safe aircraft takeoffs and departures.



→ Flight Corridor

Arrows are representative of flight corridors that are up to several miles wide and encompass a greater area than shown by these lines and arrows. Actual aircraft are more widely dispersed than shown.

Percentages shown represent average annual use of the tracks by departing air carrier aircraft (except B747's) during the daytime. Actual use of a track on a particular day depends on what runways are being used.

* Used by fewer than 1% of arriving or departing aircraft.

Source: FAA, 1998

0 4 8
MILES

City of San Bruno Redevelopment Project Area - Figure III.J.1

San Francisco International Airport Flight Patl.

Facilities at airports, including SFIA, are subject to and must comply with the above-described FAA protection areas. The RPZs for each of SFIA's runways are almost entirely on airport property and do not extend into San Bruno. The imaginary surfaces defined by FAR Part 77 include "primary surfaces" (which encompass the runway), "horizontal surfaces," "approach surfaces," "transitional surfaces," and "conical surfaces." Some of these surfaces extend beyond the boundaries of SFIA, over the Cities of Burlingame, Millbrae, San Bruno, and South San Francisco. The FAR Part 77 surfaces extend from the landing thresholds of the runways at SFIA at a ratio of 50:1, which means the height of the imaginary surface rises 1 foot for every 50 feet of distance from the end of the runway. Figure III.J.2 shows the FAR Part 77 imaginary surfaces over Subarea A of the proposed Redevelopment Plan. Portions of Subarea A are within the "horizontal surface" and the "approach surface." Within the "horizontal surface" area, the height of objects cannot exceed 161 feet above mean sea level (AMSL). The permissible building height is the difference between the height of the horizontal plane and the ground elevation AMSL.

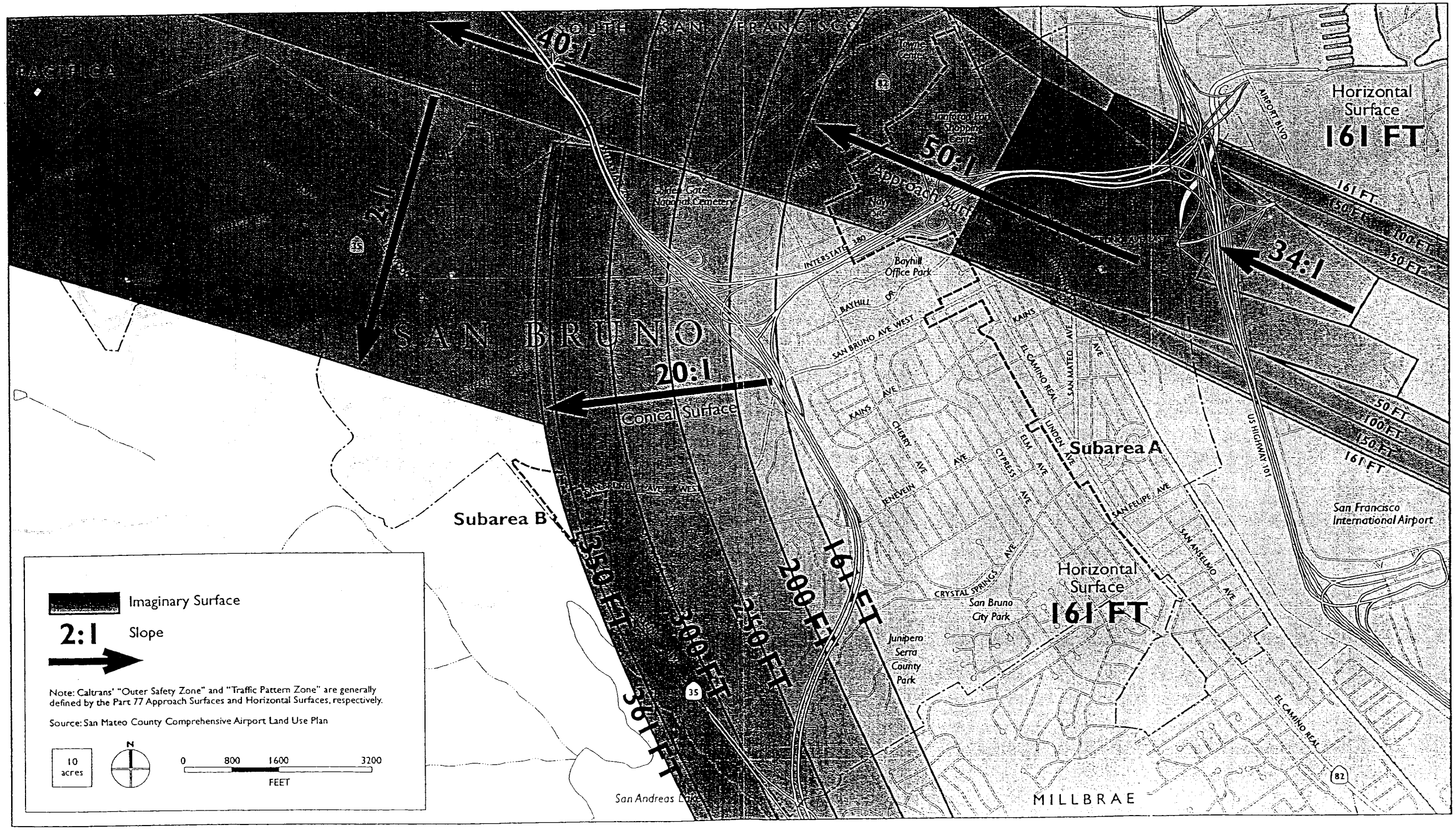
The FAA does not have approval authority over the proposed Redevelopment Plan; however, it does have control over SFIA operations that may be affected or limited by development in surrounding communities.

State

Caltrans, Division of Aeronautics

In 1990, Assembly Bill 1464 was passed authorizing the California Department of Transportation (Caltrans) Division of Aeronautics to establish an Airport Land Use Commission (ALUC) in each county that has one or more airports served by a scheduled airline or one or more airports used by the general public. The commissions were directed to develop comprehensive airport land use plans. Caltrans prepared the *Airport Land Use Planning Handbook* (Handbook) as a tool for ALUCs to use in considering airport planning matters. The primary intent of the Handbook is to identify airport and land use compatibility concepts and issues (Caltrans, 1993).

Pursuant to CEQA Section 21096, portions of Subarea A of the proposed Redevelopment Plan are within an area that warrants analysis using the Caltrans guidelines. In Chapter 9, Safety Compatibility Policy Issues, the Handbook suggests guidelines for use by the ALUCs in promoting compatibility between airports and surrounding land uses. These guidelines define height limitations and land use restrictions according to zones. Like the FAR Part 77 surfaces, the Handbook zones extend outward from the immediate area of the runway ("the Inner Safety Zone") to the "Traffic Pattern Zone," the limits of which "could generally be defined by the FAR Part 77 horizontal surface" (Caltrans, 1993). The "Outer Safety Zone" is an extension of the inner safety zone, "suggested to consist of either the FAR Part 77 approach zone or an equivalent rectangular area, modified as necessary to follow major flight tracks." Portions of Subarea A are located within the "Outer Safety Zone" and the "Traffic Pattern Zone" for SFIA. Table III.J.1 presents the Handbook guidelines for land uses within these zones. These guidelines are "recommendations and suggestions for consideration by individual airport land use commissions, counties, and cities" and are not regulations, policies, or standards (Caltrans, 1993).



DYETT & BHATIA
Urban and Regional Planners

City of San Bruno Redevelopment Project Area - Figure III.J.2

FAR Part 77 Imaginary Surfaces

TABLE III.J.1
GUIDELINES FOR LAND USES WITHIN THE TRAFFIC PATTERN AND OUTER SAFETY ZONES OF SFIA

Land Use Category	Outer Safety Zone	Traffic Pattern Zone
Density of Use	The types of land uses that represent concerns within Outer Safety Zones are similar to those in the Inner Safety Zones, but somewhat higher densities of use can be considered acceptable. For example, whereas shopping centers and multi-story office buildings are unacceptable close to the runway, small shopping centers and two-story offices are reasonable within the Outer Safety Zone. Concentrations of people should be limited to no more than 60 to 100 per acre.	Only very large assemblies of people – in the 150 or more persons per acre range – need to be avoided.
Residential Land Uses	Typical subdivision-density residential development should continue to be avoided in this zone. Rural residential uses with lot sizes in the 2- to 5-acre range can be considered acceptable.	In small communities, typical residential subdivision densities of four to six dwelling units per acre are acceptable from a safety perspective. In urban areas, even higher densities may be reasonable, especially if development is clustered to provide open space, as discussed below.
Special Functions	Most special land use functions, particularly schools, hospitals, and so on, should be avoided in the outer safety zone.	Schools, hospitals, and nursing homes should be avoided in traffic pattern zones unless no other feasible alternatives are available.
Open Space	Approximately 25 to 30 percent usable open space should be maintained within the 500-foot-wide strip along the extended runway centerline, and 10 to 15 percent overall.	Elsewhere within the airport environment, 10 to 15 percent usable open space or an open area approximately every ¼ to ½ mile should be provided.

SOURCE: Caltrans, *Airport Land Use Planning* Handbook, 1993.

Local

Airport Land Use Commission

In San Mateo County, the City/County Association of Governments of San Mateo County (C/CAG) is the designated ALUC. According to state law, ALUCs are authorized to: (1) specify how land near airports is to be used, based on safety and aircraft noise considerations; (2) develop height restrictions for proposed construction; and (3) set construction standards for buildings near airports, including soundproofing requirements. The ALUCs, however, are not given authority over airport operations (C/CAG, 1996).

C/CAG published and adopted the most recent *San Mateo County Comprehensive Airport Land Use Plan* (San Mateo County CLUP) in 1996. The purpose of the San Mateo County CLUP is to provide for the orderly growth of SFIA and its surrounding areas. Like Caltrans' Handbook, the San Mateo County CLUP establishes airport/land use compatibility policies based on the following areas of primary concern:

- Aircraft Noise Impact Reduction – reduce the exposure of persons to noise impacts from airport and aircraft operations.
- Safety of Persons on the Ground and in Aircraft in Flight – minimize the number of persons exposed to hazards related to aircraft operations and accidents.
- Height Restrictions/Airspace Protection – protect the navigable airspace around airports for the safe and efficient operation of aircraft in flight.

Airport planning boundaries define where height, noise, and safety standards, policies, and criteria are applied to certain proposed land use policy actions. ALUC height standards for determining obstructions to air navigation are defined in FAR Part 77, Objects Affecting Navigable Airspace. Airport noise levels are governed by California Administrative Code, Title 21, Subchapter 6, Noise Standards (C/CAG, 1996). The San Mateo County CLUP establishes the 65 dBA CNEL[1] noise contour as the noise impact boundary for SFIA and establishes noise compatibility standards for various land uses. (Noise compatibility issues are addressed in detail in Section III.L, Noise.)

The primary objective of the ALUC's safety compatibility guidelines is to minimize the risks associated with potential aircraft accidents. There are two components to this objective:

- Safety on the Ground -- to provide for the safety of persons and property on the ground in the event of an aircraft accident near an airport.
- Safety of Aircraft Occupants -- to enhance the chances of the survival of the occupants of an aircraft involved in an accident that takes place beyond the immediate runway.

Generally speaking, the ALUC's main policy is to keep immediate approach zones free of structures. Certain types of land uses are recognized by the ALUC as hazards to air navigation in the vicinity of SFIA. These include:

- any use that would direct a steady or flashing light of white, red, green, or amber color toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing, other than an FAA-approved navigational signal light or visual approach landing;

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1 L_{eq}, the energy-equivalent noise level (or "average" noise level), is the equivalent steady-state continuous noise level which, in a stated period of time, contains the same acoustic energy as the time-varying sound level that actually occurs during the same period. L_{dn}, the day-night average noise level, is a weighted 24-hour noise level. With the L_{dn} descriptor, noise levels between 10:00 p.m. and 7:00 a.m. are adjusted upward by 10-dBA to take into account the greater annoyance of nighttime noise as compared to daytime noise. CNEL, the community noise equivalent level, is similar to L_{dn}, but an additional five dBA "penalty" is added to evening noise (7:00 p.m. to 10:00 p.m.). L_{dn} and CNEL are considered equivalent for most planning purposes. See Section III.L, Noise for a more detailed discussion of noise descriptors and principles.

- any use that would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing;
- any use that would generate smoke or rising columns of air;
- any use that would attract large concentrations of birds within approach-climbout areas;
- any use that would generate electrical interference that may interfere with aircraft communications or aircraft instrumentation.

Unlike Caltrans' Handbook, the San Mateo County CLUP does not establish specific land use restrictions beyond those listed above.

According to the San Mateo County CLUP, a proposed land use policy action must be compatible with the above-described height and land use requirements for the ALUC to determine that the proposed action is consistent with relevant policies, standards, and/or other criteria contained in the San Mateo County CLUP (C/CAG, 1996). Pursuant to Public Utilities Code Section 21676, all city and county general plans and other local land use and building regulations must be made consistent with the adopted airport land use plan, unless the city or county legislative body votes by two-thirds majority to overrule the airport plan and makes specific findings to justify not amending their regulations and general plans.

PLAN CONSISTENCY

As described above, consideration of the consistency of the proposed Redevelopment Plan with applicable airport land use plans is required under CEQA Section 21096. The height restrictions defined in the San Mateo County CLUP are consistent with those defined in Caltrans' Handbook, which reflect the FAR Part 77 surfaces shown in Figure III.J.2, whereas the land use restrictions differ among these plans and regulations.

Specific building heights under the proposed Redevelopment Plan have yet to be determined; thus, consistency with building height limitations shown in Figure III.J.2 is unknown.[2] The maximum height of the proposed buildings is assumed to be six stories; however, signature buildings could be as high as ten stories. Assuming an average story height of 12 feet, buildings could be approximately 72 to 120 feet plus the height of any additional roof structures. The airport is at 11 feet above mean sea level (AMSL); San Bruno slopes upwards to the west. Based on U.S. Geological Survey topographic maps, the elevations of the major development sites within Subarea A are as follows: the Tanforan Park Shopping Center is between 25 and 45 feet AMSL; the Navy and Navy Reserve sites are between 50 and 75 feet AMSL; the lumberyard site is at approximately 25 feet AMSL; the Pacific Bell Building site is between 50 and 100 feet AMSL; the Camino Plaza site is at approximately 50 feet AMSL; and the site at San Felipe and Huntington Avenues is at approximately 25 feet AMSL. At its closest point, the Tanforan Park Shopping Center is approximately 1.3 miles from Runway 10L-28R.

[2] It should be noted that the City's General Plan and Zoning Ordinance set a height limit of approximately three stories or from 50 to 165 feet above mean sea level, unless otherwise approved by ballot measure.

The majority of the Tanforan Park Shopping Center and the Navy and Navy Reserve site are within the "approach surface," which has a 40:1 height restriction; only the most southeastern corner of Tanforan Park Shopping Center falls within the 50:1 height restricted area. Based on the distance from SFIA runways, development assumed as part of the Redevelopment Plan on these sites would be consistent with the FAR Part 77 surfaces. Based on the elevation of the Pac Bell site and its location within the "horizontal surface," assumed development of the site could conflict with the imaginary surfaces defined in FAR Part 77 and adopted in the San Mateo County CLUP.

Land use restrictions differ in the San Mateo County CLUP and the Handbook. The Handbook places restrictions on land uses in terms of density of use, residential land uses, special functions, and open space requirements, and the limitations are more stringent than those adopted in the San Mateo County CLUP. Some of the land use restrictions described in the Handbook may not be appropriate or practical in urbanized areas such as San Bruno. Provided none of the land uses in the Redevelopment Plan "would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing," the proposed project would be considered consistent with the San Mateo County CLUP land use restrictions. Proposed land uses on the Tanforan, Navy, and Navy Reserve sites appear to conflict with the density of use and residential land use restrictions specified in the Handbook.

AIRCRAFT ACCIDENTS AT SFIA

The National Transportation Safety Board (NTSB) compiles aviation accident statistics for U.S. carriers. According to NTSB records, 11 aircraft incidents have occurred at SFIA since 1983, of which seven were classified as accidents. Three of the incidents occurred in 1983, three in 1984, and one in each of 1986, 1992, 1993, 1996, and 1997. Four of the 11 incidents occurred during aircraft parking. Three of the accidents resulted in injuries. The aircraft accident in 1984 involved a Lear LR-24 that crashed during its descent, resulting in three fatalities. A helicopter accident in 1993, probably related to variable wind conditions, resulted in one fatality and one serious injury. A taxiing accident in 1993 resulted in a fractured shoulder for an aircraft crew member (NTSB, 1999). Each of these incidents occurred within airport boundaries and did not affect property and residences in surrounding jurisdictions.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Based on the revised *CEQA Guidelines*, a project would have a significant effect if it would result in a safety hazard for persons residing or working in a project site located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport (Governor's Office of Planning and Research, 1998).

Impact J.1: The proposed Redevelopment Plan would expose residents and occupants of project facilities within Subarea A to a negligible level of risk associated with possible aircraft accidents at SFIA. (Significant)

Accident records for SFIA show that off-airport accidents have not occurred in recent history. The risk of an aircraft accident in the Project Area is low. Accident rates for all types of aviation in the U.S. have declined in recent decades. As of 1997, the total National Airspace System accident rate per 100,000 flight hours was 4.64. About 93 percent of the total of 2,001 aviation accidents in 1997 occurred in the General Aviation segment (1,854 accidents) (FAA, 1999). The great majority of aircraft accidents occur during departure or arrival, and on or immediately adjacent to the runway (Caltrans, 1993). For this reason, onboard injuries and fatalities are far more common than fatalities or injuries to persons on the ground. Thus, the risk to residents and occupants of the proposed Project Area over the life of the project is assumed to be negligible.

Implementation of the proposed Redevelopment Plan would not cause the rate of aircraft accidents at SFIA to increase, and there is no evidence to suggest that the projected increases in aircraft operations at SFIA would affect accident rates. The Redevelopment Plan, however, would increase the overall number of residents and property exposed to an aircraft accident, should one occur.

Although the proposed Plan would not affect the potential for aircraft accidents to occur, the fact that it would expose a greater number of persons to risk would be considered an adverse impact. Implementation of the following measures would render the project consistent with the height restrictions and safety guidelines defined in the San Mateo County CLUP.

Mitigation Measure J.1.a: All building heights and associated roof structures proposed as part of the Redevelopment Plan will be made consistent with the height limitations defined by FAR Part 77. (Identified in This Report)

Mitigation Measure J.1.b: Any use that would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing will be prohibited. (Identified in This Report)

Significance after Mitigation: Less than Significant.

REFERENCES – Airport Safety

(All printed references are available at the San Bruno Planning and Building Department, City Hall, 567 El Camino Real, San Bruno, unless otherwise noted. Internet resources at the Internet locations noted.)

Caltrans, Division of Aeronautics, *Airport Land Use Planning* Handbook, December 1993.

City/County Association of Governments of San Mateo County (C/CAG), *San Mateo County Comprehensive Airport Land Use Plan*, December 1996.

Federal Aviation Administration (FAA), *Airport Master Plan Improvements, Final Environmental Assessment, Volume 1*, October 1998.

Federal Aviation Administration (FAA), http://nasdac.faa.gov/safety_handbook/exec_sum.htm, February 1, 1999.

Governor's Office of Planning and Research, *CEQA Guidelines*, October 26, 1998.

National Transportation Safety Board (NTSB), http://nasdac.faa.gov/asp/asy_ntsb.asp, January 28, 1999.

K. AIR QUALITY

SETTING

CLIMATE AND METEOROLOGY

Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. The San Francisco Bay Area climate is Mediterranean in character, with mild, rainy winter weather from November through March, and warm, dry weather from June through September. During the summer, dry and subsiding air, associated with high-pressure off the California coast, acts as a cap over the cooler marine air near the surface. These subsidence inversions often persist for several days due to their thickness and strength. During the winter, when the Pacific high-pressure system has retreated southward, subsidence inversions are less common and less persistent than during the summer. During the winter, however, surface inversions caused by radiant cooling of land surface rather than subsiding air are much more frequent than during the rest of the year. Surface inversions typically develop overnight and, while severely restricting vertical dispersion of emissions released at ground level, generally dissipate by afternoon.

San Bruno lies in the northern portion of the Bay Area's peninsula climatological subregion (BAAQMD, 1996). The peninsula subregion extends from northwest San Jose to the Golden Gate. The Santa Cruz Mountains extend up the center of the peninsula, with elevations exceeding 2,000 feet at the southern end, decreasing to approximately 500 feet in South San Francisco. Two important gaps in the Santa Cruz Mountains occur on the peninsula. The larger of the two is the San Bruno Gap, extending from Fort Funston on the ocean to the San Francisco International Airport (SFIA). Because the gap is oriented in the same northwest-to-southeast direction as the prevailing winds, and because the elevations along the gap are under 200 feet, marine air is easily able to flow through the gap in the direction of the San Francisco Bay. The other gap is the Crystal Springs Gap, between Half Moon Bay and San Carlos.

Annual average wind speeds range from 5 to 10 miles per hour throughout the peninsula, with higher wind speeds usually found along the coast. However, winds on the eastern side of the peninsula are often high in certain areas, such as near the San Bruno Gap and the Crystal Springs Gap. Within the peninsula subregion, air pollution potential is highest along the southeastern portions (i.e., in the Redwood City vicinity), which is the area that is most protected from the high winds and fog of the marine layer and that receives the most pollution transported from upwind urban areas. At the northern end of the peninsula, such as the San Bruno area, pollutant emissions are high, especially from motor vehicle congestion, but winds are generally strong enough to carry the pollutants away from where they can accumulate (BAAQMD, 1996).

REGULATORY CONTEXT

Regulation of air pollution is achieved through both national and state ambient air quality standards and emission limits for individual sources of air pollutants. Air pollutants that have public health effects are placed in two categories for regulatory purposes: "criteria air pollutants" and "toxic air contaminants." The term "criteria air pollutants" refers to those air pollutants that are most pervasive in urban environments and for which state and national ambient air quality standards have been established. The term "toxic air contaminants" refers to those pollutants that occur at relatively low concentrations and are associated with carcinogenic or other adverse health effects, but for which no ambient air quality standards have been established.

Criteria Air Pollutants

The federal Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to identify National Ambient Air Quality Standards (national standards) to protect public health and welfare. Currently, the EPA has established national standards for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter (PM-10 and PM-2.5), and lead.[1] These compounds are referred to as "criteria air pollutants." California has adopted more stringent air quality standards for some pollutants for which there are no corresponding national standards. Table III.K.1 presents both national and state ambient air quality standards.

Under the amendments to the federal Clean Air Act, the EPA has classified air basins, or portions thereof, as either "attainment" or nonattainment" for each criteria air pollutant, based on whether or not the national standards have been achieved.[2] In 1988, the state legislature passed the California Clean Air Act, which is patterned after the federal Clean Air Act to the extent that it also requires areas to be designated as "attainment" or "nonattainment," but with respect to the state standards rather than the national standards.

San Bruno lies within the urbanized area of San Mateo County, a subregion within the nine-county San Francisco Bay Area Air Basin (Bay Area). Table III.K.2 summarizes the current attainment/nonattainment designations for the Bay Area, summarizes regionwide monitoring data relative to ambient standards for the "nonattainment" pollutants, and presents the relative (percent) contributions to regional emissions from the primary source categories.

As shown in Table III.K.2, the Bay Area is considered "attainment" or "unclassified" for all of the national standards except ozone, but is "nonattainment" for the state standards for ozone and PM-10. "Unclassified" is defined by the Clean Air Act amendments as any area that cannot be classified, on the basis of available information, as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant. It should be noted that, with respect

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1 Based on numerous epidemological studies and other health- and engineering-related information, in 1997 the EPA decided to maintain current PM-10 standards and establish new standards for fine particulate matter (PM-2.5).

2 Since monitoring for PM-2.5 began in 1998, air basins will not be classified with respect to the new national PM-2.5 standard until 2000 or later.

TABLE III.K.1
STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	State of California[a,c]	National[b,c]
Ozone[d]	1 hour	0.09 ppm (180 $\mu g/m^3$)	0.12 ppm (235 $\mu g/m^3$)
	8 hour	NA	0.08 ppm (160 $\mu g/m^3$)
Carbon Monoxide	1 hour	20 ppm (23,000 $\mu g/m^3$)	35 ppm (40,000 $\mu g/m^3$)
	8 hour	9.0 ppm (10,000 $\mu g/m^3$)	9 ppm (10,000 $\mu g/m^3$)
Nitrogen Dioxide	1 hour	0.25 ppm (470 $\mu g/m^3$)	NA
	Annual	NA	0.053 ppm (100 $\mu g/m^3$)
Sulfur Dioxide	1 hour	0.25 ppm (655 $\mu g/m^3$)	NA
	3 hour	NA	0.5 ppm (1,300 $\mu g/m^3$)
	24 hour	0.04 ppm (105 $\mu g/m^3$)	0.14 ppm (365 $\mu g/m^3$)
	Annual	NA	0.03 ppm (80 $\mu g/m^3$)
Particulate Matter (PM-10)	24 hour	50 $\mu g/m^3$	150 $\mu g/ m^3$
	Annual	30 $\mu g/m^3$	50 $\mu g/ m^3$
Particulate Matter (PM-2.5)[d]	24 hour	NA	65 $\mu g/ m^3$
	Annual	NA	15 $\mu g/ m^3$
Sulfates	24 hour	25 $\mu g/m^3$	NA
Lead	30 day	1.5 $\mu g/m^3$	NA
	Calendar Quarter	NA	1.5 $\mu g/m^3$
Hydrogen Sulfide	1 hour	0.03 ppm (42 $\mu g/m^3$)	NA
Vinyl Chloride	24 hour	0.010 ppm (26 $\mu g/m^3$)	NA

a California standards for ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, and particulate matter (PM-10) are values that are not to be exceeded. All other California standards shown are values not to be equaled or exceeded.

b National standards, other than for ozone and particulate matter and those based on annual averages, are not to be exceeded more than once per year. For the 1-hour ozone standard, the ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than "1". The 8-hour ozone standard is met at a monitoring site when the three-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration is less than or equal to 0.08 ppm.

c ppm = parts per million by volume; $\mu g/m^3$ = micrograms per cubic meter.

d New standards effective September 16, 1997 (40 CFR 50.7 and 40 CFR 50.10).

NA: Not Applicable.

SOURCE: California Air Resources Board, *Maps and Tables of the Area Designations for the State and National Ambient Air Quality Standards and Expected Peak Day Concentrations and Designation Values*, January 1998.

TABLE III.K.2
SAN FRANCISCO BAY AREA AIR BASIN AIR QUALITY SUMMARY

Attainment/Nonattainment Designations

Pollutant	Applicable Area	National	State
Ozone	Region-wide	Nonattainment	Nonattainment
Carbon Monoxide	Urbanized Areas	Attainment	Attainment
	Remainder of Air Basin	Attainment	Attainment
Nitrogen Dioxide	Regionwide	Attainment	Attainment
Sulfur Dioxide	Regionwide	Attainment	Attainment
Particulate Matter (PM-10)	Regionwide	Unclassified	Nonattainment

Summary of Regionwide Ambient Monitoring Data

	Days over National Standard			
Pollutant	1994	1995	1996	1997
Ozone	2	11	8	0
Particulate Matter (PM-10)[a]	0/91	0/89	0/88	0/61

	Days over State Standard			
Pollutant	1994	1995	1996	1997
Ozone	13	28	34	8
Particulate Matter (PM-10)[a]	10/91	7/89	3/88	4/61

Percent Contribution by Source Category

	Percentage of Basin Inventory		
	Ozone Precursors[b]		Particulate
Source Category	ROG	NO_x	Matter (PM-10)
Stationary and Area Sources	38	24	89
On-Road Motor Vehicles	52	58	5
Other Mobile Sources	9	19	4
Natural Sources	< 1	0	< 1
Total[c]	100	100	100

a PM-10 measurements are not taken every day. The table shows the number of days during which PM-10 concentrations exceeded the standard at one or more of the monitoring stations in the air basin and the number of days annually during which PM-10 measurements were recorded.

b Ozone is not emitted directly to the atmosphere but is a secondary pollutant resulting from photochemical reactions involving two pollutants, reactive organic gases (ROG) and nitrogen oxides (NO_x) that are emitted directly by emissions sources. ROG and NO_x are referred to as ozone precursors.

c Totals may not sum due to rounding.

SOURCES: California Air Resources Board, *Maps and Tables of the Area Designations for the State and National Ambient Air Quality Standards and Expected Peak Day Concentrations and Designation Values*, January 1998; California Air Resources Board, *California Air Quality Data Summaries*, 1993-1996; Bay Area Air Quality Management District, *Contaminant & Weather Summary*, January through December 1997a; and California Air Resources Board, *1995 Emission Inventory*, 1997.

to ozone, the EPA had (in 1995) approved the Bay Area Air Quality Management District's (BAAQMD's) request to change the Bay Area's designation to "attainment" for the national standard based on monitoring data that indicated the Bay Area had achieved the national standard. However, the EPA recently announced its final decision to reclassify the entire Bay Area as "nonattainment" for ozone based on monitored violations in 1995 and 1996.

Both the federal Clean Air Act and the California Clean Air Act require nonattainment areas to prepare plans that include strategies for achieving attainment. To satisfy early federal Clean Air Act requirements, an air quality plan for the Bay Area was adopted in 1982 to achieve attainment of the national standards for ozone and carbon monoxide. This plan was intended to bring the Bay Area into compliance with the national standards by 1987 and was used to prepare the federally required State Implementation Plan (SIP). Under the federal Clean Air Act Amendments of 1990, SIPs were required to be revised to meet new requirements for those areas, like the Bay Area, that did not meet the 1987 deadline.

With respect to ozone, a SIP revision for the Bay Area was prepared pursuant to the federal Clean Air Act Amendments of 1990. This ozone SIP, the *Ozone Maintenance Plan*, was developed for the Bay Area in anticipation of a change in designation to "attainment." As described above, the EPA had approved the BAAQMD's request to change the Bay Area's designation to "attainment" for the national standard for ozone in 1995. At the same time, the EPA also approved the *Ozone Maintenance Plan*, which then became part of the current ozone SIP for the Bay Area. However, the EPA's recent decision to reclassify the entire Bay Area as "nonattainment" for ozone means that a revised SIP will be required. The new SIP, called the '99 SIP, will show how the Bay Area will re-establish attainment in the future. The '99 SIP must take into account the meteorological conditions and ambient concentrations experienced in the Bay Area in 1995 and 1996 and demonstrate how the national standard for ozone will be met by the attainment deadline of November 15, 2000 (BAAQMD, 1998).

With respect to carbon monoxide, the EPA recently approved the Bay Area's *Carbon Monoxide Maintenance Plan*, which is the new carbon monoxide SIP for the Bay Area.

Under the California Clean Air Act, areas designated as "nonattainment" for the state standards were required to develop air quality plans in addition to those required under federal laws. In 1991, an air quality plan, the *Bay Area '91 Clean Air Plan* (*'91 Clean Air Plan*), was developed to address the Bay Area's (then) designation of "nonattainment" for the state ozone and carbon monoxide standards.[3] The goal of the *'91 Clean Air Plan* was to improve air quality in the 1990s through tighter industry controls, cleaner cars and trucks, cleaner fuels, and increased commuter alternatives. The *'91 Clean Air Plan* has been updated on a triennial basis. The most recent update is the *'97 Clean Air Plan*, which contains additional stationary, mobile source, and transportation control measures (BAAQMD, 1997b). The primary goals of the *'97 Clean Air Plan* are to reduce health impacts from ozone and to comply with the California Clean Air Act in terms of the Bay Area's ozone attainment status. The control measures proposed in the *'97*

[3] Subsequent to the issuance of the *'91 Clean Air Plan*, the Bay Area achieved attainment status for carbon monoxide.

Clean Air Plan constitute all feasible measures for the reduction of ozone precursor emissions in the Bay Area. Additional ozone precursor reductions during the *'97 Clean Air Plan* planning period will be achieved through increasingly stringent state and federal programs affecting motor vehicles, fuel and other sources, and associated turnover of the motor vehicle fleet; more stringent regulations on polluting industries and businesses; reformulation of paints and consumer products to reduce volatile pollutant content; programs to reduce automobile use and traffic congestion; and efforts to maintain and improve public transit systems and to encourage development patterns that reduce automobile dependence (BAAQMD, 1997b).

Toxic Air Contaminants

Regulation of toxic air contaminants is achieved through federal and state controls on individual sources.[4] Toxic air contaminants are air pollutants with short-term (acute) and/or long-term (chronic or carcinogenic) adverse human health effects, for which no ambient air quality standards have been established. The 1990 amendments to the federal Clean Air Act offer a comprehensive plan for achieving significant reductions in both mobile- and stationary-source emissions of certain designated toxic air contaminants.

Locally, the BAAQMD administers the Bay Area's Toxic Air Contaminant Control Program, which is intended to reduce public exposure to toxic air contaminants from stationary sources in the Bay Area. BAAQMD is currently working to control toxic air contaminant impacts through local "hot spots" and to reduce toxic air contaminant background concentrations. The control strategy involves reviewing new stationary sources to ensure compliance with required emissions controls and limits, maintaining an inventory of existing stationary sources of toxic air contaminants, and developing new rules and regulations to reduce toxic air contaminant emissions.

Regulation of toxic air contaminants from mobile sources has traditionally been implemented through establishment of emissions standards for on-road motor vehicles (imposed on vehicle manufacturers) and through specifications for gasoline and diesel fuel sold in California (imposed on fuel refineries and retailers), rather than through land use decisions, air quality permits, or regulations addressing how motor vehicles are used by the general public.

Regulatory Agencies

The EPA sets the above-described national standards for criteria air pollutants and oversees implementation of federal requirements by state air quality agencies. California's air quality management agency, the California Air Resources Board (CARB), regulates most types of mobile emissions sources and oversees the activities of regional/county air districts. CARB is responsible for establishing emissions standards for on-road motor vehicles sold in California. Emissions standards for on-road motor vehicles were developed primarily as a means to reduce emissions of carbon monoxide and ozone precursors (such as reactive organic gases, ROG), but

[4] Federal environmental laws refer to "hazardous air pollutants," while California environmental laws refer to "toxic air contaminants." Both of these terms basically encompass the same constituent toxic compounds.

by reducing such emissions, such standards also serve to reduce toxic air contaminants. (ROG emissions include both toxic and nontoxic constituents.)

The BAAQMD is the agency empowered to regulate stationary sources of air pollutant emissions in the Bay Area. BAAQMD is responsible for implementing emissions standards and other requirements of federal and state laws; it controls stationary-source emissions by issuing air quality permits that require the implementation of Best Available Control Technology (BACT) if specified trigger levels are exceeded. Also, for stationary sources, BAAQMD requires Toxics-BACT (T-BACT) if screening thresholds for toxic air contaminants are exceeded.

San Bruno General Plan

The San Bruno General Plan identifies that the city's air quality is most adversely affected by automobile use (City of San Bruno, 1984). The General Plan stresses the need for the City to comply with BAAQMD plans. In order to do so, the General Plan includes recommended air quality mitigation measures for projects proposed within the city. These measures include:

- *Alternative Transportation Modes* to support transit services to Tanforan Park Shopping Center and Bayhill complex, encourage frequent accessible transit service where needed, and coordinate local and regional systems; and consider effect of parking requirements on transit use (i.e., provision of excess parking can counteract policies to minimize auto use);

- *Mixed Land Uses* to encourage mixed uses, such as residential, commercial, and office uses, within a single project to reduce vehicle trips; and

- *Compatible Land Uses,* favoring land use patterns that will reduce vehicle-miles traveled (e.g., locating residential uses near services, transit, shopping) where compatible. Minimize impact of localized air pollutants on sensitive land uses (hospitals, senior citizen housing, parks, etc.) with buffer areas and careful siting.

EXISTING AIR QUALITY CONDITIONS AND TRENDS

Criteria Air Pollutants

BAAQMD operates a regional network of air pollution monitoring stations that provide information on ambient concentrations of criteria air pollutants. None of these stations are located in San Bruno. The nearest station is located on Arkansas Street in San Francisco, roughly nine miles north of San Bruno. The next closest station to San Bruno is located in Redwood City, roughly 13 miles south of San Bruno. Table III.K.3 presents a five-year summary of air pollutant concentration monitoring data, collected at the Arkansas Street monitoring station.[5] In Table III.K.3, air pollutant concentrations are compared with the state standards, which are more stringent than the corresponding national standards.

[5] Based on isopleth maps, the monitored pollutant levels shown in Table III.K.3 are reasonably representative of conditions in San Bruno (ABAG and BAAQMD, 1994).

TABLE III.K.3
SAN FRANCISCO AIR POLLUTANT SUMMARY (1993–1997)

Pollutant	State Standard[c]	Monitoring Data by Year[a] 1993	1994	1995	1996	1997
Ozone (O_3):						
Highest 1-hr. average, ppm[b]	0.09	0.08	0.06	0.09	0.07	0.07
Number of exceedances[d]		0	0	0	0	0
Carbon Monoxide (CO):						
Highest 1-hr. average, ppm	20	7	6	5	5	ND
Number of exceedances		0	0	0	0	ND
Highest 8-hr. average, ppm	9.0	5.1	4.5	4.4	3.9	3.5
Number of exceedances		0	0	0	0	0
Nitrogen Dioxide (NO_2):						
Highest 1-hr. average, ppm	0.25	0.08	0.09	0.09	0.08	0.07
Number of exceedances		0	0	0	0	0
Sulfur Dioxide (SO_2):						
Highest 1-hr. average, ppm	0.25	0.04	0.02	0.04	0.04	ND
Number of exceedances		0	0	0	0	ND
Particulate Matter (PM-10):						
Highest 24-hr. average, $\mu g/m^3$	50	**69**	**93**	50	**71**	**81**
Exceedances/Samples[e]		5/61	6/61	0/61	2/61	3/61
Annual Geometric Mean, $\mu g/m^3$	30	25.1	24.7	22.1	21.4	22.5
Lead (Pb):						
Highest monthly average, $\mu g/m^3$	1.5	0.02	0.03	0.02	0.01	0.01
Number of exceedances[e]		0	0	0	0	0

a The data are from the Arkansas Street air quality monitoring station in San Francisco.
b ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.
c State standard, not to be exceeded.
d Except for ozone, "number of exceedences" refers to the number of measured violations in a given year of the applicable standard. For ozone, "number of exceedences" refers to the number of days in a given year during which at least one hour exceeded the standard.
e PM-10 and Pb is usually measured every sixth day (rather than continuously like the other pollutants). For PM-10, "exceedences/samples" indicates the number of exceedences of the state standard that occurred in a given year and the total number of samples that were taken that year.

NOTE: ND = No data available. Values shown in **bold** type exceed the applicable standard.

SOURCES: California Air Resources Board, *California Air Quality Data Summaries*, 1993-1996; Bay Area Air Quality Management District, *Contaminant & Weather Summary*, January through December 1997a.

The following discussion focuses on air quality trends with respect to ozone and PM-10, the "nonattainment" pollutants in the Bay Area.

Ozone

Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides (NO_x). ROG and NO_x are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursor presence for approximately three hours in a stable atmosphere with strong sunlight. Ozone is a regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production. Table III.K.2 shows that on-road motor vehicles are a major source of ozone precursors in the Bay Area.

Once formed, ozone can cause eye and respiratory irritation, reduce resistance to lung infection, and may aggravate pulmonary conditions in persons with lung disease. Ozone also can damage vegetation, fabrics, and untreated rubber. As shown in Table III.K.2, the state ambient air quality standard for ozone was violated an average of 21 days per year in the Bay Area over the past four years. The data in Table III.K.3 indicate that the violations did not occur in the vicinity of San Bruno; nevertheless, emissions generated within San Bruno could affect downwind areas where violations do occur. Between 1994-1996, peak ozone concentrations have declined by approximately 1 percent per year (BAAQMD, 1997b).

Suspended Particulate Matter (PM-10)

Suspended particulate matter (PM-10) consists of particulates 10 microns or less in diameter. These small particles can remain suspended in the air, are transported by winds, and can be inhaled and cause adverse health effects. Particulates in the atmosphere result from many kinds of dust- and fume-producing industrial and agricultural operations, construction, fugitive sources (such as roadway dust from paved and unpaved roads), and atmospheric photochemical reactions involving ROG and NO_x. Wintertime woodburning is also a major source of PM-10 emissions. Extended exposure to PM-10 can increase the risk of chronic respiratory disease (BAAQMD, 1996). The Bay Area experiences its highest PM-10 concentrations during winter months. Table III.K.3 shows that ambient PM-10 concentrations violated the state standard on occasion in San Francisco in four of the past five years. PM-10 concentrations in San Bruno are likely to be similar to those measured at the San Francisco monitoring station.

Air Quality Trends

The Bay Area's air quality is influenced largely by motor vehicle use. Automobile ownership and use is increasing at a faster rate than population growth; however, the trend towards a newer, cleaner vehicle mix will serve to counteract some of the negative air quality impacts associated with increased vehicle use. Overall, projections indicate a net reduction in the emissions of ozone precursors and carbon monoxide, while total PM-10 emissions are expected to increase in the future with total miles traveled within the region (BAAQMD, 1996).

Toxic Air Contaminants

The ambient background of toxic air contaminants is the combined result of many diverse human activities, including gasoline stations, automobiles, dry cleaners, industrial operations, hospital sterilizers, and painting operations. In general, mobile sources contribute more significantly to health risks than do stationary sources (BAAQMD, 1997c). The BAAQMD operates a network of monitoring stations that measure ambient concentrations of certain toxic air contaminants that are associated with strong health-related effects and are present in appreciable concentrations in the Bay Area, as in all urban areas. None of these stations are located in San Bruno; the closest station is located on Arkansas Street in San Francisco. Generally, ambient concentrations of toxic air contaminants are similar through the urbanized areas of the Bay Area. BAAQMD estimates that the average lifetime cancer risk from toxic air contaminants in the ambient air in the Bay Area (based on ambient air quality monitoring data for 1996) is 212 cases of cancer per million residents (down from 303 in 1 million based on 1995 data). Of the pollutants for which monitoring data are available, benzene and 1,3-butadiene (which are emitted primarily from motor vehicles) account for over one half of the average calculated cancer risk (BAAQMD, 1997c). Benzene levels declined dramatically in 1996 with the advent of Phase 2 reformulated gasoline. The use of reformulated gasoline also appears to have led to significant decreases in 1,3-butadiene.

EMISSIONS ASSOCIATED WITH SAN BRUNO

Criteria Air Pollutants

Land use development (including residential, industrial, and commercial) in San Bruno contributes to regional emissions and concentrations primarily through the generation of motor vehicle trips by autos, trucks, and buses. Emissions are also generated through operation of stationary sources associated with industrial and commercial operations and building energy use (e.g., boilers for space and water heating and electricity use). City vehicles and operations (e.g., street sweeping) also contribute to citywide emissions.

BAAQMD has compiled a list of "major emitting facilities" in the Bay Area (BAAQMD, 1993), which includes approximately 290 facilities that emitted more than 100 pounds per day of any criteria pollutant (or precursor) in 1990. None of these facilities are located in San Bruno.

Toxic Air Contaminants

BAAQMD maintains an inventory of stationary sources of toxic air contaminants in the Bay Area (BAAQMD, 1997c). Within San Bruno, seven such sources are listed, six of which are dry cleaners (which emit perchloroethylene). The remaining source is Arco Products Company on El Camino Real (which emits reportable quantities of benzene).

BAAQMD has also established specific public notification requirements for various levels of risk (Levels 1, 2, and 3). No Bay Area facilities are currently listed under Levels 2 or 3 (the highest levels of risk). Two facilities are listed at Level 1, indicating that the maximum cancer

risk attributable to each is greater than 10 in 1 million, but less than 100 in one million. Neither of these facilities are located in or near San Bruno (BAAQMD, 1997c).

Odors and Nuisances

BAAQMD receives citizen complaints regarding air pollutant emissions and maintains a record of these complaints. For San Bruno, there are two facilities that, due to the types of materials they handle, could generate nuisance odors that affect residents of the City. These include the San Bruno Transfer Station, located at 1721 Montgomery Avenue near Tanforan Avenue and the South San Francisco-San Bruno Wastewater Treatment Facility, located off of Belle Air Road in South San Francisco just north of SFIA and three-quarters of a mile east of the northeast corner of San Bruno. BAAQMD staff have indicated that no odor complaints have been filed for either facility in the past five years (Walker, 1998).

SENSITIVE LAND USES

Some persons are considered more sensitive than others to air pollutants. The reasons for heightened sensitivity may include health problems, proximity to the emissions source, and duration of exposure to air pollutants. Land uses such as schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because the very young, the elderly, and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people are often at home for extended periods. Recreational land uses are moderately sensitive to air pollution because vigorous exercise associated with recreation places a high demand on the human respiratory system.

Redevelopment Plan Subareas A and B contain a variety of land uses considered sensitive to air quality, including residences, schools, parks, and convalescent homes.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Appendix G of the revised *CEQA Guidelines* states that a project would normally result in a significant air quality impact if it would:

- conflict with or obstruct implementation of the applicable air quality plan;
- violate air quality standards;
- contribute substantially to existing or projected air quality violations;
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);

- expose sensitive receptors to substantial concentrations of air pollutants; or
- create objectionable odors affecting a substantial number of people.

In addition, *CEQA Guidelines* Section 15125(d) states that an EIR shall discuss "any inconsistencies between the proposed project and applicable general plans and regional plans. Such regional plans include, but are not limited to, the applicable air quality attainment of maintenance plan or State Implementation Plan . . . " (Governor's Office of Planning and Research, 1998).

The BAAQMD recommends three additional significance criteria, specific to local plans, in its *CEQA Guidelines* (BAAQMD, 1996). In general, the *CEQA Guidelines* stress that local plans for cities and counties must be consistent with the most recent regional air quality plan, the *'97 Clean Air Plan*. Local plans found to be consistent with the *'97 Clean Air Plan* would have a less-than-significant impact on regional air quality.

The following criteria are recommended by the BAAQMD in evaluating the impacts of local plans, such as the proposed Redevelopment Plan:

Consistency with Clean Air Plan Population and Vehicle-Miles Traveled (VMT) Assumptions

The plan must show that over its planning period that:

- population growth for the jurisdiction will not exceed the values included in the current Clean Air Plan, and
- the rate of increase in VMT for the jurisdiction is equal to or lower than the rate of increase in population.

Consistency with Clean Air Plan Transportation Control Measures (TCMs)

The plan should demonstrate that TCMs described in the Clean Air Plan are included as part of the project.

Impacts Associated with Odors and Toxics

Buffer zones should be established around existing and proposed land uses that would emit odors and/or toxics. Buffer zones should be reflected in local plan policies, land use map(s), and implementing ordinances.

With respect to odor impacts, the *BAAQMD CEQA Guidelines* identify that for a project that would locate sensitive receptors near an existing source of odors, the project should be identified as having a significant odor impact if it is proposed for a site that is closer to an existing odor source than any location where there has been:

- more than one confirmed odor complaint per year averaged over a three-year period; or
- three unconfirmed odor complaints per year averaged over a three-year period.

Impact K.1: Fugitive dust generated by construction and demolition activities under the proposed Redevelopment Plan could result in health and nuisance-type impacts in the immediate vicinity of individual construction sites. (Significant)

Construction activities would occur intermittently at different sites throughout the period covered by the proposed Redevelopment Plan, although the related impacts at any one location would be temporary. Construction of individual projects proposed as part of the Redevelopment Plan could generate substantial amounts of "fugitive" dust.[6]

Fugitive dust emissions would vary day to day, depending on the level and type of activity, silt content of the soil, and the prevailing weather. Sources of fugitive dust during construction would include vehicle movement over paved and unpaved surfaces, demolition, excavation, earth movement, grading, and wind erosion from exposed surfaces. Demolition of buildings constructed prior to 1980 often involves building materials containing asbestos. Airborne asbestos fibers pose a serious health threat. The demolition, renovation, or removal of asbestos-containing building materials is subject to the limitations of BAAQMD Regulation 11, Rule 2.

Fugitive dust from construction activities includes large-sized particulates that typically fall out of the air within several hundred feet of construction sites, as well as fine particulates. The larger-sized particulates would pose nuisance concerns such as reduced visibility and soiling of exposed surfaces. Fine particulates (PM-10) would be associated with adverse health effects. Background concentrations in San Bruno, as well as the rest of the Bay Area, often exceed the state ambient PM-10 standard, and construction activities under the proposed Redevelopment Plan would add to those concentrations, particularly in the immediate vicinity of individual construction sites. Without mitigation, the local contribution from construction, while temporary, could be substantial. Taking into account the potential for adverse nuisance and health effects, this impact would be significant.

Construction equipment, on-road heavy-duty trucks, and construction-worker commute vehicles would also generate ozone precursor emissions. Emissions from construction-worker commute trips would be minor compared to the emissions generated by construction equipment. Criteria pollutant emissions of ROG and NO_x from these emissions sources would incrementally add to regional atmospheric loading of ozone precursors during project construction. *BAAQMD CEQA Guidelines* recognize that construction equipment emits ozone precursors, but indicate that such emissions are included in the emission inventory that is the basis for regional air quality plans, and that construction emissions are not expected to impede attainment or maintenance of ozone standards in the Bay Area (BAAQMD, 1996).

6 "Fugitive" emissions refer to pollutants emitted to the atmosphere without passing through a stack or exhaust pipe. Examples of fugitive emissions sources include vehicle movement over paved and unpaved surfaces and wind erosion of exposed surfaces.

Mitigation Measure K.1a: The City shall condition approval of individual development proposals under the Redevelopment Plan on implementation of an appropriate dust abatement program, patterned after the BAAQMD approach described below. (Identified in This Report)

The BAAQMD approach to dust abatement calls for "basic" control measures that should be implemented at all construction sites, "enhanced" control measures that should be implemented at construction sites greater than four acres in area, and "optional" control measures that should be implemented on a case-by-case basis at construction sites that are large in area, located near sensitive receptors or which, for any other reason, may warrant additional emissions reductions (BAAQMD, 1996). The basic, enhanced, and optional dust-control programs are described below.

The "basic" dust-control program requires construction contractors to:

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand, and other loose materials *or* require all trucks to maintain at least 2 feet of freeboard.
- Pave, apply water three times daily, or apply nontoxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.

The "enhanced" dust-control program includes all of the "basic" measures in addition to the following measures to be implemented by the construction contractor:

- Hydroseed or apply nontoxic soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily, or apply nontoxic soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 miles per hour (mph).
- Install sandbags or other erosion-control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.

The "optional" dust-control measures supplement the "basic" and "enhanced" programs to address site-specific issues. They include:

- Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.

- Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas.
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
- Limit the area subject to excavation, grading, and other construction activity at any one time.

Mitigation Measure K.1b: In the case where a specific development proposal under the Redevelopment Plan would entail the demolition of a building containing asbestos materials, the City shall require that the project sponsor consult with BAAQMD staff concerning the specific requirements of BAAQMD Regulation 11, Rule 2. (Identified in This Report)

Significance after Mitigation: Less than Significant.

Impact K.2: Development under the proposed Redevelopment Plan would contribute to the cumulative effect of Bay Area development on regional ozone and PM-10 concentrations. (Significant)

Subarea A of the Redevelopment Plan could result in construction of new residential housing units, large-scale commercial/retail space, hotels, and entertainment uses (see Table II.2 in Chapter II, Project Description). The additional housing units would add additional population to the City. Subarea B consists of commercial property with no existing or proposed permanent residents.

Some of the projects identified in Table II.2 were included in the policies and land uses of the City's General Plan and would occur regardless of implementation of the Redevelopment Plan. The development that could occur above and beyond the General Plan includes up to 500 new housing units and one hotel (400 plus rooms). These uses could add up to 5,487 new daily vehicle trips to the local roadway network.

In forecasting future stationary and mobile source emissions, the BAAQMD uses growth projections prepared by the Association of Bay Area Governments (ABAG). The resultant emissions forecasts are then used to develop strategies and control measures necessary to achieve regional ozone attainment within a designated timeframe. In developing its projections, ABAG uses information from local government general plans, current zoning, and other local development policies, in conjunction with economic and demographic factors (ABAG, 1996). Local governments are given the opportunity to review and provide input into the projections prepared by ABAG for their jurisdiction. Consistent with this process, City staff have informed ABAG of a portion, but not all, of the additional residential development that could occur under the Redevelopment Plan beyond the General Plan. That is, some portion of the additional 500 housing units, associated population, and associated daily vehicle trips were accounted for in the ABAG projections used to prepare the *'97 Clean Air Plan*. The residual development (not

accounted for in ABAG) above what was assumed in the *'97 Clean Air Plan*, though not seemingly substantial, would exceed the population growth assumptions and associated vehicle miles traveled assumptions used to estimate region-wide mobile source emissions.

A primary goal of the *'97 Clean Air Plan* is to reduce the number of trips and vehicle miles Bay Area residents travel in single-occupant vehicles. To achieve this goal, the *'97 Clean Air Plan* includes 20 TCMs. Table III.K.4 identifies those TCMs that local governments should implement through local plans to be considered in conformance with the *'97 Clean Air Plan.* The BAAQMD recommends that local plans that do not demonstrate reasonable efforts to implement these TCMs be considered inconsistent with the regional air quality plan and therefore to have a significant air quality impact. Transportation projects that may be implemented under the Redevelopment Plan include the development of bike lanes on San Bruno Avenue, which would be consistent with the TCM titled, "Improve Bicycle Access and Facilities," in Table III.K.4. In addition, the land uses assumed under the Redevelopment Plan would be considered as infill projects that would be likely reduce the number and length of single-occupant automobile trips.

To determine consistency with the *'97 Clean Air Plan*, the BAAQMD process to be followed was presented under the Significance Criteria earlier in this section. Because the population growth that would occur with the Redevelopment Plan exceeds the values included in the *'97 Clean Air Plan*, the project is not consistent with the *'97 Clean Air Plan.* Therefore, following BAAQMD process, this inconsistency is considered a significant cumulative impact on air quality emissions.

While the Redevelopment Plan would be considered inconsistent with the *'97 Clean Air Plan* in that it could exceed forecasted population and VMT estimates and would not incorporate all feasible TCMs, it does include features that are viewed as beneficial. For example, the Redevelopment Plan would essentially be an infill project in that it would center on development around existing and planned transit routes (including BART, Caltrain and Airtrain stations) and would convert underutilized land within an urban area into productive uses. Subarea A is also located close to significant employers in neighboring cities.

Mitigation Measure K.2: The City shall ensure the implementation, to the extent feasible, of additional TCMs identified in Table III.K.4 into the design of individual Redevelopment Plan projects. (Identified in This Report)

Significance after Mitigation: Significant and Unavoidable.

TABLE III.K.4
CLEAN AIR PLAN TRANSPORTATION CONTROL MEASURES TO BE IMPLEMENTED BY LOCAL GOVERNMENTS

Transportation Control Measures	Description
Expand Employer Assistance Program	• Provide assistance to regional and local ridesharing organizations.
Improve Bicycle Access and Facilities	• Improve and expand bicycle lane system by providing bicycle access in plans for all new road construction or modifications. • Establish and maintain bicycle advisory committees in all nine Bay Area counties. • Develop a staff person as a Bicycle Program Manager. • Develop and implement comprehensive bicycle plans. • Encourage employers and developers to provide bicycle access and facilities. • Provide bicycle safety education.
Improve Arterial Traffic Management	• Study signal preemption for buses on arterials with high volume of bus traffic. • Improve arterials for bus operations and to encourage bicycling and walking. • Continue ongoing local signal-timing programs.
Local Clean Air Plans, Policies, and Programs	• Incorporate beneficial air quality policies and programs into local planning and development activities, with a particular focus on subdivision, zoning, and site design measures that reduce the number and length of single-occupant automobile trips.
Pedestrian Travel	• Review and revise general/specific plan policies to promote development patterns that encourage walking, and circulation policies that emphasize pedestrian travel and modify zoning ordinances to include pedestrian-friendly design standards. • Include pedestrian improvements in capital improvement programs. • Designate a staff person as a Pedestrian Program Manager.
Promote Traffic Calming Measures	• Include traffic calming strategies in the transportation and land use element of general and specific plans. • Include traffic calming strategies in capital improvement programs.

SOURCE: Bay Area Air Quality Management District, *Proposed Final Bay Area '97 Clean Air Plan*, 1997.

Impact K.3: Development under the Redevelopment Plan could expose existing and proposed residences to nuisance odors. (Less than Significant)

Though offensive odors from stationary sources rarely cause any physical harm, they still remain unpleasant and can lead to public distress generating citizen complaints to local governments. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors. Odor impacts should be considered for any proposed new odor sources located near existing receptors, as well as any new sensitive receptors located near existing odor sources. Generally, increasing the distance between a receptor and the source to an acceptable level will mitigate odor impacts. Table III.K.5 shows BAAQMD-recommended buffer zones (distance between receptor and source) for known odor-emitting sources.

TABLE III.K.5
BUFFER ZONE DISTANCES FOR POTENTIAL ODOR SOURCES

Type of Operation	Buffer Zone (Distance between receptor and source)
Wastewater Treatment Plant	1 mile
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shops)	1 mile
Rendering Plant	1 mile
Coffee Roaster	1 mile

SOURCE: BAAQMD, *CEQA Guidelines, Assessing Air Quality Impacts of Projects and Plan*, April 1996.

No new stationary odor sources are proposed as part of the Redevelopment Plan. However, as described in the Setting, above, there are two existing facilities that include the types of operations identified in Table III.K.5 that could generate odors that could affect San Bruno residents. These include the San Bruno Transfer Station and the South San Francisco-San Bruno Wastewater Treatment Facility. Several existing residential areas in San Bruno are located within the BAAQMD-recommended one-mile-radius buffer of these facilities. Proposed residences in Subarea A could also be located within the buffer area of these sites, but would not be located any closer to the facilities than existing residences. Odorous emissions from these sources could therefore expose existing and proposed residences to nuisance odors. Since there

have been no complaints filed with BAAQMD staff for either of these facilities in the past five years, and proposed new residences would be located at a greater distance from these sources than existing residences, this impact is considered to be less than significant.

Mitigation: None required.

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L. NOISE

SETTING

NOISE DESCRIPTORS AND PRINCIPLES

Human response to noise is subjective and can vary greatly from person to person. Factors that can influence individual response include intensity, frequency, and time pattern of the noise; the amount of background noise present prior to the intruding noise; and the nature of work or human activity that is exposed to the noise. The adverse effects of noise include interference with concentration, communication, and sleep. At the highest levels, noise can induce hearing damage.

Environmental noise is usually measured in A-weighted decibels (dBA).[1] Some representative noise sources and their corresponding noise levels (in dBA) are shown in Figure III.L.1. Environmental noise typically fluctuates over time, and different types of noise descriptors are used to account for this variability. Typical noise descriptors include the energy-equivalent noise level (L_{eq}), the day-night average noise level (L_{dn}), and the community noise equivalent level (CNEL).[2] Both the L_{dn} and CNEL noise descriptors are commonly used in establishing noise exposure guidelines for specific land uses.

Noise levels are measured on a logarithmic scale, instead of a linear scale. On a logarithmic scale, the sum of two noise sources of equal loudness is 3 dBA greater than the noise generated by just one of the noise sources (e.g., a noise source of 60 dBA plus another noise source of 60 dBA generates a composite noise level of 63 dBA). To apply this formula to a specific noise source, in areas where existing noise levels are dominated by traffic, a doubling in the volume of the traffic will increase ambient noise levels by 3 dBA. A 3-dBA increase is the smallest change in noise level detectable to the average person. A noise level increase of 10 dBA is perceived as being twice as loud.

The noise level experienced at a receptor depends on the distance between the source and the receptor, presence or absence of noise barriers and other shielding features, and the amount of noise attenuation (lessening) provided by the intervening terrain. For line sources, such as motor or vehicular traffic, noise decreases by about 3 to 4.5 dBA for every doubling of the distance from the roadway. For point or stationary noise sources, such as electric motors, a noise reduction of 6 to 7.5 dBA is experienced for each doubling of the distance from the source.

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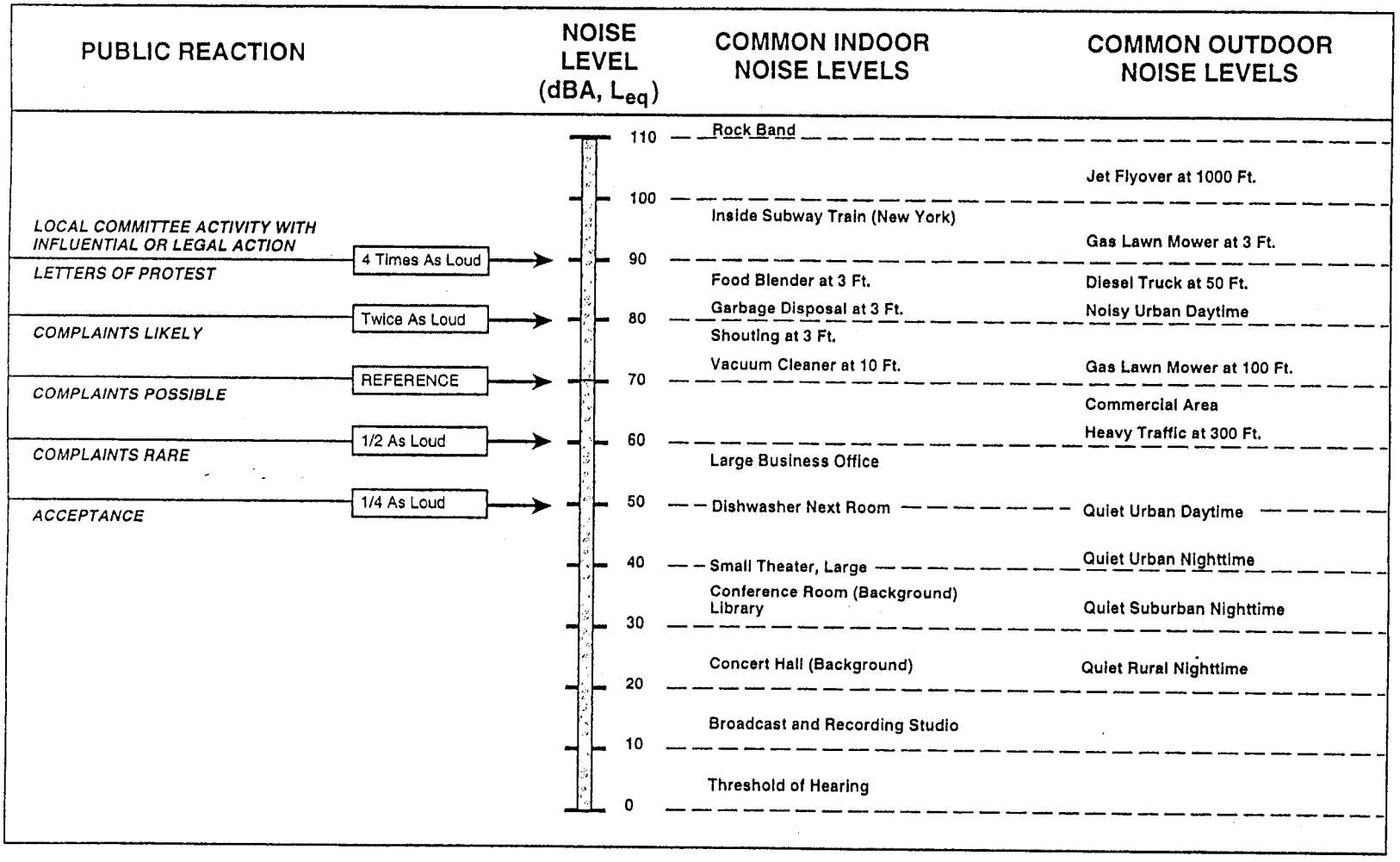
1 A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called "sound level") measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels.

2 L_{eq}, the energy-equivalent noise level (or "average" noise level), is the equivalent steady-state continuous noise level which, in a stated period of time, contains the same acoustic energy as the time-varying sound level that actually occurs during the same period. L_{dn}, the day-night average noise level, is a weighted 24-hour noise level. With the L_{dn} descriptor, noise levels between 10:00 p.m. and 7:00 a.m. are adjusted upward by 10 dBA to take into account the greater annoyance of nighttime noise as compared to daytime noise. CNEL, the community noise equivalent level, is similar to L_{dn}, but an additional 5-dBA "penalty" is added to evening noise (7:00 p.m. to 10:00 p.m.). L_{dn} and CNEL are considered equivalent for most planning purposes. All L_{eq}, L_{dn}, and CNEL values reported herein reflect A-weighted decibels unless otherwise stated.



SOURCE: Caltrans Transportation Laboratory Noise Manual, 1982; and Modification by Environmental Science Associates

Figure III.L.1
Effect of Noise on People

EXISTING NOISE ENVIRONMENT

Aircraft departures from San Francisco International Airport (SFIA) are the primary source of noise in San Bruno. Generally speaking, the majority of the houses in San Bruno are exposed to noise levels of 60 CNEL or greater. Quieter noise environments are located in the southwestern and western portions of the city in those areas furthest from SFIA.

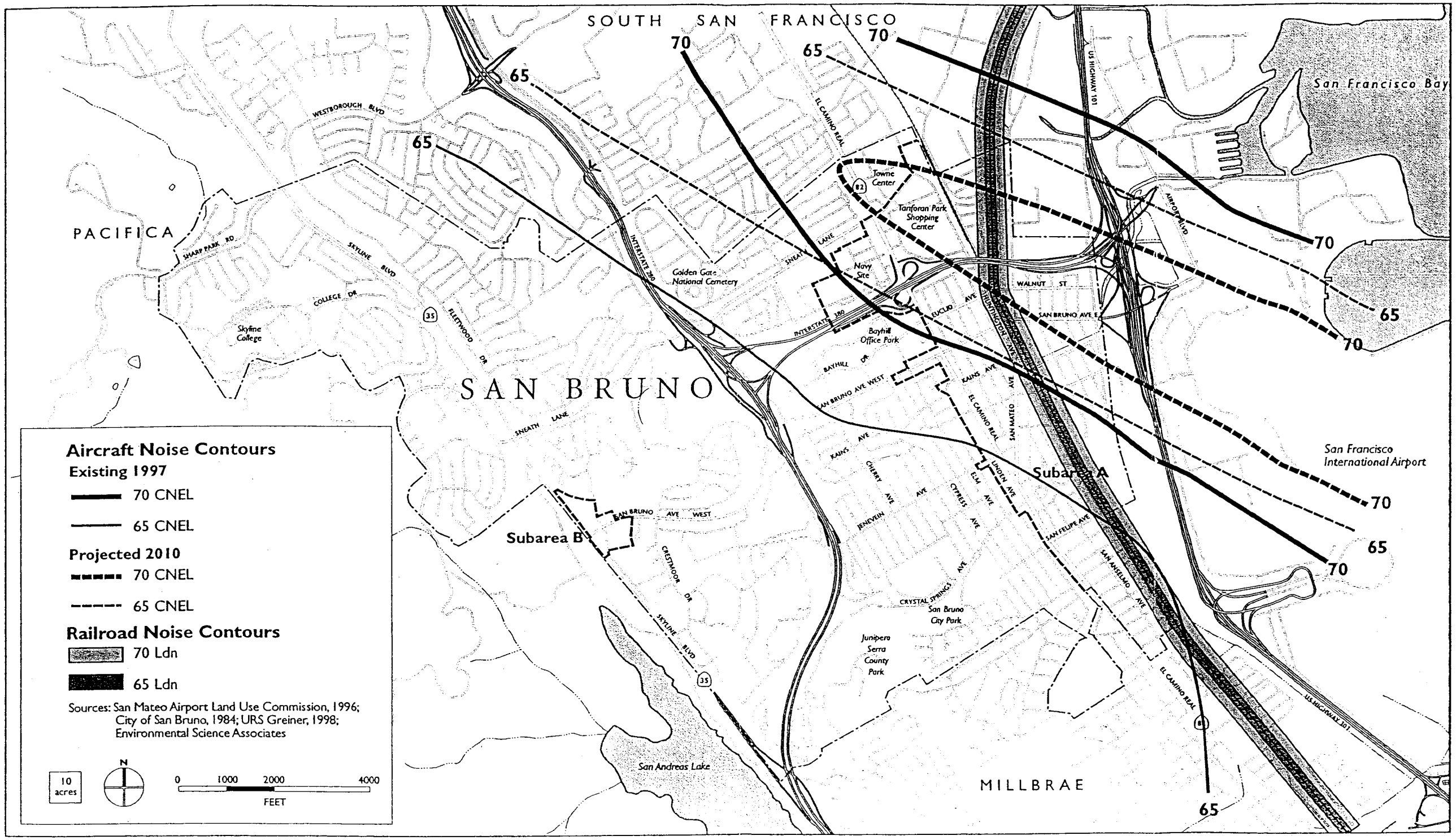
Other sources of noise in San Bruno include roadway noise, railway noise, and industrial noise. Noise contour maps provided in San Bruno's General Plan for these sources and aircraft noise are based on data from 1980. These maps may be outdated and may not be representative of current noise levels in all locations. Changes in the noise environment from that time are due in part to changes in traffic patterns, railway use, and changes in types of aircraft and frequency of aircraft arrivals and departures at SFIA. The major sources of noise in San Bruno are described below, followed by a summary of recent noise monitoring data measured during field investigations of Subareas A and B of the Redevelopment Plan.

Aircraft Noise

SFIA is located east of San Bruno, across U.S. 101. SFIA has a total of four runways, of which two are east-west runways (10R-28L and 10L-28R) and two are north-south runways (1L-19R and 1R-19L). As described in Section III.J, Airport Safety, and illustrated in Figure III.J.1, portions of San Bruno are situated beneath flight tracks for arrivals and departures on runways 10R-28L and 10L-28R. Arrivals on these runways occur less than 1 percent of the time, while departures occur roughly 16 percent of the time (FAA, 1998).

Aircraft noise contour maps are the principal tool used in analyzing airport/land use compatibility in the vicinity of airports. Two types of noise contour maps have been generated for SFIA, one of which is based on computer modeling, while the other is based on actual measured noise levels. The Federal Aviation Administration (FAA), the agency charged with ensuring air safety, generates noise contour maps based on its Integrated Noise Model (INM). SFIA received FAA approval for its original Federal Aviation Regulation (FAR) Part 150 Noise Exposure Maps (NEM) and Noise Compatibility Program in 1983. FAA acceptance of the 150 NEM allowed the San Francisco Airport Commission to participate with the FAA in a program that provides noise insulation for structures within the 65 dB noise boundary, as it existed in 1983. In 1993, the FAA advised SFIA that it would no longer fund noise insulation projects without the NEMs being revised to reflect existing conditions. The most recent FAA-approved noise contour maps are contained in the *1995 Noise Exposure Map Update* ('95 NEM), which includes 1995 baseline and projected 2000 noise contour lines. The portions of these noise contours that cross San Bruno are shown in Figure III.L.2.

Figure III.L.3 shows the existing (1997) and projected (2010) noise contours over San Bruno. When compared, the projected 2000 and 2010 noise contours are similar. Because of the federally mandated replacement of Stage 2 aircraft with Stage 3 aircraft by 2000, noise contours at SFIA have continued to shrink in recent years, as evidenced in Figure III.L.2 and



Aircraft Noise Contours

Existing 1997

70 CNEL

65 CNEL

Projected 2010

70 CNEL

65 CNEL

Railroad Noise Contours

70 Ldn

65 Ldn

Sources: San Mateo Airport Land Use Commission, 1996; City of San Bruno, 1984; URS Greiner, 1998; Environmental Science Associates

10 acres

N

0 1000 2000 4000

FEET

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City of San Bruno Redevelopment Project Area - Figure III.L.3

Existing and Projected Aircraft and Railroad Noise Contours

Figure III.L.3. The 2010 noise contours show the furthest future year in which noise projections have been made.[3]

As required by state law, airports that have been designated as noise problem airports (such as SFIA) must install and maintain a noise monitoring system that identifies and defines the airport's noise impact boundary (generally the 65 CNEL noise contour), based upon the aircraft noise levels recorded by noise monitoring equipment. Airport noise monitoring requirements are defined in the California Code of Regulations, Title 21, Chapter 2.5, Subchapter 6, Noise Standards. SFIA's noise monitoring system contains 27 off-airport noise meters and two on-airport meters. Four of the 27 off-airport noise meters are located within San Bruno. In accordance with Title 21 requirements, SFIA staff compile noise monitoring data and generate 65 CNEL noise contour maps on a quarterly basis.

Roadway Noise

Areas of San Bruno are exposed to noise generated by traffic on I-280, I-380, and U.S. 101. El Camino Real is another heavily traveled roadway in the city. Residences and other sensitive receptors in Subareas A and B are exposed to traffic-generated noise from these roadways.

Railway Noise

Trains operating on the Southern Pacific Transportation Company tracks through San Bruno affect the noise environment of nearby residential areas. These tracks run adjacent to Huntington Avenue. Currently, 68 Caltrain trains and two freight carrier trains pass through San Bruno each weekday. The southbound freight carrier train passes through San Bruno between 7:00 and 8:00 p.m., while the northbound freight carrier train passes through in the middle of the night, sometime prior to 5:00 a.m. Weekend train activity is less, with 20 and 24 Caltrain trains passing through San Bruno on Saturdays and Sundays, respectively. Freight carrier operations on the weekends are infrequent (and rare on Sundays). (Springer, 1999).

The San Bruno General Plan Noise Element contains noise contours estimated for 52 weekday train trips through San Bruno. No new noise contours have been prepared since that time. It is assumed that the noise contours in the General Plan would be somewhat representative of the current noise contours related to railroad activity, though the current noise contours may in fact extend slightly beyond those previously estimated in the General Plan. Figure III.L.2 shows the railroad noise contours as presented in the General Plan.

The following projects could affect the noise environment along the existing railroad corridor through San Bruno.

[3] The City and County of San Francisco have recently announced their intention to extend SFIA's runways into the San Francisco Bay. This project is still undergoing its initial planning efforts. Early studies have indicated that if the proposed runway extensions were to occur that the 65 CNEL noise contour would shift away from residents of cities near SFIA, including San Bruno. The 2010 65 CNEL noise contours, presented in Figure III.L.2, show the projected noise contours without runway extensions.

BART-SFO Airport Extension Project

The Bay Area Rapid Transit District (BART) SFIA Airport Extension Project includes an extension of the existing BART track and four new stations, including a new station in San Bruno and a station inside the new International Terminal at SFIA. The project broke ground in 1997 and is scheduled for completion early in the new century. The new BART station in San Bruno, the associated parking structure, and the BART/City of San Bruno Joint Police Station will be located on Huntington Avenue adjacent to the existing Tanforan Park Shopping Center. The BART tracks will run along Huntington Avenue through San Bruno. BART tracks through San Bruno will run underground and are not expected to significantly affect the city's noise environment.

Caltrain Rapid Rail Project

The Peninsula Corridor Joint Powers Board is considering expansion of the Caltrain system in the vicinity of San Bruno. Specifically, the Board is planning an, SFIA AirTrain connection. The project would extend SFIA's AirTrain system (under construction within the airport) to a new Caltrain station in San Bruno. The new Caltrain station would be relocated from its existing location on Huntington Avenue, south of Sylvan Avenue, to a new location along the east side of Herman Street, south of Scott Street. The AirTrain line extending from the new Caltrain station to SFIA would run parallel to the north side of I-380 towards the airport (Peninsula Corridor Joint Powers Board, 1998).

Industrial Noise

Industrial land uses in San Bruno are limited primarily to light industrial operations (manufacturing, distribution, storage) and semi-industrial uses (car repair) (City of San Bruno, 1984). These types of uses are concentrated in the North Belle Air neighborhood in the northeastern part of the city.

Noise Measurement Results

Table III.L.1 shows the noise levels measured at 12 locations within Redevelopment Plan Subareas A and B. Of the 12 measurements taken, nine of them were short-term (15-minute) measurements, while three were 24-hour noise measurements. Figure III.L.4 shows the locations of these measurements. Measured noise levels at several locations in Subarea A were above 65 dBA. A sound level of 65 decibels is high enough to interfere with ordinary speech.

REGULATORY SETTING

Generally speaking, automobile and truck traffic are the major source of environmental noise in most urbanized areas. Traffic activity generally produces an average sound level that remains fairly constant with time. Air and rail traffic as well as commercial and industrial activities are major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise.

TABLE III.L.1
MEASURED NOISE LEVELS IN REDEVELOPMENT PLAN SUBAREAS A AND B

Site No.[4]	Measurement Location	Noise Level in dBA[1,2,3] Peak Hour L_{eq}	L_{10}	L_{90}	L_{dn}	CNEL
Based on 15-Minute Peak-Hour Noise Measurement Data						
1	3rd Street between Commodore Dr. West and B Rd.	66	61-73	60-62[5]	NA	NA
2	El Camino Real between Sneath Ln. and I-380	74	70-73	67-69[5]	NA	NA
3	Herman St. between Scott St. and Atlantic Ave.	67	61-70	52-54	NA	NA
4	San Bruno Ave. between El Camino Real and Elm Ave. (Pac Bell Bldg.)	67	64-69	59-60	NA	NA
5	El Camino Real between San Bruno Ave. and Kains Ave.	67	69-70	60-61	NA	NA
6	Huntington Ave. between Euclid Ave. and San Bruno Ave.	67	62-68	53-54	NA	NA
7	San Bruno Ave. between 3rd and 4th Avenues	65	67	59-60	NA	NA
8	Huntington Ave. between Angus Ave. and Sylvan Ave.	64	61-74	50-51	NA	NA
9	San Felipe Ave. between El Camino Real and Mastick Ave.	61	58-67	54-55	NA	NA
Based on 24-Hour Noise Measurement Data						
10	3rd Street West near B Road	64	59-68 day 54-61 night	52-60 day 51-58 night	69-70	69-70
11	Lumberyard Property between San Bruno Ave. and Walnut Ave.	67-70	58-73 day 50-65 night	50-63 day 43-60 night	73-74	74
12	Caltrans Property in Subarea B	57	54-60 day 43-55 night	45-53 day 43-47 night	57	58

1 All measurements were taken with a Metrosonics noise meter (model dB-308), which was calibrated prior to use.

2 Measurements at each of the sites were taken on the following dates:

Site No.	Date
1,2	Thursday, December 10, 1998
3,4,5	Thursday, January 14, 1999
6,7,8,9	Tuesday, January 12, 1999
10	Monday, December 14, 1998 through Wednesday, December 16, 1998
11,12	Tuesday, January 12, 1999 through Thursday, January 14, 1999

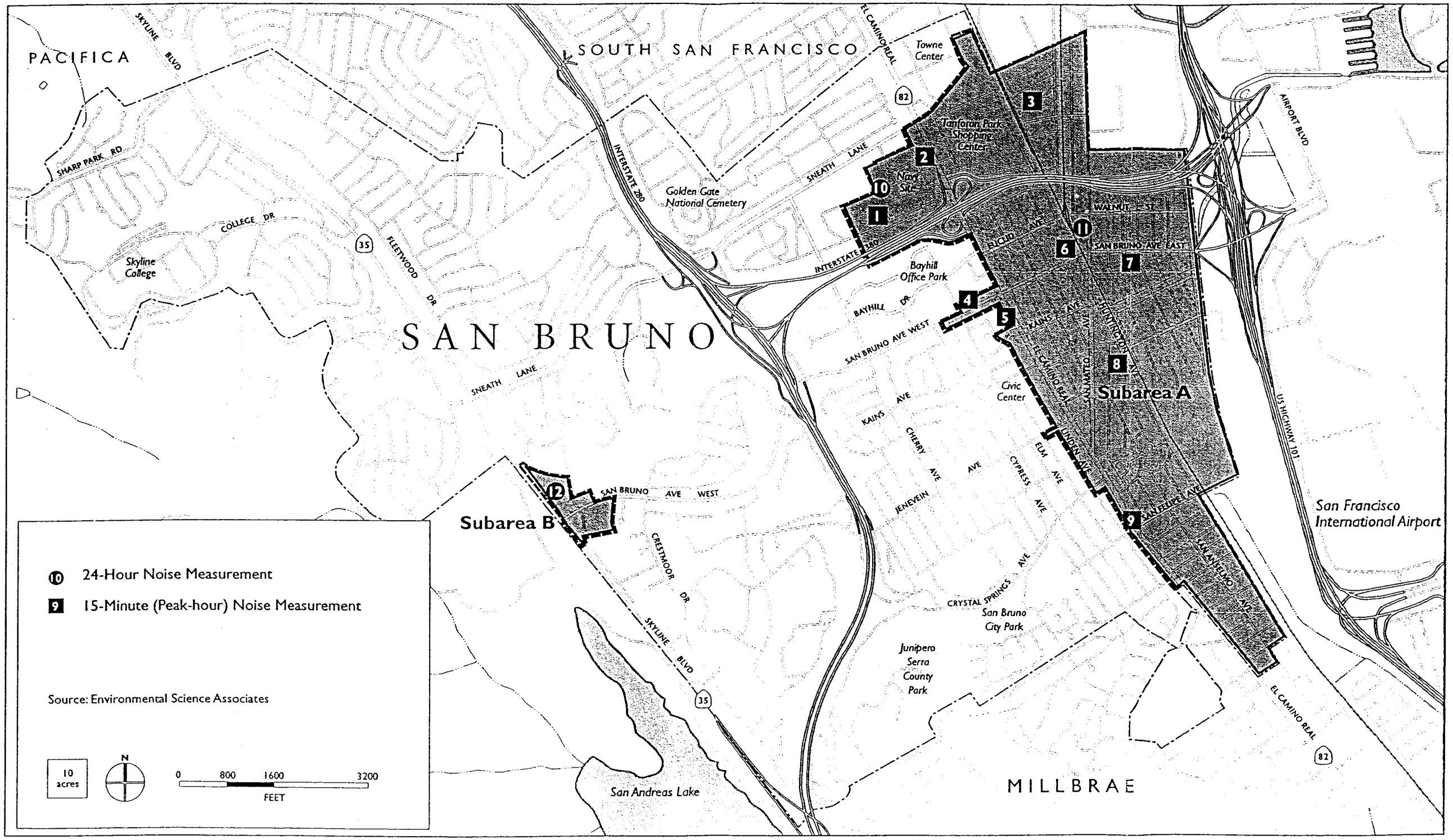
3 L_{eq} = equivalent steady-state sound level (see footnote on page III.L-1); L_{10} = noise level exceeded 10 percent of the time; L_{90} = noise level exceeded 90 percent of the time.

4 Measurement locations are illustrated in Figure III.L.4.

5 Indicates L_{50}. L_{50} = noise level exceeded 50 percent of the time.

NA = Not Applicable

SOURCE: Environmental Science Associates



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City of San Bruno Redevelopment Project Area - Figure III.L.4

Noise Measurement Locations

Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies. Local regulation of noise involves implementation of general plan policies and noise ordinance standards. Local general plans identify general principles intended to guide and influence development plans; local noise ordinances establish standards and procedures for addressing specific noise sources and activities.

Title 24 of the California Code of Regulations, the Building Standards Administrative Code, contains the State Noise Insulation Standards (Part 2, Appendix Chapter 12A), which specify interior noise standards for new hotels, motels, apartment houses, and dwellings other than single-family dwellings. Such new structures must be designed to reduce outdoor noise to an interior level of (no more than) 45 L_{dn}. The California Noise Insulation Standards also establish standards for sound isolation of separating walls, corridor walls, and floor/ceiling assemblies in multi-family residential construction. State noise standards for on-road motor vehicles are contained in the Motor Vehicle Code.

General plans recognize that different types of land uses have different sensitivities toward the surrounding noise environment. Residential areas are generally considered to be the most noise sensitive type of land use, and industrial/commercial areas are generally considered to be the least sensitive. Local noise ordinances typically set forth standards related to construction activities, nuisance-type noise sources, and industrial property-line noise levels. For this project, San Bruno noise regulations and standards apply to Subareas A and B of the proposed Redevelopment Plan. Applicable regulations, plans, standards, and policies are summarized below.

General Plan Noise Element

The General Plan Noise Element identifies compatibility guidelines for different land use categories within San Bruno. These are shown in Table III.L.2. (Note: These compatibility standards are consistent with the standards recommended by the San Mateo County Airport Land Use Commission [ALUC] in the *San Mateo County Comprehensive Airport Land Use Plan* described below.)

In its efforts to develop a comprehensive approach to noise reduction, the Noise Element lists 10 policies to reduce noise from automobiles, airports, railroad lines, and stationary sources in San Bruno (City of San Bruno, 1984). These include:

- Policy 1. Minimizing truck use on residential streets.
- Policy 2. Encouraging the state to consider the desirability of noise barriers along selected segments of the freeway.
- Policy 3. Enforcing Vehicle Code noise emission standards.
- Policy 4. Enforcing Vehicle Code provisions that prohibit alteration of vehicular exhaust systems in a way that increases noise emissions.

TABLE III.L.2
LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS

Land Use Category	Levels of Acceptability, CNEL[a]				
	I	II	III	IV	V
RESIDENTIAL – single- and multi-family, mobile homes, schools, libraries, churches, hospitals, nursing homes, and auditoriums	less than 65	65 to 70	more than 70	NA	NA
COMMERCIAL – retail, restaurants, office buildings, hotels, motels, movie theaters, sports arenas, playgrounds, cemeteries, and golf courses	less than 70	70 to 80	NA	more than 80	NA
INDUSTRIAL – manufacturing, transportation, communications, and utilities	less than 75	75 to 85	NA	more than 85	NA
OPEN SPACE – agriculture, mining, fishing	less than 75	NA	NA	NA	more than 75

[a] Levels of Acceptability:
I. Satisfactory, with little noise impact and requiring no special noise insulation requirements for new construction.
II. New construction or development should be undertaken only after an analysis of noise reduction requirements is made and needed noise insulation features included in the design.
III. New construction or development should not be undertaken.
IV. New construction or development should not be undertaken unless related to airport activities or services. Conventional construction will generally be inadequate, and special noise insulation features should be included in construction.
V. Land uses involving concentrations of people (spectator sports and some recreational facilities) or of animals (livestock farming and animal breeding) should generally be avoided.

SOURCE: City of San Bruno, *1984 General Plan*, June 25, 1984

- Policy 5. Continuing to cooperate with other affected agencies to achieve further reduction of airport-generated noise.
- Policy 6. Participating in decisions on future extensions of rail transit lines through San Bruno.
- Policy 7. Applying noise criteria to land use planning.
- Policy 8. Requiring and implementing mitigation measures to reduce noise effects on future projects.

- Policy 9. Preventing the placement of new noise sensitive uses unless adequate mitigation is provided.

- Policy 10. Cooperating with the ALUC in efforts to minimize the effects of aircraft noise.

In addition, the following are identified as implementing actions in the Noise Element:

- Implementing Action 1. Issue citations and fines for violations of the California Vehicle Code Noise Emission Standards.

- Implementing Action 2. Revise the zoning ordinance to incorporate noise/land use compatibility standards as a basic requirement of new development. Prohibit new noise-sensitive uses in areas where the noise level is too high. Apply ALUC infill criteria for new residential development in 70+ CNEL areas.

- Implementing Action 3. Establish insulation requirements as mitigation measures for all development subject to noise levels higher than 65 dBA.

- Implementing Action 4. Where areas are too noisy for proposed land uses, planning approvals may be withheld on the basis of inconsistency with the Noise Element of the General Plan.

Noise Ordinance

San Bruno has a draft Noise Ordinance that has not yet been adopted. The draft Noise Ordinance is designed to reduce nuisance noise in the community. The proposed ordinance places limits on noise levels in residential zones, limits construction activities near residential zones, establishes machinery noise level limits, and addresses amplified sounds (City of San Bruno, 1999).

San Mateo County Comprehensive Airport Land Use Plan

The San Mateo County Airport Land Use Commission (ALUC) developed and now implements the *San Mateo County Comprehensive Airport Land Use Plan* (San Mateo County CLUP), adopted in December 1996. In San Mateo County, the City/County Association of Governments of San Mateo County (C/CAG) is the designated ALUC. The San Mateo County CLUP establishes the procedure that C/CAG uses in reviewing proposed local agency actions that affect land within San Mateo County's airport land use areas. Airport planning boundaries define where height, noise and safety standards, policies, and criteria are applied to certain proposed land use policy actions.

San Bruno is located within the jurisdiction of the SFIA Land Use Plan, a subchapter of the San Mateo County CLUP. This noise section focuses on the San Mateo County CLUP and its relationship to noise/land use compatibility issues in San Bruno, specifically Subareas A and B of the Redevelopment Plan. (See Sections III.B, Land Use and Applicable Land Use Policies and Plans, and III.J, Airport Safety, for a discussion of height and safety restrictions and guidelines that may also apply to the Redevelopment Plan Area.)

For the purposes of review under the San Mateo County CLUP, the federally accepted '95 NEM is the noise contour map that C/CAG uses in making its determination of the consistency of a proposed local agency land use policy action with the SFIA Land Use Plan. The portions of the '95 NEM that cross San Bruno are shown on Figure III.L.2. Portions of Redevelopment Plan Subarea A are within the 1995 65, 70, and 75 CNEL noise contours; the noise/land use compatibility standards shown in Table III.L.2 apply to the areas within these noise contours.

Since 1983, the FAA and the City and County of San Francisco Airports Commission, the owner and operator of SFIA, have jointly funded local aircraft noise insulation projects in communities near SFIA. The goal of these programs is to achieve an interior noise level of 45 dB during an aircraft noise event, consistent with the Title 24 noise standards described above.

The Aircraft Noise Insulation Program includes all noise-impacted dwelling units within the 65 CNEL noise contour, as shown on the FAR Part 150 Noise Exposure Maps (NEMs). The program now applies to the '95 NEM. It is anticipated that most, if not all, of the dwellings included in the program will be sound insulated by 2001 (FAA, 1998). As of the fall of 1998, approximately 55 percent of the units had been insulated.

On August 9, 1996, San Bruno received a grant from the Airport Improvement Program (AIP) for airport noise insulation projects within Subarea A of the Redevelopment Plan. As a condition of the grant, San Bruno provided assurances that it would maintain zoning and land uses within its jurisdiction, that would not reduce the compatibility of the airport or federally financed noise compatibility measures (Rodriguez, 1998).

SENSITIVE RECEPTORS

Some land uses are considered more sensitive to ambient noise levels than others, due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, and parks and other outdoor recreation areas generally are more sensitive to noise than are commercial and industrial land uses.

There are seven residential conservation areas within Subarea A of the Redevelopment Plan. These include the San Bruno Park Fifth Edition Residential Conservation Area; the San Bruno Park Residential Conservation Area; the Belle Air Park (North) Residential Conservation Area; the Belle Air Park (South) Residential Conservation Area; the San Bruno Park First Addition Residential Conservation Area; the San Bruno Park First and Third Addition Residential Conservation Area; and the Lomita Park Residential Conservation Area. The locations of these residential areas are shown in Figure II.XX in Chapter 2, Project Description. Residences are located adjacent to, but not within, the Subarea B planning area.

In San Bruno there are 11 elementary schools, one intermediate school, one high school, and one junior college used for public education. In addition, there are four special schools and two parochial schools that serve the community (City of San Bruno, 1984). Of these schools, only two lie within Subarea A of the proposed Redevelopment Plan. These include: (1) the Belle Air

Elementary School at the southern end of Third Avenue; and (2) St. John School on the block bound by Santa Inez Avenue, San Anselmo Avenue, San Benito Avenue, and San Antonio Avenue. No schools are located within the Subarea B planning area.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Appendix G of the revised *CEQA Guidelines* (Governor's Office of Planning and Research, 1998) indicates that a project could be significant if it would:

- expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- expose persons to or generate excessive groundborne vibration or groundborne noise levels;
- result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or
- for a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise.

A change in noise levels of less than 3 dBA is not discernible to the general population; an increase in average noise levels of 3 to 5 dBA is clearly discernible to most people (California Department of Transportation, 1991). An increase in the noise environment of 5 dBA or greater is considered to be the minimum required increase for a change in community reaction (U.S. Department of Transportation, 1990) and, for the purposes of this analysis, constitutes a significant noise impact. With temporary noise impacts, identification of "substantial increases" depends upon the duration of the impact, the temporal daily nature of the impact, as well as the absolute change in dBA levels.

For operational impacts, operational noise that would exceed the "normally acceptable" land use compatibility noise range of the general plan in the jurisdiction where a project element is proposed would be considered a significant noise impact. If a land use already exists in a "conditionally acceptable" or "normally unacceptable" noise compatibility environment, as designated in the General Plan, then an increase in operational noise that would result in a change of land use compatibility category would be considered a significant noise impact. For land uses designated as within a "clearly unacceptable" noise compatibility environment, operational noise that would result in a 3-dBA or greater increase to the existing noise environment would be considered significant, if sensitive receptors that would be affected are present. If sensitive

receptors would not be present but the land use is considered sensitive to noise, then a 5-dBA increase would be considered significant. Otherwise, an increase would only be considered significant if it violated a local noise ordinance or substantially contributed to an existing violation of a noise ordinance.

A project would also be considered to have a significant impact if it would introduce new noise-sensitive uses into an area that does, or would have, unacceptable noise levels. Unacceptable noise levels would be those that would exceed the "normally acceptable" land use compatibility standards presented in Table III.L.2.

Impact L.1: Development under the proposed Redevelopment Plan would result in temporary noise impacts related to construction activities. (Significant)

Construction preparation activities would involve excavation, grading, earth movement, stockpiling, batch-dropping operations, and vehicle travel to the construction sites. Construction activities such as foundation laying, building construction, and finishing operations would also generate noise. Construction-related material haul trips would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. In addition, certain types of construction equipment generate impulsive noises (such as pile driving), which can be particularly annoying. Table III.L.3 shows typical noise levels during different construction stages. Table III.L.4 shows typical noise levels produced by various types of construction equipment.

Noise-sensitive land uses, including residences, are located throughout Subarea A and adjacent to Subarea B and would be subjected to noise from construction and demolition activities associated with projects proposed under the Redevelopment Plan. Standard demolition activities employ equipment similar to that used for construction activities and would have similar, but shorter duration, noise impacts. The distances required to achieve noise levels of 60, 65, and 70 dBA during various construction stages are presented in Table III.L.3. Any noise-sensitive land use within the distance to the construction shown under the column "65 L_{eq}" site could be exposed to noise levels above the normally acceptable noise compatibility standard. The duration of the construction period would differ for individual projects under the Redevelopment Plan, depending on the extent of land use change, and the extent to which the change would involve new construction rather than reuse of existing structures.

Construction activities would generate an intermittent noise throughout the life of the project; noise impacts on sensitive receptors would vary, depending on the presence of intervening barriers or other insulating materials. Although construction activities would likely occur only during daytime hours, construction noise would still be considered disruptive to residents and local businesses.

Because the potential exists for construction activities to raise ambient noise levels above recommended standards at nearby sensitive receptor locations, construction noise would be considered a short-term, significant impact.

TABLE III.L.3
TYPICAL CONSTRUCTION NOISE LEVELS

Construction Activity	Noise Level at 50 feet (L_{eq})[a]	Approximate Distance (in feet) to Reduce Noise to Given Level (L_{eq})[b]		
		60	65	70
Ground Clearing	84	790	450	250
Excavation	89	1,400	800	450
Foundations	78	400	220	130
Erection	85	890	500	280
Finishing	89	1,400	800	450

[a] U.S. Environmental Protection Agency, *Noise from Construction Equipment and Building Operations, Building Equipment, and Home Appliances*, December 1971.
[b] Calculations assumed a 6-dBA reduction for each doubling of distance from the noise source.

SOURCE: Environmental Science Associates

TABLE III.L.4
TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Construction Equipment	Noise Level (dBA at 50 feet)
Dump Truck	88
Portable Air Compressor	81
Concrete Mixer (Truck)	85
Jack Hammer	88
Scraper	88
Dozer	87
Paver	89
Generator	76
Pile Driver	101
Rock Drill	98
Pump	76
Pneumatic Tools	85
Backhoe	85

SOURCE: Cunnif, *Environmental Noise Pollution*, 1977.

Mitigation Measure L.1: Noise-generating construction activities shall be limited to reasonable daytime hours, such as between the hours of 7:00 a.m. and 7:00 p.m. on weekdays, and 8:00 a.m. and 6:00 p.m. on Saturdays and Sundays. Information concerning construction-related activities and construction hours should be distributed throughout the affected areas and incorporated into the City of San Bruno web site. (Identified in This Report)

Significance after Mitigation: Given the temporary nature of construction noise impacts, the above mitigation measures would reduce the impact to less than significant.

Impact L.2: Project-generated vehicle traffic associated with the Redevelopment Plan would result in an increase in ambient noise levels on local roadways. (Less than Significant)

Based on the traffic analysis prepared for this report, the proposed Redevelopment Plan would be expected to generate approximately 5,487 additional daily vehicle trips. These trips would be distributed over the local street network and would affect roadside noise levels.

To assess the impact of project traffic on roadside noise levels, noise level projections were made using the Federal Highway Administration (FHWA) noise prediction model (U.S. Department of Transportation, 1978) for the nine roadway segments in the Redevelopment Plan Area that would experience the greatest increase in traffic volumes and that pass through areas where existing residential uses are located. Table III.L.5 shows the existing peak-hour traffic volumes on these roadway segments and the projected increase in traffic volumes with and without the project in 2020. The results of the modeling effort are shown in Table III.L.6. Estimated noise levels shown in Table III.L.6 correspond to a distance of approximately 50 feet from the centerline of the applicable roadway segment.

As seen in Table III.L.6, the addition of project-generated traffic would not significantly increase noise levels on local roadways. Peak-hour noise levels along Scott Street would increase by about 4 dBA without the project in 2020, but only by 1 dBA with the project. The noise environment along this roadway segment is affected most by aircraft flyovers from SFIA. The minor increases in noise levels associated with vehicle traffic would likely go unnoticed. Increases in noise levels along the other roadway segments analyzed would be less than 3 dBA, the smallest noise level detectable to the average person and would likely be unnoticed. Because the addition of project-related traffic would not substantially increase noise levels for residents on modeled roadway segments, this impact would be less than significant.

Mitigation: None required.

TABLE III.L.5
PM PEAK-HOUR ROADWAY SEGMENT VOLUMES

Roadway Segment	Existing (1998)	Future Base (2020)	% Change from Existing	Future Base Plus Project (2020)	% Change from Existing
Commodore Dr. (south of Sneath Ln.)	188	270	44%	322	71%
Sneath Ln. (east of Commodore Dr.)	2,023	2,994	48%	3,014	49%
Sneath Ln. (west of Commodore Dr.)	1,967	2,914	48%	2,946	50%
Huntington Ave. (north of Sneath Ln.)	1,452	2,380	64%	2,380	64%
Huntington Ave. (south of Sneath Ln.)	1,098	2,071	89%	2,071	89%
Sneath Ln. (west of Huntington Ave.)	1,072	1,697	58%	1,697	58%
San Mateo Ave. (north of San Bruno Ave.)	764	931	22%	1,131	48%
Scott St. (west of Herman St.)	37	95	157%	43	16%
San Felipe Ave. (east of El Camino Real)	249	321	29%	321	29%

SOURCE: DKS Associates; Environmental Science Associates

Impact L.3: Under the Redevelopment Plan, new noise-sensitive uses could be developed in areas where noise levels are unacceptable for such uses. (Significant)

The Redevelopment Plan could result in construction of an estimated 515 to 700 new residences in Subarea A. The primary redevelopment would include development on the U.S. Navy and Navy Reserve (Marine Corps) site. Uses assumed for this area include housing for seniors, market-rate housing, a hotel, a conference center, retail shops and office uses. Retail, entertainment, hotel, and office uses are also proposed for the Tanforan Park Shopping Center site. Under the Redevelopment Plan, residences could be located along El Camino Real and San Bruno Avenue, at the Parks and Recreation Corporate Yard at San Felipe and Huntington Avenues, at the former Pacific Bell Building on San Bruno Avenue west of El Camino Real, and at Camino Plaza at the southwest corner of El Camino Real and San Bruno Avenue. No noise-sensitive land uses are proposed for Subarea B.

Some of the above-described development could occur where the ambient noise environment would be unacceptable for such uses. Examples include residential development adjacent to heavily traveled arterial streets, or in areas significantly affected by noise from SFIA overflights (as indicated by the location within the 65 CNEL noise contours), train passbys, or in the immediate vicinity of commercial or industrial facilities.

TABLE III.L.6
EXISTING AND PROJECTED PEAK-HOUR TRAFFIC NOISE LEVELS

Roadway Segment[b]	Peak-Hour Noise Level, L_{eq}[a]		
	Existing (1998)	Future Base (2020)	Future Plus Project (2020)
Commodore Dr. (south of Sneath Ln.)	57	59	59
Sneath Ln. (east of Commodore Dr.)	67	69	69
Sneath Ln. (west of Commodore Dr.)	67	69	69
Huntington Ave. (north of Sneath Ln.)	66	68	68
Huntington Ave. (south of Sneath Ln.)	65	67	67
Sneath Ln. (west of Huntington Ave.)	65	67	67
San Mateo Ave. (north of San Bruno Ave.)	63	64	65
Scott St. (west of Herman St.)	50	54	51
San Felipe Ave. (east of El Camino Real)	58	59	59

[a] Noise levels were calculated using the FHWA traffic noise prediction model for p.m. peak-hour conditions. Noise levels were calculated at 50 feet from the centerline of the roadway.

[b] The analysis assumes the average vehicle speed on each of the roadway segments to be 35 mph. A vehicle mix consisting of 97 percent automobiles, 2 percent medium trucks, and 1 percent heavy trucks was also used for the various roadway segments.

SOURCE: Environmental Science Associates

General plan and ALUC noise/land use compatibility standards consider residential development (see Table III.L.2 for the broad spectrum of land uses that fall within this category) to be "normally acceptable" in areas where the exterior noise level is less than 65 CNEL. In such areas, no special noise insulation is required. Areas where the noise levels range from 65 to 70 CNEL are "conditionally acceptable" for residential uses, and may require special noise insulation features. In areas where the background noise level is above 70 CNEL, residential land uses are considered "normally unacceptable," even with noise insulation.

The SFIA noise contours, in which some of the proposed residential uses fall, fluctuate over time. For example, under existing conditions (1997), Figure III.L.3 shows that portions of each of the proposed residential sites are within the 65 CNEL noise contour, while only the U.S. Navy and Navy Reserve (Marine Corps) site is within the 70 CNEL noise contour. Figure III.L.2 shows that by 2000, the U.S. Navy and Navy Reserve (Marine Corps) site is expected to fall out of the 70 CNEL noise contour and into the 65 CNEL contour, where development would be considered acceptable with proper insulation. And finally, in 2010, only residences proposed at the Navy site would be within the 65 CNEL noise contour.

Proposed residences at the Parks and Recreation Corporate Yard would be within the estimated 65 CNEL noise contour for the Caltrain tracks (shown in Figure III.L.3). No other proposed residential areas are within the railroad noise contour presented in the general plan.

Other proposed residences could be exposed to noise levels in excess of 65 dBA due to vehicle traffic on local roadways, as suggested by actual noise measurement data provided in Table III.L.1.

Because the proposed Redevelopment Plan could locate residences and other noise-sensitive land uses in areas that exceed the "normally acceptable" compatibility criteria, this would be considered a significant impact. However, with proper noise insulation, this impact could be mitigated to a less-than-significant level.

Mitigation Measure L.3: The City shall require noise insulation for all residential areas proposed under the Redevelopment Plan that would be located in areas that exceed 65 dBA, CNEL. Noise insulation should be such that interior noise levels do not exceed 45 dBA, L_{dn}, as required under Title 24. (Identified in this Report)

Significance after Mitigation: Less than Significant.

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M. AESTHETICS: URBAN DESIGN, VISUAL QUALITY, AND COMMUNITY CHARACTER

INTRODUCTION

This section considers the potential impacts on urban design and visual quality of the proposed San Bruno Redevelopment Plan. *CEQA Guidelines* are unspecific regarding the particular aspects of the visual environment that need to be examined for a program EIR; accordingly, this section takes a comprehensive approach by considering views to and from the two subareas within Redevelopment Project Area subareas, as well as building scale and character in the Project Area. The CEQA checklist does specify consideration of potential visual impacts to designated scenic highways, which is included in this section.

SETTING

San Bruno's urban design and visual character is described below, with a focus on the Redevelopment Plan's Subareas A and B. The description is provided at three scales:

- Areawide topography – visual characteristics of the topography in the San Bruno area.
- Citywide urban form – street grid systems, development patterns, and urban form throughout the city.
- Redevelopment subareas – visual characteristics of commercial corridors, commercial districts, and residential neighborhoods in Subareas A and B.

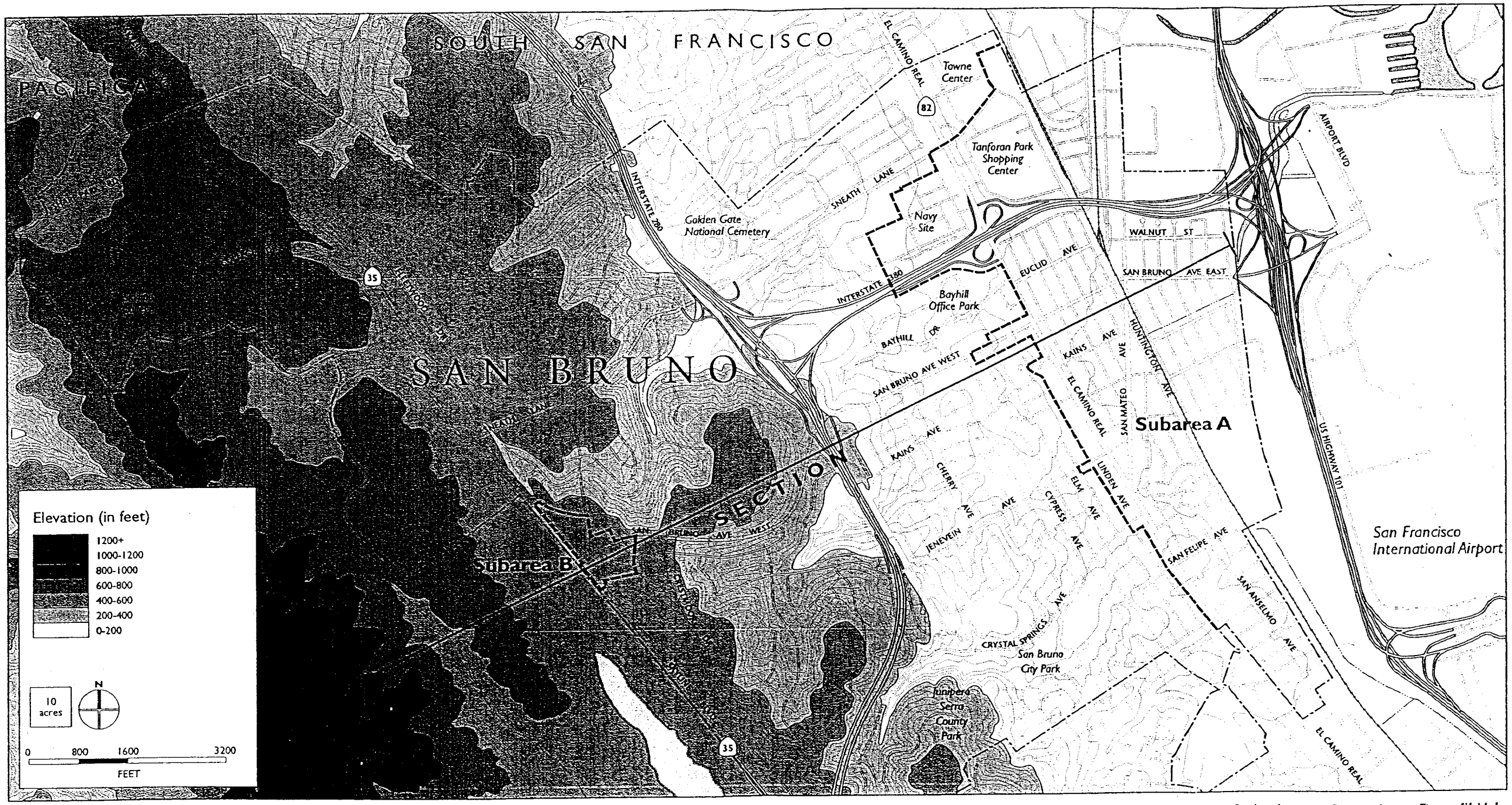
In addition, several scenic highways, as designated by the state, the county, or the city, run through San Bruno, providing attractive linear corridors for motorists, cyclists, and pedestrians. These highways pass through several different neighborhoods in the city, and their unique visual characteristics are discussed separately.

SETTING

AREAWIDE TOPOGRAPHY

Topography plays a key role in shaping San Bruno's urban character. Hills to the north and west provide prominent visual backdrops. San Bruno Mountain, north of the city, and Sweeney Ridge, located about one mile west of Subarea B, both rise approximately 1,200 feet above the mean high water sea level (see Figure III.M.1).

The topography gradually flattens out from the western ridgeline toward San Francisco Bay. The eastern city limits are located one to two miles inland from the Bay; San Francisco International Airport (SFIA) is situated at the Bay shore itself. Subarea A encompasses the city's entire eastern edge and has elevations ranging between 25 and 100 feet. The surrounding ridgelines can be seen from points throughout Subarea A and serve as geographical landmarks.



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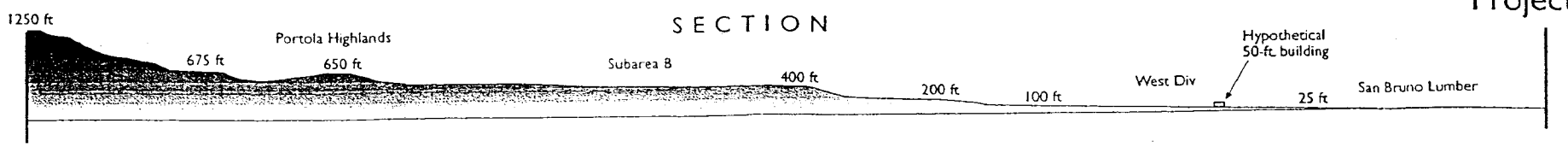
City of San Bruno Redevelopment Project Area - Figure III.M.1

Project Area Topography

SECTION



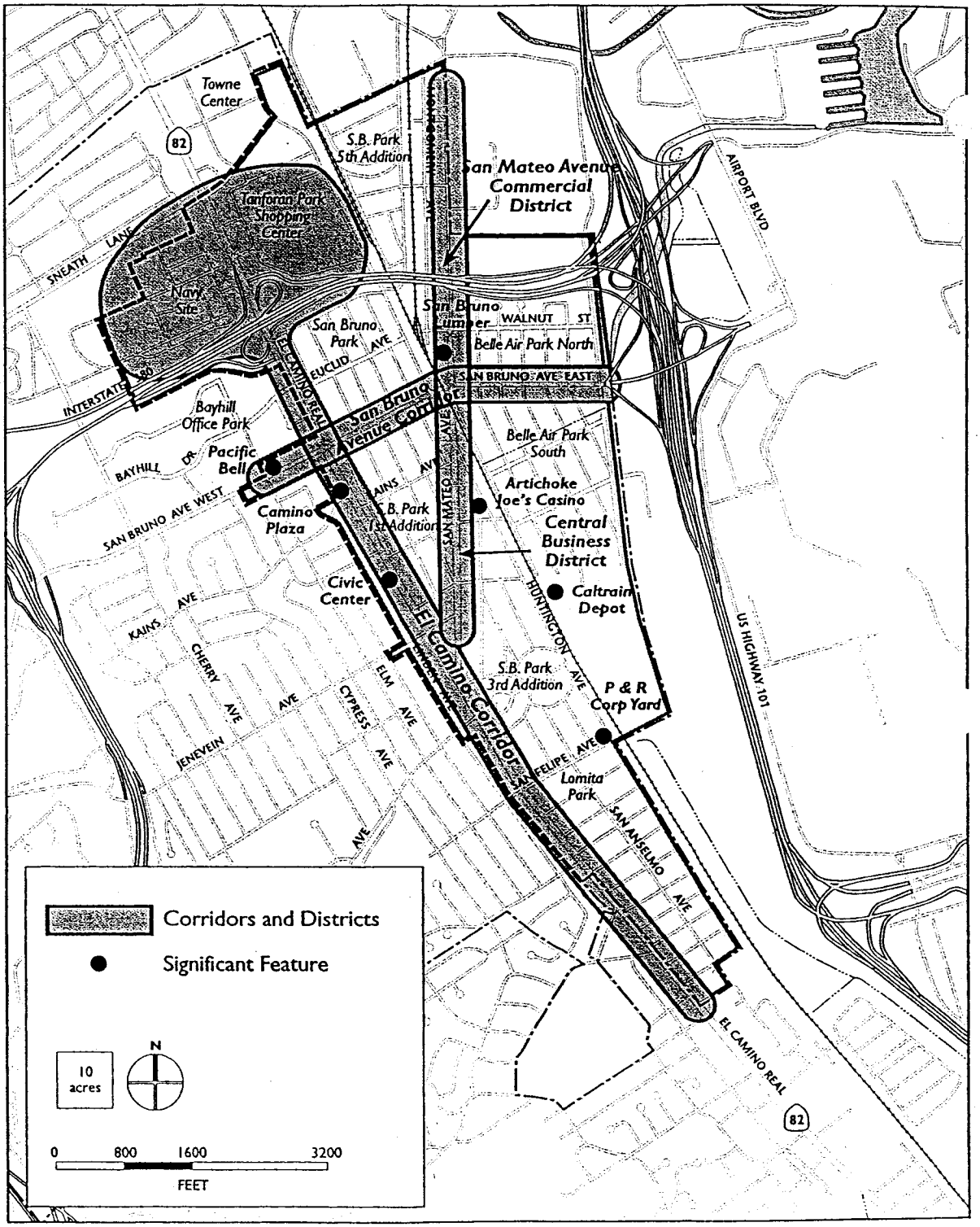
Subarea B is located at an elevation of about 450 feet in the hilly western parts of the city, but is still below Sweeney Ridge and the adjacent ridgelines. Extensive views of San Bruno Mountain to the northeast can be seen from the subarea. Partial views of San Francisco Bay, the Oakland hills, and Mount Diablo (in central Contra Costa County) can be seen in the distance through San Bruno's trees and buildings.

CITYWIDE URBAN FORM

The flat, easternmost edge of the city is characterized by mixed residential and commercial uses that were developed in the early part of the 20th century. The compact, mixed-use urban form of the city's Central Business District—located within Subarea A along San Mateo Avenue—suggests that the city was originally oriented to pedestrians and the Southern Pacific (SP) Railroad. The residential neighborhoods adjacent to downtown and the auto-oriented commercial uses along El Camino Real and San Bruno Avenue reflect the gradual shift to automobile use.

1. View of the western ridgelines from the Lomita Park neighborhood.

A variety of streets in orthogonal grid patterns, as opposed to curving patterns, are found in the flat areas of the city, east of I-280. Each grid pattern is associated with a different residential neighborhood, reflecting the incremental nature of San Bruno's development. The transitional points between adjacent grid patterns—sometimes demarcated by major arterials, the SP railroad tracks, or other major elements—form neighborhood edges. Nevertheless, the grid patterns create multiple access points into these neighborhoods, allowing for pedestrian movement between different parts of the city (see Figure III.M.2).



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City of San Bruno Redevelopment Project Area - Figure III.M.2

Subarea A Neighborhoods, Corridors and Districts

The hilly areas to the west, developed in the second half of the century, are characterized by development of lower density than the portion of the city located east of I-280. This western portion of the city primarily includes single-family detached homes. Little commercial development is found in the hills, aside from a neighborhood shopping center in Subarea B. The strict separation of uses, combined with the curvilinear streets and cul-de-sacs, reflect an orientation to automobiles and to the topography of the area. Neighborhoods west of I-280 are accessed by major arterials, such as Sneath Lane, Skyline Boulevard, and San Bruno Avenue West. Relatively few roadways lead from the arterials into the neighborhoods, making pedestrian movement challenging.

SUBAREA A

Subarea A encompasses commercial districts, corridors, and residential neighborhoods. Several major redevelopment sites are also located in the area. Major features and sites are identified in Figure III.M.2.

Commercial Corridors and Districts

Two major corridors traverse Subarea A: El Camino Real and San Bruno Avenue. The two streets are lined with commercial uses; free-standing signs dominate the streetscape visually. In addition to the freeways, El Camino Real and San Bruno Avenue are the two structural axes of the street pattern, around which neighborhoods in Subarea A are organized. They carry the heaviest traffic in the Redevelopment Project Area and provide connections to areas outside San Bruno. El Camino Real connects San Bruno to other cities on the Peninsula along a north-south axis, and San Bruno Avenue connects Skyline Boulevard and hillside residential neighborhoods with the U.S. 101/I-380 interchange, along an east-west axis.

In addition to the two corridors, two commercial districts are located along San Mateo Avenue. The district north of San Bruno Avenue is characterized by small-scale, auto-oriented shops, while the district south of San Bruno Avenue is the pedestrian-oriented central business district.

El Camino Real

El Camino Real (State Route 82) was the first highway and automobile route through the Peninsula, and developed parallel to the SP tracks that linked the "railroad suburbs" of San Mateo County to San Francisco. The corridor continues to be an important route through the Peninsula. The downtowns of most of the county's cities—including San Mateo, Redwood City, Belmont, Atherton, San Bruno, and Millbrae—are located adjacent to El Camino Real or the SP tracks.

With the construction of the Bayshore Freeway (U.S. 101), El Camino Real lost much of its prominence. However, many of the uses along the San Bruno stretch of El Camino Real still serve regional and local shopping needs. Tanforan Park Shopping Center draws customers from cities throughout the northern Peninsula, while smaller-scale commercial uses – including fast-

food restaurants, auto repair shops, dry cleaners, etc. – serve residents in the adjacent neighborhoods.

The scale and character of "regional" and "local" commercial uses varies enormously. Tanforan occupies an entire super-block and is set back from the street with peripheral surface parking. Smaller-scale commercial uses line El Camino south of San Bruno Avenue West. These free-standing buildings are typically one or two stories in height and have surface parking lots to the front, side, or rear, creating gaps in the street frontage. Free-standing signs face traffic.

Other major uses along the El Camino corridor include the Navy and Navy Reserve sites. Located across from Tanforan, the sites occupy a 25-acre campus, which is accessed from a guarded entrance off of Sneath Lane, not El Camino Real (see subsection below, Potential Redevelopment Sites).

San Bruno Avenue

San Bruno Avenue serves as a major gateway to San Bruno. The avenue provides a direct link into the city from the U.S. 101/I-380 interchange. Between U.S. 101 and El Camino Real, San Bruno Avenue has small-scale commercial buildings similar in character to those along El Camino Real. However, unlike El Camino Real, the commercial uses along this segment of San Bruno Avenue have little or no setback from the street and few off-street parking spaces, creating a more continuous street wall than is present along El Camino Real.

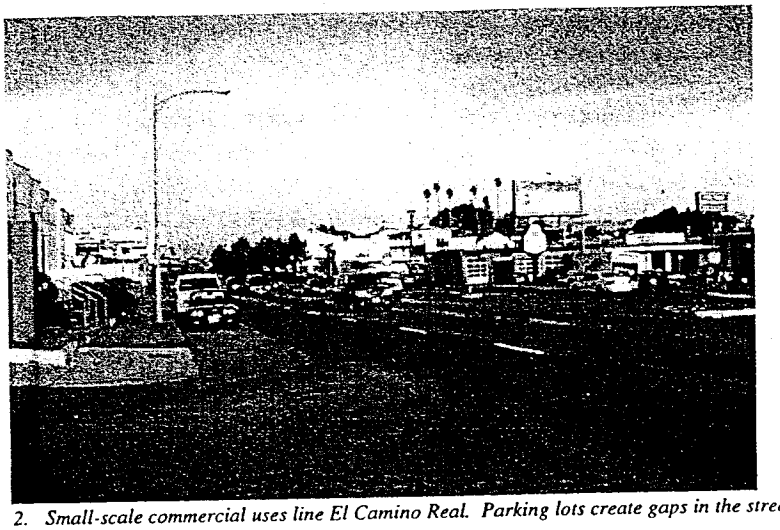
San Mateo Avenue Commercial District

San Mateo Avenue north of San Bruno Avenue is characterized by small-scale commercial uses, particularly auto repair shops. In terms of scale and form, buildings resemble those along the segment of San Bruno Avenue described above, with little or no setback from the street and few off-street parking spaces. Cars undergoing service can be observed parked on the sidewalk and in the street.

This segment of San Mateo Avenue is bounded by the SP railroad tracks and residential buildings on the west. The district along this segment is isolated from the surrounding areas. Where the avenue is adjacent to South San Francisco, the eastern side of the street has larger-scale commercial uses, with longer frontages along the street. Buildings have larger floor footprints and are set back from the street; front setbacks have off-street parking and loading facilities, as well as planting beds with shrubs and trees.

Central Business District

San Mateo Avenue between Huntington Avenue and El Camino Real is San Bruno's downtown commercial district. This pedestrian-oriented street has ground-floor shops lining the wide sidewalks, mature street trees, underground utilities, decorated shop windows, awnings, wall signs, and antique street lamps. Buildings are typically one or two stories in height, and some date from the early 20th century. Few chain stores are found, and shops offer a range of products, from children's furniture and clothing to musical instruments and auto parts. Ethnic



2. *Small-scale commercial uses line El Camino Real. Parking lots create gaps in the street frontage, and free-standing signs face traffic.*

3. *Commercial uses on San Mateo Avenue, north of San Bruno Avenue, have little off-street parking. A car undergoing service is parked on the sidewalk.*

4. *Pedestrian-oriented shops in the central business district, with adjacent residential areas.*

shops and restaurants have signs written in foreign languages (Spanish, Korean, and Chinese). Parking for shops is available on-street or behind buildings.

The commercial buildings are integrated with the surrounding residential neighborhoods. Residences are located behind the shops on adjacent streets, and residential structures have a similar compact scale. Many have front porches and stoops; garages, if present, are small and hidden behind the residence. The downtown commercial area is not visible from the adjacent arterials (El Camino Real and San Bruno Avenue), and the auto-oriented commercial uses along those streets are not visible from downtown.

Residential Neighborhoods

Residential neighborhoods in Subarea A generally have one- or two-story, wood-frame, single-family detached homes, dating from the first half of the 20th century, interspersed with multifamily buildings from the latter half of the century. Building lots are typically short and narrow, resulting in compact residential buildings with limited yard space. Most residential structures have one-car garages attached to the side or rear or located on the ground floor of the structure.

As reported in the *Feasibility Report for the Proposed San Bruno Redevelopment Project* (City of San Bruno, 1998), the level of maintenance in residential neighborhoods varies from residence to residence. While many houses are well maintained, others show signs of disrepair (peeling paint, untended lawns and trees, trash in the streets) [1]. In many neighborhoods, disrepair is most evident near the neighborhood edges that are formed by a major road, including those along U.S. 101, I-380, El Camino Real, and San Bruno Avenue.

The neighborhoods have distinct edges formed by I-380, U.S. 101, the SP railroad line, arterial roadways, variations in grid patterns, and geographic features. Along arterials, the commercial uses lining the streets, as well as the heavy traffic using the streets themselves, create barriers between adjacent neighborhoods.

San Bruno Park

The San Bruno Park residential neighborhood is located adjacent to the I-380/El Camino Real interchange, and is bordered by I-380 to the north, Huntington Avenue to the east, West San Bruno Avenue to the south, and El Camino Real to the west. The west side of the neighborhood has older, more distinctive buildings and a more attractive streetscape. The character of the west and east sides can be summarized as follows:

- West Side. Early 20th century bungalow style and Mediterranean-style homes. Decorative detailing, such as ironwork balustrades, brick masonry, and gabled roofs. Some front porches. Tall, mature street trees, suggesting an older age for the neighborhood. Underground electric wires.

[1] "Although many homes located in the various residential neighborhoods of Subarea A are well maintained, many others show signs of age, deterioration, and informal or possibly substandard construction." *Feasibility Report for the Proposed San Bruno Redevelopment Project* (August 1998), p. III-5.

5. Multifamily slab structures interspersed with single-family detached homes in the Lomita Park neighborhood.

6. The planted highway berm along the northern edge of the San Bruno Park neighborhood.

- East Side. Less architectural detailing. Larger garages. Fewer street trees. Overhead electric wires. Multifamily slab structures—with ground-level, open-air parking spaces—along Huntington Avenue.

The elevated structure of I-380 forms the northern edge of the neighborhood. The freeway's berm is planted with shrubbery. Forest Lane Park is located between the berm and adjacent residential structures, and as the neighborhood's only public space, makes the I-380 edge visually attractive.

San Bruno Park First Addition

The San Bruno Park First Addition is located in the heart of the city and is bordered by West San Bruno Avenue to the north, Huntington Avenue to the east, San Mateo Avenue to the southeast, Sylvan Avenue to the south, and El Camino Real to the west. San Mateo Avenue cuts across the neighborhood's grid pattern, forming the southern edge of the neighborhood. However, shops and restaurants along San Mateo Avenue are integrated with the neighborhood in terms of building scale and character. The steeple of Crossroads Christian Church—located at San Bruno Avenue West and Masson Avenue—is a distinctive landmark along the neighborhood's northern edge.

San Bruno Park Third Addition

The San Bruno Park Third Addition is located south of the downtown commercial district. The block pattern consists of several north-south streets that are interrupted by the well-known double-heart configuration. Although this block pattern is distinctive on the map, it can be confusing at street-level to outsiders. At the center of the neighborhood is a five-point intersection of short, curving streets, which cuts off views of neighborhood entrances or exits. Ridgelines are visible to the north and west and provide a general sense of direction.

Residential lots in this neighborhood are particularly short and narrow. Houses fill most of the lot, leaving little room for front, side, or rear yards. Most houses have front stoops or porches, creating a pedestrian-friendly atmosphere despite the lack of street trees. Small garages, if present, are located in rear yards or on the ground floor of buildings.

Lomita Park

Lomita Park is located at the city's southeastern edge, adjacent to the San Bruno-Millbrae border. Many of this neighborhood's single-family homes are bungalow and Mediterranean style, with distinctive detailing. The compact scale, front stoops and porches, and small garages encourage pedestrian activity. The multifamily slab structures interspersed throughout the neighborhood are typically motel-style (i.e., private apartment entrances from common balconies and exterior stairways).

Lomita Park has gently rolling hills that give the neighborhood a distinctive character and sweeping views of ridgelines. San Felipe Avenue forms the northern edge of the neighborhood. It runs along the top of a hill, and the grid pattern changes on the north side of the street. The eastern edge of the neighborhood is formed by the tall trees that line the SP right-of-way.

Belle Air Park South

Belle Air Park South is isolated from the rest of the city. The SP railroad line cuts it off from neighborhoods to the west, leaving Angus Avenue as the only connecting street. U.S. 101 and SFIA are located to the east, and the grid pattern dead-ends into Seventh Avenue along the neighborhood's eastern edge. Major surrounding land uses are visible from the neighborhood. U.S. 101 and SFIA buildings are visible from Seventh Avenue. Artichoke Joe's Casino, located on Huntington Avenue west of the railroad line, is visible from Pine Street and serves as a visual landmark.

Compared to the neighborhoods west of the SP railroad tracks, Belle Air Park South has larger homes and lots, allowing for front lawns and two-car garages. Some front yards have been paved over for short driveways. Mature street trees line most streets.

Belle Air Park North

The Belle Air Park North neighborhood has abrupt edges. It is cut off by U.S. 101 to the east and I-380 to the north. Overhead traffic signs on I-380 are visible from the neighborhood. Along San Bruno Avenue, the backs of commercial buildings abut residential structures.

The neighborhood has a barren visual quality. Houses have little detailing. Trees are few, whether on the street or in private yards. Empty lots lie between the neighborhood's eastern edge and the I-380/U.S. 101 interchange. Some setbacks have been paved over for small driveways.

San Bruno Park Fifth Addition

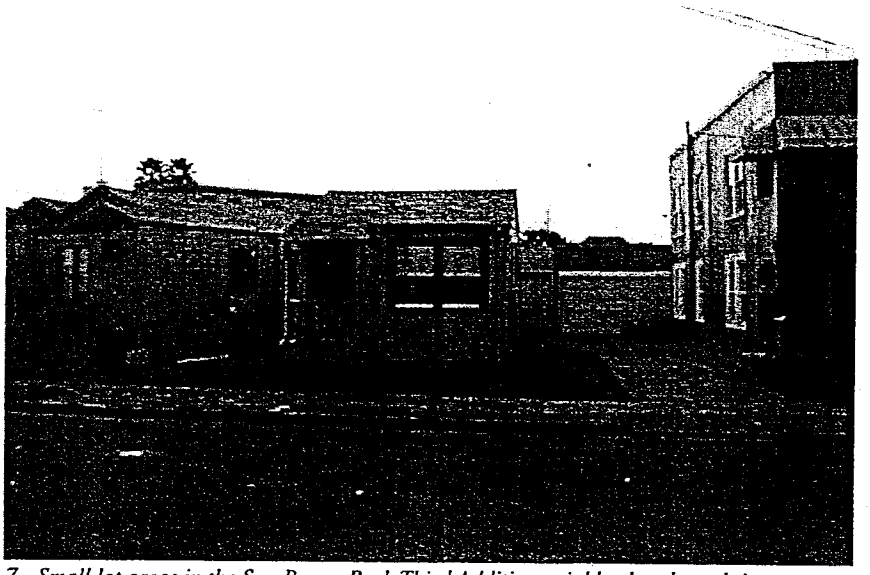
Situated between Tanforan Park Shopping Center and the San Mateo Avenue commercial corridor, this neighborhood is isolated from other residential areas. The main access road into San Bruno Park Fifth Addition is Herman Street, off Huntington Avenue near the I-380 overpass. The most distinctive urban design element of the neighborhood is Bayshore Street. An unused rail line runs down the center of the street in a tree-lined median approximately 20 feet wide, which functions as a small neighborhood park. From Herman Street, there are views of Sign Hill in South San Francisco.

Potential Redevelopment Sites

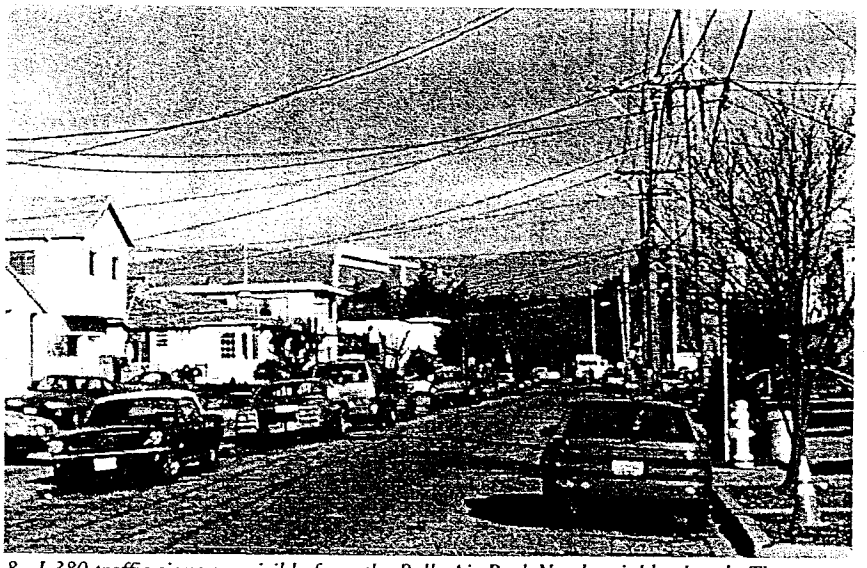
The following sites have been identified as potential sites for redevelopment (see Chapter II, Project Description). Almost all of the potential redevelopment sites are located in commercial corridors along El Camino Real and San Bruno Avenue, with the exception of the Parks and Recreation Corporate Yard, which is located at the edge of the San Bruno Park Third Addition neighborhood.

Tanforan Park Shopping Center

Located at northern end of the El Camino Real corridor, near the I-380 interchange, Tanforan Park Shopping Center is an enclosed shopping mall surrounded by a large surface parking lot.



7. Small lot areas in the San Bruno Park Third Addition neighborhood result in a compact urban form.



8. I-380 traffic signs are visible from the Belle Air Park North neighborhood. The ridgeline of San Bruno Mountain can be seen in the distance.

Anchor stores include Sears, JC Penny, and Target. Several auto-oriented shops are located in the parking lot, including Sears Tire and a vacant Firestone building. A parking garage is attached to the eastern end of Tanforan, adjacent to the Target store. The height of the tallest mall building is approximately 83 feet. The location is of historical interest and includes a plaque marking it as a site of historic importance, as described in the Cultural Resources section of this EIR.

U.S. Navy Property

Located across El Camino from Tanforan, the U.S. Navy has its Western Division Naval Facility where it currently houses administrative offices of an engineering group for the U.S. Navy. The campus-like facility has approximately 30 one- and two-story structures, most of which are long, narrow, barracks-like, wood-framed structures on concrete slabs. The buildings are surrounded by surface-level parking lots, access roads, and landscaping beds with shade trees. Green lawns and concrete sidewalks allow pedestrian movement between buildings.

The Navy property is fenced on all sides. Although the site has frontage along El Camino Real, the main entrance is found at the rear of the site, at the intersection of Commodore and B Road West. The freeway entrance from El Camino south to I-380 west runs the length of the frontage. A more detailed discussion of the facility can be found in the *Land Use Program for the West Div Naval Facility* (City of San Bruno, 1999).

Navy Reserve Property (Marine Corps Training Center)

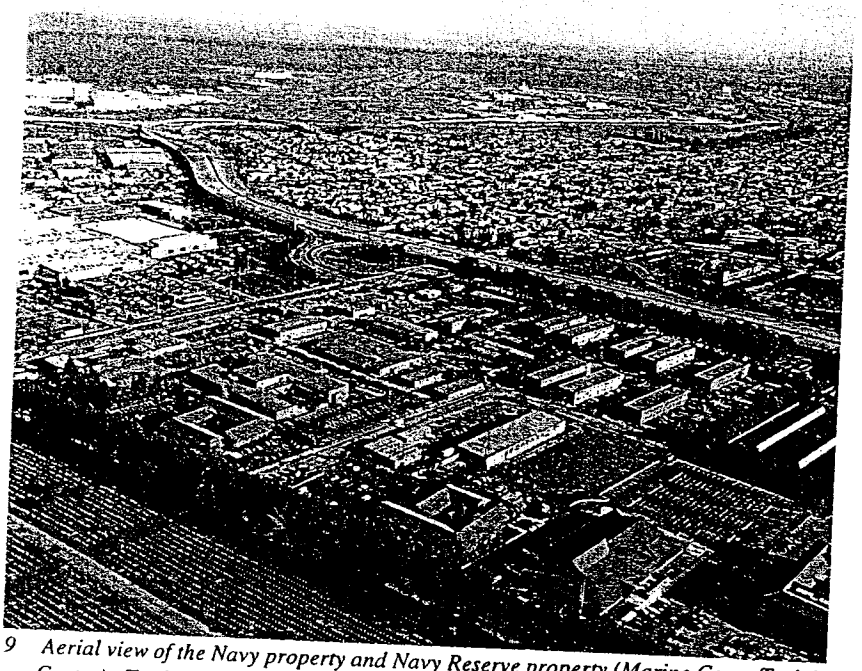
The Navy Reserve leases a site to the U.S. Marine Corps for its training center adjacent to the Navy property and sharing its campus and entrance. The Navy Reserve property is fenced off from other properties. The training center building is a large brick and concrete structure. Like the Navy property, parking lots and concrete walkways, interspersed with shade trees, surround the building.

San Bruno Lumber

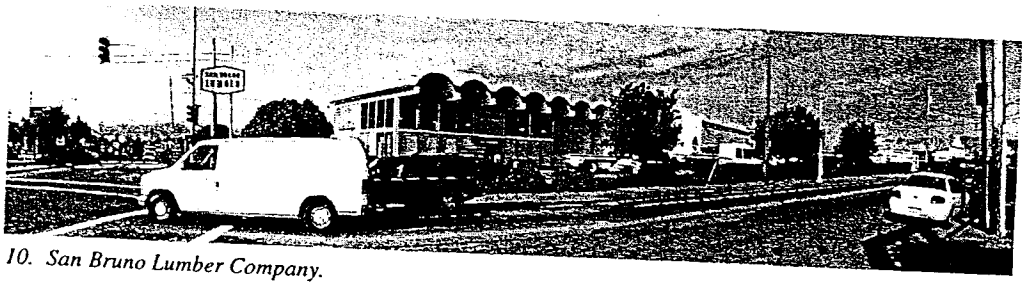
The San Bruno Lumber site is located on the San Bruno Avenue corridor at the entrance of the city. A motorist who exits U.S. 101 onto San Bruno Avenue reaches the San Mateo Avenue intersection and finds a "Welcome to San Bruno" sign. The site is located immediately southeast of the proposed San Bruno Caltrain station, and it is located just north of the central business district. A customer-oriented structure with a distinctive arched roof is located at the intersection, behind a surface parking lot, and storage buildings and lumber yards are located to the rear of the site, along San Mateo Avenue.

Pacific Bell Building

The Pacific Bell Building is located on San Bruno Avenue West, just west of El Camino Real. The building has a masonry facade, and it is surrounded by trees, lawns, and shrubs. The building height is varied in accordance with the slope of the hill, accentuating the natural landscape. A stairway from the sidewalk to the entrance provides pedestrian access from San Bruno Avenue.



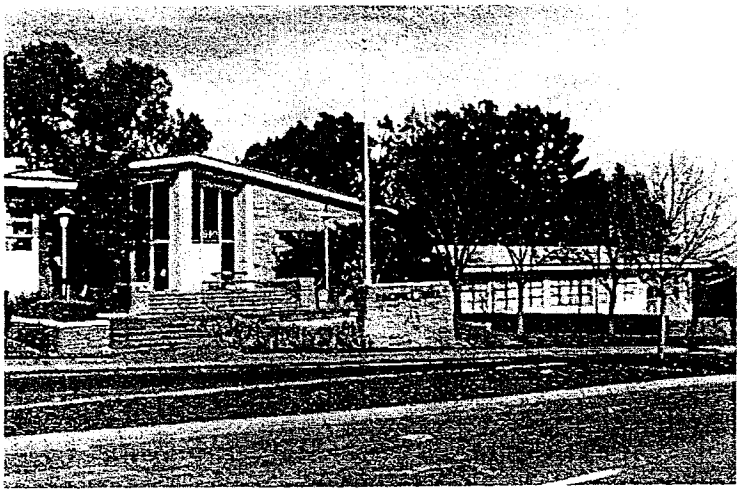
9 Aerial view of the Navy property and Navy Reserve property (Marine Corps Training Center). Tanforan Park Shopping Center, I-380, U.S. 101, and San Francisco International Airport can be seen in the background.



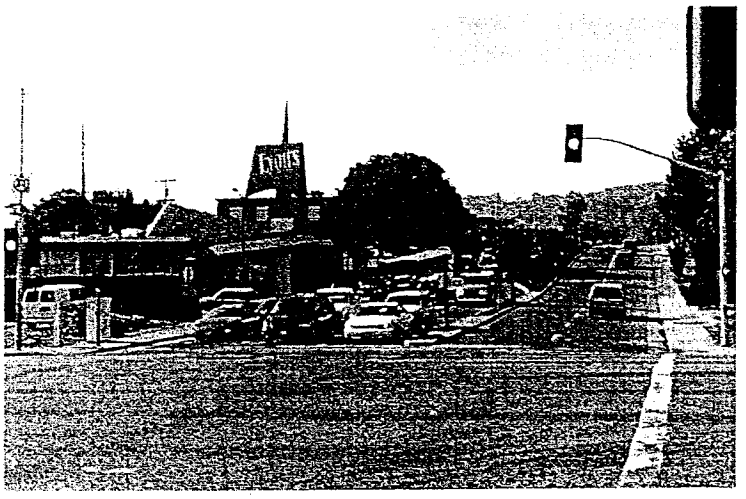
10. San Bruno Lumber Company.

Camino Plaza

Located at the intersection of El Camino Real and San Bruno Avenue West, Camino Plaza is a shopping center consisting of several detached structures. Like a typical shopping center, the structures are unified in design, having similar architectural detailing and signage. And like a traditional neighborhood shopping area, ground-floor shops line an open-air vehicular and pedestrian street, and the sidewalks lead seamlessly to the sidewalks of the adjacent residential neighborhood. Shops are neighborhood-oriented, non-chain stores and include a Japanese



11. Pacific Bell Building

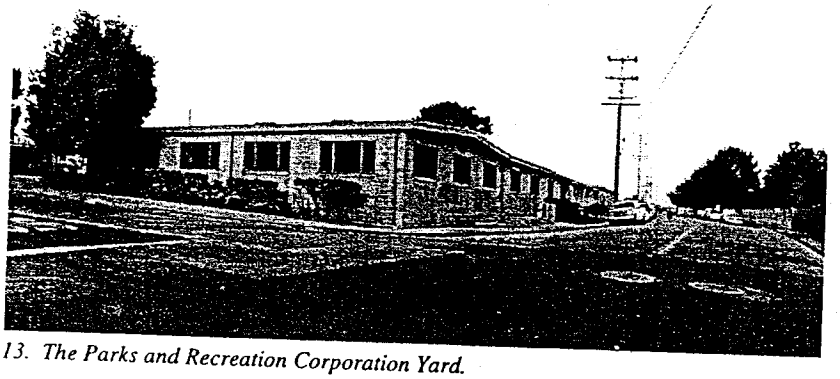


12. Camino Plaza, shown on the left.

restaurant, dry cleaners, beauty salon, and stationery store. Parking is available both on-street and behind the commercial structures.

Park and Recreation Corporation Yard

The Park & Recreation Corporation (P&R Corp) Yard is a City-owned facility located at the corner of Huntington Avenue and San Felipe, at the edge of the San Bruno Park Third Addition neighborhood. The P&R Corp Yard provides for the storage of equipment and materials used in the maintenance of City facilities. The one-story masonry structure is built up to the street lot lines, and storage and parking areas are fenced off in the rear yard.



13. The Parks and Recreation Corporation Yard.

Other Major Sites

In addition to the potential redevelopment sites, Subarea A has several other landmarks that are not under consideration for redevelopment. These landmarks are major centers of activity, and they have significant visual characteristics.

San Bruno Caltrain Depot

Located on Huntington Avenue near Sylvan, the San Bruno Caltrain Depot consists of two rain shelters and a surface parking lot. Residential neighborhoods surround the depot on all sides. Immediately south of the depot, the train tracks are flanked by tall pine trees that form the eastern edge of the Lomita Park neighborhood. There are attractive views from the Caltrain platform of San Bruno Mountain to the north.

Artichoke Joe's Casino

Located on Huntington Avenue, Artichoke Joe's Casino has a distinctive character and serves as a visual landmark for the surrounding residential neighborhoods. Not only is the Casino taller than surrounding structures, it has unique arches on the facade and a decorative cornice. The main entrance is from the parking lot on the south side of the building, suggesting that the building has a strong auto orientation. Downtown is located two blocks to the west.

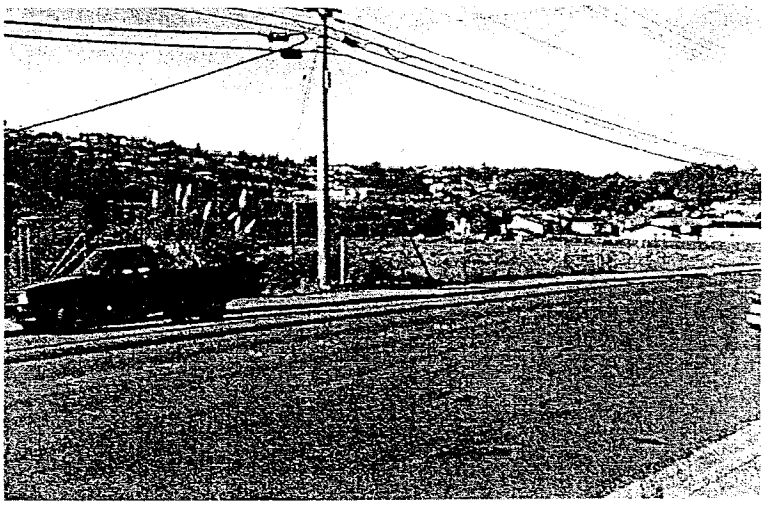
Civic Center

The Civic Center is located at El Camino Real and Angus Avenue West. It includes major public facilities, such as the City Hall and the central police and fire stations. Built in the post-war period, its buildings are modern in style and occupy most of a long, linear block. Unlike the adjacent small-scale commercial uses, the public buildings have parking in the rear, and stairs and walkways allow direct pedestrian access from El Camino Real. The Civic Center is located less than one-quarter mile—a five-minute walk—from downtown.

SUBAREA B

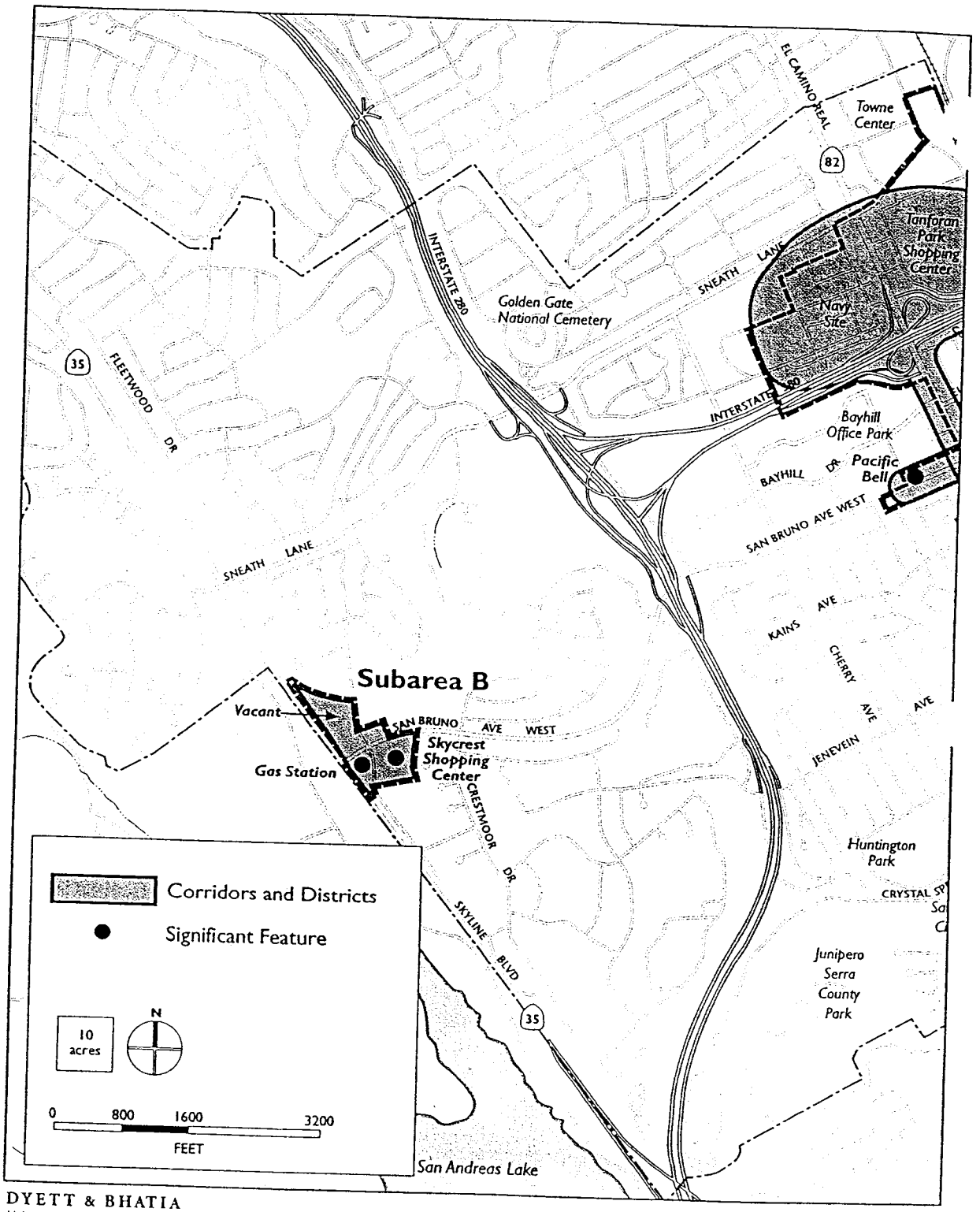
Subarea B has relatively little development and is located within an Alquist-Priolo Earthquake Fault Zone (see Section III.H, Geology, Soils, and Seismicity, in this EIR). The mountainous area immediately west of the site is part of the San Francisco State Fish and Game Refuge and gives the site an attractive natural setting (see Figure III.M.3). The parcels in Subarea B are not directly accessible from Skyline Boulevard, which is a limited-access, high-speed state highway. Tall trees line the boulevard in both the north and south directions.

The Skycrest Shopping Center, located at the intersection of San Bruno Avenue West and Glenview Drive, is the largest single land use. This neighborhood-oriented shopping center has several non-chain stories, including a Lunardi's grocery store, a dry cleaners, pizzeria, hardware store, liquor store, and drug store. The building has a large parking lot in front and a freestanding sign. A gas station is located adjacent to the shopping center, and a vacant auto repair center is located across San Bruno Avenue West.



14. Vacant site near the intersection of Skyline Boulevard and San Bruno Avenue West.

15. Views of San Bruno Mountain from the intersection of Skyline Boulevard and San Bruno Avenue West. Access to parcels is from San Bruno Avenue, not Skyline Boulevard.



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City of San Bruno Redevelopment Project Area - Figure III.M.3

Subarea B Features

The vacant parcel at the northeastern corner of the Skyline Boulevard and San Bruno Avenue West intersection is a potential redevelopment site. A small portion of the vacant site along San Bruno Avenue West serves as a fenced-off storage yard. The vacant lot slopes down from San Bruno Avenue West, permitting views of San Bruno Mountain, partial views of San Francisco Bay and the Oakland hills, as well as views of the Portola Highlands neighborhood on the hillsides to the north.

SCENIC HIGHWAYS

Several designated scenic highways run through San Bruno. Figure III.M.4 shows the state-, County-, and City-designated scenic highways that pass through the city. Only small portions of two of the highways run through Subarea A, and no highways run through Subarea B. I-380 and Skyline Boulevard are not designated scenic highways, although the 1984 San Bruno General Plan lists them as potential candidates for scenic highway designation. With the exception of the segments running through Subarea A, most of the highways are tree-lined, with little or no views of surrounding areas. The tall, shady trees are the major "scenic" characteristic of the highways.

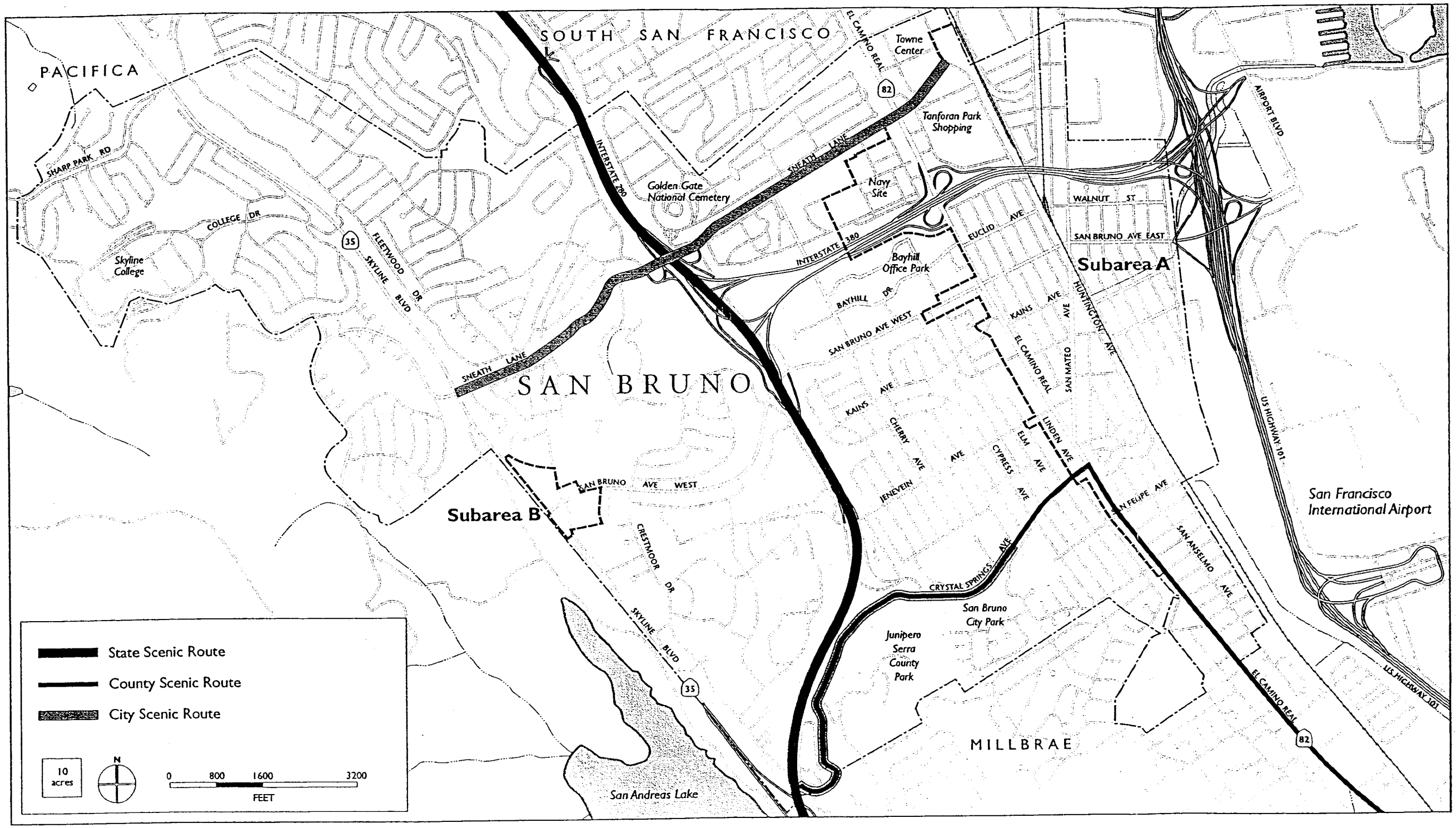
Interstate 280

Most of the San Bruno segment of I-280 is lined with trees on both sides. The landscape immediately west of the freeway rises in elevation, whereas areas to the east slope downward. Partial views of SFIA and San Francisco Bay can be seen among the trees at a few spots, but otherwise, there are limited or no views from the highway.

Sneath Lane

Like I-280, most of Sneath Lane is lined with trees and has relatively few views. West of I-280, Sneath Lane is at higher elevations, and at some intersections, where the line of trees is interrupted, there are some partial views of the Bay and the bayshore. Looking westward from the eastern edges of Sneath, there are views of Sweeney Ridge to the west. Golden Gate Cemetery lies north of the street, between I-280 and El Camino Real, proving a backdrop of rolling green lawns and tall trees.

Most development along Sneath is set back from the street, and properties are generally not accessed directly from the street itself. Rather, a few access roads serve as entrances to residential neighborhoods (west of I-280) and commercial areas (such as the Navy property). Thus, the tree-lined character of the street is not interrupted visually by structures or rooflines. East of Cherry Lane, however, more development becomes visible. The Mormon Temple and office structures between Cherry and El Camino Real, and the Tanforan Park Shopping Center and Towne Center Shopping Plaza east of El Camino all have structures that are more than two stories in height, which give the street a more built-up visual quality. The end of Sneath dead-ends into Huntington Avenue, with views of South San Francisco's industrial areas to the east.



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City of San Bruno Redevelopment Project Area - Figure III.M.4

Scenic Highways in San Bruno

Crystal Springs Avenue

Running from El Camino Real to the west, Crystal Springs Avenue is a curvilinear residential street lined with houses and trees. Between El Camino and San Bruno City Park, one- and two-story, single-family structures line the street. With front stoops and porches and small garages, the environment is friendly to pedestrians and cyclists. Near the City Park, a small neighborhood center is formed by the park itself and several churches. West of this center, the street narrows, housing disappears, and tall eucalyptus trees on either side give the sense of a wooded grove. This wooded character is the key "scenic" aspect of the street.

El Camino Real, South of Crystal Springs Avenue

A small portion of El Camino Real south of Crystal Springs Avenue is designated by the County as a scenic highway. This area has the same characteristics as other portions of El Camino Real in that it includes small commercial properties with direct access from the street, one- and two-story structures surrounded by parking, and tall free-standing signs and billboards.

IMPACTS AND MITIGATION MEASURES

APPROACH TO ANALYSIS

The proposed Redevelopment Plan does not include specific development projects or site plans, and it would not alter existing development controls for building intensity and heights that apply within the subareas.[2] Thus, the proposed project, by itself, would not affect the scale, bulk, and character of development that would otherwise occur in the Project Area. However, the visual character of parts of the city may nonetheless be impacted by development within the subareas.

The analysis presented below focuses on impacts that may be allowed by the Redevelopment Plan that would be significant at a citywide or neighborhood scale (citywide views, neighborhood scale and character). Because specific development proposals are not included in the proposed Redevelopment Plan, project-specific visual impacts cannot be assessed at this programmatic stage. The project, as defined in Chapter II, Project Description, includes assumptions (not specific proposals) about development that may potentially occur under the proposed plan. When more specific development plans are prepared, site-specific visual impacts (such as localized views, building scale and character, shadows, etc.) would then be assessed.

The identified mitigation measures address issues of citywide and neighborhood visual quality that will need to be implemented as part of approval of specific projects. Localized urban character and visual impacts of specific projects will continue to be addressed through the City's ongoing development review and administration.

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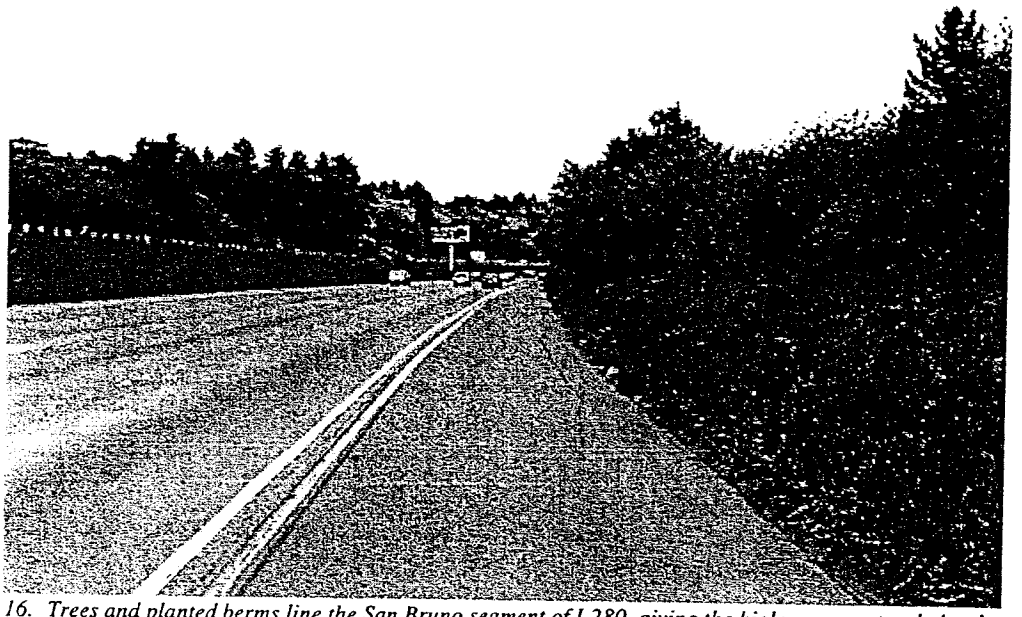
2 "Limits on building intensity shall be established in accordance with the limits contained in the Zoning Ordinance and General Plan of the City of San Bruno." The Preliminary Plan does not establish building heights, but recognizes that "development which would exceed 50 feet or three stories in height would need to comply with, and would be subject to, the voter approval requirements of Ordinance 1284." (*Preliminary Plan for the San Bruno Redevelopment Project*, p. 4)

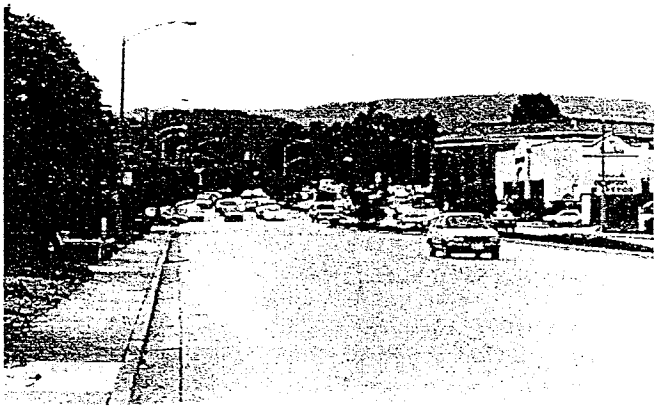


16. Trees and planted berms line the San Bruno segment of I-280, giving the highway a pastoral visual quality. This photograph is looking north, approximately one mile before the San Bruno Avenue exit.

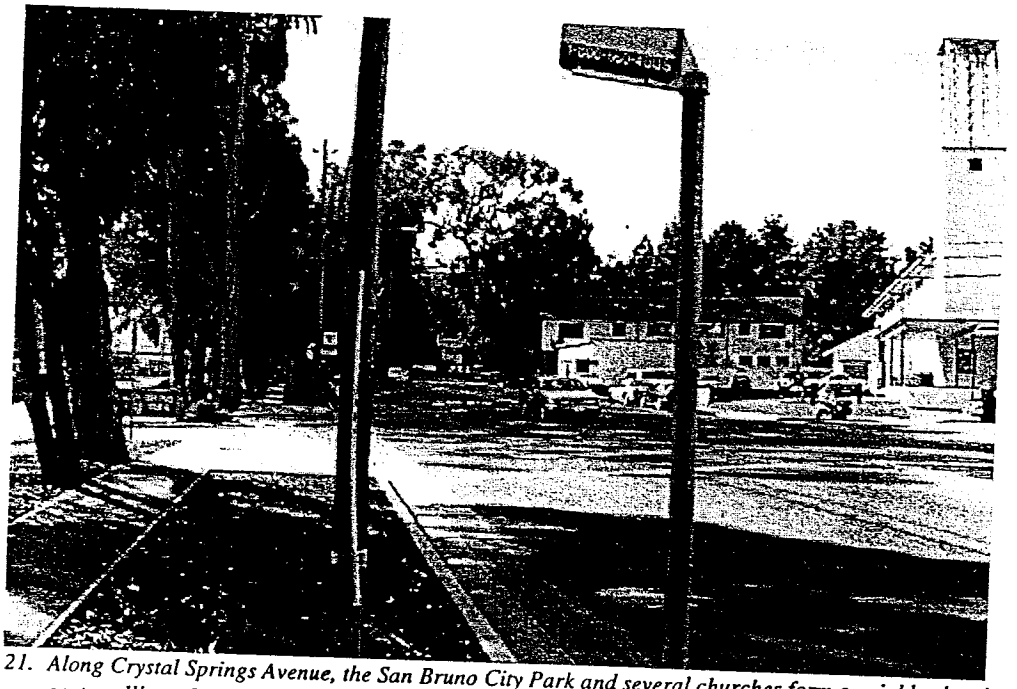
17. I-280 has only limited views of the eastern half of San Bruno. This photograph, taken from San Bruno Avenue, shows that the freeway is almost entirely surrounded by trees. The line of trees is interrupted only a major interchanges.

18. Trees line both sides of Sneath Lane, from Skyline Boulevard all the way to Tanforan Shopping Center. Golden Gate Cemetery lies north of street, between I-280 and El Camino Real, providing a backdrop of rolling hills.

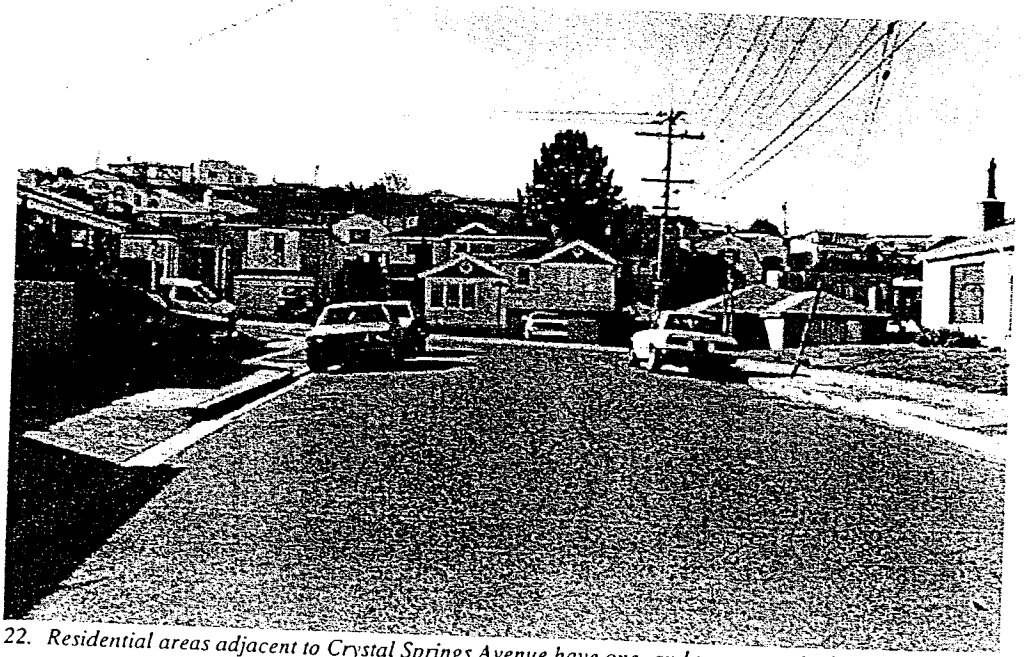
19. East of Cherry Lane, some commercial buildings are accessed directly from Sneath. Appropriate building heights, scale, color, and materials, along with trees and landscaping, help maintain the pastoral character of the street.



20. Trees line the Sneath Lane side of Tanforan Shopping Center parking lot. However, the Shopping Center and Towne Center Plaza, pictured at right, still give the eastern part of Sneath a more built-up character.



21. Along Crystal Springs Avenue, the San Bruno City Park and several churches form a neighborhood center. West of this center, shown above, the road narrows and runs through a eucalyptus grove.



22. Residential areas adjacent to Crystal Springs Avenue have one- and two-story single-family homes. The grid pattern, the front porches and stoops, and the small garages create a pedestrian-friendly environment.

SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* states that a project could normally cause a significant impact on the aesthetics of an area if it would:

- have a substantial adverse effect on a scenic vista;
- substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a scenic highway corridor;
- substantially degrade the existing visual character or quality of the site and its surroundings;
- create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

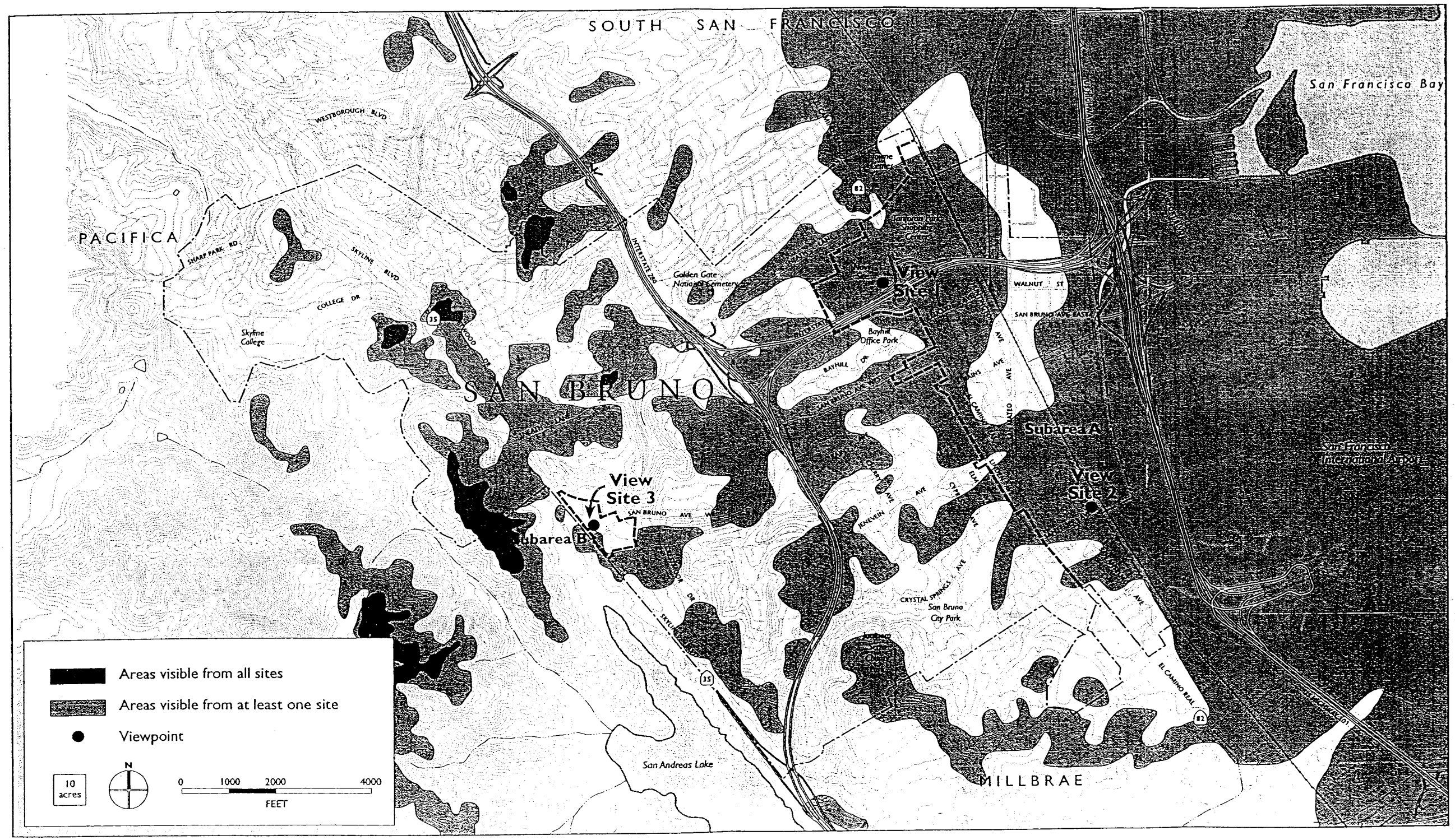
PROJECT OPERATION IMPACTS

Impact M.1: Development resulting from the project may block existing views of ridgelines to the north and west from Subarea A. (Less than Significant)

Points throughout Subarea A, located in the flat areas of the city, have views of San Bruno Mountain ridgelines to the north and Sweeney Ridge and its adjacent ridgelines to the west (see Figure III.M.5). San Bruno Mountain is located beyond the city limits, north of the City of South San Francisco. Sweeney Ridge and its adjacent ridgelines are located west of the city limits, within the San Francisco State Fish and Game Refuge. Whereas Subarea A has an elevation ranging from 25 to 100 feet above mean high water sea level, San Bruno Mountain and Sweeney Ridge rise to an approximate 1,200 feet (USGS).

Ridgeline views from many parts of Subarea A are obstructed by vegetation, buildings, and other structures. Even single-story buildings can obstruct views of ridgelines from adjacent streets. East-west streets have the clearest views of the western ridgelines, and north-south streets have the clearest views of San Bruno Mountain, because fewer structures and trees lie within the line of sight. The proposed Redevelopment Plan does not establish a height limit, but development that would exceed 50 feet or three stories in height would be subject to the voter approval requirements of City of San Bruno Ordinance 1284.

Two areas where potential redevelopment may impact views of ridgelines include the Navy and Navy Reserve properties and the San Bruno Lumber site. Although specific building heights for these sites have not been proposed or established, land use assumptions made in this EIR for evaluation purposes (see Chapter II, Project Description) include floor areas relative to lot sizes that suggest some buildings would need to be taller than 50 feet (perhaps 60-80 feet) to accommodate the potential land uses, parking, and open space. Depending on the final size and design of buildings, development could potentially block the ridgeline views from adjacent streets, including parts of El Camino Real, Sneath Lane, San Bruno Avenue, and San Mateo Avenue.



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City of San Bruno Redevelopment Project Area - Figure III.M.5

Viewshed from Selected Locations

Even though views of the ridgelines may be impacted throughout Subarea A by such development, the impacts would be less than significant for several reasons:

- Any view obstructions resulting from development would be localized. Views of the ridgelines would potentially be obstructed from streets adjacent to development sites, but views would not be impacted on a citywide basis, beyond the immediate area of the development site.

- Based on the land use assumptions included in this EIR (see Chapter II, Project Description), existing views of San Bruno Mountain along north-south streets and of the western ridgelines along east-west streets would not be altered by development resulting from the project.

- Both Sweeney Ridge and San Bruno Mountain extend more than one mile in length. Sweeney Ridge blends into adjacent ridgelines in the San Francisco Fish and Game Refuge. Therefore, even if development blocks a portion of the ridgeline, other parts of the ridgeline would still remain visible. Thus, the obstruction would be only partial.

- The ridgelines themselves are located outside the city limits and would not be developed. Sweeney Ridge is located within the San Francisco Fish and Game Refuge, and San Bruno Mountain is a county park. Thus, the natural character of the ridgelines would not be changed by development in San Bruno or any of the adjacent cities.

Mitigation: None required.

Impact M.2: Development resulting from the Redevelopment Plan could block existing views of San Bruno Mountain from Subarea B. (Less than Significant)

The section of Skyline Boulevard near the intersection of San Bruno Avenue West has views of San Bruno Mountain. Further north and south along Skyline Boulevard, trees line the sides of the road and obstruct views eastward. The parts of San Bruno Avenue West near the intersection also have views of San Bruno Mountain.

Land use assumptions under the proposed project include development on a five-acre vacant site near the intersection of Skyline Boulevard and San Bruno Avenue West. Even a one-story structure would block views of San Bruno Mountain from the intersection of Skyline Boulevard and San Bruno Avenue West.

While these views of San Bruno Mountain may be obstructed, this impact would be less than significant for several reasons:

- Although development on the vacant site would block the view of San Bruno Mountain from the intersection of Skyline Boulevard and San Bruno Avenue West, this impact is highly localized. The city limits run along the west side of Skyline Boulevard, and the area immediately west is part of the San Francisco State Fish and Game Refuge. Since

there is no development immediately west of the intersection, development in Subarea B would not obstruct views of San Bruno Mountain from other parts of the city.

- The view of San Bruno Mountain from Skyline Boulevard itself is not considered a key visual feature of the boulevard. Although the City's General Plan lists Skyline Boulevard as a potential scenic corridor, views from the highway of San Bruno Mountain are not mentioned. Rather, the scenic quality of the corridor is derived primarily from the native trees and shrubs that thrive alongside the road (San Bruno, 1984). The tall trees that line the boulevard in the vicinity of Subarea B currently obstruct views of San Bruno Mountain from most points along the roadway. Thus, the obstruction of the view from the intersection would not conflict with the City's established policies regarding scenic corridors.

- Views from San Bruno Avenue West would only be partially obstructed, depending on the site design. Portions of San Bruno Avenue on the eastern edge of Subarea B would be beyond the area of potential development, and partial views to San Bruno Mountain would be maintained.

Mitigation: None required.

Impact M.3: Development resulting from the Redevelopment Plan may block ridgeline or Bay views from other parts of the city, or may be visually obtrusive from viewpoints throughout the city. (Less than Significant)

Development in Subarea A would not obstruct views of San Francisco Bay from other points in the city. The eastern edge of the Subarea is located approximately one to two miles from the Bay, and potential building heights (possibly as tall as 60 to 80 feet under the land use assumptions) would not interfere with views of the water from any point in the city. A larger or taller building constructed in Subarea A would potentially be more noticeable from hillside neighborhoods in the western part of the city, but the change in the building mass or height would have no impact on Bay views.

Development in Subarea B would not obstruct views of Sweeney Ridge, located to the west, from other points in the city. Subarea B is approximately 400 to 450 feet above mean high water sea level, while the ridgeline rises more than 1,200 feet high. As discussed under Potential Impact M.2, land use assumptions for Subarea B under the proposed Redevelopment Plan include a storage facility of 50,000 square feet, which may be one to two stories (10 to 25 feet) in height. With such building heights, views of the ridgeline from other points in the city could not possibly be obstructed. In addition, development in Subarea B would not encroach upon the ridgeline beyond existing development. In the Portola Heights neighborhood to the north, development already exists at higher elevations.

Based on the same assumptions, development in Subarea B would not be visually obtrusive from other points in the city. Development at one to two stories would blend in visually with the

existing one- and two-story residential structures on the adjacent hillsides. Moreover, as mentioned above, the elevation of Subarea B is below the highest point of existing development in the city. Therefore, development in Subarea B would not extend the amount of the hillsides that appear developed.

Mitigation: None required.

Impact M.4: Development resulting from the project may increase existing building intensities and may potentially be incompatible with existing development in scale or character. (Potentially Significant)

The scale of development is a factor of both the size of development parcels and the massing and height of structures. The larger the size of the parcel, the larger the potential building footprint, and the larger the potential building. The taller and bulkier a building is, the more volume it occupies, and the greater the potential for it to be obtrusive.

Two sites in Subarea A may experience significant increases in scale and intensity of development – the Navy and Navy Reserve properties and the San Bruno Lumber site. The amount of potential development and the size of the development parcels (The military properties include approximately 28 acres, and the San Bruno Lumber site has approximately seven acres) suggest that the scale of new development may exceed the scale of existing nearby development.

Navy and Navy Reserve Properties

Although potential development on the military site would increase the scale of buildings on the site itself, new development is not expected to be incompatible in scale or character with surrounding development. The site is located west of Tanforan Park Shopping Center and north of the Bayhill Office Park. Both sites occupy large super-blocks, with internal streets for circulation and on-site parking. Land uses assumed for the Navy and Navy Reserve properties suggest that the scale of the site's potential uses would be consistent with the scale and character of Tanforan and Bayhill (San Bruno, 1999).

Nevertheless, the character of development at the Navy facility could potentially differ from that of adjacent uses in certain ways. While building heights would potentially be no taller than the height of Tanforan, the amount of potential development relative to the size of the site suggests that a more compact, pedestrian-oriented site design would be necessary (San Bruno, 1999). While both Tanforan and Bayhill are characterized by large-scale sites, they are both primarily auto-oriented. Thus, development at the Navy and Navy Reserve properties could have a potentially significant impact in terms of scale and character.

San Bruno Lumber

The seven-acre San Bruno Lumber site exceeds the size of adjacent parcels, suggesting that buildings with larger footprints could be introduced along San Mateo Avenue and San Bruno Avenue East for the first time. There is some possibility that new buildings on this site could exceed heights 50 feet in order to accommodate all potential development assumed for the site, but height limits relating to SFIA may apply.

The potential increased development intensity at this site would not be inconsistent with development that would otherwise be expected to occur independent of the proposed Redevelopment Plan, for two main reasons:

- Proximity to Caltrain and BART Stations. The new Caltrain station will be located at the northern edge of the San Bruno Lumber development parcel, and the BART station will be located less than one-eighth mile west of the site. These nearby transportation improvements can be expected to create market pressure for lot consolidation and intensification of development in the immediate station areas.

- Proximity to Central Business District. The San Bruno Lumber site is located between the Caltrain station and the San Bruno central business district. Because of its strategic location, the consolidation of the parcels and increased development intensity could be expected.

Nevertheless, while increased intensities could be expected even in the absence of proposed development, the increased visual scale of such development could still constitute a potentially significant impact. More massive and possibly taller on the San Bruno Lumber site would be inconsistent with the scale and character of the surrounding development. Small-scale commercial buildings with limited on-site parking are typical along the adjacent sections of San Bruno Avenue and San Mateo Avenue.

Mitigation Measure M.4a: The City of San Bruno should develop a Specific Plan for the Navy and Navy Reserve properties that establishes intensity and height limits for the site. (Identified in this Report)

Standards for the Navy and Navy Reserve properties should take into account the scale and character impacts of buildings that would result from the maximum building envelope. Also, a Specific Plan and Specific Plan EIR should include a detailed analysis of scale, character, and other urban design issues. In addition, strategies for minimizing the bulk of buildings should be explored, such as setbacks, upper-story step-backs, landscaping, and other similar techniques.

At this location, intensity, height, and bulk restrictions could reduce the massing of the structures, ensuring that the site's potentially compact development would be consistent with the less intensive development on adjacent sites. Landscaping requirements can protect existing mature trees on the site and encourage the use of vegetation to reduce the overall scale of structures.

Significance after Mitigation: Less than Significant.

Mitigation Measure M.4b: Intensity, height, and bulk standards for the San Bruno Lumber site should be established by the City of San Bruno before development is permitted to proceed. (Identified in this Report)

Standards for the San Bruno Lumber site should take into account the character and scale of existing small-scale commercial development along San Bruno and San Mateo Avenues. Building bulk should be minimized in order to be consistent with the scale of adjacent uses.

Intensity limits should be developed for this site to reduce any uncertainty regarding this parameter under the proposed Redevelopment Plan. The proposed Redevelopment Plan states that building intensities for the subareas would be established based on existing regulations in the General Plan and Zoning Ordinance. However, the C Commercial District, in which the San Bruno Lumber site is located, does not have FAR limitations. Building intensities are determined by the combination of coverage and height requirements and parking needs. More specific intensity requirements for this site would help ensure an appropriate scale and bulk for the area.

At the San Bruno Lumber site, height and bulk requirements, such as step-backs and street-wall heights, could ensure that massing along the street frontage resembles the existing small scale of other commercial uses in the vicinity.

Significance after Mitigation: Less than Significant.

Impact M.5: Development resulting from the Redevelopment Plan may increase the amount of development visible from the eastern segment of Sneath Lane, a City-designated scenic highway, which runs through Subarea A. (Significant)

Most segments of the designated scenic highways that run through San Bruno would not be affected by the land uses assumed in this EIR. Most parts of the highways do not run through the subareas, and therefore, areas immediately adjacent to the highways would not experience new development under the proposed Redevelopment Plan. Moreover, trees line most parts of the highways, and there are only partial views from the highways of Subarea A. No highways have views of Subarea B. The trees, not the views, are the key "scenic" quality of the highways. Development in Subareas A or B, therefore, would not significantly alter the visual character of most segments of the scenic corridors.

Only two segments of the scenic corridors run through Subarea A, El Camino Real south of Crystal Springs Avenue, and Sneath Lane east of the Navy Reserve property (Marine Corps Training Center site). Future development may occur along the southern portion of El Camino Real, but the potential visual impacts would be beneficial. New development could potentially create a more consistent visual streetscape, with street trees, sign controls, consistent street walls, and other urban design elements.

Along the easternmost segment of Sneath Lane, assumed development along the Navy and Navy Reserve properties would potentially alter the immediate visual quality of Sneath Lane. Development of hotels or offices could result in structures as tall as the Tanforan Park Shopping Center (approximately 83 feet tall), making the immediate area appear more developed. From Sneath, the top floors of such buildings would potentially be visible. This in itself is not a significant impact, as the immediate area already has buildings of this height. However, if tall, bulky buildings were built on Sneath Lane itself, the visual impact would potentially be significant. Tall buildings could potentially interrupt the line of trees along the street, making the Sneath Lane corridor appear more built up.

Mitigation Measure M.5a: The City of San Bruno should develop guidelines for appropriate building heights, setbacks, and upper-story step-backs for development along Sneath Lane, to ensure that new development does not interrupt the low-intensity, tree-lined visual quality of Sneath Lane west of El Camino Real. Such strategies could also preserve views down Sneath Lane from its higher-elevation western segments. (Identified in This Report)

Such strategies would maintain the visual quality of the street, reducing the visual impact of development and preserving the character of Sneath Lane west of El Camino Real.

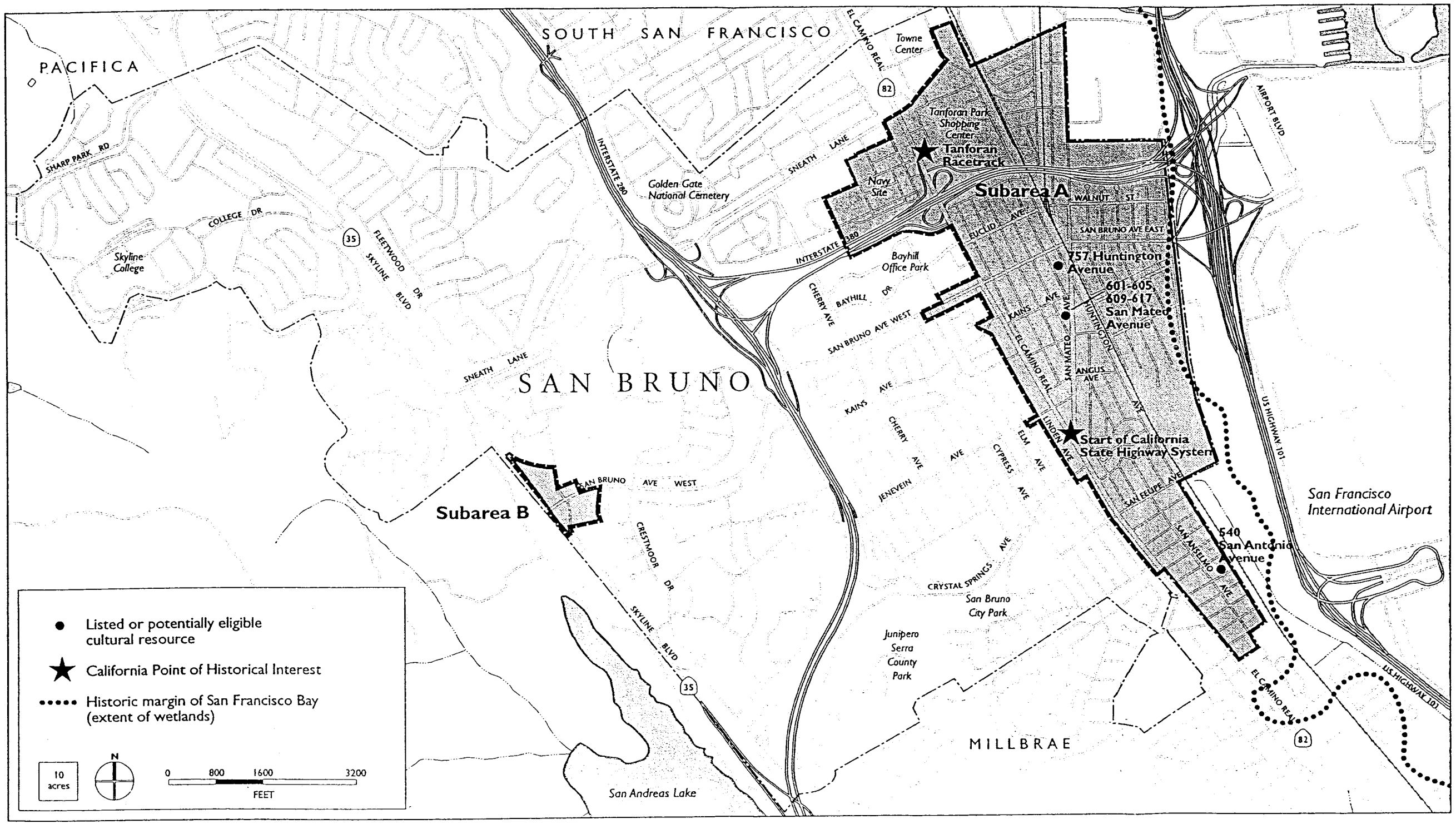
Significance after Mitigation: Less than Significant.

Impact M.6: Projects under the Redevelopment Plan could create new sources of light or glare that could adversely affect day or nighttime views in the area. (Potentially Significant)

Because of existing height and density limits, views of Subarea A would not dominate views from San Bruno's hill areas. However, new sources of substantial light or glare could pose a special danger in areas within an airport land use plan area, such as the City of San Bruno. The *San Mateo County Comprehensive Airport Land Use Plan* specifically notes that reflected sunlight poses a hazard for pilots of aircraft in an initial climb following take-off or in a straight final approach. Additionally, the Redevelopment Plan may allow substantial development, some of which may be entertainment and/or commercial development that traditionally uses bright night lights, and some of which may include windows that could create glare.

Mitigation Measure M.6a: The City of San Bruno should ensure that projects approved under the Redevelopment Plan use nonglare windows, in addition to night lights that are compatible with the *San Mateo County Comprehensive Airport Land Use Plan.*

Significance after Mitigation: Less than Significant.



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City of San Bruno Redevelopment Project Area - Figure III.N.1

Location of Identified Cultural Resources

REFERENCES – Aesthetics: Urban Design, Visual Quality, and Community Character

(All printed references are available at the San Bruno Planning and Building Department, City Hall, 567 El Camino Real, San Bruno, unless otherwise noted.)

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City of San Bruno, *Land Use Program for the West Div Naval Facility*, 1999.

City of San Bruno, *Feasibility Report for the Proposed San Bruno Redevelopment Project*, 1998.

City of San Bruno, *Preliminary Plan for the San Bruno Redevelopment Project*, 1998.

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U.S. Geological Survey (USGS), *South San Francisco and Montara Mountain Quadrangles*.

N. CULTURAL RESOURCES

SETTING

The Redevelopment Project Area is located within the city limits of San Bruno, California and consists of two subareas: Subarea A and Subarea B. Approximately 699 acres are included in Subarea A, which is east of El Camino Real, as well as areas of commercial and military (U.S. Navy and Navy Reserve) uses adjacent to and west of El Camino Real. Subarea B encompasses approximately 18 acres surrounding the intersection of San Bruno Avenue and Skyline Boulevard along the western border of the City of San Bruno, including the Skycrest Shopping Center and commercial uses adjacent to it. The City of San Bruno and the Project Area are split between two U.S. Geological Survey (USGS) 7.5-minute quadrangles, the South San Francisco map and the Montara Mountain map.

According to San Bruno's General Plan, there are eight recorded archaeological sites and two historic landmarks in San Bruno; both historic landmarks are located within the Project Area. The landmarks and the potential locations of other archaeological and historical cultural resources within the Project Area are described below.

The potential for cultural resources within the Project Area was investigated through a records search and review of relevant sections of the *San Bruno 1984 General Plan and Environmental Impact Report* and other documents.[1] Cultural resources include prehistoric or historic archaeological sites, properties of historic or cultural significance, or paleontological sites. The records research consisted of a review of archaeological, ethnographic, and historical records, literature, and maps on file at the Northwest Information Center of the Historical Resources Information System at Sonoma State University. The Northwest Information Center participates along with ten other regional centers in maintaining the comprehensive database of prehistorical and historical cultural resources throughout California, known as the California Historical Resources Information System. This search was conducted to identify recorded or otherwise known cultural resources within or adjacent to the Project Area, identify previous surveys of the area, and evaluate the potential for the presence of cultural resources within the Project Area.

Records at the Northwest Information Center at Sonoma State University indicate that approximately 10 percent of the Project Area has been studied for cultural resources (Anastasio, Garaventa, Guedon, Harmon, and Schoenfelder, 1988; ARC, n.d.a; ARC, n.d.b; BioSystems Analysis, 1989; Clark, 1979; Shoup, Brack, Fee, and Giberti, 1994).

PREHISTORIC BACKGROUND AND RESOURCES

The paleontological resources of an area are a function of the types of sedimentary deposits present in the vicinity. The Project Area is divided into two subareas with distinctive geological characteristics. As described in Section III.H, Geology, Soils, and Seismicity, of this EIR, Subarea A is underlain by deposits of the Colma Formation, which is Quaternary-aged (about

[1] The other documents are listed in the references for this EIR section.

1 million years old) and most of Subarea B is underlain by deposits of sheared Franciscan Assemblage sandstone, which are Cretaceous-aged (65 to 136 million years old). Although the Colma Formation may include occasional small marine and nonmarine invertebrate fossils, the dynamic formation and resulting structural complexity of the Franciscan Assemblage resulted in the presence of few fossils (U.S. Department of Transportation, 1994; Hudson, 1999).

At the time of Euroamerican contact, the Native Americans who lived in the general area spoke Ramaytush, one of the Coastanoan languages (Levy, 1978). Native American archaeological sites in this portion of San Mateo County tend to be situated on alluvial terraces and along historic bay margins. Subarea A of the project encompasses alluvial terraces and the historic margin of San Francisco Bay (GLP, 1858; Nicholls and Wright, 1977; USGS, 1896; USGS, 1939). Given the environmental setting of Subarea A, the potential exists for identifying Native American cultural resources within this subarea of the Project Area.

HISTORIC BACKGROUND AND RESOURCES

A review of historic literature and maps on file indicated that development of the Project Area began by the late 1880s. The USGS map of San Mateo indicated that six buildings, the Southern Pacific Railroad grade, and two roads (El Camino Real and San Mateo Avenue) were located within the Project Area by 1896. A later version of the map indicated that a new branch of the Southern Pacific Railroad grade had been constructed in the Project Area by 1939. In view of the settlement dates, there is a high possibility of identifying historic cultural resources in the project area.

Several buildings in the Project Area have been included on the State Office of Historic Preservation's *Directory of Historic Properties* (see Figure III.N.1). This directory includes properties that are at several different levels of eligibility for the National Register of Historic Places and the California Register of Historical Resources. The directory also lists State Historic Landmarks and State Historic Points of Interest. The California Inventory of Historic Resources includes, as a California Point of Historical Interest, the intersection of El Camino Real and San Mateo Avenue, in front of a tavern known as Uncle Tom's Cabin, as the location where ground was broken in August 1913 for the first California state highway (County of San Mateo, 1986).

The other site within the Project Area that is listed as California Point of Historical Interest is the site of the former Tanforan Racetrack. According to the County General Plan, the land was originally granted by the government of Mexico to the Sanchez family as part of the Rancho Buri Buri. A son-in-law, Torribio Tanforan, inherited the property where the racetrack opened in November 1899. The racetrack was the site of several aviation milestones, including the first known airplane flight in San Mateo County (1910) and the starting point of the first shore-to-ship flight (1911). The racetrack was used for military purposes in World War I and World War II, as well as a temporary detention camp during World War II for persons of Japanese ancestry. The racetrack burned down some years ago, and the site is now the location of the Tanforan Park Shopping Center. A California State Historic Landmark plaque is installed at the site.

Three buildings within the Redevelopment Project Area appear eligible for inclusion on the National Register of Historic Places, based on physical inspections and archival research performed for another EIR (U.S. Department of Transportation et al., 1994). These buildings are described below:

- **601-605 San Mateo Avenue at Angus Avenue** – commercial building constructed in approximately 1930, in the Mediterranean Revival style and reflecting the commercial heritage of San Bruno.

- **609-617 San Mateo Avenue** – commercial building constructed in approximately 1910, with Mission Revival details and serving as a reminder of the commercial heritage of San Bruno.

- **American Legion Post 409 at 757 Huntington Avenue** – Art Deco building constructed in approximately 1935, significance of which derives from its long association with a fraternal organization whose role in the social development of San Bruno is considered important.

One building within the Project Area has been determined as eligible for the National Register:

- **540 San Antonio Avenue** – house constructed in the Craftsman style in approximately 1913 and considered to be a very good example of an upper-middle-class residence in this style.

These four buildings are all located within Subarea A of the Project Area (also presented in Figure III.N.1).

REGULATORY FRAMEWORK

The proposed Redevelopment Plan is required to be consistent with San Bruno's General Plan. The General Plan notes in its Conservation, Open Space, and Scenic Corridors Element the importance of the two sites that have been designated as California Points of Historical Interest. However, none of the General Plan's goals in this section appear to refer to cultural resources, although , two policies specifically apply to cultural resources:

Policy 18 Designate the vicinity of Taylor Avenue, San Mateo Avenue, and El Camino Real as the beginning of the State Highway System with a historic landmark.

Policy 19 Continue to protect archaeological sites and resources from damage.

The General Plan notes:

> Since the locations of all the archaeological sites [in the City of San Bruno] are not known, all sites of major developments should be inspected by an archaeologist to satisfy CEQA requirements. (City of San Bruno, 1984, p. 71)

The San Bruno Zoning Ordinance has no specific category for historic resources.

IMPACTS AND MITIGATION MEASURES

APPROACH TO ANALYSIS

The proposed Redevelopment Plan is a broad-based approach to improving many different facets of the Project Area and could possibly result in different types of actions that could impact identified and potential cultural resources in the subareas. For example, construction of new facilities and infrastructure could occur under the Redevelopment Plan, and either of these actions could possibly necessitate the demolition of existing structures of historical significance or excavation of soil that may contain cultural resources such as Native American artifacts.

SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* (revised October 26, 1998) states that a project would significantly impact cultural resources if it would:

- Cause a substantial adverse change in the significance of a historical resource.
- Cause a substantial adverse change in the significance of a unique archaeological resource (i.e., an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it contains information needed to answer important scientific research questions, has a special and particular quality such as being the oldest or best available example of its type, or is directly associated with a scientifically recognized important prehistoric or historic event or person).
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- Disturb any human remains, including those interred outside of formal cemeteries.

A project could also significantly adversely impact cultural resources if it would fail to protect archaeological sites and resources, as directed by Policy 19 of the Open Space, Conservation, and Scenic Corridors Element of San Bruno's General Plan.

PROJECT CONSTRUCTION IMPACTS

Impact N.1: The proposed Redevelopment Plan could result in the disruption or destruction of a unique archaeological resource or of the significance of a historical resource, or disturbance of human remains, during construction-related excavation. (Significant)

Because there is a high possibility of identifying Native American and historical cultural resources in Subarea A of the Project Area, and as San Bruno's General Plan notes, the locations of all the archaeological sites in the city are unknown, construction-related excavation for building, infrastructure, or other projects in this redevelopment subarea could result in disruption or destruction of these resources prior to their identification and/or assessment for uniqueness.

Mitigation N.1a: The City of San Bruno should itself conduct, or require all projects involving excavation in Subarea A under the Redevelopment Plan to conduct, further archival and field study of the subarea by a qualified cultural resource consultant or archaeologist to reduce or eliminate the possibility of accidentally destroying such resources. (Identified in this Report)

Mitigation Measure N.1b: If cultural resources or human remains are encountered during construction of a project under the Redevelopment Plan, the resources and their context shall not be further disturbed until a qualified cultural resource consultant has evaluated the situation. Identified cultural resources should be recorded on proper historical properties forms. (Identified in this Report)

Significance after Mitigation: Less than Significant.

PROJECT OPERATION IMPACTS

Impact N.2: If changes to historical buildings or sites are made under the Redevelopment Plan, a substantial adverse change in the significance of the building or sites may occur. (Potentially Significant)

None of the land use assumptions appears to affect the several buildings already identified as possibly eligible for the National Register of Historic Places. However, other buildings of possible historical significance may exist within the Project Area, such as the ones identified by physical inspections and archival research performed for another EIR (U.S. Department of Transportation, 1994). If changes are made under the Redevelopment Plan to buildings of historical significance, an adverse change in their significance may occur.

Mitigation Measure N.2: When application is made for a construction permit for a project that may involve a structure or site of possible historical significance, whether due to its age or other considerations, the City of San Bruno shall ensure that an evaluation of the building or site by a qualified and appropriate cultural resources consultant is completed prior to alteration of the potential resource. (Identified in this Report).

Significance after Mitigation: Less than Significant.

REFERENCES – Cultural Resources

(All printed references are available at the Northwest Information Center, Sonoma State University, 1801 East Cotati Avenue, Rohnert Park, California, unless otherwise noted.)

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U.S. Geological Survey (USGS), map. 1896.

U.S. Geological Survey (USGS), map. 1939.

household income or as primary, full-time employment. Additional households are not expected to be attracted to the region or to nearby cities by the employment opportunities afforded by the development under the Redevelopment Plan. The Redevelopment Plan would therefore not significantly affect housing market conditions, since it would not induce significant growth in the number of households or population, or significantly affect the residential choices of households. Much of the focus development under the Redevelopment Plan is expected to be locations that will be vacated (such as the Navy and Navy Reserve properties) or are underused (such as Tanforan Park Shopping Center). The Redevelopment Plan does not propose to displace significant numbers of households or business activities that would be forced to relocate elsewhere, thus inducing off-site growth.

The project would be served by utility infrastructure that is already in place. The project would not require significant extensions or expansions of infrastructure or service capacities that would be likely to contribute to growth that would not otherwise occur without the project.

The project would not be expected to induce regional or local growth, and would therefore have a less than significant growth-inducing effect.

D. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

The significant and unavoidable impacts discussed in the Summary, in Chapter III, Environmental Setting, Impacts, and Mitigation, and identified above include all significant irreversible environmental changes related to the project. The previous discussion in this chapter regarding significant and unavoidable impacts is intended to satisfy the statutory requirement that these changes be listed in the EIR.

E. EFFECTS FOUND NOT TO BE SIGNIFICANT

The environmental effects of the proposed project are identified and discussed in detail in Chapter III, and are summarized in the Summary. Except for the significant unavoidable effects identified in the discussions of air quality, all identified environmental effects of the project would be less than significant, or less than significant after implementation of identified mitigation measures. Effects found not to be significant include those discussed under the following topics of analysis:

- Population, Employment, and Housing
- Land Use, and Land Use Plans and Policies
- Traffic, Circulation, and Parking
- Public Services, Facilities, and Utilities
- Parks, Recreation, and Open Space

- Biological Resources
- Hydrology, Water Quality, and Flooding
- Geology, Soils, and Seismicity
- Seismic and Fire Hazards
- Airport Safety
- Air Quality
- Noise
- Aesthetics: Urban Design, Visual Quality, and Community Character
- Cultural Resources

Hazardous Materials and Soil Contamination is included in the section on Hydrology, Water Quality, and Flooding.

CHAPTER V
ALTERNATIVES

A. OVERVIEW

In accordance with CEQA and the *CEQA Guidelines* [Section 15126.6(a)], an EIR must describe a range of reasonable alternatives to the project, or to the location of the project, that would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project. The EIR must also evaluate the comparative merits of the alternatives. The range of alternatives required in an EIR is governed by the "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.

This chapter addresses two alternatives to the project, describes the rationale for including them in the EIR, discusses the environmental impacts associated with each alternative, compares the relative impacts of each alternative to those of the project and each of the other alternatives, and discusses the relationship of each alternative to the project objectives.

B. FACTORS IN SELECTION OF ALTERNATIVES

The *CEQA Guidelines* suggest, but do not explicitly require, that an EIR should briefly describe the rationale for selecting the alternatives to be discussed, should identify any alternatives that were considered by the lead agency but were rejected as infeasible, and should briefly explain the reasons underlying the lead agency's determination [*CEQA Guidelines*, Section 15126.6(c)].

The alternatives addressed in this EIR were selected in consideration of one or more of the following factors:

- the extent to which the alternative would accomplish most of the basic objectives of the project (see "Project Objectives" in Chapter II);
- the extent to which the alternative would avoid or lessen any of the identified environmental effects of the project;
- the feasibility of the alternative, taking into account site suitability, economic viability, availability of infrastructure; general plan consistency, and consistency with other applicable plans and regulatory limitations;
- the appropriateness of the alternative in contributing to a "reasonable range" of alternatives necessary to permit a reasoned choice; and

- the requirement of *CEQA Guidelines* to consider a "no project" alternative as well as an "environmentally superior" alternative in addition to the no-project alternative [*CEQA Guidelines*, Section 15126.6(e)].

In consideration of the above factors, two alternatives were selected to be addressed in this EIR. Each of these alternatives is described in Section V.C, below, together with the basis for its selection.

C. DESCRIPTIONS OF ALTERNATIVES AND BASES FOR THEIR SELECTION

ALTERNATIVE 1: NO-PROJECT ALTERNATIVE

The No-Project Alternative would consist of implementation of the existing General Plan without implementation of a Redevelopment Plan. Under this alternative, the proposed project would not be approved and the project area would continue to be available for the level of development allowed by the existing General Plan and existing zoning requirements. Under this alternative, the site would still eventually be expected to develop with a variety of uses, as permitted under the General Plan land use designations for the area (see Figure III.B.3). Such uses would be expected to be similar to those under the proposed project, though perhaps of somewhat less density, developed over a longer period of time, and of less general public benefit. The reasons for these differences are threefold: (1) the economic leverage made possible by redevelopment funds could reasonably be expected to allow somewhat larger or more dense projects -- in terms of square footage, numbers of residential units, or floor-area ratio -- than would be possible without such funds; (2) the same economic leverage made possible by redevelopment funds could reasonably be expected to facilitate development of projects earlier, whether under the aegis of the City of San Bruno, the private sector, or a joint public-private effort, than would otherwise occur; and (3) the availability of redevelopment funds for making improvements to infrastructure systems such as, for example, roadway widening, storm drainage system improvement, and additional emergency water storage capacity, is more certain than the availability of possible funds from other sources, especially the private sector. If the proposed project is not approved, development of projects such as those assumed for evaluation purposes by this EIR would probably be less extensive, take longer to realize, and have a scope more narrowly focused on direct economic return.

Alternative 1, the No-Project Alternative, is included in this EIR because *CEQA Guidelines*, Section 15126.6(e)(2), require that an EIR include a "no project analysis [that] shall discuss what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services."

ALTERNATIVE 2: REDUCED DEVELOPMENT ALTERNATIVE

Alternative 2, the Reduced Development Alternative, would consist of a level of development similar to that assumed for the proposed project, with the exception of the Navy and Navy Reserve (Marine Corps) areas. In these areas, under the Reduced Development Alternative, it is

assumed that approximately 30 percent of the level of development assumed for the project would occur (see Table V.1, below; compare with Table II.1 in the Project Description).

Alternative 2 is included in this EIR because it would meet most of the basic objectives of the project, would lessen the environmental effects of the project, would be feasible, and contributes to a reasonable range of alternatives. It would also represent an alternative that is environmentally superior to the proposed project because it would contain less development, would therefore generate less traffic, and would therefore have lesser emissions of air pollutants.

D. ALTERNATIVES CONSIDERED BUT REJECTED AS INFEASIBLE

Alternative locations for the proposed project were considered for inclusion in this EIR, but were rejected because no potential alternative location would meet certain project criteria for designation of redevelopment areas and/or would accomplish project objectives and relate to significant regional transportation improvements that will affect San Bruno, as described in the Traffic, Circulation, and Parking section of this EIR (see Section III.C).

Inasmuch as a redevelopment project area must meet the requirements of California redevelopment law regarding urbanization and physical and economic blight conditions, among other criteria, alternative project locations would need to meet these requirements in order to be feasible. An additional feasibility consideration is that a redevelopment project area must be of adequate size and economic potential to provide sufficient tax increment funds to finance the desired redevelopment projects. Areas of the city outside the proposed project location substantially fail to meet these criteria.

The objectives of the proposed San Bruno Redevelopment Plan are as follows:

- Revitalize certain areas in San Bruno that exhibit both physical and economic blight;
- Stimulate private investment in San Bruno's commercial areas;
- Promote the conservation and enhancement of residential neighborhoods;
- Provide tax increment funds for redevelopment activities that are needed to alleviate blighting conditions.

On the proposed project location, an alternative that would consist entirely of hotel uses was considered but rejected, because a hotel that could efficiently occupy the 16-acre project site was considered to be larger than the mid-peninsula hotel market could economically absorb, given other existing and anticipated hotel development in the market area.

Alternatives that would provide more housing units in areas east of El Camino Real were not considered because they would not be consistent with applicable City requirements concerning San Francisco International Airport noise contours.

TABLE V.1
ALTERNATIVE 2 LAND USE ASSUMPTIONS

SUMMARY OF LAND USE ASSUMPTIONS

	Assumed Units or Size (New Construction)	Assumed Parking Spaces	Estimated Timeframe
Residential	~235 – 410 units	~290 – 640	2001-10
Hotel / Convention[1]	1,440 – 1,560 rooms 25,600 s.f.	~1,565 – 1,670	2001-10
Commercial / Retail / Entertainment[2]	805,000 – 1,120,000 s.f 4,000 – 5,000 seats	~2,650 – 4,610	2000-10

DETAIL OF LAND USE ASSUMPTIONS

Location -- Use	Assumed Units or Size (New Construction)	Assumed Parking Spaces	Estimated Time-frame	Census Tract Involved					
				6041.02	6041.01	6042	6040	6039	6038
Residential:									
Subarea A --									
Navy Site[3] – Elderly / assisted living housing (TOD)[4]	75 units	23	2001	x					
Navy Site – Market rate housing (TOD)	23 units	45	2002	x					
Navy Reserve Site (Marine Corps)[5] – Market rate housing (TOD)	23 units	45	2010	x					
Along El Camino Real / San Bruno Ave. – Housing	100 units	150	2002-10		x	x	x	x	
P&R Corporate yard (40,000 s.f.) – Housing (relocate yard from San Felipe & Huntington)	13 units	26	2010		x				
Pacific Bell bldg. at San Bruno Ave. near El Camino -- Housing (TOD) **OR** office / retail – or mix[6]	Up to 75 units	Up to 150		x					
Camino Plaza at southwest corner of El Camino & San Bruno Ave. – Housing (TOD) **OR** office / retail -- or mix[7]	Up to 100 units	Up to 200					x		
Subtotal – Residential	***~235 – 410 units***	***~290 – 640***	***2001-10***						

[1] Includes development on Navy Reserve Site, which is assumed as either TOD hotel or office, but not both.
[2] Includes development on Navy Reserve Site, which is assumed as either TOD hotel or office, but not both.
[3] "Navy Site" includes Navy property, vacant land owned by Mormon Church, the Federal Archives (assumed to remain "as is"), and the commercial property (dental facility) along the west side of El Camino Real adjacent to the Navy property. Total: approximately 22 acres.
[4] TOD = Transit-Oriented Development.
[5] "Navy Reserve Site" includes Navy Reserve property and commercial property (animal hospital and gas station) along the west side of El Camino Real adjacent to the Navy Reserve property. Total: approximately 6.5 acres.
[6] Development could be office / retail development OR housing, OR mix of both.
[7] Development could be either TOD office / retail development OR TOD housing, or mix of both.

TABLE V.1 (Continued)
ALTERNATIVE 2 LAND USE ASSUMPTIONS

DETAIL OF LAND USE ASSUMPTIONS (cont.)

Location -- Use	Assumed Units or Size (New Construction)	Assumed Parking Spaces	Estimated Time-frame	Census Tract Involved					
				6041.02	6041.01	6042	6040	6039	6038
Hotel / Convention:									
Subarea A --									
Navy Site – Hotel (TOD)	240 rooms	216	2001	x					
Navy Site – Convention center (TOD)	25,500 s.f.	128	2001	x					
Navy Reserve (Marine Corps) Site – Hotel (TOD) **OR** office[8]	Up to 120 rooms	Up to 108	2010	x					
Tanforan Shopping Center – Hotel (TOD)	400 rooms	360	2002	x					
Various locations -- Other meeting space at hotels in TOD Zone (Tanforan Shopping Center, Navy site, Lumberyard)	20,100 s.f.	100	2001 – 2010	x		x			
Lumberyard triangle – Hotel (TOD)	400 rooms	360	2010			x			
Along El Camino or San Bruno Ave. -- Other hotel(s) (non-TOD)	400 rooms	400	2001-10			x	x	x	x
Subtotal – Hotel / Convention[9]	***1,440 – 1,560 rooms 25,100 s.f.***	***~1,565 – 1,670***	***2001-10***						
Commercial:									
Subarea A --									
Navy Site – Office (TOD)	180,000 s.f.	360	2001-10	x					
Navy Reserve (Marine Corps) Site – Office (TOD) **OR** hotel[10]	Up to 75,000 s.f.	Up to 150	2010	x					
Navy Site – Retail / restaurant (TOD)	45,000 s.f.	150	2002	x					
Navy Reserve (Marine Corps) Site – Retail / restaurant (TOD)	30,000 s.f.	99	2010	x					
Tanforan Shopping Center – Retail / Dillard's (TOD)	250,000 s.f.	830	2000	x					
Tanforan Shopping Center – Retail / other (TOD)	55,000 s.f.	330	2000	x					
Restaurants -- 3 @ 15,000 s.f.	45,000 s.f.	450	2003	x					

[8] Development could be either hotel OR office, but not both.
[9] Includes development on Navy Reserve Site, which is assumed as either TOD hotel OR office, but not both.
[10] Development could be either hotel OR office, but not both.

TABLE V.1 (Continued)
ALTERNATIVE 2 LAND USE ASSUMPTIONS

DETAIL OF LAND USE ASSUMPTIONS (cont.)

Location -- Use	Assumed Units or Size (New Construction)	Assumed Parking Spaces	Estimated Time-frame	Census Tract Involved					
				6041.02	6041.01	6042	6040	6039	6038
Tanforan Shopping Center – Office (TOD)	150,000 s.f.	300	2003	x					
Tanforan Shopping Center – Theater / entertainment (TOD)	4,000-5,000 seats	Up to 1,000	2003	x					
Lumberyard triangle – Mixed (TOD)	50,000 s.f.	130	2010			x			
Pacific Bell bldg. at San Bruno near El Camino -- Office / retail **OR** housing – **OR** mix (TOD)[11]	Up to 70,000 s.f.	Up to 280	2010	x					
Camino Plaza at southwest corner of El Camino & San Bruno Ave. – Office / retail OR housing – **OR** mix (TOD)[12]	Up to 120,000 s.f.	Up to 480	2010				x		
Subarea B --									
Caltrans parcel –Public storage Or park, on 5 acres.	Up to 50,000 s.f.	Up to 50	2010						x
Subtotal – Commercial[13]	***805,000 – 1,120,000 s.f 4,000 – 5,000 seats***	***2,650 – 4,610***	***2000-10***						

DETAIL OF LAND USE ASSUMPTIONS

Location -- Use	Assumed Parking Spaces	Estimated Time-frame	Census Tract Involved					
			6041.02	6041.01	6042	6040	6039	6038
Walnut Ave. -- Eliminate part west of San Mateo Ave.	—	(NA)			x			
San Bruno Ave. -- Widen from Huntington Ave. to US-101; create 2 lanes each direction, with bike lanes, turn lanes, median, 5-ft sidewalk.	—	(NA)			x			
Angus Ave. -- Widen from Huntington Ave. to El Camino; allow 2-way travel + parking,	—	(NA)		x				

[11] Development could be office / retail development OR housing, OR mix of both.
[12] Development could be either TOD office / retail development OR TOD housing, OR mix of both.
[13] Includes development on Navy Reserve Site, which is assumed as either TOD hotel OR office, but not both.

TABLE V.1 (Continued)
ALTERNATIVE 2 LAND USE ASSUMPTIONS

DETAIL OF LAND USE ASSUMPTIONS (cont.)

Location -- Use	Assumed Parking Spaces	Estimated Time-frame	Census Tract Involved					
			6041.02	6041.01	6042	6040	6039	6038
Huntington Ave at Angus Ave. -- Build new parking garage.	500	(NA)		x				
Sneath & Commodore -- New intersection -- 2 lanes each direction, extended left pocket on Sneath.	—	(NA)	x					
El Camino & Sneath & I-380 -- New intersection midblock, to allow enter / exit at Navy site and at Tanforan Shopping Center; allow left turns from Tanforan onto El Camino going south.	—	2001	x					
Close to new El Camino-Sneath intersection -- Pedestrian overpass connecting Navy site & Tanforan Shopping Center.	—	2001	x					
San Mateo Ave. – Widen existing lanes from San Bruno Ave. north to Tanforan Ave., to improve circulation.	—	2003			x			
Subarea B	—	(NA)						
Skyline Blvd. -- Add parking to Caltrans parcel at Skyline & San Bruno	100	2001						x

SOURCE: City of San Bruno; Environmental Science Associates

E. DISTINCTIVE ENVIRONMENTAL CHARACTERISTICS OF ALTERNATIVES

This section consists of a comparison of the possible environmental impacts of each alternative in the form of a summary table that identifies the significance level of each of the impacts and compares the impacts of each alternative to those of the project and the other alternatives (see Table V.2).

As provided by CEQA Guidelines, Section 15126.6(d), Table V.2 displays the major characteristics of each alternative (i.e., No Project, Reduced Density Development) and the environmental effects of each alternative. The table also summarizes the level of significance of each impact of each alternative, and compares it to that of the project.

The principal distinctions among the impacts of the alternatives and those of the proposed project are the following:

- Because the alternatives would generally yield a lesser level of development within the Redevelopment Area, most impacts (including traffic, air, and noise impacts, in particular) would generally be less under the alternatives than under the proposed project.

- Because the No Project Alternative would generally yield the level of development anticipated under the City's General Plan, and because that is the general level of development that is contemplated under the *BAAQMD '97 Clean Air Plan*, the No Project Alternative would be considered to have a less than significant air quality impact. Because, however, both the proposed project and the Reduced Density Alternative would yield development in excess of that anticipated under the General Plan, their impacts would be considered significant and unavoidable under the *BAAQMD '97 Clean Air Plan*.

TABLE V.2
COMPARISON OF IMPACTS AND IMPACT SIGNIFICANCE LEVELS OF THE PROPOSED PROJECT AND THE ALTERNATIVES AFTER MITIGATION[a]

Impact	Proposed Project	Alternative 1 No-Project	Alternative 2 Reduced Development
Population, Employment, and Housing			
A.1: Operation of the Redevelopment Plan could potentially induce population growth in Redevelopment Subarea A.	LS	–LS	–LS
A.2: Operation of the Redevelopment Plan could potentially result in displacement of substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.	LS	–N	=LS
A.3: The operation of the Redevelopment Plan could potentially displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.	LS	–N	=LS
A.4: The project could potentially add cumulatively to population growth in or near Subarea A.	LS	–LS	–LS

Comparisons to Project

- \+ Greater impact than that of the proposed project
- – Lesser impact than that of the proposed project
- = Same (or similar) impact as that of the proposed project
- +/= Approximately the same impact as or potentially greater impact than that of the proposed project
- –/= Approximately the same impact as or potentially lesser impact than that of the proposed project
- ? Magnitude of change relative to the project or level of significance cannot be determined

Comparisons to Setting

- LS Less than significant adverse impact after mitigation
- SU Significant and unavoidable adverse impact after mitigation
- N No impact or negligible impact
- * Not applicable

[a] Significance levels for the project and the alternatives reflect the levels of significance after mitigation. Symbols indicate maximum impact during buildout and operation, unless otherwise specified.

(Continued)

TABLE V.2 (Continued)
COMPARISON OF IMPACTS AND IMPACT SIGNIFICANCE LEVELS OF THE PROPOSED PROJECT AND THE ALTERNATIVES AFTER MITIGATION[a]

Impact	Proposed Project	Alternative 1 No-Project	Alternative 2 Reduced Development
Land Use and Applicable Land Use and Plans and Policies			
B.1: The Redevelopment Plan could physically divide established neighborhoods during construction.	LS	N	=LS
B.2: The Redevelopment Plan could physically divide established neighborhoods during operation.	LS	N	=LS
B.3: The San Bruno Redevelopment Plan may allow projects that would conflict with the San Mateo County Comprehensive Airport Land Use Plan.	LS	=LS	=LS
B.4: Development allowed under the Redevelopment Plan may conflict with the City's General Plan and the City of San Bruno Zoning Ordinance.	LS	-/=LS	-LS
B.5: The San Bruno Redevelopment Plan may conflict with an applicable habitat conservation plan or natural community conservation plan.	N	=N	=N

Comparisons to Project

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Comparisons to Setting

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SU Significant and unavoidable adverse impact after mitigation
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* Not applicable

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(Continued)

TABLE V.2 (Continued)
COMPARISON OF IMPACTS AND IMPACT SIGNIFICANCE LEVELS OF
THE PROPOSED PROJECT AND THE ALTERNATIVES AFTER MITIGATION[a]

Impact	Proposed Project	Alternative 1 No-Project	Alternative 2 Reduced Development
Traffic, Circulation, and Parking			
C.1: The project would result in increased traffic on the surrounding roadways.	LS	–LS	–LS
C.2: The project would generate an increase in transit use.	LS	–LS	–LS
C.3: Project development may generate increased demands for on- and off-street parking.	LS	–LS	–LS
C.4: The project would increase traffic volumes on roadways in the study area, increasing potential safety hazards on the transportation network for pedestrians and bicyclists.)	LS	–LS	–LS
Public Services, Facilities, and Utilities			
D.1: Implementation of the Redevelopment Plan may lead to an increase in the need for police protection, fire protection, and emergency medical services, and require the construction of new facilities for additional staff.	LS	–LS	–LS

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(Continued)

TABLE V.2 (Continued)
COMPARISON OF IMPACTS AND IMPACT SIGNIFICANCE LEVELS OF THE PROPOSED PROJECT AND THE ALTERNATIVES AFTER MITIGATION[a]

Impact	Proposed Project	Alternative 1 No-Project	Alternative 2 Reduced Development
Public Services, Facilities, and Utilities (cont.)			
D.2: Implementation of the Redevelopment Plan could cause the City to exceed its current wastewater treatment capacity.	LS	-LS	-LS
Parks, Recreation, and Open Space			
E.1: Occupation of the residential structures assumed for Redevelopment Subarea A could result in a substantial increase in the use of existing neighborhood or regional parks and facilities such that substantial physical deterioration of the facilities could occur or be accelerated.	LS	-LS	-LS
E.2: Occupation of the planned residential structures assumed for Redevelopment Subarea A could result in the City's inability to meet its stated policy of 2.5 acres of parkland per 1,000 residents.	LS	-LS	-LS

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(Continued)

TABLE V.2 (Continued)
COMPARISON OF IMPACTS AND IMPACT SIGNIFICANCE LEVELS OF THE PROPOSED PROJECT AND THE ALTERNATIVES AFTER MITIGATION[a]

Impact	Proposed Project	Alternative 1 No-Project	Alternative 2 Reduced Development
Biology			
F.1: Proposed construction for the Airport Lands Redevelopment Plan Area within Subarea A may impact individual sensitive plant species, such as marsh and horsetail, stink bells, Dudley's lousewort, Choris's popcorn-flower, Hickman's cinquefoil, and San Francisco campion.	LS	=LS	=LS
F.2: Construction of projects within Subarea A under the Redevelopment Plan could result in impacts to potentially jurisdictional wetlands/waters of the United States and streambeds and banks under the jurisdiction of the California Department of Fish and Game. Potential impacts include sedimentation of the channels outside of the construction area during trenching activities, and loss of riparian vegetation and stream function as wildlife and fishery habitat.	LS	=LS	=LS
F.3: Improper erosion-control plantings and other slope-stabilization plantings in either Subarea A or Subarea B of the Project Area could introduce exotic plant species.	LS	=LS	=LS

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(Continued)

TABLE V.2 (Continued)
COMPARISON OF IMPACTS AND IMPACT SIGNIFICANCE LEVELS OF THE PROPOSED PROJECT AND THE ALTERNATIVES AFTER MITIGATION[a]

Impact	Proposed Project	Alternative 1 No-Project	Alternative 2 Reduced Development
Biology (cont.)			
F.4: Projects under the Redevelopment Plan may result in the removal of, or root damage to, heritage or significant trees identified by the County of San Mateo.	LS	–/=LS	–/=LS
F.5: Construction within Lion's Field and adjacent areas may adversely affect habitat and individuals of San Francisco garter snake (SFGS), a state and federally listed endangered species, and California red-legged frog (CRLF), a federally listed threatened species.	LS	=LS	=LS
F.6: Renovation, re-roofing, or removal of Navy buildings or mature trees under the Redevelopment Plan may cause direct, significant impacts to several bat species through loss of individuals and either their maternity roosts and/or winter hibernacula.)	LS	=LS	=LS

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(Continued)

TABLE V.2 (Continued)
COMPARISON OF IMPACTS AND IMPACT SIGNIFICANCE LEVELS OF
THE PROPOSED PROJECT AND THE ALTERNATIVES AFTER MITIGATION[a]

Impact	Proposed Project	Alternative 1 No-Project	Alternative 2 Reduced Development
Hydrology, Water Quality, and Flooding			
G.1: Operation of land uses within the redevelopment subareas could result in increases in local storm runoff volumes due to increased impervious surface area. The local increases in stormwater volume could increase flood potential in the local area and downstream of the discharge area, thereby affecting the watershed drainage.	LS	–LS	–LS
G.2: Operation of individually proposed structures in the redevelopment subareas and their cumulative whole could result in increased nonpoint-source pollution entering stormwater runoff and entering the regional storm drain system or surrounding water resources.	LS	–/=LS	–/=LS
G.3: Redevelopment of the subareas could induce construction-related erosion.	LS	–/=LS	–/=LS

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(Continued)

TABLE V.2 (Continued)
COMPARISON OF IMPACTS AND IMPACT SIGNIFICANCE LEVELS OF THE PROPOSED PROJECT AND THE ALTERNATIVES AFTER MITIGATION[a]

Impact	Proposed Project	Alternative 1 No-Project	Alternative 2 Reduced Development
Geology, Soils, and Seismicity			
H.1: In the event of a major earthquake in the region, seismic groundshaking could potentially injure people and cause collapse or structural damage to existing and proposed structures. Groundshaking could potentially expose people and property to seismic-related hazards, including localized liquefaction and related ground failure.	LS	–/=LS	–/=LS
H.2: In the event of a major San Andreas Fault Zone earthquake, Subarea B, located adjacent to the fault and within the Alquist-Priolo Fault Hazard Zone, would be susceptible to surface fault rupture. Such an earthquake could expose people and property to the hazards associated with surface fault rupture.	LS	–/=LS	–/=LS
H.3: Redevelopment Plan subareas in San Bruno could be subjected to geologic hazards, including expansive soils, landsliding, and differential settlement.	LS	=LS	=LS

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(Continued)

TABLE V.2 (Continued)
COMPARISON OF IMPACTS AND IMPACT SIGNIFICANCE LEVELS OF
THE PROPOSED PROJECT AND THE ALTERNATIVES AFTER MITIGATION[a]

Impact	Proposed Project	Alternative 1 No-Project	Alternative 2 Reduced Development
Seismic and Fire Emergency Preparedness			
Seismic Hazard			
I.1.1: Operation of the Redevelopment Plan would increase the exposure of structures and persons to potential seismic hazards.	LS	–LS	–LS
Fire Hazard			
I.2.1: Redevelopment of Subarea A could improve the fire preparedness of the City of San Bruno and reduce the fire hazard potential for urban fires in this high-density area.	B	N	B
I.2.2: Redevelopment of Subarea B could have an effect on the potential fire hazard at Crestmoor Canyon, the eucalyptus stands in Rollingwood and Crestmoor neighborhoods, Junipero Serra, or the Peninsula Watershed.	N	N	N

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(Continued)

TABLE V.2 (Continued)
COMPARISON OF IMPACTS AND IMPACT SIGNIFICANCE LEVELS OF
THE PROPOSED PROJECT AND THE ALTERNATIVES AFTER MITIGATION[a]

Impact	Proposed Project	Alternative 1 No-Project	Alternative 2 Reduced Development
Airport Safety			
J.1: The proposed Redevelopment Plan would expose residents and occupants of project facilities within Subarea A to a negligible level of risk associated with possible aircraft accidents at SFIA.	LS	=LS	=LS
Air Quality			
K.1: Fugitive dust generated by construction and demolition activities under the proposed Redevelopment Plan could result in health and nuisance-type impacts in the immediate vicinity of individual construction sites.	LS	–/=LS	–/=LS
K.2: Development under the proposed Redevelopment Plan would contribute to the cumulative effect of Bay Area development on regional ozone and PM-10 concentrations.	SU	–LS	–SU
K.3: Development under the Redevelopment Plan could expose existing and proposed residences to nuisance odors.	LS	–/=LS	–/=LS

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(Continued)

TABLE V.2 (Continued)
COMPARISON OF IMPACTS AND IMPACT SIGNIFICANCE LEVELS OF
THE PROPOSED PROJECT AND THE ALTERNATIVES AFTER MITIGATION[a]

Impact	Proposed Project	Alternative 1 No-Project	Alternative 2 Reduced Development
Noise			
L.1: Development under the proposed Redevelopment Plan would result in temporary noise impacts related to construction activities.	LS	-LS	-LS
L.2: Project-generated vehicle traffic associated with the Redevelopment Plan would result in an increase in ambient noise levels on local roadways.	LS	-LS	-LS
L.3: Under the Redevelopment Plan, new noise-sensitive uses could be developed in areas where noise levels are unacceptable for such uses.	LS	=LS	=LS
Aesthetics: Urban Design, Visual Quality, and Community Character			
M.1: Development resulting from the project may block existing views of ridgelines to the north and west from Subarea A.	LS	-/=LS	-/=LS
M.2: Development resulting from the Redevelopment Plan could block existing views of San Bruno Mountain from Subarea B.	LS	-LS	-LS

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(Continued)

TABLE V.2 (Continued)
COMPARISON OF IMPACTS AND IMPACT SIGNIFICANCE LEVELS OF THE PROPOSED PROJECT AND THE ALTERNATIVES AFTER MITIGATION[a]

Impact	Proposed Project	Alternative 1 No-Project	Alternative 2 Reduced Development
Aesthetics: Urban Design, Visual Quality, and Community Character (cont.)			
M.3: Development resulting from the Redevelopment Plan may block ridgeline or Bay views from other parts of the city, or may be visually obtrusive from viewpoints throughout the city.	LS	–LS	–LS
M.4: Development resulting from the project may increase existing building intensities and may potentially be incompatible with existing development in scale or character.	LS	=LS	=LS
M.5: Development resulting from the Redevelopment Plan may increase the amount of development visible from the eastern segment of Sneath Lane, a City-designated scenic highway, which runs through Subarea A.	LS	=LS	=LS
M.6: Projects under the Redevelopment Plan could create new sources of light or glare that could adversely affect day or nighttime views in the area.	LS	–LS	–LS

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(Continued)

TABLE V.2 (Continued)
COMPARISON OF IMPACTS AND IMPACT SIGNIFICANCE LEVELS OF
THE PROPOSED PROJECT AND THE ALTERNATIVES AFTER MITIGATION[a]

Impact	Proposed Project	Alternative 1 No-Project	Alternative 2 Reduced Development
Cultural Resources			
N.1: The proposed Redevelopment Plan could result in the disruption or destruction of a unique archaeological resource or of the significance of a historical resource during construction-related excavation.	LS	-/=LS	-/-LS
N.2: If changes to historical buildings or sites are made under the Redevelopment Plan, a substantial adverse change in the significance of the building or sites may occur.	LS	=LS	=LS

Comparisons to Project
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(Continued)

CHAPTER VI

REPORT PREPARATION, AND PERSONS AND ORGANIZATIONS CONSULTED

A. REPORT PREPARATION

This EIR has been prepared by:

City of San Bruno Planning and Building Department
567 El Camino Real,
San Bruno, CA 94066

The primary consultant for the EIR is:

Environmental Science Associates
225 Bush Street, Suite 1700
San Francisco, CA 94104
(415) 896-5900

David Full, Project Director
Marty Abell, AICP, Project Manager

Other Key Staff:

Laurie Glass, Deputy Project Manager, *Introduction, Project Description, Cultural Resources; Effects Found Not to Be Significant, Impact Overview; Alternatives*
Deborah Kirtman, *Population, Employment, and Housing; Land Use and Applicable Land Use Plans and Policies, Public Facilities Services, and Utilities; Parks Recreation, and Open Space.*
Peter Hudson, *Geology, Soils and Seismicity; Seismic Hazard.*
Jeff Langman, *Hydrology, Water Quality and Flooding; Fire Hazard.*
Patricia Tatarian, *Biology*
Nanette Sartoris, *Airport Safety; Air Quality; Noise*

Production Staff

Lisa Crossett (production management)
Lisa Bautista and Gus Ja Folla (word processing)
Anthony Padilla (reproduction coordination)
Susan Torres, Pilar Romero, Mark Reich (reproduction)
Rowell Llanillo and Perry Jung (graphics)

Subconsultants contributing to the EIR are the following:

DKS Associates
1956 Webster Street, Suite 300
Oakland, California
Deborah Dagang
Traffic, Circulation, and Parking

Dyett & Bhatia
70 Zoe Street, Suite 100
San Francisco, California
Rajeev Bhatia
Aesthetics; figures

B. PERSONS AND ORGANIZATIONS CONSULTED

City of San Bruno

Boloyan, Raffi, Assistant Planner, City of San Bruno Planning & Building Department.

Checchi, Karen, Office Manager, San Bruno Garbage Company.

Coffey, Mike, Firefighter, City of San Bruno Fire Department.

Dawson, Bob, Battalion Chief, City of San Bruno Fire Department.

Foscardo, George D., AICP, Director, City of San Bruno Community & Economic Development.

Lowell, Jonathan, City Attorney, City of San Bruno.

Mazjedi, Abbas, Wastewater Engineer, City of San Bruno Public Works Department.

O'Shea, Peter, Director, City of San Bruno Parks and Recreation Department.

Padovan, Steve, Associate Planner, City of San Bruno Planning and Building Department.

Padovan, Steve, Associate Planner, City of San Bruno Planning & Building Department.

Watson, Rick, Captain, San Bruno Police Department.

Wilson, Grant, Associate Planner, City of San Bruno Planning & Building Department.

City of South San Francisco

Metcalf, Ken, Capital Projects Coordinator, South San Francisco Public Works Department.

County of San Mateo

Puls, Cheri, Administrative Analyst, San Mateo County.

Other Agencies and Organizations

Dykstra, John, Dykstra & Associates.

Moseula, Raul, Electric Distribution Engineer, PG&.

Quaas, Thad, PG&E.

Randolph, Liane, Meyers, Nave, Riback, Silver & Wilson.

Risk Decision Services, Insurance Services Office, Inc.

Seifel, Libby, Principal, Seifel and Associates.

Truxaw, John, Meyers, Nave, Riback, Silver & Wilson.

CHAPTER VII
APPENDICES

APPENDIX A
INITIAL STUDY

ENVIRONMENTAL CHECKLIST FORM

1. Project Title:	San Bruno Redevelopment Project Area Plan
2. Lead agency name and address:	City of San Bruno Redevelopment Agency 567 El Camino Real San Bruno, California 94066
3. Contact person and phone number:	Mr. George Foscardo, AICP Director of Community and Economic Development Planning and Building Department City of San Bruno, California (650) 877-8874
4. Project location:	The San Bruno Redevelopment Project Area is located in the established urban community of the City of San Bruno, California, which is located along the western side of San Francisco Bay in San Mateo County. Of the City's approximately 22,050 acres, the Redevelopment Project Area encompasses a total of approximately 717 acres and consists of two subareas: (1) Subarea A, encompassing approximately 699 acres on the eastern side of the City of San Bruno, includes (a) the predominately commercial areas along San Bruno Avenue, in Downtown San Bruno, on El Camino Real, Montgomery Avenue and the Tanforan Park Shopping Center; (b) the residential neighborhoods of Fifth Addition, Belle Air Park, San Bruno Park and Lomita Park; and (c) the residential/industrial mixed-use area bounded by San Mateo Avenue, Highway 380, the Southern Pacific Railroad (Caltrain) tracks, and Tanforan Avenue; and (d) the Navy facility occupied by the U.S. Government. (2) Subarea B, encompassing approximately 18 acres along the western border of the City of San Bruno, includes the Skycrest Shopping Center on Skyline Boulevard and the commercial uses adjacent to it.
5. Project sponsor's name and address:	City of San Bruno Redevelopment Agency 567 El Camino Real San Bruno, California 94066
6. General plan designation:	The project would be generally consistent with the applicable land use designations, goals, and policies

presented in the *City of San Bruno 1984 General Plan.* The Redevelopment Project Area encompasses the following land use designations:

- Residential (low and medium density);
- Neighborhood Commercial;
- Community Commercial;
- Regional Commercial;
- Office;
- Industrial;
- Parks/Open Space;
- Public and Quasi-Public.

If the Redevelopment Project Area Plan were to result in changes to the uses or policies set by the General Plan for the area, amendments to the General Plan would be proposed.

7. Zoning:

The project would be generally consistent with the zone designations presented in the *City of San Bruno Zoning Ordinance* and the Zoning Map last updated 1/22/96. The Redevelopment Project Area encompasses the following zoning districts:

- Low density residential: R-1, R-1-D;
- Medium density residential: R-2;
- Commercial: C-N, C-1, C-2, CC, C-L;
- Office: C-O;
- Industrial: M-1, M (combining), A-R;
- Park/Open Space: O.

Public and quasi-public uses are conditional uses. Amendments to the Zoning Ordinance would be proposed to accommodate any changes resulting from the Redevelopment Project Area Plan.

8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

The basic goal of the proposed City of San Bruno Redevelopment Project Area Plan would be to develop a viable and active commercial and residential base in the Project Area in order to alleviate physical and economic blight conditions. The Redevelopment Plan would include commercial, industrial, residential, and area-wide improvements.

The Plan would seek to revitalize San Bruno's commercial areas included in the proposed Project Area and capitalize on the changes resulting from the BART extension, the San Francisco International Airport expansion, the Naval facility conversion, and the Caltrain Station relocation. Reuse of the U.S. Navy facility and adjacent parcels might include development of a hotel and conference center, office building, and for housing.

Redevelopment in industrial areas would focus on older, non-conforming uses along Montgomery Avenue and the industrial portions of San Mateo Avenue. Redevelopment could include light industrial uses and removing non-conforming residential uses in industrial areas, consolidating parcels, and providing public parking for Caltrain, the airport, and industrial uses.

In the residential areas encompassed by the proposed Redevelopment Project Area, the Plan would seek to create residential conservation areas as formal planning areas to protect, revitalize, and enhance the quality of these residential neighborhoods. In addition, the Plan would direct that a minimum of 20 percent of tax increment funds would be allocated for the purposes of increasing, improving, and preserving the supply of housing for low- and moderate-income households.

In order to improve circulation within the Redevelopment Project Area, the layout of principal streets and those that may be developed in the Project Area would conform to the layout shown in the General Plan Circulation Element and as may be permitted by future actions of legally authorized public entities. Existing streets within the Project Area may be vacated, widened, or otherwise modified, and additional streets may be created as necessary for proper pedestrian and/or vehicular circulation.

9. **Surrounding land uses and setting.** (Briefly describe the project's surroundings.)

The proposed Project Area is located in an established urban area with the City of San Bruno. Subarea A of the Project Area would be located west of the U.S. 101 corridor and the San Francisco International Airport. Noise from roadways and the airport impact this subarea. Some portions of Subarea A are identified in the General Plan as being potential flood areas and having potential to liquefy during seismic activity. Two sites in the subarea have been recognized as historic by a San Mateo County committee. Subarea B of the Project Area is located east and across the State Route 35 corridor from the San Francisco Peninsula Watershed and State Fish and Game Refuge. Subarea B is directly adjacent to the San Andreas fault, an active earthquake fault, and is located within an Alquist-Priolo Earthquake Fault Zone. There may be archaeological sites in either subarea, since recorded archaeological sites have been found within city limits and there may be others elsewhere in the City.

10. **Other public agencies whose approval is required** (e.g., permits, financing approval, or participation agreement.)

San Bruno Redevelopment Agency and the San Bruno City Council.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The

. environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Agriculture Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology / Soils
☒ Hazards & Hazardous Materials	☒ Hydrology / Water Quality	☒ Land Use / Planning
☐ Mineral Resources	☒ Noise	☐ Population / Housing
☒ Public Services	☐ Recreation	☐ Transportation / Traffic
☒ Utilities / Service Systems	☒ Mandatory Findings of Significance	

DETERMINATION: (To be completed by lead agency)
On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☒ I find that the proposed project may have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

/s/
Signature

March 8, 1999
Date

George D. Foscardo, AICP
Printed Name

City of San Bruno Redevelopment Agency
Chief Planner
For

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency had determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated", describe the mitigation measures which were incorporated or refined from the earlier document and the extent which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contact should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significant.

SAMPLE QUESTION:

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
Would the proposal result in potential impacts involving:				
A) LANDSLIDES OR MUDSLIDES (1,6)	☐	☐	☐	☐

(Attached source list explains that 1 is the general plan, and 6 is a USGS topo map. This answer would probably not need further explanation.)

ENVIRONMENTAL IMPACTS:

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☒	☐	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion:

(a) The City of San Bruno offers several scenic vistas, as well as officially designated scenic corridors. Sweeney Ridge and adjacent ridgelines, San Bruno Mountain, and the San Francisco Bay provide scenic vistas for San Bruno residents in the flatlands and in the hills. Hill residents often have unparalleled views of the Bay; residents living in flatter areas have scenic views of the ridgeline and San Bruno Mountain. The Redevelopment Plan is not expected to produce any projects that would block views for hill residents or commercial occupants of Redevelopment Subarea B. The General Plan and the San Mateo County Comprehensive Airport Land Use Plan restrict building height for safety reasons because of San Bruno's proximity to San Francisco International Airport runways. Views from the flatlands toward the hills may be slightly obstructed, particularly at street level, by new construction along El Camino Real, at the Tanforan Shopping Center or at the lumberyard triangle. However, views are already obstructed at street level throughout flatland areas, including Redevelopment Subarea A. The Redevelopment Plan would not add substantial new obstructions.

The *City of San Bruno 1984 General Plan* lists four existing scenic corridors, two of which were designated by City Ordinance 1284: Sneath Lane and Crystal Springs Road. Ordinance 1284 requires voter approval of any "buildings or other structures, modifications, or redevelopment thereof which encroach upon, modify, widen, or realign (these) streets."[1] (The General Plan outlines guidelines for designating scenic corridors.) The other two scenic corridors listed in the General Plan include I-280, also a State Scenic Highway, and the Skyline Scenic Recreation Route, a trail that enters San Bruno on Skyline Boulevard, extends along the western boundary of Skyline College through lands owned by San Mateo County to Sweeney Ridge. The two potential scenic corridors listed in the General Plan include I-380 and Skyline Boulevard.

[1] City of San Bruno, *City of San Bruno 1984 General Plan*, June 25, 1984, p. 71.

Views along Sneath Lane may be affected by the Redevelopment Plan, which proposes development at the 30-acre Navy (Navy Reserve) facility. Development would be constrained by height restrictions imposed by the San Mateo County Comprehensive Airport Land Use Plan, General Plan and the Zoning Ordinance, unless new height restrictions are approved by voters. In addition, any obstruction that may occur from buildings at the Navy (Navy Reserve) facility would only occur near the intersection of El Camino Real and Sneath Lane, a small area of Sneath Lane. All construction would comply with city set-back and landscaping requirements under the Zoning Ordinance.

(b) The portion of I-280 within the San Bruno city limits is a California Scenic Highway, designated by the California Department of Transportation. The Scenic Highway designation is conditioned upon a local program that protects the scenic corridor. The State defines a scenic corridor as "the area of land generally adjacent to and visible from the highway. It is limited by topography and/or jurisdictional boundaries."[2] Subarea B is located at a higher elevation than I-280 and is about three-quarters of a mile west of I-280. Subarea A is located at a lower elevation than I-280, and is about .6 miles east of I-280 at its closest point (the Navy facility). Neither development in Subarea B nor development in Subarea A would impact scenic resources within the I-280 scenic corridor.

(c) The Redevelopment Plan could change the quality of proposed redevelopment project sites, particularly along Sneath Lane and at the lumberyard site in Subarea A and along Skyline Boulevard in Subarea B. Construction on these sites would require careful planning to avoid incompatible design and scale that could degrade the visual quality of these and surrounding sites. The EIR provides further discussion of possible mitigation that focuses on the need for a specific plan for the Navy (Navy Reserve) site.

(d) Projects, such as hotels, the convention center or large residential developments , proposed for the Redevelopment Plan could potentially provide new sources of light or glare that would detract from daytime or nighttime views. Large expanses of window, for example, can be a source of glare. Entertainment- or commercial-related uses can be a source of light at night.

Light and glare is partially regulated by the San Mateo County Comprehensive Airport Land Use Plan (ALUP). The ALUP specifically states that the following uses present hazards to air navigation in the vicinity of the San Francisco International Airport: "Any use that would direct a steady or flashing light of white, red, green or amber color toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in straight final approach toward a landing. . .; any use that would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following take-off or engaged in a straight final approach toward a landing. . . "[3] Subarea B is at a higher elevation than right-of-ways or properties to the east. Occupants of residential properties to the north and south would look east toward the Bay for scenic views; Subarea B would not obscure or degrade visitors' or residents' views of the Bay. Visitors and occupants of Subarea A would look toward the western ridgelines and San Bruno Mountain for scenic views. These views are generally are not visible at night when views could be obscured by city light.

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[2] Department of Transportation, State of California, *Guidelines for the Official Designation of Scenic Highways*, March 1996, pp. 2-3.

[3] City/County Association of Governments, *San Mateo County Comprehensive Airport Land Use Plan*, December 1996, p. V-19.

Supporting information sources – AESTHETICS

Business, Transportation and Housing Agency, Department of Transportation, State of California, *Guidelines for the Official Designation of Scenic Highways*, 1996.

City of San Bruno, *Land Use Program for the West Div Naval Facility*, 1999.

City of San Bruno, *Feasibility Report for the Proposed San Bruno Redevelopment Project*, 1998.

City of San Bruno, *Preliminary Plan for the San Bruno Redevelopment Project*, 1998.

City of San Bruno, *City of San Bruno 1984 San Bruno General Plan*, 1984.

U.S. Geological Survey (USGS), *South San Francisco and Montara Mountain Quadrangles*.

II.	**AGRICULTURE RESOURCES:** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. **Would the project:**				
	a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
	b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
	c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒

Discussion:

(a, b, c, d) The City of San Bruno has no agricultural lands and does not encompass any lands designated for agricultural use.

Supporting information sources – AGRICULTURAL RESOURCES

City of San Bruno, *City of San Bruno 1984 General Plan and Environmental Impact Report*, June 25, 1984.

City of San Bruno, *City of San Bruno Zoning Ordinance*, May 1, 1995.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. **Would the project:**				
a) Conflict with or obstruct implementation of the applicable Air Quality Attainment Plan?	☒	☐	☐	☐
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☒	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Discussion:

(a,c,d) The Redevelopment Plan could result in construction of an estimated 515 to 700 new households in Subarea A. These new households could accommodate roughly 935 to 1,410 persons. Generally speaking, the Redevelopment Plan focuses on large-scale commercial redevelopment in Subarea A and would increase the day-time population (office, business operators), as well as the visitor population (convention center, hotel occupants, business clientele, shoppers). Subarea B consists of commercial property with no existing or proposed permanent residents, so would therefore have no affect on population. The Redevelopment Plan would be fully built out in 2020. The proposed Redevelopment Plan would be expected to generate approximately 5,487 additional daily vehicle trips.

The additional development under the Redevelopment Plan would increase the number of emissions sources associated with San Bruno. These sources would include stationary sources (such as boilers and petroleum storage tanks), area sources (such as consumer product use) and mobile sources (primarily automobile and truck traffic). Most stationary sources related to the proposed commercial development would be regulated under permits issued by the BAAQMD. Area and mobile sources generally are not regulated through air quality permits. Mobile source emissions are related to the number of trips generated on a daily basis and the average trip length.

The proposed Redevelopment Plan's additional emissions sources would emit ozone precursor emissions (i.e., ROG and NOx) and thereby incrementally contribute to ozone concentrations in

the region. Using BAAQMD's recommended approach, a redevelopment plan is consistent with the *'97 Clean Air Plan* so long as the population growth for the jurisdiction would not exceed values included in the current *Clean Air Plan*, the increase in vehicle miles traveled (VMT) for the jurisdiction would be equal to or lower than the rate of increase in population projections, and Transportation Control Measures (TCMs) are included as part of the project. Because the Redevelopment Plan would result in a city-wide population greater than what was estimated in the *'97 Clean Air Plan*, this could be a potentially significant, and unmitigable, air quality impact.

In addition to considering VMT and population, the BAAQMD recommends that local plans that do not demonstrate reasonable efforts to implement the 20 Transportation Control Measures (TCMs), identified in the *97 Clean Air Plan* would have a significant air quality impact. The Redevelopment Plan includes a transportation project that would include the development of bike lanes on San Bruno Avenue, which is consistent with one of the TCMs from the *'97 Clean Air Plan* titled "Improve Bicycle Access and Facilities" in Table III.K.6. In addition, the overall Redevelopment Plan is considered to be an infill project that would likely reduce the number and length of single-occupant automobile trips. Because the Redevelopment Plan does not include all of the feasible TCMs identified in the *'97 Clean Air Plan,* it could have a significant air quality impact.

(b) During construction, the projects proposed under the Redevelopment Plan could significantly affect ambient concentrations of respirable particulate matter (PM-10). PM-10 is a pollutant for which ambient concentrations throughout the Bay Area frequently exceed standards. Once operational, the project could result in an increase in ozone precursor emissions, reactive organic gases (ROG) and nitrogen oxides (NOx) through the generation of vehicle trips. ROG and NOx are precursor compounds for the formation of ozone (O3), an air pollutant for which the Bay Area is in nonattainment of the state and federal standards. Individual project components would not be expected to result in emissions that would violate any air quality standards.

(e) The occurrence and severity of odor impacts depends on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors. There are two existing facilities that, due to the types of materials they handle, could generate nuisance odors that affect residents of the City of San Bruno. These include the San Bruno Transfer Station in San Bruno and the South San Francisco-San Bruno Wastewater Treatment Facility in South San Francisco just north of SFIA and three-quarters of a mile east of the northeast corner of San Bruno. With respect to existing residences, these odor sources are located within the BAAQMD-recommended one-mile buffer zone. Proposed new residences could also be located within the one-mile buffer radius of each of these facilities and therefore could be exposed to nuisance odors.

Supporting information sources – AIR QUALITY

Association of Bay Area Governments and the Bay Area Air Quality Management District (BAAQMD), *Improving Air Quality Through Local Plans and Programs*, October 1994.

Association of Bay Area Governments, *Projections '96*, December 1995.

Bay Area Air Quality Management District (BAAQMD), *Base Year 1990 Emission Inventory, Summary Report*, October 1, 1993.

Bay Area Air Quality Management District (BAAQMD), *BAAQMD CEQA Guidelines, Assessing Air Quality Impacts of Projects and Plan*, April 1996.

Bay Area Air Quality Management District (BAAQMD), *Contaminant & Weather Summary*, January through December 1997a.

Bay Area Air Quality Management District (BAAQMD), *Proposed Final Bay Area '97 Clean Air Plan*, Volume I, December 3, 1997b.

Bay Area Air Quality Management District (BAAQMD), *Toxic Air Contaminant Control Program, 1996 Annual Report,* December 1997c.

Bay Area Air Quality Management District (BAAQMD), *Air Currents,* September/October 1998.

California Air Resources Board (CARB), *California Air Quality Data Summaries,* 1993-1996.

California Air Resources Board (CARB), *1995 Emission Inventory*, Adopted November 13, 1997.

California Air Resources Board (CARB), *Maps and Tables of the Area Designations for the State and National Ambient Air Quality Standards and Expected Peak Day Concentrations and Designation Values,* January 1998.

City of San Bruno, *1984 General Plan*, June 25, 1984.

Governor's Office of Planning and Research, *CEQA Guidelines Revisions,* October 26, 1998.

Metropolitan Transportation Commission, *Travel Forecasts for the San Francisco Bay Area 1990-2020, Trip Generation and Trip Distribution*, August 1998.

Walker, Rochelle, Public Records, BAAQMD, fax transmittal, December 11, 1998.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Adverse impact, either directly or through habitat modifications, any endangered, rare, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?	☒	☐	☐	☐
b) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
c) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
d) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☒	☐	☐	☐
e) Interfere substantially with the movement of any native resident or migratory fish or wildlife corridors, or impede the use of native wildlife nursery sites?	☒	☐	☐	☐
f) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
g) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion:

a) The San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), a federally endangered species, and California red-legged frog (*Rana aurora draytonii*), a federally threatened species, may be impacted by development of the Airport lands. Impacts to these species would be significant.

b) Several raptors, protected under California Fish and Game Code 3503.5 (protection of all raptors and their nests and eggs) and 3511 (fully protected bird species) could be nesting within the eucalyptus trees bordering the Airport lands. Loss of nesting habitat would be a significant but mitigable impact.

c) Several wetlands, under the jurisdiction of the Department of Fish and Game, occur throughout the Redevelopment Plan Area. Destruction of these vegetation communities, would be significant; However, mitigation for this loss would reduce the impact to less than significant.

d) Several wetlands, potentially under the jurisdiction of the Army Corps of Engineers, occur throughout the Redevelopment Plan Area. Destruction of this vegetation community, would be significant; however, mitigation for this loss would reduce the impact to less than significant.

e) The Airport lands may provide either breeding or upland hibernation sites for San Francisco garter snake and/or California red-legged frog. Destruction of this wildlife habitat would be a significant impact.

f) The City of San Bruno does not have any heritage tree ordinances, or other biological sensitivities.

There is no local, regional or state habitat conservation plan for the Redevelopment Plan Area.

Supporting information sources – BIOLOGY

Barry, S., *The San Francisco Garter Snake: Protection Is the Key to Recovery*, Tideline, U.S. Fish and Wildlife Service, San Francisco Bay National Wildlife Refuge, Newark, 1993.

Barry, S., *The Distribution, Habitat and Evolution of the San Francisco Garter Snake, Thamnophis sirtalis tetrataenia*, Masters Thesis, University of California, Davis, 1994.

Barry, S., personal communication with Thomas Roberts, February 1, 1995.

Brown, P., *Management of Bats in California*, Conference by the Western Section of the Wildlife Society, Sacramento, California, 1996.

California Department of Fish and Game (CDFG), California Natural Diversity Data Base for 7.5-minute USGS topographic quadrangles, South San Francisco and Montara Mountain, 1998.

California Native Plant Society (CNPS), *California Native Plant Society's Inventory of Rare and Endangered Vascular Plants*, California Native Plant Society, 1998.

City of San Bruno, *General Plan and Environmental Impact Report*, Ironside and Associates, 1984.

Cook, D., *Microhabitat use and Reproductive Success of the California Red-Legged Frog (Rana aurora draytonii) and Bullfrog (Rana catesbiana) in an Ephemeral Marsh*, Masters Thesis, Sonoma State University, 1997.

Dyer, A.R., and K.J. Rice, *Intraspecific and Diffuse Competition: The Response of Nassella Pulchra In A California Grassland*, Ecological Applications 7: 484-492, 1997.

Goepel, G. Wildlife reference sites: Birds. Point Reyes Bird Observatory, Conference on Reference Sites for Riparian Restoration, June 20, 1997.

Hayes, M., and M.R. Jennings, *Natural History and Decline of Native Ranids in California*, Conference on Herpetology, Southwestern Herpetological Society, 1988.

Holland, R.F., *Preliminary Descriptions of the Terrestrial Natural Communities of California, Department of Fish and Game*, Sacramento, CA, 1986.

H.T. Harvey and Associates, *Santa Clara Valley Water District California Red-Legged Frog Distribution and Status –1997*, Prepared for Santa Clara Valley Water District, 1997.

Larsen, S., *Life History Aspects of the San Francisco Garter Snake at the Millbrae Habitat Site*, Masters Thesis, Hayward State University, 1994.

McGinnis, S., *The Status of the San Francisco Garter Snake (Thamnophis sirtalis tetrataenia) and the California Red-Legged Frog (Rana aurora draytonii): Five Points Region of the Fifield/Cahill Ridge Area of the Proposed Bay Ridge Trail*, San Mateo County, California, prepared for Environmental Science Associates, 1998.

McGinnis, S., *The Status of the San Francisco Garter Snake (Thamnophis sirtalis tetrataenia) in the Sediment Basin Area at the Southern End of Crystal Springs Reservoir and an Evaluation of the Potential Impact which Fill Deposition May Have Had on this Endangered Species Habitat*, Prepared for the San Francisco Water Department, 1992.

Peterjohn, B., *Breeding Bird Survey*, U.S. Fish and Wildlife Service, personal communication, December 3, 1993.

Pierson, E., and W. Rainey, *Primary Conservation/Management Issues by Species*, Conference by the Western Section of the Wildlife Society, Sacramento, California, 1996.

San Francisco Airports Commission, *San Francisco International Airport (SFIA) North Water Main and Telecommunications Duct Bank Negative Declaration*, San Francisco Airports Commission, December 2, 1998.

San Mateo County, *General Plan*, 1986.

Sawyer, J.O. and T. Keeler-Wolf, *A Manual of California Vegetation.* California Native Plant Society, Sacramento, 1995.

Sheffield, S.R., J.H Shaw, G.A. Heidt, and L.R. McClenaghan, *Protection of Bat Roosts*, Journal of Mammal. Vol. 73, No. 3: 707-710, 1992.

Skinner, M.W., and B.M. Pavlik (eds), *California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California*, California Native Plant Society, Sacramento, California, 1994.

U.S. Fish and Wildlife Service (USFWS), Species List for San Bruno Redevelopment Project Plan EIR, City of San Bruno, San Mateo County, California, 1998.

U.S. Fish and Wildlife Service (USFWS), *San Francisco Garter Snake Recovery Plan*, Portland, Oregon, 1985.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource?	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of a unique archaeological resources (i.e., an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it contains information needed to answer important scientific research questions, has a special and particular quality such as being the oldest or best available example of its type, or is directly associated with a scientifically recognized important prehistoric or historic event or person)?	☐	☐	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Discussion:

a) Several buildings in the Project Area have been identified as possibly eligible for the National Register of Historic Places, and other buildings of possible historical significance may exist within the Project Area, such as the ones identified by physical inspections and archival research performed for another EIR (U.S. Department of Transportation, 1994). If changes are made under the Redevelopment Plan to buildings of historical significance, an adverse change in their significance may occur.

b) Because there is a high possibility of identifying Native American and historical cultural resources in Subarea A of the Project Area, and as San Bruno's General Plan notes, the locations of all the archaeological sites in the city are unknown, construction-related excavation for building, infrastructure, or other projects in this redevelopment subarea could result in disruption or destruction of these resources prior to their identification and assessment for uniqueness.

c) Subarea A is underlain by deposits of the Colma Formation, which is Quaternary-aged (about 1 million years old) and most of Subarea B is underlain by deposits of sheared Franciscan Assemblage sandstone, which are Cretaceous-aged (65 to 136 million years old). Although the Colma Formation may include occasional small marine and nonmarine invertebrate fossils, the dynamic formation and resulting structural complexity of the Franciscan Assemblage resulted in the presence of few fossils (U.S. Department of Transportation, 1994; Hudson, 1999).

d) Native American archaeological sites in this portion of San Mateo County tend to be situated on alluvial terraces and along historic bay margins. Subarea A of the project encompasses alluvial terraces and the historic margin of San Francisco Bay (GLO, 1858; Nicholls and Wright, 1977; USGS, 1896; USGS, 1939). Given the environmental setting of Subarea A, the potential exists for identifying Native American cultural resources within this subarea of the Project Area.

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Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☒	☐	☐	☐
ii) Strong seismic ground shaking?	☒	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☒	☐	☐	☐
iv) Landslides?	☒	☐	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☒	☐	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	☒	☐	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Discussion:

a-i) The San Andreas is the closest fault to the Project Area with the highest potential for significant fault rupture. Surface fault rupture occurred on the San Andreas fault during the Richter magnitude 7.0 earthquake in 1838 and was observed to extend from the vicinity of Daly City/Pacifica south to the town of Woodside (Jennings, 1994). Evidence of fault offset, possibly surface rupture identified west of San Bruno on the San Andreas following the San Francisco earthquake in 1906. Other faults within close proximity to San Bruno, such as the Serra Fault Zone, Pilarcitos and San Bruno are considered potentially active. Although surface

rupture can not be ruled out on these faults, it is more likely to occur on the along a trace of an active fault. Failure along these potentially active faults could possibly be triggered by activity on the San Andreas (Wakabayashi, 1998). Portions of San Bruno, including Redevelopment Subarea B, are located adjacent to the active traces of the San Andreas Fault Zone. Active fault traces of the San Andreas Fault have been accurately located within Subarea B.

In the event of a regional San Andreas Fault Zone earthquake, fault surface rupture could affect buildings, pavement, utilities and roads within Subarea B. When fault rupture occurs on a fault like the San Andreas, the surface displaces not only laterally, but also sometimes vertically. Surface rupture can damage or collapse buildings, cause severe damage to roads and pavement structures and cause failure of overhead as well as underground utilities. As a result of the damage, buildings could become uninhabitable, roads would be closed and utility service disrupted.

The Alquist-Priolo Earthquake Fault Zoning Act requires the delineation of zones along sufficiently active and well-defined faults. The purpose of the Act is limit restrict construction of structures intended for human occupancy along traces of active faults, thus reducing the hazards associated with fault rupture.

a-ii) The City of San Bruno and the redevelopment areas would likely experience at least one major earthquake (greater than moment magnitude 7) within the next 30 years. The intensity of such an event will depend on the causative fault and the distance to the epicenter, the moment magnitude and the duration of shaking. Groundshaking in Subarea B could cause significant damage, if not collapse of the existing shopping center buildings. This is partly due to the relative poor stability of the sheared Franciscan bedrock underlying this area (San Bruno, 1984). The amount of damage may be higher in Subarea A due to the density of development and the higher number of older structures. Unreinforced masonry buildings and those constructed prior to 1933 could be expected to incur the greatest structural damage. Damage could be high in buildings constructed on improperly engineered fills or artificial fills at the bay margin. In Subarea A, artificial fills are present in the eastern portion of Belle Air Park North and South.

a-iii) Four kinds of ground failures commonly result from liquefaction. A *Lateral Spread* is a horizontal displacement of surficial blocks of sediments resulting from liquefaction. A *Flow Failure* is liquefied soil or blocks of intact material riding on a liquefied subsurface zone. With *Ground Oscillation,* soil units that are not liquefied may pull apart from each other and oscillate on the liquefied zone. *Loss of Bearing Pressure* can occur beneath a structure when the underlying soil loses strength and liquefies. Liquefaction potential is highest in the areas underlain by bay fills, "bay mud" and unconsolidated alluvium. In San Bruno, liquefaction potential exists on the eastern edge of Subarea A, within the Belle Air Park neighborhood; the 1st and 3rd additions of the San Bruno Park neighborhood, the area just south of Lomita Park neighborhood, in the vicinity of Capuchino Highs School. Liquefaction could damage foundations, disrupt utility service and cause damage to roadways.

a-iv) Areas most susceptible to landsliding during a seismic event exists in the upland area east of Skyline Boulevard and west of I-280, including Junipero Serra Park and Crestmoor and Rollingswood/Monte Verde neighborhoods (City of San Bruno, 1984). Susceptibility to landsliding could be greater in the Junipero Serra Park area due to the presence of undeveloped, natural slopes. The Merced Formation in these areas is described as moderately stable with severe landslides occurring in artificial cuts for roads or buildings (Leighton and Associates., 1976). The sheared Franciscan bedrock, such as that underlying Subarea B is considered to

have poor slope stability (Leighton and Associates., 1976). Landsliding of existing slopes during an earthquake could expose people to rockfall hazards and property damage. Seismically-induced landsliding in cut slopes could cause damage and disrupt construction projects.

b) Erosion is generally not a serious problem in San Bruno, east of I-280 because the majority of the property is developed and slopes are more gradual. Steeper hillside properties west of I-280 are subject to soil erosion, particularly where unnatural slope cuts and grading have occurred. Erosion has been a problem in the Crestmoor and Rollingswood /Monte Verde planning areas, including the lower Crestmoor Canyon (San Bruno, 1984).

Redevelopment projects would primarily occur in areas that have some type of existing development. Therefore, the project would require minimal additional grading and would not result in any changes in topography. Redevelopment site preparation would entail minor re-grading, resurfacing and paving of portions of the site. Construction would disturb site soils and these soils may be subject to erosion by rain splash and overland flow of stormwater for the duration of the construction activities. While the hazard is deemed low, and less than significant, the impacts from erosion hazard could be reduced by implementation of standard erosion control measures.

c) Landsliding due to static forces (not seismically induced) could occur in Subarea B. The Merced Formation has been described as vulnerable to landsliding, especially in areas underlain by the sheared Franciscan sandstone bedrock. Landslide potential increases in areas where construction activity, such as road building or grading for building sites, reduces slope support. Over-steepened slopes, slope saturation in areas of heavy rainfall, and removal of slope vegetation can also increase landslide potential. Landsliding of existing slopes could expose people to rockfall hazards and property damage. Landsliding in cut slopes produced during grading could cause damage and disrupt construction projects.

Landslides are least likely in topographically low alluvial fans and at the margin of the San Francisco Bay. The highest susceptibility to landsliding in San Bruno exists in the upland area east of Skyline Boulevard and west of I-280, including Junipero Serra Park. The potential for landslides in this area, which includes Subarea B, is considered low to moderate with areas of higher potential, especially in the Crestmoor and Rollingswood/Monte Verde neighborhoods (City of San Bruno, 1984). Susceptibility to landsliding could be greater in the Junipero Serra Park area due to the presence of undeveloped, natural slopes. The Merced Formation in these areas is described as moderately stable, with severe landslides occurring in artificial cuts for roads or buildings (Leighton and Associates, 1976).

Differential settlement could occur in both Subareas A and B, depending on the underlying soil materials. In Subarea A, the areas most susceptible to settlement would be those underlain by the Colma Formation or less consolidated alluvial material and artificial fill. In Subarea B, soils with the potential to settle would be those previously placed as construction fills. Differential settlement could damage building foundations, affect underground utilities, and cause settlement in streets and roads. Settlement could be reduced or eliminated in areas that support buildings, because the soils have been allowed to settle over time. Settlement would be a concern in redevelopment areas that have not previously supported structures and where new structures would place loads heavier than the soils could tolerate. Landslides are least likely in topographically low alluvial fans and at the margin of the San Francisco Bay.

d) Expansive soils could be encountered in various locations underlain by the Colma Formation within Subarea A. Typically, soils that exhibit expansive characteristics comprise the upper 5 feet of the surface. The effects of expansive soils could damage foundations of aboveground structures, paved roads and streets, and concrete slabs. Expansion and contraction of soils, depending on the season and the amount of surface water infiltration, could exert enough pressure on structures to result in cracking, settlement, and uplift.

e) Three major soil associations characterize surface soil in the City of San Bruno (USDACSC, 1974). The Sunnyvale-Castro association underlies the eastern side of San Bruno, west of the San Francisco International Airport. These soils occur on nearly level, low portions of the valley and originally developed from fine-textured alluvium. They drain slowly due to clay content and have developed under surface water runoff and high groundwater levels. The drainage of these soils may restrict use of septic tanks, however, the soils are located in a developed portion of San Bruno that is provided city-wide sewer service. The Elkhorn-Colma association underlies San Bruno between El Camino Real and I-280. These soils occur on 5 to 15 percent slopes and were developed from old marine sediments. These soils drain well due to sand-clay mixtures. Soils of the Sweeney-Mindego association occur on slopes ranging from 30 to 70 percent and underlie the upland areas on the western side of San Bruno. These soils developed from igneous rock and can be well-drained due to silt-sand-clay mixtures. Well-drained soils do not usually hinder septic tank operation.

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Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☒	☐	☐	☐
f) for a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Discussion:

a) The Redevelopment Plan does not propose any activity, program, or project that would affect the routine transport, use, or disposal of hazardous materials.

b) The Redevelopment Plan does not propose any activity, program, or project that would involve the release of hazardous materials into the environment.

c) The Redevelopment Plan does not propose any activity, program, or project that would involve the emission of hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter of an existing or proposed school.

d) Although the Redevelopment Project Area includes sites of previous soil contamination, the Redevelopment Plan does not specifically propose any activity, program, or project that would be located on a site that is included on a list of hazardous materials sites involve the release of hazardous materials into the environment.

e) The Redevelopment Project Area is located within the San Francisco Airport Land Use Plan. Accident records for SFIA show that off-airport accidents have not occurred in recent history. The risk of an aircraft accident in the Project Area is low. Accident rates for all types of aviation in the U.S. have declined in recent decades. As of 1997, the total National Airspace System accident rate per 100,000 flight hours was 4.64. About 93 percent of the total of 2,001 aviation accidents in 1997 occurred in the General Aviation segment (1,854 accidents) (FAA, 1999). The great majority of aircraft accidents occur during departure or arrival, and on or immediately adjacent to the runway (Caltrans, 1993). For this reason, onboard injuries and fatalities are far more common than fatalities or injuries to persons on the ground. Thus, the risk to residents and occupants of the proposed Project Area over the life of the project is assumed to be negligible.

   Implementation of the proposed Redevelopment Plan would not cause the rate of aircraft accidents at SFIA to increase, and there is no evidence to suggest that the projected increases in aircraft operations at SFIA would affect accident rates. The Redevelopment Plan, however, would increase the overall number of residents and property exposed to an aircraft accident, should one occur.

   Although the proposed Plan would not affect the potential for aircraft accidents to occur, the fact that it would expose a greater number of persons to risk would be considered an adverse impact.

f) There is no private airstrip located in the vicinity of the Redevelopment Project Area.

g) The City of San Bruno has or participates in several emergency response plans, including its own, adopted in 1980, that of the state, the California Emergency Services Act of 1970, which specifies that the state emergency plan be carried out by the state's political subdivisions. San Mateo County and its 20 cities, including the City of San Bruno, have prepared the San Mateo Operational Area Emergency Plan, which is consistent and compatible with the state emergency plan. San Mateo County coordinates emergency response planning between agencies. An area administrator is responsible for activating emergency response activities (County of San Mateo, 1986).

   Effective emergency response depends on available access to all areas of the city. Streets in the newer portions of San Bruno are generally wide enough to accommodate emergency or fire vehicles. The San Bruno City Code establishes minimum road widths and grades to accommodate safety response needs. Many older streets are narrow and difficult to maneuver and could present access limitations. Effects of seismically induced landsliding could further disrupt access on roads and

streets in the upland areas of San Bruno following an earthquake. The Redevelopment Plan does not propose any activity, program, or project that would impair the implementation or phycially interfere with these emergency response plans, but does propose that redevelopment funds be made available for projects including the improvement of structures and roadways, activities that would improve emergency response, rather than impair it.

In addition, new buildings are designed to withstand groundshaking produced from the maximum seismic event capable of occurring on the closest causative fault. Considering that the new construction would be designed under current, more stringent building codes to increase earthquake resistance, the amount of structural damage in the event of an earthquake is expected to be considerably less than anticipated in the older structures. Additionally, the occurrence of utility disruption would be less in more recently installed utilities than in earlier installations, due to improved seismic design standards for power transmission facilities. Overall, new construction is expected to perform substantially better than older structures in the event of a major earthquake.

h) Improvements or development of areas in Redevelopment Subarea B would not increase the threat of a wildland fire nor reduce fire preparedness. Redevelopment of Subarea B would not affect the potential fire hazard for these areas due to their distance from Subarea B.

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Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion of siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☒	☐	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems?	☒	☐	☐	☐
f) Otherwise substantially degrade water quality?	☒	☐	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☒	☐	☐	☐
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐

i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j)	Inundation of seiche, tsunami, or mudflow?	☐	☐	☒	☐

Discussion:

a) No waste discharge requirements are necessary for implementation of the Redevelopment Plan. Control of nonpoint source pollution for construction activity is necessary and discussed under section f.

b) There is a possibility of an increase in impervious surface area within the redevelopment subareas due to proposed structures. If an increase did occur, its effect on the shallow, unconfined aquifer below the City of San Bruno would be negligible. A deeper, confined aquifer (Westside Basin) is disconnected from the upper aquifer by a 100 to 150 foot clay layer between the formations (San Mateo County, 1995). This aquifer is the source aquifer for the City's water supply wells. The deeper aquifer receives recharge from the areas generally west of Interstate 280, where the aquifer formation is exposed to percolation and outside of the redevelopment subareas.

c) Redevelopment of the subareas would minimally alter existing drainage patterns. All new developments would connect with the same flood control lines as the previous structures, but the movement of surface runoff onsite might change. During construction, the alteration of the local site could induce erosion of exposed soils thereby degrading water quality. This issue is discussed in section f concerning the degradation of water quality. Overall, the minimal onsite alteration of drainage patterns would not further induce erosion.

d,e) The City of San Bruno is a highly developed urban area, but further reduction of overall watershed infiltration capabilities is still possible. Streets, roofs, parking lots and driveways all add to the amount of impervious surfaces that do not allow rainfall to percolate into the groundwater and thereby increase stormwater runoff. Increased storm runoff changes the character of receiving channels and streams by increasing peak flows during and immediately after storms, and decreases the amount of stream recharge from groundwater between storms and during the summer. In addition to cumulative changes in water runoff characteristics, urban development may also increase local flooding due to minor drainage pattern alterations combined with the increased runoff. It is important to know the possible impacts of urban development, in order to plan for changes in the natural balance of the watershed, and to allow for adjustments to maintain watershed equilibrium and natural function.

Construction within the redevelopment subareas could create impervious surfaces (streets, curbs, roofs, concrete and asphalt) where permeable soils currently exist. Impervious surfaces would prevent precipitation from infiltrating, causing it to pond or runoff. Stormwater runoff from developed sites may concentrate and provide increases in volume runoff for the local area. Discharge of the increased and concentrated runoff may cause localized flooding at storm drain connections or downstream of the discharge location. Each developed site would need to integrate the capacity of the existing storm drain system into design plans for the particular structure or improvement. Additionally, design plans would need to incorporate existing site drainage patterns into the proposed drainage patterns for integration into the storm drain system.

f) Construction of proposed facilities in the redevelopment subareas could result in increased erosion and sedimentation, with subsequent impacts to water quality and/or storm drain capacity during construction. Additionally, release of fuels or other hazardous materials associated with construction equipment could reduce water quality. Unmitigated construction activities contribute the largest single source of localized erosion and sedimentation in the San Francisco Bay Area (San Mateo County, 1986). Typical of accelerated erosion problems, vegetation that binds the soil or impervious areas (concrete, asphalt, etc.) that cover underlying soil is reduced or removed during construction, exposing disturbed soils to precipitation and surface runoff.

Sedimentation to waterways can degrade water quality for beneficial uses by increasing channel sedimentation and suspended sediment, reducing the flood-carrying capacity, and affecting associated aquatic and riparian habitats. Eroded soil may contain nutrients, which can cause unwanted increases in algae or phytoplankton. These increases may reduce water clarity, deplete oxygen, lead to fish kills, or create odors. Increased sedimentation may also choke storm drains and channels causing flooding during storms that the drainage system should capably handle. Small soil particles washed into streams can smother spawning grounds and marsh habitat. Suspended particulates can restrict light penetration into water and limit photosynthesis of aquatic biota. Exposed soils may also contain contaminants from previous urban uses of the land and allow these contaminants to become entrained in stormwater runoff.

g,h,i) Flooding occurs in San Bruno's low lying areas located along the San Mateo Avenue central business district, Kains Avenues east of Green Street, throughout much of northern and southern Belle Air east of San Mateo Avenue, near City Park south of Crystal Springs Road, and immediately north of Capuchino High School (City of San Bruno, 1989). Significant flood events occurred January 1982, January 1983, October 1989, and February 1991 (Bissell & Karn, 1991). Flooding occurs in these areas because of inadequate storm drains and the low elevation, which subjects the areas to tidal influences. The City's storm drain system does not operate effectively at times of high tide combined with heavy rain. During a high tide of 4.5 feet or greater and rainfall occurring at a rate of at least one inch per hour for one hour preceding the high tide, flooding can occur in Belle Air, Fifth Addition, and along the San Mateo Avenue central business district (City of San Bruno. 1989). Channels and pipelines are not large enough in these low elevation areas to accommodate the volume of water during the high tides.

The above mentioned problematic flooding areas are within the boundary of Redevelopment Subarea A. New structures in the redevelopment area could be placed in areas where future flooding is highly possible. Due to the nature of the topography in the potential flood areas, new structures would not significantly impede or redirect flood flows. Characteristically, past floods have been periods of inundation where floodwaters pond or have low velocities. These types of floods differ from the more dangerous, high velocity flooding within defined floodplains of large streams or rivers. The risk exposure to flooding in the City of San Bruno is a less than significant impact, but new development would need to examine drainage characteristics and the existing storm drain system to minimize potential losses and reduce stormflow contributions.

j) San Andreas Lake is believed to be large enough to pose significant seiche potential (San Mateo County, 1986). If a large earthquake occurred during a high water period, the lake could possibly overtop its spillway and cause inundation downstream. The San Andreas Lake dam and spillway are south of the City of San Bruno and any inundation would occur in San Francisco Water Department's Peninsula Watershed land. No known tsunamis have hit any

point in San Mateo County (San Mateo County, 1986). Susceptible areas are those along the Pacific Coast. The City of San Bruno is on the San Francisco Bay side and is separated from the Bay by San Francisco International Airport. None of the existing storm drain basins for the City of San Bruno are large enough in size or have significantly large soil sources for creation of a mudflow that could inundate portions of the redevelopment subareas.

Supporting Information Sources – HYROLOGY AND WATER QUALITY

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Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
IX. LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	☐	☒

Discussion:

a) The two proposed Redevelopment Plan subareas, Subarea A and Subarea B, both reflect well-defined, discrete areas. Some neighborhoods in Subarea A were in existence in 1914, others referred to in subsequent annexations; all were expressly named in the *City of San Bruno 1984 General Plan*. Subarea A's neighborhoods are bordered by well-defined commercial areas along some of San Bruno's most well-traveled streets and freeways, including El Camino Real, San Bruno Avenue, San Mateo Avenue, and I-380. Proposed redevelopment projects would take place along the periphery of the residential conservation areas, along the major streets that form the perimeter of the residential areas, in commercial and underutilized areas.

Subarea B consists of a commercial area located at the intersection of two major San Bruno streets and surrounded by open space and residential use. Proposed redevelopment activities would take place within the boundaries of the commercial area.

However, construction activities, particularly in Subarea A, could temporarily disrupt neighborhood circulation patterns, causing spillover into neighborhood streets, or temporarily blocking access along neighborhood streets.

b) At the present time, land uses described in the Redevelopment Plan contain potential inconsistencies with the *City of San Bruno 1984 General Plan*, the Zoning Ordinance and the *San Mateo County Comprehensive Airport Land Use Plan*. Although the Redevelopment Plan reflects many of the goals, policies and actions outlined in the General Plan, conflicts may exist with some of the specific regulations, such as allowable building heights. In addition, the General Plan, Zoning Ordinance and Airport Land Use Plan are not internally consistent. However, the City of San Bruno has initiated a process to update the General Plan and Zoning Ordinance. The *Preliminary Plan for the San Bruno Redevelopment Project* states that the redevelopment plan and redevelopment projects will conform to the General Plan, Zoning Ordinance and all applicable plans and policies.

The City of San Bruno is not avoiding inconsistencies between the Redevelopment Plan and other applicable plans and policies for the purpose of avoiding or mitigating an environmental effect.

c) At the present time, the City of San Bruno does not have any habitat conservation or natural community conservation plans in effect within its city limits.

The Federal Endangered Species Act establishes the definition for a "habitat conservation plan" (HCP). Implemented primarily by the U.S. Fish and Wildlife Service, the Endangered Species Act defines a habitat conservation plan as a plan that sets aside land for a specific species to minimize the effects of an "incidental take." A take is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species. . . . Harm may include significant habitat modification where it actually kills or injures a listed species through impairment of essential behavior."[4] An "incidental" take is committed when the take is not the focus of an intended activity, such as residential development. This legislation allows state, local governments, and private landowners to apply for an Incidental Take Permit for otherwise lawful activities that may harm listed species or their habitats. To obtain a permit, an applicant must submit an HCP outlining measures to "minimize and mitigate" the impact of the permitted take on the listed species.[5]

The Natural Community Conservation Plan (NCCP) program is implemented by the California Resources Agency and the California Department of Fish and Game and establishes the definition of an NCCP. An NCCP identifies and provides for the regional or areawide protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity.[6]

The City of San Bruno neither has an established HCP nor is it a participant in an NCCP.

Supporting Information Sources – LAND USE AND PLANNING

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City of San Bruno, *City of San Bruno*, http://www.ci.sanbruno.ca.us, December-February, 1999.

City of San Bruno, *Feasibility Report for the San Bruno Redevelopment Project*, August 1998, p. I-1.

4 U.S. Fish and Wildlife Service, "Habitat Conservation Plans and the Incidental Take Permitting Process," http:www.fws.gov/r9enspp, February 11, 1999.

5 The first HCP approved under this provision of the Endangered Species Act was for the nearby San Bruno Mountain in 1983.

6 California Resources Agency, *Natural Community Conservation Planning*, http://www.ceres.ca.gov/CRA, February 11, 1999.

County of San Mateo, 1986. Department of Environmental Management, Planning and Development Division, County of San Mateo, *General Plan*, pp. 6.1-6.25A, 7.1-7.25, November 18, 1986.

San Bruno Redevelopment Agency, *Administrative Draft Preliminary Report for the San Bruno Redevelopment Project*, February 1999, p. II-29.

San Francisco International Airport, http:www.sfoairport.com, February 11, 1999.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Discussion:

a, b) There are no known mineral resources in the Redevelopment Project area.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XI. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☒	☐	☐	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion:

a) See discussions under (c), (d), and (e) below.

b) The Redevelopment Plan would not expose persons to or generate excessive groundborne vibration or groundborne noise levels.

c) Project-generated vehicle traffic associated with the Redevelopment Plan could result in an increase in ambient noise levels on local roadways. The proposed Redevelopment Plan would be expected to generate approximately 5,487 additional daily vehicle trips. These trips would be distributed over the local street network and would affect roadside noise levels. Some increase in vehicle traffic would be expected to occur in the future even without the project. The increases in roadside noise levels resulting from implementation of the Redevelopment Plan may create a noise environment that would be incompatible with existing land uses along these roads. In some areas of the City, sources of noise other than traffic (e.g., SFIA overflights, Caltrain passbys)

primarily influence the noise environment and minor increases in traffic may go unnoticed.

d) Construction of individual projects allowed under the Redevelopment Plan could temporarily increase ambient noise levels in areas of San Bruno that would not otherwise occur without the project. Construction preparation activities would involve excavation, grading, earth movement, stockpiling, batch dropping operations and vehicle travel to the construction sites. Construction activities such as foundation laying, building construction and finishing operations would also generate noise. Construction-related material haul trips would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. In addition, certain types of construction equipment generate impulsive noises (such as pile driving), which can be particularly annoying.

Noise-sensitive land uses, including residences, are located throughout Subarea A and adjacent to Subarea B and would be subjected to noise from construction and demolition activities associated with projects proposed under the Redevelopment Plan. The duration of the construction period would differ for individual projects under the Redevelopment Plan, depending on the extent of land use change, and the extent to which the change involves new construction rather than re-use of existing structures. Generally speaking, construction noise would be considered disruptive to residents and local businesses.

e) The San Francisco International Airport (SFIA) is located adjacent to San Bruno to the east across U.S. 101. Portions of San Bruno are situated beneath flight tracks for arrivals and departures at SFIA. Noise contour maps show that major portions of Subarea A fall within portions of the 65 and 70 CNEL noise contour from SFIA. Over time, noise contour lines are projected to shrink due to the federally-mandated phasing out of Stage 2 (noisier) aircraft. Because of its proximity to the Airport, San Bruno is included amongst the jurisdictions addressed in the *San Mateo County Comprehensive Airport Land Use Plan,* prepared by the County's Airport Land Use Commission (ALUC). The ALUC and the City, in its General Plan, have established similar noise/land use compatibility guidelines that recommend against residential development in areas where the ambient noise environment is greater than 70 CNEL.

The Redevelopment Plan itself could result in construction of an estimated 515 to 700 new residences in Subarea A, the part of San Bruno most affected by noise from SFIA. The primary redevelopment would include development on the U.S. Navy and Marine Corps site. Uses assumed for this area include housing for seniors and other market-rate housing, among others. Under the Redevelopment Plan, residences could also be located along El Camino Real and San Bruno Avenue, at the P&R Corporate Yard at San Felipe Avenue and Huntington Avenue, at the former Pac Bell Building on San Bruno Avenue west of El Camino Real, and at Camino Plaza at the southwest corner of El Camino Real and San Bruno Avenue. No noise-sensitive land uses are proposed for Subarea B.

Some of the above-described residences could be located in areas where the ambient noise environment would be unacceptable for such uses. Because the proposed Redevelopment Plan could locate residences and other noise-sensitive land uses in areas that exceed the "normally acceptable" compatibility criteria, this could be a potentially significant noise impact of the project.

f) Not applicable.

Supporting Information Sources – NOISE

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San Francisco International Airport Airports Commission, *Noise Exposure Map Update – 1995*, 1995.

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U.S. Department of Transportation, Urban Mass Transportation Administration, *Guidance Manual for Transportation, Noise and Vibration Impact Assessment*, July 1990.

U.S. Environmental Protection Agency, *Noise from Construction Equipment and Building Operations, Building Equipment, and Home Appliances*, December 1971.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

Discussion:

(a) The Redevelopment Plan could result in construction of between 515 and 700 new housing units in Subarea A. An estimated 250 of the housing units would be housing units for the elderly. Using the 1990 Census estimate of 2.58 persons per dwelling unit in San Bruno (and an estimate of one person per unit of housing for the elderly), new construction could accommodate a range of 935 to 1,410 persons by 2010. Although it is unclear if this potential increase would represent residents new to Subarea A or existing residents relocating within Subarea A, new construction could result in additional population by 2010.

Between 1980 and 1990, the population in Subarea A increased by 2,600 persons. The projected range of 935 to 1,410 persons by 2010 is 36 percent to 54 percent of the 1980-1990 increase. However, between 1980 and 1990, the number of housing units in Subarea A increased by only 147. The Redevelopment Plan proposes construction of 400 units, that could accommodate approximately 637 persons, on the 30-acre U.S. Navy site, a large, previously underdeveloped area. The remaining 115 to 300 units would be constructed on other underdeveloped areas. All of the proposed housing sites are outside existing neighborhoods.

Because the projected population increase in Subarea A is smaller than past population increases, is accommodated by needed new housing units outside existing neighborhoods and because new housing could relieve overcrowded conditions in existing neighborhoods, the Redevelopment Plan would not result in substantial growth.

(b) The Redevelopment Plan will not displace substantial numbers of existing housing units. The Plan proposes redevelopment projects outside of the residential conservation areas, in underdeveloped and/or commercial areas, and along streets with commercial frontages. The Plan will not displace any existing housing units in Subarea A's Residential Conservation Areas.

(c) By 2010, implementation of the Redevelopment Plan could result in displacement of some residents, although the amount will be minimal. The Plan proposes redevelopment projects outside of the residential conservation areas, in underdeveloped and/or commercial areas, and along streets

with commercial frontages. No persons will be displaced from Subarea A's residential conservation areas or from Subarea B.

Supporting Information Sources – POPULATION AND HOUSING

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Department of Finance, State of California, *Historical U.S. Census Populations of Places, Towns and Cities in California: 1850-1990*, http://www.dof.ca.gov, December 1998 and January 1999.

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U.S. Census Bureau, Department of Commerce, *U.S. Housing and Population Census*, 1980. (Available at the Government Documents Library, University of California, Berkeley)

U.S. Census Bureau, Department of Commerce, *1990 Census Data*, http://www.census.gov/cdrom, December 1998 and January 1999.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XIII. PUBLIC SERVICES, UTILITIES, AND SERVICE SYSTEMS -- Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐
b) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☒	☐	☐	☐
c) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☒	☐	☐	☐
e) Are sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
f) Has the wastewater treatment provider which serves or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☒	☐	☐	☐
g) Is the project served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐

h) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion:

a) Implementation of the Redevelopment Plan could result in an increase of population estimated as ranging between 900 and 1500 persons, which would be insufficient to necessitate the provision of new or altered governmental facilities. While construction of new governmental facilities may occur under the Redevelopment Plan, the effects on provision of services would be minimal, due to the continued availability of existing facilities that could be used during construction of other facilities. (Effects on parks is also addressed in the next section of this Initial Study.)

b, f) The residents of the City of San Bruno generate approximately 3.34 million gallons per day of sewage (CALEPA and SWRCP, 1998). The Cities of South San Francisco and San Bruno are members of the North Bayside System Unit (NBSU), which is the Joint Powers Authority responsible for operation of the shared transport and disposal facilities. The current wastewater treatment facility has an average dry-weather flow capacity to provide secondary level treatment for 9 million gallons per day (mgd) of domestic, commercial, and industrial wastewater from the Cities of South San Francisco, San Bruno, portions of the City of Daly City, and the Town of Colma. The average annual and dry-weather flow for 1996 at the treatment plant was 9.7 and 8.5 million gallons per day, respectively. The wastewater treatment plant will have a design capacity of 13 mgd after documenting adequate reliability, capacity, and performance of completed plant improvement projects.

The City of San Bruno's wastewater collection system and the treatment plant receive high flows during the rainy season. The high flows are a result of stormwater inflow and/or groundwater infiltration of stormwater in the sewer collection system from leaky pipes and direct cross-connection between storm drains and the sewer system. The impacts on the City's wastewater treatment system of possible development under the Redevelopment Plan should be evaluated.

c, e) The need to construct new facilities for water or wastewater treatment is not expected to result from development under the Redevelopment Plan, since the City of San Bruno has an adequate water supply, and has already embarked on planning for wastewater treatment and is making improvements to expand this system. The City of San Bruno's Department of Public Works, Water Division, is responsible for supplying the residents of San Bruno with potable water from deep groundwater wells and surface water from San Francisco Water Department's Hetch Hetchy system (City of San Bruno, 1998). While these two water sources blend together in the City's distribution system, the lower elevations and the eastern portion of the city receive a higher percentage of well water. Average water use per year in San Bruno is approximately 1,575 million gallons, or 4.4 million gallons per day, and has changed very little over the years due to the built-out conditions of the city (City of San Bruno, 1989). Three of the City's five producing wells are located within Subarea A. There is no evidence that the present rate of well usage exceeds the long-term safe yield of the groundwater basin (City of San Bruno, 1984).

d) The need to construct new stormwater drainage facilities may result from development under the Redevelopment Plan.

g) The San Bruno Garbage Company collects the city's nonhazardous solid waste and disposes of it at the Ox Mountain Sanitary Landfill, which is estimated by the County of San Mateo to have adequate

capacity up to 2017, with an expansion underway to ensure capacity to as long as 2025. This solid waste capacity is expected to be adequate to include waste generated by any development under the Redevelopment Plan.

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Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XIV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Discussion:

a) Residential development under the Redevelopment Plan could add an additional 935 to 1,410 persons to Subarea A by 2010. Although the *City of San Bruno 1984 General Plan* uses a general standard of 2.5 acres of parkland per 1,000 residents, in 2000 Subarea A will have an estimated 0.8 acres of parkland per 1,000 residents. Without new park facilities, by 2010 Subarea A will have an estimated o.7 acres of parkland per 1,000 residents. (This figure includes a population increase of 3 percent in 2000, and the additional 935 to 1,410 persons resulting from new residential construction.) The difference between 0.7 acres of parkland per 1,000 residents and 0.8 acres of parkland per 1,000 residents is an incremental and insubstantial decrease that would not be considered significant.

However, the City of San Bruno building code (Section 12.44.140) requires developers of new housing subdivisions to dedicate land for park and recreational purposes, either by dedicating land for public recreational facilities, by a payment of fees for public recreational facilities, or by providing privately owned and privately maintained space for future residents. This requirement would provide new park and recreational opportunities for Subarea A and eliminate the incremental increase in park use by new residents.

b) See discussion under section "a," above. Residential construction under the Redevelopment Plan would require construction of park and recreation facilities in conformance with San Bruno's Building Code, section 12.44.150. Construction of park and recreational facilities are subject to the City of San Bruno's building code, as well as all General Plan and Zoning Ordinance standards regarding open space for parks and recreational purposes. This regulatory environment includes standards for noise, setbacks, access, location, size, geography, and topography that assure park and recreational facilities do not have an adverse impact on the environment.

The City of San Bruno has also instituted a process to update its General Plan and Zoning Ordinance to eliminate any potential conflicts in its General Plan, Zoning Ordinance and the Redevelopment Plan.

Supporting Information Sources – RECREATION

Association of Bay Area Governments, http://www.abag.ca.gov/bayarea/baytrail, February 23, 1999.

City of San Bruno Planning Code, section 12.44.140.

City of San Bruno, *City of San Bruno 1984 General Plan and Environmental Impact Report*, adopted June 25, 1984, *various locations.*

City of San Bruno, *City of San Bruno 1984 General Plan Summary*, adopted June 1984, *various locations.*

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XV. TRANSPORTATION / TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Result in inadequate parking capacity?	☐	☐	☒	☐
g) Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☒	☐

Discussion:

a, b) By comparing development that may occur under the Redevelopment Plan with development that would be allowed under the existing 1984 General Plan policies and land use designations, a comparison of "project" versus "no project" traffic volumes can be developed. On this basis, intersection operations were evaluated for the project condition with future traffic volumes and anticipated future lane geometries. Peak-hour level of service conditions would remain unchanged from the "no project" conditions by the additional development and resulting volume increases that may occur under the "project." from "no project" conditions. There are intersections in the study area that would operate at level of service E or F during the a.m. and p.m. peak hours, but those intersections are projected to operate at level of service E/F under "no project" conditions, and project-generated traffic would increase the volume-to-capacity ratio by no more than 0.01 at any of these congested intersections, and therefore the project impact would be less than significant, and the project's contribution to cumulative conditions would not be considerable.

In addition, future freeway traffic projections for "no project" conditions were obtained from travel demand model results. Anticipated traffic volumes under "project" conditions were based upon the manual addition of project traffic to the "no project" condition freeway volumes. The project is expected to add traffic to freeway segments that are projected to operate below Congestion Management Plan (CMP) level of service standards in 2020, but level of service results for the "project" condition are identical to those for the "no project" condition, and the project would add no more than 0.01 to the volume-to-capacity ratios. The project would not be expected to cause a freeway segment in conformance with CMP policy in the "no project" condition to violate the CMP policy in the project condition. Accordingly, the project impact would be less than significant, and the project's contribution to cumulative conditions would not be considerable.

c) Air traffic patterns, levels, or locations would be unaffected by the proposed project.

d, e) Circulation improvements that may occur under the Redevelopment Plan, such as widening some streets, could be expected to reduce hazards to design features such as narrow streets and to improve emergency access. In addition, A goal of the Redevelopment Plan is the reduction of incompatible land uses, which may also reduce traffic hazards related to incompatible land uses.

f) Project developments under the Redevelopment Plan would continue to be subject to City of San Bruno site design review and would need to be designed for adequate parking circulation and access. The parking demand increases due to the project are not expected to cause significant adverse impacts on parking. It is anticipated that all of the project developments would be required to provide a supply of on-site parking that meets the City of San Bruno parking requirements.

g) The Redevelopment Plan would not conflict with adopted policies supporting alternative transportation, and could further adopted policies that support transportation alternatives such as bicycling, walking, or using transit by making funds available for improvements that would enhance these transportation modes such as widening streets to allow bike lanes, landscaping along sidewalks, and providing incentives for transit-oriented development.

Supporting Information Sources – TRAFFIC / TRANSPORTATION

Bay Area Rapid Transit District, U.S. Department of Transportation Federal Transit Administration and San Mateo County Transit District, *BART-San Francisco Airport Extension*, June 1996.

Bay Area Rapid Transit District, *San Bruno Station and Parking Structure Plans*, July 20, 1998.

California Department of Transportation (Caltrans), *1997 Traffic Volumes on California State Highways*, 1998. (Available at Caltrans District 4 offices, 111 Grand Avenue, Oakland.)

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Chou, Augustine, Assistant Civil Engineer, City of San Bruno, *San Bruno Parking Lots, Bike Routes, and CIP List Transmittal*, February 26, 1998.

City of San Bruno, *1998-00 Capital Improvements*, 1998.

City of San Bruno, *Land Use Program for the West Div Naval Facility*, January 1999.

City of San Bruno, *Feasibility Report for the Proposed San Bruno Redevelopment Project*, August 1998.

City/County Association of Governments of San Mateo County (C/CAG), *Countywide Transportation Plan*, June 1997. (Available at C/CAG offices, 10 Twin Dolphin Drive, Redwood City.)

City/County Association of Governments of San Mateo County (C/CAG), *San Mateo County Congestion Management Program*, 1997. (Available at C/CAG offices, 10 Twin Dolphin Drive, Redwood City.)

City/County Association of Governments of San Mateo County (C/CAG), *San Mateo County Year 2020 Travel Demand Model.* (Available at C/CAG offices, 10 Twin Dolphin Drive, Redwood City.)

County of San Mateo, *Voter's Information Pamphlet-Measure A*, June 7, 1988.

DKS Associates, *North San Bruno Areawide Traffic Study Update*, August 1998.

DKS Associates, *North San Bruno Areawide Traffic Study*, December 1986.

Institute of Transportation Engineers, *Trip Generation*, 6th Edition, 1997.

Korve Engineering, *San Mateo County Travel Forecasting Model Validation Report*, 1996. (Available at C/CAG offices, 10 Twin Dolphin Drive, Redwood City.)

Metropolitan Transportation Commission (MTC), *1999 Transportation Improvement Program*, September 23, 1998. (Available at MTC offices, 101 8th Street, Oakland.)

Metropolitan Transportation Commission (MTC), *Draft 1998 Regional Transportation Plan*, August 1998. (Available at MTC offices, 101 8th Street, Oakland.)

San Francisco International Airport (SFIA), *San Francisco International Airport Master Plan Environmental Assessment - Traffic and Circulation Study*, March 20, 1998. (Available at SFIA, 710 McDonnell Road.)

San Mateo County Transit District (SamTrans), *Five Year Bus Improvement Plan*, September 9, 1998. (Available at SamTrans offices, 1250 San Carlos Avenue, San Carlos.)

San Mateo County Transit District (SamTrans), *SamTrans Bus Map*, January 3, 1999. (Available at SamTrans offices, 1250 San Carlos Avenue, San Carlos.)

Transportation Research Board, *Highway Capacity Manual,* Special Report 209, Updated 1994.

Transportation Research Board, *Transportation Research Circular 212*, 1980.

In addition, future freeway traffic projections for "no project" conditions were obtained from travel demand model results. Anticipated traffic volumes under "project" conditions were based upon the manual addition of project traffic to the "no project" condition freeway volumes. The project is expected to add traffic to freeway segments that are projected to operate below Congestion Management Plan (CMP) level of service standards in 2020, but level of service results for the "project" condition are identical to those for the "no project" condition, and the project would add no more than 0.01 to the volume-to-capacity ratios. The project would not be expected to cause a freeway segment in conformance with CMP policy in the "no project" condition to violate the CMP policy in the project condition. Accordingly, the project impact would be less than significant, and the project's contribution to cumulative conditions would not be considerable.

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g) The Redevelopment Plan would not conflict with adopted policies supporting alternative transportation, and could further adopted policies that support transportation alternatives such as bicycling, walking, or using transit by making funds available for improvements that would enhance these transportation modes such as widening streets to allow bike lanes, landscaping along sidewalks, and providing incentives for transit-oriented development.

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Chou, Augustine, Assistant Civil Engineer, City of San Bruno, *San Bruno Parking Lots, Bike Routes, and CIP List Transmittal*, February 26, 1998.

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San Francisco International Airport (SFIA), *San Francisco International Airport Master Plan Environmental Assessment - Traffic and Circulation Study*, March 20, 1998. (Available at SFIA, 710 McDonnell Road.)

San Mateo County Transit District (SamTrans), *Five Year Bus Improvement Plan*, September 9, 1998. (Available at SamTrans offices, 1250 San Carlos Avenue, San Carlos.)

San Mateo County Transit District (SamTrans), *SamTrans Bus Map*, January 3, 1999. (Available at SamTrans offices, 1250 San Carlos Avenue, San Carlos.)

Transportation Research Board, *Highway Capacity Manual*, Special Report 209, Updated 1994.

Transportation Research Board, *Transportation Research Circular 212*, 1980.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant With Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b) Does the project have impacts that are individually limited, but cumulative considerable? ("Cumulative considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

APPENDIX B

PRELIMINARY PLAN FOR THE SAN BRUNO REDEVELOPMENT PROJECT

PRELIMINARY PLAN

FOR THE

SAN BRUNO REDEVELOPMENT PROJECT

September 1998

RESOLUTION A98-2

EXHIBIT A

PRELIMINARY PLAN FOR THE
SAN BRUNO REDEVELOPMENT PROJECT

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Appendix A Proposed San Bruno Redevelopment Area Map
Appendix B Project Area Legal Description

I. INTRODUCTION

The purpose of this Preliminary Plan is to provide direction for the San Bruno Redevelopment Agency in the implementation of methods and procedures to satisfy the needs of the residents and business community in the development of a viable and active residential and commercial base in the area proposed to be the San Bruno Redevelopment Project Area.

Pursuant to Health and Safety Code section 33324,

"A preliminary plan need not be detailed and is sufficient if it:

(a) Describes the boundaries of the project area.
(b) Contains a general statement of the land uses, layout of principal streets, population densities and building intensities, and standards proposed as the basis for the redevelopment of the project area.
(c) Shows how the purposes of this part would be attained by redevelopment.
(d) Shows that the proposed redevelopment is consistent with the community's general plan.
(e) Describes, generally, the impact of the project upon the area's residents and upon the surrounding neighborhood."

The basic goal of the Preliminary Plan is to identify a project area and to assist in the replanning or redesign of the area which is presently stagnant or improperly utilized due to a variety of factors. In addition, the Plan proposes to arrest the decline and decay of blight throughout the Project Area through the restoration and revitalization of former and existing uses and the development of approved new uses.

A "Project Area" is defined by the Community Redevelopment Law as a predominantly urbanized area of a community which is in a blighted condition, the redevelopment of which is necessary to effectuate public policy. The Planning Commission, based upon the survey area designated by the City Council, selects and directs that the area be studied and analyzed to determine if existing conditions permit the establishment of a Redevelopment Project Area.

This Preliminary Plan outlines the conditions deterring growth and preventing the Project Area from achieving its full potential. It explores the ways to protect and enhance the environment and focuses on the means to redevelop stagnating and blighted areas in such a way as to stimulate and attract private investment, thereby improving the area's economic health, employment opportunities and revenue producing activities.

The conditions of blight in the Project Area include, but are not limited to, economic dislocation, inadequate lot layout, inadequate public improvements, utilities and facilities which cannot be remedied without redevelopment, and the prevalence of depreciated values, impaired investments, lack of employment opportunities and social and economic maladjustment.

The Preliminary Plan is an initial framework document which will be adjusted during the

review and adoption process of the Redevelopment Plan. More detailed and specific studies are to be initiated which will target more specific problems, programs and actions necessary to effectuate the achievement of public policy.

II DESCRIPTION OF THE BOUNDARIES OF THE PROJECT AREA

The boundaries of the proposed San Bruno Redevelopment Project Area are illustrated on the maps accompanying this report, labeled Appendix "A".

The legal Description of the Proposed Project is attached hereto labeled as Appendix "B".

The Area includes areas referred to as Subarea A and Subarea B.

Subarea A is generally described as follows:

- The predominantly commercial areas along San Bruno Avenue, San Mateo Avenue (Downtown San Bruno), El Camino Real, and the Tanforan Park Shopping Center;
- The residential subdivisions of Belle Air Park, San Bruno Park, and Lomita Park;
- The residential/industrial mixed use area bounded by San Mateo Avenue, Highway 380, the Southern Pacific Railroad (CalTrain) tracks, and Tanforan Avenue; and
- The Navy facility occupied by the United States Government and adjacent parcels.

Subarea B is generally described as follows:

- The Skycrest Shopping Center and commercial areas adjacent to it.

III. GENERAL STATEMENT OF PROPOSED LAND USES

As a basis for the redevelopment of the proposed Project Area, it is proposed that development and redevelopment be in conformance with the adopted General Plan of the City of San Bruno, the City of San Bruno Zoning ordinance and all other applicable state and local building codes and guidelines and be subject to all review and procedural requirements in effect as development and redevelopment take place within the Project Area boundaries. It is proposed that, in general, the following uses be permitted:

A. Revitalization of Residential Areas

An important purpose of a redevelopment project in San Bruno would be to create "residential conservation areas" to preserve and protect seven residential neighborhoods:

1. San Bruno Park Fifth Addition
2. San Bruno Park First Addition (north of San Bruno Avenue & west of

Huntington Avenue)

3. San Bruno Park First Addition (south of San Bruno Avenue & east of El Camino Real)
4. San Bruno Park First & Third Additions
5. Lomita Park
6. Belle Air Park North
7. Belle Air Park South

The residential conservation areas are envisioned as formal planning areas which would ensure that redevelopment activities would protect, revitalize and enhance the residential neighborhood quality of these areas. In addition, the Agency would use a minimum twenty percent of tax increment allocated to the Agency for the purposes of increasing, improving and preserving the supply of low and moderate income housing.

B. Revitalization of Commercial Areas

The proposed Redevelopment Project would help to revitalize San Bruno's commercial areas, and capitalize on the changes resulting from the BART extension, the San Francisco International Airport expansion, the Naval facility conversion, and the CalTrain Station relocation (permanent or temporary). The commercial areas include: El Camino Real, San Bruno Avenue, San Mateo Avenue (Downtown San Bruno), the Tanforan Park Shopping Center, and the Skycrest Shopping Center area. Reuse of the U.S. Navy facility and adjacent parcels may include a hotel/conference center, office building, and housing.

C. Revitalization of Industrial Areas

Redevelopment would also focus on the redevelopment of older, nonconforming properties along Montgomery Avenue and the industrial portion of San Mateo Avenue. Redevelopment could include light industrial uses and the removal of non-conforming residential uses in industrial areas, the consolidation of parcels and the provision of public parking for CalTrain, the airport and industrial uses.

IV. GENERAL STATEMENT OF PROPOSED LAYOUT OF PRINCIPAL STREETS

As a basis for the redevelopment of the proposed Project Area, it is proposed that, in general, the layout of principal streets and those that will be developed in the Project Area be as shown in the San Bruno General Plan Circulation Element and as permitted by future actions of legally authorized public entities.

Existing streets within the Project Area may be vacated, widened or otherwise modified, and additional streets may be created as necessary for proper pedestrian and/or vehicular circulation.

V. GENERAL STATEMENT OF PROPOSED POPULATION DENSITIES

Within the confines of the General Plan Land Use designations, there will be a permitted range of development. Population densities will conform to permitted levels in the General Plan although certain specified areas may see a net increase or decrease in density dependent upon the development proposed and permitted in that area by the Redevelopment Plan. Redevelopment could include making provisions for new housing above commercial uses along transit corridors and at the Navy site and adjacent areas in the event the City's General Plan is amended to provide for such uses.

VI. GENERAL STATEMENT OF THE PROPOSED BUILDING INTENSITIES

As a basis for the redevelopment of the Project Area it is proposed that, in general, the building intensity be controlled by limits on: (1) the percentage of ground area covered by buildings (land coverage); (2) the ratio of total floor area for all stories of the buildings to areas of the building sites (floor area ratio); (3) the size and the location of the buildable areas on building sites; and (4) the heights of buildings. The land coverage, sizes and locations of buildable areas should be limited, as is feasible and appropriate, to provide adequate open space and parking and a high level of livability. The limits on building intensity shall be established in accordance with the limits contained in the Zoning Ordinance and General Plan of the City of San Bruno. In addition, development which would exceed fifty feet or three stories in height would need to comply with, and would be subject to, the voter approval requirements of Ordinance 1284.

VII. GENERAL STATEMENT OF THE PROPOSED BUILDING STANDARDS

It is proposed that, in general, the building standards should conform to the building requirements of all applicable State statutes and all applicable local codes and ordinances.

VIII. ATTAINMENT OF THE PURPOSES OF THE LAW

The redevelopment of the proposed Project Area would attain the purposes of the Community Redevelopment Law of the State of California. The purpose of this section is to provide a general description of the conditions within the proposed San Bruno Redevelopment Project Area that demonstrate characteristics of blight. California Redevelopment Law defines a "blighted area" as one which is "predominantly urbanized" and which contains some of the economic and physical conditions described below to such an extent that it constitutes a serious physical and economic burden on the community which cannot reasonably be expected to be reversed or alleviated by private enterprise or government action or both without redevelopment.

"Predominantly urbanized" means that not less than 80 percent of the land in the project area: (1) Has been or is developed for urban uses; or (2) is characterized by subdivided lots of irregular form and shape and inadequate size for proper usefulness and development that are in

multiple ownership, or (3) is an integral part of one or more areas developed for urban uses which are surrounded or substantially surrounded by parcels which have been or are developed for urban uses.

In addition to being "predominantly urbanized" a "blighted area" must also be characterized by one of the following physical conditions:

(1) Buildings in which it is unsafe or unhealthy for persons to live or work. These conditions can be caused by serious building code violations, dilapidation and deterioration, defective design or physical construction, faulty or inadequate utilities, or other similar factors.

(2) Factors that prevent or substantially hinder the economically viable use or capacity of buildings or lots. This condition can be caused by a substandard design, inadequate size given present standards and market conditions, lack of parking, or other similar factors.

(3) Adjacent or nearby uses that are incompatible with each other and which prevent the economic development of those parcels or other portions of the project area.

(4) The existence of subdivided lots of irregular form and shape and inadequate size for proper usefulness and development that are in multiple ownership; and which also is characterized by one or more of the following economic conditions:

(i) Depreciated or stagnant property values or impaired investments, including, but not necessarily limited to, those properties containing hazardous wastes that require the use of agency authority as specified in Article 12.5 (commencing with Section 33459).

(ii) Abnormally high business vacancies, abnormally low lease rates, high turnover rates, abandoned buildings, or excessive vacant lots within an area developed for urban use and served by utilities.

(iii) A lack of necessary commercial facilities that are normally found in neighborhoods, including grocery stores, drug stores, and banks and other lending institutions.

(iv) Residential overcrowding or an excess of bars, liquor stores, or other businesses that cater exclusively to adults, that has led to problems of public safety and welfare.

(v) A high crime rate that constitutes a serious threat to the public safety and welfare.

A blighted area also may be one that contains the economic conditions described above and is, in addition, characterized by the existence of inadequate public improvements, parking facilities, or utilities. A blighted area may also be characterized only by the existence of subdivided lots of irregular form and shape and inadequate size for proper usefulness and development that are in multiple ownership.

For many years, the citizens and governmental officials of the City of San Bruno have been aware of the adverse conditions within the proposed Project Area boundaries. The conditions in this Area have contributed to the physical deterioration of structures and infrastructure, a lack of proper utilization of the Area, a decline in the economic viability of the Area, impaired investments, and social and economic maladjustment.

The following briefly describes those physical, economic and social conditions within the proposed Project Area which characterize blight as well as other conditions which generally describe the nature of the Area:

BLIGHTING PHYSICAL CONDITIONS

Deficient and deteriorated buildings provide significant evidence of physical blight in the area.

- A relatively large number of aging, obsolescent, or physically deteriorated commercial buildings are located in the proposed Project Area. Many buildings show the effects of deferred maintenance, including outmoded signage, peeling paint, or more serious deterioration. Deficient or deteriorated buildings in Subarea A are found at various locations in Downtown San Bruno, on El Camino Real, and along San Bruno Avenue. In Subarea B, the successful reuse of a former gasoline station site is complicated by the need to remove hazardous materials. Along Montgomery Avenue, non-conforming residential uses and structures compete with industrial uses for limited parking making the area as it is currently configured inappropriate for either residential or industrial uses.

- Although many homes located in the various residential neighborhoods of Subarea A are well maintained, many others show signs of age, deterioration, and informal or possibly substandard construction. Observed conditions of physical deterioration in residential structures include: deteriorated roofing and siding, sagging porches and stairs, broken sidewalks and cracked concrete work, and peeling paint. In a few cases, deterioration is so extensive that it is likely that the cost of repairs and code compliance would exceed the value of the building.

Factors that Inhibit Proper Use of Buildings or Lots

Several conditions inhibit the proper use of buildings or lots in the area:

- Much of the commercial development in Downtown San Bruno and other parts of Subarea A took place in the 1920s, 1930s, and early 1940s. Other business buildings, such as those in Subarea B, were built in the boom period following World War 11. Built to accommodate retail uses at the time of their construction, many of these business buildings have lost their economic viability. Some are of small size or irregular configuration. Others are poorly located on their sites. Sti others lack convenient parking. These buildings may not be readily adaptable to

modern retailing and may present an obstacle to economic use or future development.

- The proposed Project Area is adversely affected, to one degree or another, by proximity to earthquake faults. These faults include the San Andreas Fault, the San Bruno Fault, and the Sierra Fault. All of these faults pass through San Bruno in roughly a northwesterly direction. A major seismic event on the San Andreas Fault could result in substantial damage to buildings. Unreinforced masonry and older wood frame buildings are particularly vulnerable to damage. Because of these risks, the rehabilitation of existing buildings and the construction of new buildings in these areas may be expected to be more costly because of the need for seismic strengthening.

- Flooding has been identified as a problem in Subarea A. Areas particularly susceptible to flooding include the easterly and northerly parts of Belle Air Park.

- A relatively large part of Subarea A is adversely impacted by sound from aircraft activity at San Francisco International Airport. The noise created by aircraft overflights is especially noticeable in the northern parts of Belle Air Park and San Bruno Park and even more so in the Fifth Addition and the Tanforan Park Shopping Center. Development in areas impacted by aircraft noise can be subject to special restrictions.

- Other factors that inhibit proper use of buildings or lots include commercial, industrial or residential sites that are too small for economic development, irregularly shaped sites, buildings or lots impacted by rapidly moving traffic or traffic congestion, sites with hazardous materials, and sites with sensitive environmental conditions.

- Many existing commercial buildings fail to meet access requirements mandated by federal and state law, and cannot be made so economically, rendering them undesirable for new uses.

Incompatible Uses

- Incompatible uses within the area include, but are not limited to, the following:

- Residential uses that front or back up on active railroad lines.

- Commercial uses that are adversely impacted by fast moving and congested traffic (for example, parts of San Bruno Avenue, San Mateo Avenue, and El Camino Real).

- Residential and commercial uses adversely impacted by noise from aircraft overflights.

- Residential uses adjacent to automobile repair, body shop and similar uses.

Substandard Lots

The economic use and proper and timely development of property has been affected by formal and informal subdivision practices that have produced a large number of lots that are, or are likely to become, substandard. Areas adversely impacted by the presence of such lots include, but are not limited to:

- Commercially zoned lots of relatively shallow depth on both sides of San Bruno Avenue between Highway 101 and El Camino Real.
- Commercially zoned lots of relatively shallow depth or irregular size or shape on either side of San Mateo Avenue in Downtown San Bruno.
- Commercially zoned lots of relatively shallow depth on either side of El Camino Real.
- Small lots in the mixed residential/industrial area in the blocks between San Mateo Avenue, Highway 380, the Southern Pacific Railroad (CalTrain) tracks, and Tanforan Avenue.

BLIGHTING ECONOMIC CONDITIONS

Economic blighting conditions include, but are not limited to, the following:

- Deteriorated or poorly maintained commercial properties that provide evidence of impaired investments. Such buildings are found at various locations in Downtown San Bruno, along San Bruno Avenue, and on El Camino Real.
- Numerous non-anchor vacant spaces in the Tanforan Park Shopping Center.
- Commercial buildings with marginal occupancy. These buildings, which are found throughout Subarea A, may not be delivering reasonable economic return to their owners or investors.
- Deteriorated, neglected, or poorly maintained residences. Such buildings, many of

which are located in the older subdivisions of Subarea A, often provide evidence of impaired investments.

In conclusion, the proposed San Bruno Redevelopment Project Area exhibits many of the characteristics of blight as defined by the California Community Redevelopment Law.

BENEFITS OF REDEVELOPMENT

Benefits will occur to the present and future inhabitants and property owners within the proposed Project Area as well as to the residents and taxpayers of the City at large, if the proposed Project Area is redeveloped. Redevelopment of the proposed Project Area would potentially be attained through some or all of the following, which the Agency is directed to explore during the preparation of the Redevelopment Plan.

Potential General Benefits

- Alleviate adverse physical and economic blighting conditions within the proposed Project Area.
- Implement the goals and policies of the City's General Plan.
- Mitigate any adverse conditions that contribute to soil and groundwater contamination.
- Beautify and enhance the proposed Project Area.
- Improve transportation and traffic circulation throughout the proposed Project Area through improved intersections, traffic controls, signage and traffic calming devices, pedestrian overpasses, bicycle routes, and passenger shelters.
- Create safe and convenient circulation for pedestrians and bicycles.
- Provide assistance to private property owners in order to encourage rehabilitation of their properties.
- Preserve and create civic, cultural, and educational facilities and amenities as a catalyst for area revitalization.
- Upgrade, modernize, and expand public infrastructure including improvements to sidewalks and street lighting systems.
- Upgrade and expand recreational areas and open space.
- Expand and improve the community's supply of low and moderate income housing by using redevelopment project housing set-aside funds.

Potential Residential Benefits: Conservation of Residential Areas

- Preserve, protect, and enhance established residential areas within the proposed Project Area through the creation of neighborhood conservation areas.
- Provide incentives for residential rehabilitation and improved housing conditions.
- Improve public open space, infrastructure, and facilities.
- Reduce traffic intrusion in residential neighborhoods and install traffic calming devices.
- Provide improved parks and recreational opportunities including bicycle and walking paths.
- Improve streets, sidewalks and street lighting.
- Provide improved and safer access to major thoroughfares.

Potential Revitalization of Commercial Areas

- Revitalize business areas in the proposed Project Area through business retention, expansion and attraction, and a coordinated program to promote shopping in San Bruno.
- Improve and enhance the desirability of San Bruno's major shopping areas, including San Mateo Avenue, El Camino Real, San Bruno Avenue, and Tanforan Park in order to ensure the continued strength of these areas.
- Assist in the implementation of projects developed by a Business Improvement District (BID) to promote Downtown San Bruno.
- Enhance the ethnically diverse character of businesses on San Mateo Avenue.
- Provide assistance for building rehabilitation and facade improvements.
- Develop a plan for the reuse of the Naval Area, and evaluate the feasibility of developing portions of the site for housing, office, and hotel uses.
- Create and/or expand offstreet parking facilities, including surface lots and multiple-story structures.
- Improve traffic and pedestrian access and linkages to commercial areas, and provide gateway improvements.
- Coordinate transit service for the Downtown area, including BART, CalTrain, ar

SamTrans services, potential shuttle services, and improved pedestrian access.

- Assist in the development of a multimodal transit corridor that will include a new BART station and related facilities and services, and commuter rail and bus service to the proposed Project Area.
- Consider intensification of economic uses in areas adjacent to the BART station.
- Capitalize on the area's location near San Francisco International Airport.
- Encourage the expansion and improvement of lodging, conference, and meeting facilities.

IX. CONFORMANCE TO THE GENERAL PLAN OF THE CITY

The Preliminary Plan conforms to the City of San Bruno General Plan. The Preliminary Plan proposes a similar pattern of land uses and includes all highways and public facilities indicated by the General Plan. The Redevelopment Plan will include provisions providing that it will remain consistent with the General Plan as it, the General Plan, is amended from time to time. It is anticipated that certain proposed elements of the Redevelopment Plan will be contingent upon the amendment of the General Plan consistent with proposed amendments to the General Plan which have been initiated by or which have received initial support from the City Council and/or the Planning Commission.

X. GENERAL IMPACT OF THE PROPOSED REDEVELOPMENT PROJECT UPON THE SURROUNDING NEIGHBORHOODS

Impact of the Project upon residents of the proposed Project Area and surrounding neighborhoods will, in general, be minimal. There may be impacts upon residents using the circulation system within the Area due to the public works improvements which can reasonably be expected to occur in the future. The impacts upon Project Area residents and the surrounding neighborhoods will, in general, be positive and revolve around improvements to public facilities and services, parking, environmental quality, employment opportunities, economic development and housing. In addition, the Project will rely upon and implement Neighborhood/Residential Conservation Areas to improve the viability of the residential neighborhoods.

This subject will be discussed in depth by the Redevelopment Agency in the Report to Council which will accompany the Redevelopment Plan for the Proposed Project Area.

XI. CONCLUSION

This Preliminary Plan, as the initial document produced in the Redevelopment Plan adoption process, conforms to the requirements of the California Community Redevelopment Law. The Preliminary Plan is generalized and nonspecific in detail in its parts, evidencing its purpose as a preliminary directional guideline document. The adopted Preliminary Plan provides the San Bruno Redevelopment Agency with the opportunity to further evaluate the proposed Redevelopment Project Area. The Planning Commission shall review the draft Redevelopment Plan and the accompanying draft Program Environmental Impact Report during the Plan adoption process.

JWT:kag

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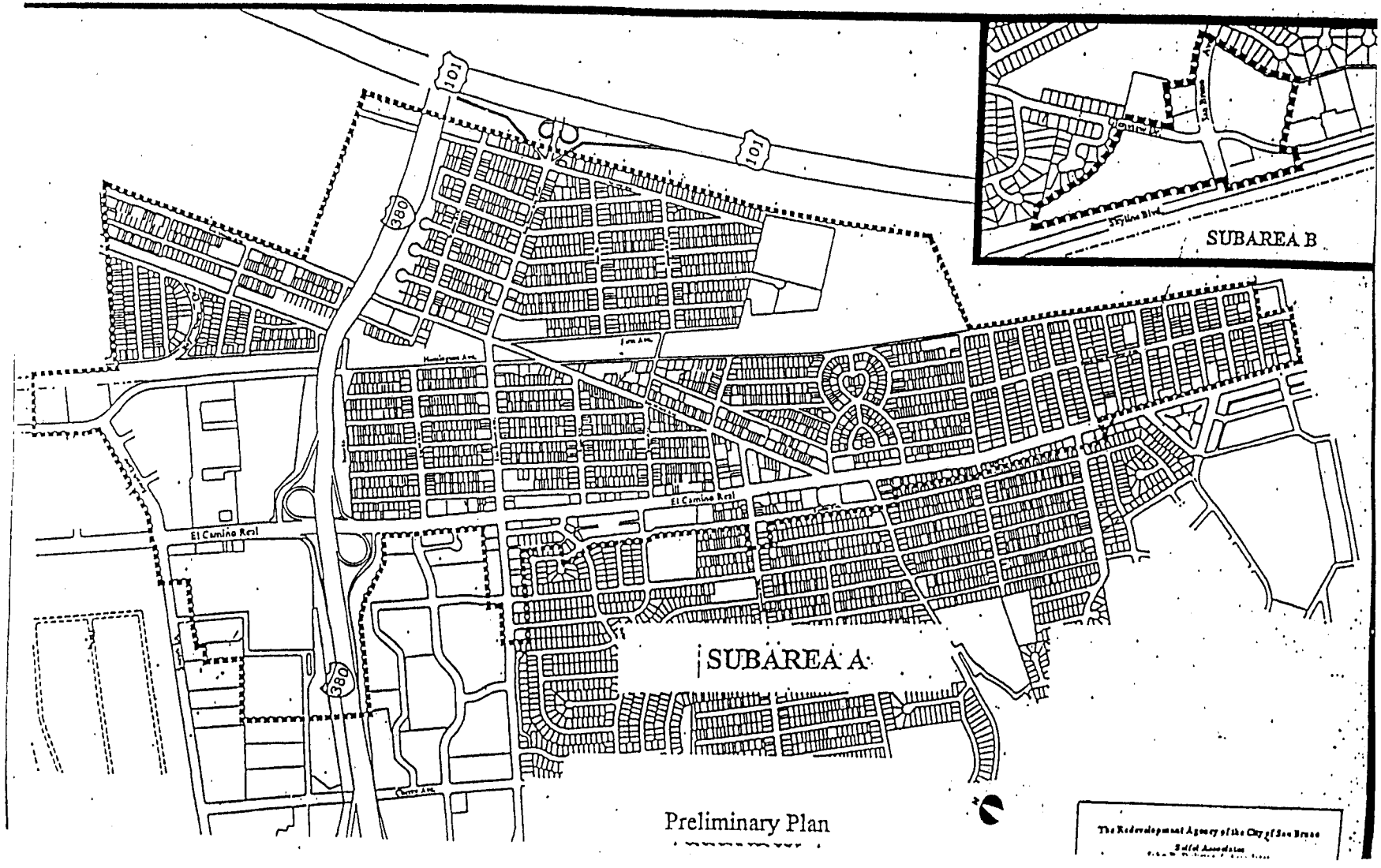

Preliminary Plan

APPENDIX C

DESCRIPTION OF THE SAN BRUNO REDEVELOPMENT PROJECT AREA

CITY OF SAN BRUNO
SAN MATEO COUNTY

DESCRIPTION OF THE SAN BRUNO REDEVELOPMENT PROJECT AREA

Prepared for
City of San Bruno
567 El Camino Real
San Bruno, CA

Date: October 22, 1998

Prepared by
Brian Kangas Foulk
2737 N. Main St, Suite 200
Walnut Creek, CA
BKF Job #985097-50

DESCRIPTION FOR
SAN BRUNO REDEVELOPMENT PROJECT
AREA A

Real Property situated in the City of San Bruno, County of San Mateo, State of California, described as follows:

Beginning on the northeasterly line of San Antonio Avenue at the center line of Santa Helena Avenue as shown on the map of Lomita Park Subdivision No. 3, recorded in Volume 3 of Maps at Page 45, San Mateo County records;

thence along said center line South 54-29-49 West 387.25 feet to center line of San Anselmo Avenue as shown on said map;

thence along said center line South 35-30-11 East 333.00 feet to the northeasterly projection of the southeasterly line of San Juan Avenue as shown on said map;

thence along said projection and southeasterly line South 56-40-49 West 440.25 feet to the southwesterly line of said map of Lomita Park Subdivision No. 3;

thence along said line North 37-01-42 West 1990.09 feet to the northeasterly projection of the northwesterly line of Lot 1 as shown on the map of Capuchino Golf Corporation Subdivision No. 1, recorded in Volume 14 of Maps at Page 24, San Mateo County records;

thence along said projection and line South 52-58-18 West 206.00 feet to the northeasterly line of the map of Capuchino Village No. 2, recorded in Volume 43 of Maps at Page 4, San Mateo County records;

thence along said line North 37-01-42 West 232.04 feet;

thence North 31-11-12 West 60.00 feet to the most southerly corner of Lot 41 of Block 12 as shown on the map of San Bruno Park, Fourth Addition, recorded in Volume 4 of Maps at Page 15, San Mateo County records;

thence along the southwesterly line of said Lot 41 North 33-00-42 West 101.95 feet to the northwesterly line of Lot 46 of Block 12 of said map;

thence along said line North 56-59-18 East 5.21 feet to the southwesterly line of Lot 36 of Block 12 of said map;

thence along the southeasterly lines of Lots 5 through 36 of Block 12 of said map North 34-55-49 West 800.45 feet to the southeasterly line of Lot 4 of Block 12 of said map;

thence along said line South 56-59-18 West 13.35 feet to the southwesterly line of said Lot 4;

thence along the southwesterly lines of Lots 1 through 4 of Block 12 of said map North 33-00-42 West 100.00 feet;

thence North 33-00-42 West 50.00 feet to the most southerly corner of Lot 39 of Block 1 of said map of San Bruno Park, Fourth Addition;

thence along the southwesterly lines of Lots 6 through 39 of Block 1 of said map North 29-49-13 West 850.03 feet to the southeasterly line of Lot 77 of Block 1 of said map;

thence along the southeasterly lines of Lots 73 through 77 of Block 1 of said map and the southwesterly projection thereof South 57-37-02 West 161.00 feet to the northeasterly line of Linden Avenue as shown on said map of San Bruno Park, Fourth Addition;

thence along said line North 32-22-58 West 95.03 feet;

thence North 29-49-31 West 954.51 feet;

thence North 29-49-31 West 172.28 to the northwesterly line of Lot 7 of Block 2 as shown on the map of Huntington Park recorded in Volume 5 of Maps at Page 40, San Mateo County records;

thence along the northwesterly line lot Lots 7 and 16 of Block 2 of said map South 60-10-29 West 200.00 feet to the northeasterly line of Poplar Avenue;

thence along said line North 29-49-31 West 160.00 feet to the southeasterly line of Jenevein Avenue;

thence along said line North 60-10-29 East 200.00 feet to the northeasterly line of Linden Avenue;

thence along said northeasterly line the following courses:

North 29-49-31 West 943.40 feet to a curve to the left having a radius of 75.00 feet,
along said curve through a central angle of 31-13-49, an arc length of 40.88 feet to a curve to the right having a radius of 125.00 feet,
along said curve through a central angle of 31-13-43, an arc length of 68.13 feet,
North 29-49-22 West 90.00 feet,
North 29-49-29 West 431.49 feet to a curve to the left having a radius of 125.00 feet,
along said curve through a central angle of 21-57-37, an arc length of 47.91 feet,
North 55-42-00 West 110.12 feet,
North 63-14-41 West 48.47 feet to a curve to the right the radius of which bears North 26-47-47 East 175.00 feet,
along said curve through a central angle of 29-44-16, an arc length of 90.83 feet
to the southwesterly projection of Lot 4 of Block 1 as shown on the map of Mills Park No. 2, recorded in Volume 23 of Maps at Page 75, San Mateo County records;

thence along said projection and southwesterly line of said Lot 4 North 56-15-19 East 149.90 feet to the northeasterly line of said Lot 4;

thence along the northeasterly line of Lots 4 through 11 North 28-20-46 West 422.68 feet to the southeasterly line of Lot 27 of Block 1 of said map;

thence along the southeasterly lines of Lots 21 through 27 and Lot 19 of Block 1 of said map South 62-30-09 West 452.07 feet;

thence South 60-06-20 West 60.02 feet to the southeasterly line of Lot 19 of Block 8 of said map;

thence along the said line and the southeasterly line of Lot 16 of Block 8 South 62-30-09 West 200.02 feet;

thence South 67-04-54 West 50.23 feet to the southeasterly line of Lot 16 of Block 12 of said map;

thence along said line South 62-30-09 West 101.41 feet to the southwesterly line of said Lot 16;

thence along said line and the southwesterly line of Lot 17 of Block 12 of said map and the southwesterly projection thereof North 27-29-51 West 181.00 feet to the northwesterly line of San Bruno Avenue as shown on said map;

thence along said line North 62-30-09 East 328.46 feet to a curve to the left having a radius of 20.00 feet;

thence along said curve through a central angle of 90-50-55, an arc length of 31.71 feet to the southwesterly line of Elm Avenue;

thence North 28-20-46 West 99.71 feet to the northwesterly line of said map;

thence along said line North 62-30-09 East 738.01 feet to the southwesterly line of El Camino Real;

thence along said line the following courses:
North 26-26-51 West 220.44 feet,
North 25-43-42 West 493.13 feet,
North 22-59-52 West 273.68 feet to the southeasterly right of way line of Interstate Highway 380;

thence along said right of way line the following courses;
South 67-49-53 West 230.35 feet,
North 79-29-31 West 357.93 feet,
South 81-29-16 West 243.83 feet,

South 63-09-29 West 833.61 feet to the most westerly corner of Parcel 1 as shown on "Parcel Map, TGI'S Friday's" recorded in Volume 48 of Parcel Maps at Page 83;

thence leaving said line and corner North 28-35-06 West 349.52 feet to the most westerly corner of the lands of United States of America, Assessor's parcel number 020-013-050;

thence along the southwesterly line thereof, through Commodore Drive and along the southwesterly line of the lands of the United States of America, Assessor's parcel number 020-013-590, North 22-29-22 West 769.51 feet to the southeasterly line of Parcel C as shown on the parcel map recorded in Volume 44 of Parcel Maps at Page 33, San Mateo County records;

thence along the southeasterly lines of Parcel C, B and A of said map North 67-26-14 East 558.00 feet to the southwesterly line of Parcel 2 as shown on the parcel map recorded in Volume 57 of Parcel Maps at Page 82;

thence along said line North 24-23-04 West 336.84 feet to the northwesterly line of said Parcel 2;

thence along said line North 65-36-56 East 151.00 feet to the northeasterly line of Parcel 2 as shown on the parcel map recorded in Volume 40 of Parcel Maps at Page 28;

thence along said line North 24-23-04 West 73.50 feet to the southeasterly line of said Parcel 2;

thence along said line North 59-37-45 East 241.03 feet;

thence leaving said line along the southeasterly line of Parcel 3 of said map North 62-07-40 East 375.81 feet to the northeasterly line of said Parcel 3;

thence along said line and the northwesterly projection thereof North 24-59-26 West 265.50 feet to the northwesterly line of Sneath Lane;

thence along said line North 59-35-20 East 314.95 feet to the southwesterly line of El Camino Real;

thence North 34-49-17 East 137.78 feet to the southeasterly line of Sneath Lane being a point on a curve concave to the northeast, the radius of which bears North 64-42-40 East 30.00 feet;

thence along said curve and line through a central angle of 95-27-17, an arc length of 49.98 feet;

thence continuing along said line the following courses:

North 59-15-23 East 78.08 feet to a curve to the left having a radius of 320.02 feet, along said curve through a central angle of 22-57-46, an arc length of 128.26 feet, North 38-02-43 East 874.62 feet to a curve to the left having a radius of 30.00 feet, along said curve through a central angle of 80-42-38, an arc length of 42.26 feet to the southwesterly line of Huntington Avenue being a curve to the right having a radius of 489.97 feet;

thence along said curve through a central angle of 18-08-30, an arc length of 155.14 feet;

thence North 24-31-00 West 424.94 feet to the southwesterly projection of the northwesterly line of Parcel 2 as shown on the map of Tanforan Park Unit No. 1, recorded in Volume 66 of Maps at Page 3;

thence along said projection and line North 64-16-33 East 489.90 feet to the northeasterly line of the lands of the City and County of San Francisco;

thence along said line South 25-09-14 East 43.78 feet;

thence South 24-53-02 East 920.00 feet to the southwesterly projection of the southeasterly line of Tanforan Avenue;

thence along said projection and said line North 65-04-38 East 1699.33 feet to the easterly line of San Bruno Avenue;

thence along said line South 00-11-45 West 2130.32 feet to the limit line of the City of San Bruno and the northerly line of the lands described in the deed to UGPT-SkyPark, Inc, recorded in Series 98-019447, San Mateo County records;

thence along said limit line and northerly line South 88-46-46 East 1667.84 feet to the easterly line of the map of the Amended Map of Belle Air Park, recorded in Volume 5 of Maps at Page 10, San Mateo County records as also shown on the Record of Survey recorded in Volume 3 of Licensed Land Surveyors Maps at Pages 5 through 7, San Mateo County records;

thence along said lines and limit line South 04-38-43 East 3612.21 feet;

thence along said limit line as shown on said Record of Survey South 08-33-43 East 1595.21 feet;

thence along said limit line South 45-00-00 West 655.56 feet to the northeasterly line of San Antonio Avenue;

thence along said line and limit line South 30-23-00 East 2975.41 feet to the **Point of Beginning**.

Containing 698.8 acres more or less.

All angles and bearings shown above are in the degree, minute, second format.

This description has been prepared for the purpose of establishing a redevelopment area and does not constitute a subdivision of land or any other act that violates any portion of the Subdivision Map Act.

This description has been prepared by me or under my direct supervision.

Brian Kangas Foulk

Barry T. Williams
Professional Land Surveyor #6711
Expires 6-30-2000

10-22-98
Dated:

DESCRIPTION FOR
SAN BRUNO REDEVELOPMENT PROJECT
AREA B

Real Property situated in the City of San Bruno, County of San Mateo, State of California, described as follows:

Beginning at the most northerly corner of the parcel map recorded in Volume 6 of Parcel Maps at Page 14, San Mateo County records;

thence along the northerly line of said parcel map South 81-03-01 West 496.43 feet to the westerly line of Glenview drive being a point on a curve concave to the northeast, the radius of which bears North 75-16-13 East 650.00 feet;

thence along said line and curve through a central angle of 7-06-07, an arc distance of 80.57 feet to the southeasterly line of the lands described in the deed to Skyline Self Storage, recorded in Series 94-036661, San Mateo County Records;

thence along the southeasterly and southwesterly lines of said lands the following courses:
South 53-36-26 West 77.43 feet
North 36-24-51 West 243.65 feet to a curve to the right having a radius of 170.01 feet, along said curve through a central angle of 68-18-34, an arc distance of 202.69 feet to the southwesterly line of the lands described in the deed to Souren M. Sossikian, et, al, Trustees, recorded in Series 96-159530, San Mateo County Records;

thence along said line and it's northwesterly projection North 36-22-26 West 116.64 feet to the northwesterly line of San Bruno Avenue;

thence along said line South 53-35-09 West 37.83 feet to the southwesterly line of the parcel of land as shown on Assessor's Parcel No. 019-043-049;

thence along said line North 36-28-21 West 197.55 feet

thence North 28-05-55 West 105.11 feet

thence North 36-05-38 West 893.81 feet to the northwesterly projection of the southwesterly line of the map of Crestmoor Park No. 7, recorded in Volume 49 of Maps at Page 20, San Mateo County Records;

thence along said projection and line North 81-34-23 East 98.70 feet to to the southwesterly line of the map of Crestmoor Highlands No. 1, recorded in Volume 102 of Maps at Page 65, San Mateo County Records;

thence along said line South 52-11-24 East 292.83 feet to a curve to the left having a radius of 700.00 feet;

thence along said curve through a central angle of 39-54-16, an arc distance of 487.52 to the westerly line of Glenview Drive;

thence North 81-34-23 East 60.00 feet to the easterly line of Glenview Drive;

thence along said line South 08-25-37 East 332.02 feet to the northwesterly line of the lands described in the deed to Shahin Nazari, recorded in Series 88-100732, San Mateo County Records;

thence North 62-22-34 East 279.30 feet to the northeasterly line of the lands descibed in the deed to Aris Fafoutis, Et ux, recorded in Document No. 20151AS, San Mateo County Records;

thence along said line South 28-32-15 East 163.36 feet to the northerly line of San Bruno Avenue being a point on a curve concave to the south, the radius of which bears South 20-36-45 East 1240.00 feet;

thence along said curve through a central angle of 15-10-03, an arc distance of 328.26 feet to the northerly projection of the easterly line of the lands described in the deed to Joseph C. Altizer, et al, recorded in Series 89-098915, San Mateo County Records;

thence along said projection and line South 10-30-00 West 492.53 feet;

thence South 08-30-00 East 178.70 feet to the **Point of Beginning**

Containing 18.38 acres more or less.

The bearings and angles shown above are in degree, minute, second format.

This description has been prepared for the purpose of establishing a redevelopment area and does not constitute a subdivision of land or any other act that violates any portion of the Subdivision Map Act.

This description has been prepared by me or under my direct supervision.

Brian Kangas Foulk

Barry T. Williams
Professional Land Surveyor #6711
Expires 6-30-2000

Dated: 10-22-98

APPENDIX D

TRANSPORTATION, CIRCULATION, AND PARKING METHODOLOGY

APPENDIX D

TRANSPORTATION, CIRCULATION, AND PARKING METHODOLOGY

STUDY SCENARIOS

Three study scenarios are examined in this analysis:

- Existing Condition
- No Project Condition
- Project Condition

EXISTING CONDITION

The operations of the study intersections for the existing condition were evaluated using existing turning movement counts, existing intersection geometries, and existing traffic signal operation parameters.

Study intersections evaluated as part of this analysis were selected in cooperation with the City of San Bruno staff. Project study intersections are in Table D.1.

NO PROJECT CONDITION

The No Project condition is defined as the 2020 Condition conforming to the policies and land uses outlined in the General Plan. The operations of the study intersections for the No Project condition were evaluated using estimated future turning movement counts, anticipated future intersection geometries, and anticipated traffic signal operation parameters.

PROJECT CONDITION

The project condition consists of the No Project condition plus potential increased traffic volumes and roadway improvements initiated by the Redevelopment Plan that are in addition to the policies and land uses in the General Plan. The operations of the study intersections for the project condition were evaluated using the No Project plus project traffic trips, anticipated future intersection geometries, and anticipated traffic signal operation parameters.

TABLE D.1
STUDY INTERSECTION LOCATIONS

	Intersection	Count Date
1.	El Camino Real/ Westborough Boulevard [1]	December 1, 1998
2.	El Camino Real/ Noor Avenue [1,2]	November 17, 1998
3.	El Camino Real/ Sneath Lane	November 17, 1998
4.	El Camino Real/ I-380 WB off-ramp	November 17, 1998
5.	El Camino Real/ I-380 EB off-ramp	November 17, 1998
6.	El Camino Real/ San Bruno Avenue [3]	February 24, 1998
7.	El Camino Real/ San Mateo Avenue/ Taylor	November 18, 1998
8.	El Camino Real/ San Felipe Avenue	December 1, 1998
9.	Sneath Lane/ I-280 SB on-/ off-ramps	November 18, 1998
10.	Sneath Lane/ I-280 NB on-/ off-ramps	November 18, 1998
11.	Sneath Lane/ Cherry Avenue	November 17, 1998
12.	Sneath Lane/ Commodore Drive [2]	November 17, 1998
13.	Sneath Lane/ Huntington Avenue [2]	November 17, 1998
14.	Tanforan Avenue/ Dollar Avenue/ Herman Street [2]	December 1, 1998
15.	Herman Street/ Scott Street [2]	December 1, 1998
16.	San Bruno Avenue/ Skyline Boulevard	December 1, 1998
17.	San Bruno Avenue/ I-280 SB on-/ off-ramps	December 1, 1998
18.	San Bruno Avenue/ I-280 NB on-/ off-ramps	December 1, 1998
19.	San Bruno Avenue/ Huntington Avenue	November 18, 1998
20.	San Bruno Avenue/ San Mateo Avenue	November 18, 1998
21.	San Bruno Avenue/ 3rd Avenue	February 24, 1998
22.	San Bruno Avenue/ S. Airport Boulevard	February 24, 1998
23.	San Mateo Avenue/ Huntington Avenue [2]	November 18, 1998
24.	Huntington Avenue/ Angus Avenue [2]	December 1, 1998

1 Intersection located in the City of South San Francisco.
2 Stop-controlled intersection.
3 CMP Intersection.

SOURCE: DKS Associates, 1999.

LEVEL OF SERVICE

Intersection operations are evaluated in terms of "level of service" (LOS), which is a measure of driving conditions and vehicle delay. Levels of service range from A (best) to F (poorest). LOS A, B and C indicate satisfactory conditions where traffic can move relatively freely. LOS D describes conditions where delay is more noticeable. LOS E indicates conditions where traffic volumes are at or close to capacity, resulting in significant delays and average travel speeds that are one-third the uncongested speeds or lower. LOS F characterizes conditions where traffic demand exceeds available capacity, with very slow speeds (stop-and-go) and long delays (over a minute) and queuing at signalized intersections.

INTERSECTION LEVEL OF SERVICE METHODOLOGY

The TRB *Circular 212* Planning is the selected level of service calculation method for the designated signalized intersections in the San Mateo County's CMP Roadway System. A signalized intersection's level of service, according to the method described in TRB *Circular 212*, is based on dividing the sum of the critical volumes by the intersection's capacity. This calculation yields the volume-to-capacity ratio (V/C). The critical movements are the combinations of through movements plus right-turn movements if there is not exclusive right-turn lane, and opposing left-turn movements that represent the highest per-lane volumes. Descriptions of levels of service for signalized intersections, together with their corresponding V/Cs, are presented in Table D.2.

Traffic levels of service for the unsignalized intersections were evaluated using the methodology outlined in the 1994 *Highway Capacity Manual* (Transportation Research Board, Special Report No. 209, 1994). For unsignalized intersection analysis, each traffic movement that yields to another movement is evaluated separately and assigned a level of service. The level of service is based on the relative ability of yielding traffic to find adequate gaps in conflicting traffic flows. The *Highway Capacity Manual* methodology results in a separate LOS for individual movements and also provides an intersection average level of service. Descriptions of levels of service for unsignalized intersections are presented in Table D.3.

EXISTING CONDITION INTERSECTION LEVEL OF SERVICE

Existing weekday intersection operations were evaluated using the *Circular 212* and *HCM 1994* methodologies with existing traffic volumes and lane geometries. The level of service results are summarized in Table D.4. All study intersections currently operate at LOS D or better in the a.m. peak hour.[1] In the p.m. peak hour, two intersections currently operate at LOS E and two operate at LOS F. A detailed analysis of each intersection is provided in Attachment D.1, which is available at City of San Bruno offices (567 El Camino Real).

TRAVEL DEMAND FORECASTING

Future estimated turning movement volumes under No Project conditions were developed using travel demand forecasting tools. Travel forecasts can be developed in several ways. They can be assumed to be added to existing volumes, added to assumptions about background future volumes, or determined by looking at different land use forecasts between scenarios. Each technique has an appropriateness tailored to the questions and scale of the EIR content.

[1] The weekday a.m. peak hour and p.m. peak hour are the one-hour periods that occur during the two-hour peak periods, from 7:00 to 9:00 a.m., and from 4:00 to 6:00 p.m., respectively.

TABLE D.2
LEVEL OF SERVICE DEFINITIONS – SIGNALIZED INTERSECTIONS

Level of Service	Volume to Capacity Ratio	Description
A	≤0.60	Uncongested operations; all queues clear in a single signal cycle.
B	0.61-0.70	Very light congestion; an occasional approach phase is fully utilized.
C	0.71-0.80	Light congestion; occasional backups on critical approaches.
D	0.81-0.90	Significant congestion on critical approaches, but intersection functional. Cars required to wait through more than one cycle during short peaks. No long-standing queues formed.
E	0.91-1.00	Severe congestion with some long-standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es).
F	>1.00	Total breakdown, stop-and-go operation.

SOURCE: San Mateo County Congestion Management Program, 1997.

TABLE D-3
LEVEL OF SERVICE DEFINITIONS – UNSIGNALIZED INTERSECTIONS

Level of Service	Expected Delay	Average Total Delay (Seconds)
A	Little or no delay	≤5
B	Short traffic delay	>5 and ≤10
C	Average traffic delays	>10 and ≤20
D	Long traffic delays	>20 and ≤30
E	Very long traffic delays	>30 and ≤45
F	Extreme delays potentially affecting other traffic movements in the intersection	>45

SOURCE: Transportation Research Board (TRB), *Highway Capacity Manual*, Special Report No. 209, 1994.

TABLE D.4
EXISTING INTERSECTION LEVEL OF SERVICE (LOS) RESULTS

Intersection	AM Peak Hour [1]		PM Peak Hour [1]	
	V/C [2]	LOS	V/C [2]	LOS
1. El Camino Real/ Westborough Boulevard [3]	0.70	B	0.75	C
2. El Camino Real/ Noor Avenue [3,4]	--	B	--	E
3. El Camino Real/ Sneath Lane	0.65	B	0.70	B
4. El Camino Real/ I-380 WB off-ramp	0.57	A	0.66	B
5. El Camino Real/ I-380 EB off-ramp	0.44	A	0.44	A
6. El Camino Real/ San Bruno Avenue [5]	0.52	A	0.68	B
7. El Camino Real/ San Mateo Avenue/ Taylor	0.33	A	0.44	A
8. El Camino Real/ San Felipe Avenue	0.40	A	0.50	A
9. Sneath Lane/ I-280 SB on-/ off-ramps	0.73	C	0.72	C
10. Sneath Lane/ I-280 NB on-/ off-ramps	0.40	A	0.60	A
11. Sneath Lane/ Cherry Avenue	0.44	A	0.48	A
12. Sneath Lane/ Commodore Drive [4]	--	D	--	F
13. Sneath Lane/ Huntington Avenue [4]	0.54	B	1.16	F
14. Tanforan Avenue/ Dollar Avenue/ Herman Street [4]	--	A	--	A
15. Herman Street/ Scott Street [4]	0.41	A	0.54	A
16. San Bruno Avenue/ Skyline Boulevard	0.72	C	1.16	F
17. San Bruno Avenue/ I-280 SB on-/ off-ramps	0.41	A	0.34	A
18. San Bruno Avenue/ I-280 NB on-/ off-ramps	0.50	A	0.68	B
19. San Bruno Avenue/ Huntington Avenue	0.27	A	0.44	A
20. San Bruno Avenue/ San Mateo Avenue	0.31	A	0.46	A
21. San Bruno Avenue/ 3rd Avenue	0.27	A	0.39	A
22. San Bruno Avenue/ S. Airport Boulevard	0.34	A	0.26	A
23. San Mateo Avenue/ Huntington Avenue [4]	--	B	--	B
24. Huntington Avenue/ Angus Avenue [4]	0.47	A	0.56	A

1 The weekday a.m. peak hour and p.m. peak hour are the one-hour periods that occur during the two-hour peak periods, from 7:00 to 9:00 a.m., and from 4:00 to 6:00 p.m., respectively.
2 Volume to Capacity (V/C) Ratio.
3 Intersection located in the City of South San Francisco.
4 Stop-controlled intersection.
5 CMP Intersection.

SOURCE: DKS Associates, 1999.

Several different pre-developed tools are available to provide these forecasts. These tools, called travel demand models (more simply "models"), are available on a variety of scales, levels of detail and accuracy, and different types of logic. For San Mateo County studies, the CCAG/San Mateo Model provides an important resource of information about countywide travel. This study uses key data from this model, and estimates traffic needs based on the background regional traffic from the model, as well as trip distribution patterns and mode choice percentages forecasted for the study area derived from the model.

A detailed description follows:

CCAG/SAN MATEO MODEL

The CCAG/San Mateo travel forecast model is to be used for each scenario analyzed. This model is developed and maintained in EMME/2, a specialty software designed to produce travel forecasts. EMME/2 contains a battery of programs that are available in order to generate traffic forecasts.

Each owner of the EMME/2 software develops and uses needed portions this software appropriate for their forecasting logic. The logic in the CCAG/San Mateo model uses the MTC FCAST model as its base structure, and has been further enhanced in a number of areas. In particular, the transit mode choice component has been expanded to allow for trade-offs of feeder bus, walk and drive to transit to be considered, as well as tradeoffs between SamTrans, BART and Caltrain in certain corridors. The model also has a special generator component for SFO air travelers – separating business and non-business, resident and non-resident and each arrival mode of parking, drop off, shuttle vans and fixed route transit. A custom set of programs provides countywide forecasts.

The basic block of forecasting is the traffic analysis zones. These areas, also called TAZs, are small districts that vary in size from one block to a few square miles depending on the land uses within the TAZ. In the CCAG/San Mateo model, there are 290 TAZs in San Mateo County.

The model forecasts weekday PM peak-hour traffic for a horizon year of 2020 with traffic generated by land uses designed in the General Plan Land Use/Transportation Diagram and as predicted by the Association of Bay Area Governments (ABAG) *Projections '96*. Traffic is assigned to a 2020 transportation system network, reflecting major network improvements programmed for 2020.

The model process contains several steps, which are standard in many travel forecasting models. In the order in which they occur in this model, these steps are trip generation, trip distribution, transit mode choice reduction and traffic assignment.

TRIP GENERATION

This first step is when the total number of trips are estimated as productions and attractions. Productions are defined as home-ends of trips, except for non-home-based trips when productions are simply origins. Attractions are defined as non-home-ends of trips, except for non-home-based trips when productions are simply destinations.

The model contains several different trip purposes, including home-based work trips, home-based shopping/other trips, home-based social-recreational trips, home-based school trips and non-home-based trips.

The standard land use assumptions used in trip generation include proposed land uses within San Mateo County. A special generator is used for San Francisco International Airport and other unique land uses. The trips from these special generators are added outside of the standard trip generation equations for each purpose.

Models cannot run unless there are an equal number of productions and attractions for each trip purpose.

TRIP DISTRIBUTION

This step creates a trip table, based on the production and attraction totals from trip generation. The productions and attractions become the row and column totals for these tables. In the San Mateo model, each trip purpose has a table of daily trips.

In order to define the trip distribution patterns, the overall vehicle travel time between each pair of TAZs is tested. This travel time is used in combination with overall numbers of trips in order to define a representation of attractiveness between two zones. The relationship of travel times to the attractiveness of making a trip varies by trip purpose, because people are willing to travel different trip lengths for different reasons. For example, people typically will travel much further to their job than they will to reach a supermarket.

Through a series of calculations based on the production and attraction totals, the model eventually produces data in each cell of the table. When the calculations repeat themselves to a point of stability, the table is said to be "balanced".

TRANSIT MODE CHOICE

The San Mateo Model contains a nested-logit mode choice structure. As described above, this provides travel forecasts by mode of access, and allows for tradeoffs for both mode of access as well as type of mode used (BART, Caltrain or SamTrans). The result is a complex series of forecast trip tables for each trip purpose.

TRAFFIC ASSIGNMENT

The last step in the development of traffic forecasts is the assignment of those forecasts to a roadway network. This network contains information about the speeds and capacities (based on facility type, amount of green time at intersections and number of lanes) of each link in the system. A typical link is relatively short, with most links in the study area varying between one and six blocks.

The assignment is made as an "equilibrium" process, based on a "volume-delay" curve. An equilibrium process is a complex mathematical procedure that assumes that trips will find the minimum travel time path to travel from one point to another, and that this path may shift as roads get increasingly congested. As trips from each TAZ are sequentially assigned to the network, the speed forecasts fall. If a roadway is congested and speeds fall significantly, the model may find another path for a trip to take. In order to forecast a "stable" traffic volume, the

program must iterate. More congested networks require more iterations. Once stability is achieved, the model is said to "close".

NO PROJECT INTERSECTION TURNING MOVEMENTS

The EMME/2 model outputs result in many formats. The format typically used for further analysis is an approach and departure link volume format. This format consists of the approach (heading toward an intersection) and departure (heading away from an intersection) volumes for every roadway segment in the network. EMME/2 results will not accurately reflect intersection turning movement volumes, and therefore transportation analyses typically post process the approach and departure information.

For this purpose, post processing uses existing intersection turning movement counts and projected link volumes to develop future turning movements at study intersections. Year 2000 and 2020 model volumes were converted to turning movements using 1998 intersection turning movement counts and the 2000 and 2020 approach and departure volumes for the project. Incremental growth between the approach and departure volumes between the 2000 scenario and the 2020 scenario was calculated at each intersection.

The approach and departure volumes from the model were reviewed, and manually adjusted to compensate for the following situations. First, the model network is a skeletal model and does not contain every street and intersection within the city. Some intersections had to be evaluated and adjusted by hand if they were not explicitly contained within the roadway network. Additionally, driveway access points may not be accurately reflected in the model, and must be accounted for manually. Thirdly, network loading from largely aggregated zones may disproportionately affect nearby intersections, inappropriately inflating the number of trips passing through that intersection. Additionally, freeway interchanges and one-way roadways require manual adjustments to turning movements.

The anticipated growth between the 2000 and 2020 was assigned to intersection turning movements based on 1998 turning movement counts and the balancing of the approach and departure volumes. The incremental difference of the turning movement counts between the 2000 and 2020 was added to existing turning movement counts to estimate the 2020 No Project condition traffic volumes.

As the EMME/2 models did not account for vehicular traffic traveling to the proposed San Bruno BART station Park & Ride Lot, additional traffic volumes were added to the EMME/2 base volumes to account for the BART station. These volumes were determined by comparing the future transit demand at the San Bruno station (as predicted in the 2020 EMME/2 model) and the parking capacity at the San Bruno Station Park & Ride Lot. For the purpose of this analysis, it was assumed that a total of 500 vehicles would enter and exit the park & ride lots during the a.m. and p.m. peak hours. These volumes were distributed throughout the roadway network based on the existing roadway network configuration, the land uses within the surrounding areas, and on the anticipated demand for the BART station for different land use zones.

FUTURE INTERSECTION GEOMETRIES

There are a number of planned/programmed intersection geometric improvements that could potentially affect traffic conditions at study intersections. These include:

- Sneath Lane/El Camino Real. The east leg of Sneath Lane is to be modified to accommodate two left turn lanes, two through lanes, and one right turn lane. With these improvements, the Sneath Lane/El Camino Real intersection would consist of two left turn lanes, three through lanes, and one right turn lane in the northbound direction; one left turn lane, one shared left through lane, one through lane, and one right turn lane in the eastbound direction; one left turn, one right turn, and three through lanes in the southbound direction; and two left turn lanes, two through lanes, and one right turn lane in the westbound direction.

- San Bruno Avenue/El Camino Real. At the El Camino Real/San Bruno Avenue intersection, additional turn lanes would be added to the intersection resulting in two left turn lanes, three through lanes, and one right turn lane in the northbound direction; one left turn lane, two through lanes, and one right turn lane in the eastbound direction; two left turn lanes, three through lanes, and one right turn lane in the southbound direction; and two left turn lanes one through lane, and one shared through right lane in the westbound direction.

- Sneath Lane/Huntington Avenue. With the new San Bruno BART station, the Sneath Lane/Huntington Avenue intersection would be modified from the existing three legged intersection (with Huntington Avenue oriented in the north-south direction) to a four legged intersection (with Huntington Avenue at the east and north legs of the intersection and a new BART station access road at west leg of the intersection). The modified intersection would consist of one left turn lane, two through lanes, and one right turn lane in the northbound direction; two left turn lanes, one through lane, and one free right lane in the eastbound direction; one left turn lane, one through lane, and two left turn lanes in the southbound direction; and two left turn lanes, one through lane, and one right turn lane in the westbound direction.

- San Mateo Avenue/San Bruno Avenue and 3rd Avenue/San Bruno Avenue. San Bruno Avenue is to be widened into a four lane roadway with bicycle lanes and median islands. At San Mateo Avenue/San Bruno Avenue, the future intersection would consist of one shared left through lane and one right turn lane in the northbound direction; one left turn lane, one through lane, and one shared right through lane in the eastbound direction; one shared through right lane and one left lane in the southbound direction; one left lane, one through lane, and one shared through right lane in the westbound direction.

No significant geometric improvements are planned at any of the other study intersections.

NO PROJECT CONDITION INTERSECTION LEVEL OF SERVICE

Intersection operations were evaluated for the No Project condition using the *Circular 212* and *HCM 1994* methodologies with future traffic volumes and anticipated future lane geometries. The level of service results are summarized in Table D.5. In the a.m. peak hour, two study intersections are anticipated to operate at LOS E and one at LOS F. One intersection is anticipated to operate at LOS E and four at LOS F in the p.m. peak hour. A detailed analysis of each intersection is provided in Attachment D.1, which is available at City of San Bruno offices.

TABLE D.5
NO PROJECT INTERSECTION LEVEL OF SERVICE (LOS) RESULTS

Intersection	AM Peak Hour [1]		PM Peak Hour [1]	
	V/C [2]	LOS	V/C [2]	LOS
1. El Camino Real/ Westborough Boulevard [3]	0.77	C	0.91	E
2. El Camino Real/ Noor Avenue [3,4]	--	C	--	F
3. El Camino Real/ Sneath Lane	0.66	B	0.81	D
4. El Camino Real/ I-380 WB off-ramp	0.55	A	0.86	D
5. El Camino Real/ I-380 EB off-ramp	0.40	A	0.48	A
6. El Camino Real/ San Bruno Avenue [5]	0.45	A	0.69	B
7. El Camino Real/ San Mateo Avenue/ Taylor	0.42	A	0.52	A
8. El Camino Real/ San Felipe Avenue	0.39	A	0.52	A
9. Sneath Lane/ I-280 SB on-/ off-ramps	0.93	E	0.88	D
10. Sneath Lane/ I-280 NB on-/ off-ramps	0.53	A	0.73	C
11. Sneath Lane/ Cherry Avenue	0.72	C	0.66	B
12. Sneath Lane/ Commodore Drive [4]	--	F	--	F
13. Sneath Lane/ Huntington Avenue [4]	0.32	A	0.68	B
14. Tanforan Avenue/ Dollar Avenue/ Herman Street [4]	--	A	--	A
15. Herman Street/ Scott Street [4]	0.54	A	0.64	B
16. San Bruno Avenue/ Skyline Boulevard	0.69	B	1.24	F
17. San Bruno Avenue/ I-280 SB on-/ off-ramps	0.48	A	0.44	A
18. San Bruno Avenue/ I-280 NB on-/ off-ramps	0.79	C	0.72	C
19. San Bruno Avenue/ Huntington Avenue	0.36	A	0.47	A
20. San Bruno Avenue/ San Mateo Avenue	0.33	A	0.49	A
21. San Bruno Avenue/ 3rd Avenue	0.29	A	0.39	A
22. San Bruno Avenue/ S. Airport Boulevard	0.95	E	1.01	F
23. San Mateo Avenue/ Huntington Avenue [4]	--	C	--	C
24. Huntington Avenue/ Angus Avenue [4]	0.52	A	0.58	A

1 The weekday a.m. peak hour and p.m. peak hour are the one-hour periods that occur during the two-hour peak periods, from 7:00 to 9:00 a.m., and from 4:00 to 6:00 p.m., respectively.
2 Volume to Capacity (V/C) Ratio.
3 Intersection located in the City of South San Francisco.
4 Stop-controlled intersection.
5 CMP Intersection.

SOURCE: DKS Associates.

A traffic signal warrant analysis was conducted for the intersection of Sneath Lane and Commodore Drive according to guidelines, established by Caltrans in the *Traffic Manual*, for warrant number 11, the Peak Hour Volume Warrant. This warrant provides a guide to the potential need for intersection signalization based on the intersection geometries and traffic volumes of the peak hour of traffic. The traffic signal warrant study serves as a guide, and is not the only consideration when estimating the need for traffic signals. Other evidence, including congestion, accident history, unique geometric situation, and driver confusion, would supplement the decision- making process.

Based on anticipated traffic volumes, existing geometries, and intersection controls, this intersection meets the peak hour volume warrant in the No Project condition. An examination of the intersection operations after occupancy of approved projects and general traffic growth may demonstrate the need for signalization or other improvements at this location. The detailed warrant analysis is included in Attachment D.1., which is available at City of San Bruno offices.

Intersection level of service results indicate that in the No Project condition, excessive delays are anticipated for the southbound left-turn lane at the intersection of El Camino Real and Noor Avenue. An examination of intersection operations after occupancy of approved projects and general traffic growth may demonstrate the need for signalization or other improvements at this location.

PROJECT CONDITION

The Project condition consists of the No Project condition plus potential increased traffic volumes and roadway improvements initiated by the Redevelopment Plan that are in addition to the policies and land uses in the General Plan. The operations of the study intersections for the project condition were evaluated using the No Project plus project traffic trips and future anticipated roadway geometries.

PROJECT TRIP GENERATION

Trip generation is used to predict the number of vehicle trips associated with a site. Trip generation relates land uses and the size of the site to the number of vehicles entering or exiting the project site. The trip generation rates are based on traffic counts and surveys at similar existing land uses.

The trip generation (Table D.6) for the proposed development was based on trip generation rates published in the Institute of Transportation Engineers, *Trip Generation*, 6th Edition Update, 1997.

TRIP DISTRIBUTION AND ASSIGNMENT

Trip distribution and assignment are processes that estimate the directions for origins and destinations of trips to and from the project sites. The number of trips estimated from the trip generation is assigned to the roadway network based on anticipated travel patterns. The

TABLE D.6
PROJECT TRIP GENERATION [1]

Description	Size and Unit	AM Peak Hour				PM Peak Hour			
		Rate	Total	In	Out	Rate	Total	In	Out
Elderly Assisted Living Housing[2]	250 beds	0.17	43	30	13	0.20	50	20	30
Townhouse[3]	150 d.u.[6]	0.44	66	12	54	0.54	82	54	28
Hotel[4]	400 rooms	0.56	224	136	88	0.61	244	128	116
Apartment[5]	100 d.u.[6]	0.51	51	8	43	0.62	62	42	20
Total			**384**	**186**	**198**		**438**	**244**	**194**

1 Vehicle trips shown in this table represent traffic generated by development in the Project Area beyond that which is contained within land use projections in the San Bruno General Plan. The latter (General Plan) projected traffic is included in the traffic model projections for the No Project Condition, described above.
2 ITE Land Use # 620.
3 ITE Land Use # 230.
4 ITE Land Use # 310.
5 ITE Land Use # 220.
6 Dwelling Unit (d.u.)

SOURCE: DKS Associates, 1999.

distribution and assignment of the project trips for this analysis were based on travel demand model results. The anticipated project site trip distribution percentages are contained in Table D.7.

There are no planned intersection geometric improvements to study intersections planned as part of the Redevelopment Plan.

PROJECT CONDITION INTERSECTION LEVEL OF SERVICE

Intersection operations were evaluated for the project condition using the *Circular 212* and *HCM 1994* methodologies with future traffic volumes and anticipated future lane geometries. The level of service results are summarized in Table D.8. In the a.m. peak hour, two intersections are anticipated to operate at LOS E and one at LOS F. One intersection is anticipated to operate at LOS E and four at LOS F in the p.m. peak hour. These conditions would be the same as under No Project conditions. A detailed analysis of each intersection is provided in Attachment D.1, which is available at City of San Bruno offices.

TABLE D.7
PROJECT TRIP DISTRIBUTION

Trip Route	Percentage
US 101 (North)	32
US 101 (South)	20
I-280 (North)	27
I-280 (South)	5
Skyline Blvd. (North)	1
El Camino Real (North)	7
El Camino Real (South)	3
SFO Airport	5
Total	**100**

SOURCE: DKS Associates, 1999.

No intersection impacts are anticipated with the operation of the project. However, the project is anticipated to add traffic to intersection facilities expected to operate at LOS F in the 2020. The project is anticipated to add no traffic to critical movements at the intersection of El Camino Real and Noor Avenue. The project is anticipated to add 0.01 to the critical volume to capacity ratio at the intersection of San Bruno Avenue and South Airport Boulevard. The magnitude of the addition of traffic to critical movements at these intersections would not represent a significant impact of the project.

The project is also anticipated to add traffic to critical movements at the unsignalized intersection of Sneath Lane and Commodore Drive. This intersection is anticipated to warrant a traffic signal in the No Project condition. In the absence of improvements to this intersection in the No Project condition, project condition vehicle trips would further exacerbate an anticipated future deficiency.

FREEWAY LEVEL OF SERVICE ANALYSIS

Freeway segment level of service was evaluated for freeway segments in the a.m. and p.m. peak hours in the vicinity of the study area. Freeway LOS standards for basic freeway segments are indicated in Table D.9.

Future traffic projections for the No Project condition were obtained from travel demand model results. Anticipated traffic volumes on freeway segments for the project were based upon the manual addition of project traffic to the No Project condition freeway volumes. The capacity of freeway segments was calculated based on the number of travel lanes and the travel lane capacities contained within the travel demand model. Tables D.10 and D.11 illustrate the 2020 No Project and project freeway analysis results for the a.m. and p.m. peak hours.

TABLE D.8
PROJECT INTERSECTION LEVEL OF SERVICE (LOS) RESULTS

Intersection	AM Peak Hour [1]		PM Peak Hour [1]	
	V/C [2]	LOS	V/C [2]	LOS
1. El Camino Real/ Westborough Boulevard [3]	0.78	C	0.91	E
2. El Camino Real/ Noor Avenue [3,4]	--	C	--	F
3. El Camino Real/ Sneath Lane	0.67	B	0.82	D
4. El Camino Real/ I-380 WB off-ramp	0.56	A	0.88	D
5. El Camino Real/ I-380 EB off-ramp	0.40	A	0.49	A
6. El Camino Real/ San Bruno Avenue [5]	0.46	A	0.71	C
7. El Camino Real/ San Mateo Avenue/ Taylor	0.42	A	0.53	A
8. El Camino Real/ San Felipe Avenue	0.39	A	0.52	A
9. Sneath Lane/ I-280 SB on-/ off-ramps	0.94	E	0.89	D
10. Sneath Lane/ I-280 NB on-/ off-ramps	0.54	A	0.74	C
11. Sneath Lane/ Cherry Avenue	0.72	C	0.67	B
12. Sneath Lane/ Commodore Drive [4]	--	F	--	F
13. Sneath Lane/ Huntington Avenue [4]	0.32	A	0.68	B
14. Tanforan Avenue/ Dollar Avenue/ Herman Street [4]	--	A	--	A
15. Herman Street/ Scott Street [4]	0.54	A	0.64	B
16. San Bruno Avenue/ Skyline Boulevard	0.70	B	1.24	F
17. San Bruno Avenue/ I-280 SB on-/ off-ramps	0.49	A	0.44	A
18. San Bruno Avenue/ I-280 NB on-/ off-ramps	0.81	D	0.72	C
19. San Bruno Avenue/ Huntington Avenue	0.38	A	0.49	A
20. San Bruno Avenue/ San Mateo Avenue	0.36	A	0.55	A
21. San Bruno Avenue/ 3rd Avenue	0.35	A	0.42	A
22. San Bruno Avenue/ S. Airport Boulevard	0.95	E	0.92	E
23. San Mateo Avenue/ Huntington Avenue [4]	--	B	--	C
24. Huntington Avenue/ Angus Avenue [4]	0.52	A	0.58	A

1 The weekday a.m. peak hour and p.m. peak hour are the one-hour periods that occur during the two-hour peak periods, from 7:00 to 9:00 a.m., and from 4:00 to 6:00 p.m., respectively.
2 Volume to Capacity (V/C) Ratio.
3 Intersection located in the City of South San Francisco.
4 Stop-controlled intersection.
5 CMP Intersection.

SOURCE: DKS Associates, 1999.

TABLE D.9
LEVEL OF SERVICE STANDARDS FOR CMP ROADWAY SEGMENTS

Route	Roadway Segment	LOS Standard
US 101	San Francisco County Line to I-380	E
US 101	I-380 to Millbrae Avenue	E
US 101	Millbrae Avenue to Broadway	E
US 101	Broadway to Peninsula Avenue	E
US 101	Peninsula Avenue to SR92	F
US 101	SR92 to Whipple Avenue	E
US 101	Whipple Avenue to Santa Clara County Line	F
I-280	San Francisco County Line to SR 1 (North)	E
I-280	SR1 (North) to SR1 (South)	E
I-280	SR1 (South) to San Bruno Avenue	D
I-280	San Bruno Avenue to SR92	D
I-280	SR92 to SR84	D
I-280	SR84 to Santa Clara County Line	D
I-380	I-280 to US 101	F
I-380	US 101 to Airport Access Road	C

SOURCE: San Mateo County Congestion Management Program, 1997.

In the No Projection condition, there are anticipated to be freeway segments in violation of the CMP roadway. In the a.m. peak hour, the following segments are anticipated to violate CMP freeway segment standards in the No Project condition:

- US 101 Northbound – Peninsula Avenue to Broadway
- US 101 Northbound – Broadway to Millbrae Avenue
- US 101 Northbound – I-380 to Grand Avenue
- I-280 Northbound – Hayne Road to Trousdale Drive
- I-280 Northbound – Trousdale Drive to Hillcrest Boulevard
- I-280 Southbound – Sneath Lane to Westborough Boulevard

In the p.m. peak hour, the following segments are anticipated to violate CMP freeway segment standards in the No Project condition:

- US 101 Southbound – Peninsula Avenue to Broadway
- US 101 Southbound – Broadway to Millbrae Avenue
- US 101 Southbound – Millbrae Avenue to SFIA
- US 101 Southbound – I-380 to Grand Avenue

TABLE D.10
CMP ROADWAY LEVEL OF SERVICE RESULTS – AM PEAK HOUR

Roadway		No Project Condition				Project Condition			
		Northbound		Southbound		Northbound		Southbound	
From	To	V/C[1]	LOS[2]	V/C[1]	LOS[2]	V/C[1]	LOS[2]	V/C[1]	LOS[2]
US101 (Bayshore Freeway)									
SR92	3rd Avenue	0.68	C	0.79	D	0.68	C	0.79	D
3rd Avenue	Peninsula Ave.	1.06	F	0.97	E	1.07	F	0.97	E
Peninsula Avenue	Broadway	1.09	F	0.85	D	1.09	F	0.85	D
Broadway	Millbrae Ave.	1.07	F	0.90	E	1.07	F	0.91	E
Millbrae Avenue	SFIA	0.96	E	0.80	D	0.96	E	0.80	D
SFIA	I-380	0.84	D	0.86	D	0.84	D	0.87	D
I-380	Grand Avenue	1.02	F	0.81	D	1.03	F	0.81	D
Oyster Point Blvd	3Com Park	0.79	D	0.80	D	0.80	D	0.80	D
I-280 (Junipero Serra Freeway)									
Bunker Hill Dr	Hayne Road	0.87	D	0.62	C	0.87	D	0.63	C
Hayne Road	Trousdale Dr.	0.89	E	0.62	C	0.89	E	0.62	C
Trousdale Drive	Hillcrest Blvd	0.89	E	0.61	C	0.89	E	0.61	C
Hillcrest Blvd	Larkspur Blvd	0.78	D	0.57	C	0.79	D	0.57	C
Larkspur Blvd	Crystal Springs Road	0.86	D	0.61	C	0.86	D	0.61	C
Crystal Springs Road	San Bruno Avenue	0.83	D	0.60	C	0.83	D	0.60	C
Sneath Lane	Westborough Blvd	0.68	C	1.10	F	0.69	C	1.10	F
Westborough Blvd	Hickey Blvd	0.62	C	0.81	D	0.63	C	0.82	D
Hickey Blvd	Serramonte Blvd	0.58	C	0.78	D	0.58	C	0.79	D
Serramonte Blvd	SR1	0.57	C	0.80	D	0.58	C	0.80	D
I-380		WB		EB		WB		EB	
I-280	El Camino Real	0.29	A	1.10	F	0.29	A	1.10	F
El Camino Real	US101	0.40	B	1.29	F	0.40	B	1.29	F

1 Volume to Capacity Ratio.
2 Level of Service

SOURCE: DKS Associates, 1999.

TABLE D.11
CMP ROADWAY LEVEL OF SERVICE RESULTS – PM PEAK HOUR

Roadway		No Project Condition				Project Condition			
		Northbound		Southbound		Northbound		Southbound	
From	To	V/C[1]	LOS[2]	V/C[1]	LOS[2]	V/C[1]	LOS[2]	V/C[1]	LOS[2]
US101 (Bayshore Freeway)									
SR92	3rd Avenue	0.59	C	0.97	E	0.59	C	0.98	E
3rd Avenue	Peninsula Ave.	0.89	E	1.15	F	0.89	E	1.15	F
Peninsula Avenue	Broadway	0.89	E	1.13	F	0.89	E	1.14	F
Broadway	Millbrae Ave.	0.90	E	1.17	F	0.91	E	1.17	F
Millbrae Avenue	SFIA	0.83	D	1.11	F	0.84	D	1.11	F
SFIA	I-380	0.87	D	0.95	E	0.88	D	0.95	E
I-380	Grand Avenue	0.86	D	1.17	F	0.87	D	1.18	F
Oyster Point Blvd	3Com Park	0.98	E	0.92	E	0.98	E	0.93	E
I-280 (Junipero Serra Freeway)									
Bunker Hill Dr	Hayne Road	0.46	B	1.04	F	0.46	B	1.04	F
Hayne Road	Trousdale Dr.	0.47	B	1.04	F	0.47	B	1.04	F
Trousdale Drive	Hillcrest Blvd	0.55	C	1.03	F	0.55	C	1.03	F
Hillcrest Blvd	Larkspur Blvd	0.47	B	0.97	E	0.47	B	0.97	E
Larkspur Blvd	Crystal Springs Road	0.53	C	1.04	F	0.53	C	1.04	F
Crystal Springs Road	San Bruno Avenue	0.49	C	1.02	F	0.49	C	1.02	F
Sneath Lane	Westborough Blvd	1.03	F	1.05	F	1.03	F	1.06	F
Westborough Blvd	Hickey Blvd	0.80	D	0.93	E	0.81	D	0.94	E
Hickey Blvd	Serramonte Blvd	0.73	D	0.93	E	0.74	D	0.93	E
Serramonte Blvd	SR1	0.78	D	0.91	E	0.78	D	0.92	E
I-380		WB		EB		WB		EB	
I-280	El Camino Real	1.01	F	0.73	D	1.02	F	0.73	D
El Camino Real	US101	1.08	F	0.94	E	1.09	F	0.94	E

1 Volume to Capacity Ratio.
2 Level of Service

SOURCE: DKS Associates, 1999.

- I-280 Southbound – Bunker Hill Road to Hayne Road
- I-280 Southbound – Hayne Road to Trousdale Drive
- I-280 Southbound – Trousdale Drive to Hillcrest Boulevard
- I-280 Southbound – Hillcrest Boulevard to Larkspur Boulevard
- I-280 Southbound – Larkspur Boulevard to Crystal Springs Road
- I-280 Southbound – Crystal Springs Road to San Bruno Avenue
- I-280 Southbound – Sneath Lane to Westborough Boulevard
- I-280 Southbound – Westborough Boulevard to Hickey Boulevard
- I-280 Southbound – Hickey Boulevard to Serramonte Boulevard
- I-280 Southbound – Serramonte Boulevard to SR1 (South)

The project is anticipated to add peak hour traffic to freeway segments within San Mateo County. Level of service results for the project condition are identical to those for the No Project condition. The project generally would add no more than 0.01 to the volume to capacity ratio of freeway segments within the study area. The project would not be expected to cause a freeway segment in conformance with CMP policy in the No Project condition to violate the CMP policy in the project condition. The project is expected to add freeway trips to segments anticipated to operate below CMP level of service standards in the 2020. The project however would not constitute a significant impact per CMP freeway segment level of service standards.