

**EXECUTIVE PARK AMENDED SUBAREA PLAN
AND
THE YERBY COMPANY AND
UNIVERSAL PARAGON CORPORATION
DEVELOPMENT PROJECTS**

**CITY AND COUNTY OF SAN FRANCISCO
PLANNING DEPARTMENT: CASE NO. 2006.0422E**

STATE CLEARINGHOUSE NO. 2006102123

DRAFT EIR PUBLICATION DATE: OCTOBER 13, 2010

DRAFT EIR PUBLIC HEARING DATE: NOVEMBER 18, 2010

**DRAFT EIR PUBLIC COMMENT PERIOD:
OCTOBER 13, 2010 TO NOVEMBER 29, 2010**

Written comments should be sent to:

Bill Wycko, Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103



SAN FRANCISCO PLANNING DEPARTMENT

DATE: October 13, 2010
TO: Draft Environmental Impact Report Recipients
FROM: Bill Wycko, Environmental Review Officer
SUBJECT: Request for the Final Environmental Impact Report for the Executive Park Amended Subarea Plan and the Yerby Company and Universal Paragon Corporation Development Projects (2006.0422E)

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This is the Draft of the Environmental Impact Report (EIR) for the Executive Park Amended Subarea Plan and the Yerby Company and Universal Paragon Corporation Development Projects. A public hearing will be held on the adequacy and accuracy of this document. After the public hearing, we will prepare and publish a document titled "Summary of Comments and Responses" that will contain a summary of all relevant comments on this Draft EIR and our responses to those comments. It may also specify changes to this Draft EIR. Those who testify at the hearing on the Draft EIR will automatically receive a copy of the Comments and Responses document, along with notice of the date reserved for certification; others may receive such copies and notice on request or by visiting our office. This Draft EIR together with the Summary of Comments and Responses document will be considered by the City Planning Commission in an advertised public meeting(s) and certified as a Final EIR if deemed adequate.

After certification, we will modify the Draft EIR as specified by the Comments and Responses document and print both documents in a single publication called the Final EIR. The Final EIR will add no new information to the combination of the two documents except to reproduce the certification resolution. It will simply provide the information in one, rather than two, documents. Therefore, if you receive a copy of the Comments and Responses document in addition to this copy of the Draft EIR, you will technically have a copy of the Final EIR.

We are aware that many people who receive the Draft EIR and Summary of Comments and Responses have no interest in receiving virtually the same information after the EIR has been certified. To avoid expending money and paper needlessly, we would like to send copies of the Final EIR to private individuals only if they request them. If you would like a copy of the Final EIR, therefore, please fill out and mail the postcard provided inside the back cover to the San Francisco Planning Department within two weeks after certification of the EIR. Any private party not requesting a Final EIR by that time will not be mailed a copy. Public agencies on the distribution list will automatically receive a copy of the Final EIR.

Thank you for your interest in this project.

EXECUTIVE PARK AMENDED SUBAREA PLAN
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DEVELOPMENT PROJECTS

**DRAFT SUBSEQUENT
ENVIRONMENTAL IMPACT REPORT**

CITY AND COUNTY OF SAN FRANCISCO
PLANNING DEPARTMENT: CASE NO. 2006.0422E

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CORPORATION DEVELOPMENT PROJECTS**

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Appendix B:	Archaeological Resources
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LIST OF ACRONYMS AND ABBREVIATIONS

ABAG	Association of Bay Area Governments
ADRP	archaeological data recovery plan
ALS	Advance Life Support
AMI	Area Median Income
AMP	archaeological monitoring program
ARDTP	Archaeological Research Design and Treatment Plan
ATP	archaeological testing plan
BAAQMD	Bay Area Air Quality Management District
BLS	Basic Life Support
BMR	Below Market Rate
CAP	Climate Action Plan
CEQA	California Environmental Quality Act
CMP	Congestion Management Plan
CNEL	Community Noise Equivalent Level
COG	Council of Governments
CPSRA	Candlestick Park State Recreation Area
CRHR	California Register of Historical Resources
DNL	Day/Night Average Sound Level
DOF	California Department of Finance
DTR	Downtown Residential
du	dwelling units
EIR	Environmental Impact Report
EMS	Emergency Medical Services
ERO	Environmental Review Officer
FAA	Federal Aviation Administration
FARR	Final Archaeological Resources Report
FSEIR	Final Subsequent Environmental Impact Report
FTA	Federal Transportation Administration
GHG	Greenhouse Gas
gsf	gross square feet
HCD	State Department of Housing and Community Development
HUD	(Federal) Housing and Urban Development
IS	Initial Study
LAU	Land Use Allocation
LEED	Leadership in Energy and Environmental Design
LOS	Level of Service
MLD	Most Likely Descendant
MMRP	Mitigation Monitoring and Reporting Plan
mph	miles per hour
mgd	million gallons per day
msl	mean sea level
MTS	Metropolitan Transportation System
NAHC	Native American Heritage Commission
NOP	Notice of Preparation [that an environmental impact report will be prepared]
NTC	Neighborhood Commercial Transit
NWIC	Northwest Information Center

OPR	Office of Planning and Research
PCO	Parking Control Officer
PSSG	Public Safety Strategy Group
R&D	research and development
RHNA	Regional Housing Needs Assessment
RWS	Regional Water System
SEIR	Subsequent Environmental Impact Report
SFBA	San Francisco Boardsailing Association
SFFD	San Francisco Fire Department
SFPD	San Francisco Police Department
SFPUC	San Francisco Public Utilities Commission
SUD	Special Use District
TI	Turbulence Intensity
UPC	Universal Paragon Corporation, a Delaware corporation
WSIP	Water System Improvement Program
UWMP	Urban Water Management Plan

I. INTRODUCTION

A. ENVIRONMENTAL REVIEW BACKGROUND

Since 1976, the Executive Park Subarea Plan Area has been the subject of numerous development plans, environmental analyses, and City actions. Development plans for the area were prepared or amended in 1978, 1980, 1981, 1984, 1992, 2000, 2005, and 2007. Environmental analyses of Executive Park development included an Environmental Impact Report (EIR) in 1976 (“1976 EIR”), a Subsequent EIR in 1985 (“1985 FSEIR”), a Supplemental EIR in 1999 (“1999 FSEIR”), and EIR Addenda in 1992, 2005, and 2007. City actions have included the approval of the development plans and issuance of permits for the construction of office and residential buildings (see discussion of “Existing and Approved Uses” in Chapter III, Project Description, pp. III.4 and III.6).

The original development concept analyzed in the 1976 EIR included about 833,000 square feet of office space, about 174,000 square feet of hotel/meeting space, about 73,000 square feet of retail space, and 3,900 parking spaces; this concept was reflected in the 1978 Development Plan (as amended in 1980/1981).¹ The 1985 FSEIR analyzed the 1984 Development Plan, which included about 1,644,000 square feet of office space, about 234,000 square feet of hotel space, about 50,000 square feet of retail/restaurant space, about 600 residential units, and about 5,300 parking spaces.² The 1999 FSEIR analyzed a project that was substantially the same as the project approved in 1985, and also reviewed a Residential Variant that substituted 258 residential units for the previously proposed hotel (for a total of 808 permitted and proposed residential units).³ The development plan approved in 2000 after certification of the 1999 FSEIR (“2000 Approved Development Plan”) incorporates the Residential Variant. The EIR Addenda approved in 2005 and 2007 analyzed (1) a 499-unit residential development to replace permitted but unbuilt office space in the northwest portion of Executive Park (the Signature Properties project), and

¹ San Francisco Planning Department, *Case No. EE 75.198: Final Environmental Impact Report, San Francisco Executive Park*, certified August 12, 1976. This report is on file with the Planning Department, 1650 Mission Street, Suite 400, San Francisco, and is available for public review, by appointment, as part of Case File No. 2006.0422E.

² These numbers include the office use, restaurant space, and parking spaces previously approved under the 1978 Development Plan. San Francisco Planning Department, *Case No. 81.197E: Executive Park Development Plan Amendment, Subsequent Environmental Impact Report*, certified October 17, 1985. This report is on file with the Planning Department, 1650 Mission Street, Suite 400, San Francisco, and is available for public review, by appointment, as part of Case File No. 2006.0422E.

³ San Francisco Planning Department, *Case No. 1999.442E: Executive Park Development Plan, Final Supplemental Environmental Impact Report*, certified December 2, 1999. This report is on file with the Planning Department, 1650 Mission Street, Suite 400, San Francisco, and is available for public review, by appointment, as part of Case File No. 2006.0422E.

(2) increases in height and density for a 465-unit residential development in the northeastern portion of Executive Park (the Top Vision Phase III project).^{4, 5}

B. PURPOSE AND TYPE OF EIR

An EIR is an informational document that is intended to make the public and the decision-makers aware of the environmental consequences of a proposed project and to present mitigation measures and feasible alternatives to avoid or reduce the environmental effects of that project. It examines the potential significant physical environmental impacts that could result from the proposed project.

As the lead agency under CEQA, the San Francisco Planning Department has determined that a Subsequent EIR (SEIR) is necessary, pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15162, to address the changes from the existing Executive Park Subarea Plan that are embodied in the proposed amended Subarea Plan and proposed Yerby and UPC development projects, as well as changed circumstance and new information that have emerged since CEQA review of earlier proposals and projects within the Executive Park Subarea Plan Area. This SEIR assesses the environmental impacts of development under the proposed amended Subarea Plan and the proposed specific development projects that would implement the proposed amended Subarea Plan. This SEIR fulfills CEQA's requirements for environmental review of the proposed amended Subarea Plan, and implementation of the proposed amended Subarea Plan under the two proposed development projects which would complete buildout of the Subarea Plan Area under the proposed amended Subarea Plan.

This SEIR is a program-level EIR pursuant to CEQA Guidelines Section 15168 for the proposed amended Subarea Plan.⁶ A program EIR provides an evaluation of the overall impacts of a program or plan for an area larger than is generally practical or appropriate for an individual development project. It allows an agency to consider policy implications of areawide mitigation measures earlier than it could with specific development proposals, and provides an analysis of cumulative impacts on an areawide basis.

⁴ The 465 units were within the number of units analyzed in the 2000 Approved Development Plan.

⁵ San Francisco Planning Department, *Case No. 1990.299E: Executive Park Development Plan Addendum to 1999 Final Supplemental EIR*, approved June 8, 2005; San Francisco Planning Department, *Case No. 2004.1031E: Executive Park Development Plan Addendum to Executive Park Plan Development Final Supplemental EIR (Top Vision/St. Francis Bay Phase III Addendum)*, approved February 14, 2007. These reports are on file with the Planning Department, 1650 Mission Street, Suite 400, San Francisco, and are available for public review, by appointment, as part of Case File No. 2006.0422E.

⁶ According to CEQA Guidelines Section 15168, a program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either (1) geographically; (2) as logical parts in a chain of contemplated actions; (3) in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having similar environmental effects that can be mitigated in similar ways.

This SEIR is also a project-level EIR. That is, it analyzes development of two specific development projects that would implement the proposed amended Subarea Plan. The analysis is performed at a project-specific level. The SEIR specifically addresses the environmental effects associated with these individual projects. Details about these two proposed development projects are provided in Chapter III, Project Description, on pp. III.16-III.45, following the description of the proposed amended Subarea Plan.

C. ENVIRONMENTAL REVIEW PROCESS

Under the San Francisco Administrative Code, Chapter 31, the Planning Department is responsible for CEQA review for all City and County of San Francisco projects and serves as the Lead Agency. The EIR process as implemented by the Planning Department includes several steps: public scoping, preparation of an Initial Study, publication of a Draft EIR for public review and comment, preparation of responses to public comments on the Draft EIR, and certification of the Final EIR.

NOTICE OF PREPARATION AND PUBLIC SCOPING

On March 23, 2005, The Yerby Company filed an Environmental Evaluation Application, and Universal Paragon Corporation filed an Environmental Evaluation Application on April 11, 2006.

A Notice of Preparation of an EIR and Public Scoping Meeting was issued on October 27, 2006. The public scoping meeting was held on November 8, 2006. The City received 14 comment letters during the comment period for the Notice of Preparation. At the public scoping meeting, nine speakers offered oral comments. Based on the comments received, the Planning Department determined that preparation of an Initial Study would be appropriate to focus the scope of the EIR on environmental effects that are potentially significant.

INITIAL STUDY

An Initial Study (incorporated into this SEIR as Appendix A) was published on February 11, 2009, to focus the scope of the SEIR on potentially significant effects of the proposed amended Subarea Plan and Yerby and UPC development projects.

Environmental Effects Requiring Further Study in the SEIR

The Initial Study determined that implementation of the proposed amended Subarea Plan and its associated public improvements and development projects may result in potentially significant environmental impacts related to the following environmental topics: Land Use; Aesthetics; Population and Housing; Cultural Resources; Transportation and Circulation; Noise; Air Quality;

Wind; Shadow; Recreation; Water Supply; and Public Services (Police and Fire Protection). Therefore, further study of these topics is required in the SEIR.

Environmental Effects Requiring No Further Study in the SEIR

The Initial Study also determined that the following effects of the proposed amended Subarea Plan and development projects would either be less than significant, or would be reduced to a less-than-significant level by mitigation measures included in the project: Land Use (division of established community); Aesthetics (light and glare); Population and Housing (displacement of housing or people); Cultural and Paleontological Resources (historic architectural resources, unique paleontological or geoarcheological resources); Transportation and Circulation (air traffic patterns); Noise (groundborne noise, construction noise, aircraft noise, interior noise); Air Quality (construction dust and construction exhaust emissions, odors, toxic air contaminants); Recreation (construction of new facilities and existing recreational sources); Utilities and Service Systems (wastewater and stormwater); Public Services (schools and community facilities); Biological Resources; Geology and Soils; Hydrology and Water Quality; Hazards and Hazardous Materials; Mineral and Energy Resources; and Agricultural Resources. Therefore, no further study of these topics is required in the SEIR.

Publication of the Initial Study initiated a 30-day public comment period. During the public comment period, five comment letters were received. These were reviewed and considered in the preparation of the EIR analysis. Comments on the Initial Study are addressed in Chapter VI, Other CEQA Issues “D. Areas of Known Controversy and Issues to Be Resolved.”

DRAFT SEIR

The Planning Department will distribute the Draft SEIR to state agencies through the State Clearinghouse, to local agencies, and to interested members of the public. Copies of the Draft SEIR can be obtained by request, from the Planning Department, and are available online through the Planning Department’s website. Following publication of the Draft SEIR, there will be a 45-day comment period (which is identified on the cover of this Draft SEIR). Readers are invited to submit written comments on the adequacy and accuracy of the Draft SEIR by the close of the public comment period.

CEQA Guidelines Section 15096(d) calls for responsible agencies to provide comments on those project activities within the agencies’ areas of expertise and to support those comments with either oral or written documentation.⁷

⁷ CEQA Guidelines Section 21069 defines a responsible agency as a public agency, other than the lead agency, which has responsibility for carrying out or approving a project.

Written comments should be submitted to:

Bill Wycko, Environmental Review Officer
c/o Executive Park Draft EIR
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

In addition, a public hearing will be held before the Planning Commission to solicit public comment on the adequacy and accuracy of the Draft SEIR. The public hearing on this Draft EIR has been scheduled for **November 18, 2010** in Room 400 City Hall, Dr. Carleton B. Goodlett Place, beginning at 1:30 or later (call 414-588-6422 during the week of the hearing for a recorded message giving a more specific time).

FINAL SEIR

After the close of the comment period, written responses to comments will be prepared to address comments received on environmental issues and any revisions to the Draft SEIR will be identified. A Summary of Comments and Responses document will be presented to the Planning Commission along with the Draft SEIR for consideration of certification of the Final SEIR.

After the Final SEIR is certified, the Planning Commission and Board of Supervisors will use the information in the Final SEIR in their deliberations on whether to approve, modify, or deny the proposed amended Subarea Plan and Yerby and UPC development projects. If the Commission decides to approve the proposed amended Subarea Plan and the Yerby and UPC development projects, it must include in its approval action findings that identify significant impacts that would result; discuss mitigation measures or alternatives that have been adopted to reduce significant impacts to less-than-significant levels; determine whether mitigation measures or alternatives are within the jurisdiction of other public agencies; and explain reasons for rejecting mitigation measures or alternatives if any are infeasible for legal, social, economic, technological, or other reasons.

A Mitigation Monitoring and Reporting Plan (MMRP) must be adopted by the Planning Commission as part of its actions if mitigation measures are made part of the proposed amended Subarea Plan and Yerby and UPC development projects. The MMRP identifies the measures included in the proposed amended Subarea Plan and the Yerby and UPC development projects, the entities responsible for carrying out and monitoring the measures, and timing of implementation. If significant unavoidable impacts remain after all feasible mitigation measures are included, the Planning Commission, should decide to approve the proposed amended Subarea Plan and Yerby and UPC development projects, it must adopt a statement of overriding considerations explaining how the benefits of the proposed amended Subarea Plan and development projects outweigh the unavoidable significant impacts.

D. ORGANIZATION OF THE EIR DOCUMENT

This SEIR is organized into eight chapters, plus technical appendices. This chapter is followed by Chapter II, Summary, which provides a summary of the proposed amended Subarea Plan and two specific development projects, and their significant environmental impacts. The Summary chapter also identifies the mitigation measures that could avoid or reduce significant impacts.

Chapter III, Project Description, presents details about the proposed amended Subarea Plan and the two specific development projects and the approvals required to implement the Subarea Plan and the development projects. The Project Description chapter also identifies the project sponsors and project objectives.

Chapter IV, Plans and Policies, discusses the potential of the proposed project to conflict with applicable plans and policies.

Chapter V, Environmental Setting and Impacts, is organized by environmental topic and addresses 12 topics: Land Use; Aesthetics; Population and Housing; Archaeological Resources; Transportation; Noise; Air Quality; Wind; Shadow; Recreation; Water Supply; and Police and Fire Services. (Other environmental topics are addressed in Appendix A, Initial Study.)

Chapter VI, Other CEQA Issues, addresses other topics required in an EIR by the CEQA Guidelines: growth-inducing impacts; significant, unavoidable, and irreversible impacts associated with the project; and areas of known controversy.

Chapter VII, Alternatives to the Proposed Project, presents and analyzes a range of alternatives to the proposed amended Subarea Plan and proposed development projects: a No Project Alternative; a Development under Existing Zoning and Height and Bulk Controls Alternative; and a Realignment of Alanna Way Alternative.

Chapter VIII, Authors and Persons Consulted, identifies the SEIR authors and the agencies, organizations, and individuals who were contacted during preparation of the Draft SEIR.

Appendices include Appendix A: Notice of Preparation / Initial Study; Appendix B: Archaeological Resources; and Appendix C: Water Supply.

II. SUMMARY

A. PROJECT SYNOPSIS

The 71-acre Executive Park Subarea Plan Area is a subarea of the *Bayview Hunters Point Area Plan*. It is located in the southeastern part of San Francisco, just east of U.S. Highway 101 and along the San Francisco/San Mateo County boundary. Adjacent uses include the Candlestick Park stadium, Bayview Hill Park, Candlestick Point State Recreation Area, and San Francisco Bay; the Little Hollywood, Visitacion Valley, and Bayview Hunters Point neighborhoods are in the vicinity.

Existing development within the Executive Park Subarea Plan Area includes an existing office park (307,600 gross square feet [gsf] of office) south of Executive Park Boulevard North, and an existing residential development (304 residential units) at the northeast corner of the Subarea Plan Area. In addition, two new residential development projects (totaling 964 residential units) have been approved north of Executive Park Boulevard North (the Signature Properties development), and north of Crescent Way (the Top Vision Phase III development).

The proposed project consists of amendments to the General Plan, the Executive Park Subarea Plan of the *Bayview Hunters Point Area Plan*, Planning Code, and Zoning Map. The proposed amendments (referred to herein as the “proposed amended Subarea Plan”) would apply to the entire 71-acre Executive Park Subarea Plan Area (consistent with existing development and approvals) and would provide for the transition of the existing office park development within a 14.5-acre southern portion of the Subarea Plan Area (the Yerby and UPC development sites) to a new, primarily residential area (with 1,600 residential units and about 73,000 gsf retail).

The proposed amended Subarea Plan would establish an Executive Park Residential Special Use District within the Yerby and UPC development sites, change the zoning within this area from a C-2 (Community Business) District to an RC-3 (Residential-Commercial Combined, Medium Density) District, and would change the maximum allowable heights throughout this area to a range from 65 feet to 240 feet. The proposed amended Subarea Plan would also address land use, streets and transportation, urban design, community facilities and services, and recreation and open space by implementing objectives and policies, and would provide design guidance for buildings, streets, pathways, and parking, as well as “green building” approaches. The proposed amended Subarea Plan would establish a hierarchy of streets, including the existing Executive Park Boulevard and Thomas Mellon Drive, and local streets and alleys to serve future residential and retail development.

The proposed project also includes two specific development projects that would implement the proposed amended Subarea Plan and complete the buildout of the Subarea Plan Area: The Yerby Company (Yerby) development project and the Universal Paragon Corporation (UPC) development project.

At 5 Thomas Mellon Circle (Assessor's Block 4991, Lot 75), The Yerby Company proposes to demolish the existing office building and remove the existing surface parking spaces on the Yerby site, and redevelop the site with five residential-commercial mixed-use buildings, below-ground parking, open space, new streets, alleyways, and pedestrian walkways. The buildings would have heights ranging from 68 feet (6 stories) to 170 feet (16 stories) and would contain a total of approximately 500 residential units; the underground garage would provide about 750 parking spaces. With the proposed Yerby project, there would be a total of about 1,042,100 gsf of developed space on the Yerby site, including about 596,200 gsf of residential uses; about 2,900 gsf of neighborhood commercial uses; about 142,500 gsf of other (common residential, and service and core) space; and about 300,500 gsf of below-grade parking. The Yerby project would also include residential private and common open space and a publicly accessible park.

At 150 and 250 Executive Park Boulevard (Assessor's Block 4991, Lots 24, 61, 65, 74, 85, and 86), Universal Paragon Corporation proposes to demolish the two existing office buildings and remove the existing surface parking spaces, and redevelop the site with eight residential and commercial mixed-use buildings, below-ground parking, open space, and pedestrian walkways. The height of the buildings would range from 65 feet (6 stories) up to 240 feet (24 stories) tall and would contain a total of approximately 1,100 residential units; the underground garages would provide up to about 1,677 parking spaces. With the proposed UPC project, there would be a total of about 2,310,700 gsf of developed space on the UPC site, including about 1,350,000 gsf of residential uses; about 70,300 gsf of neighborhood commercial uses; about 274,600 gsf of other (residential amenity space and service and circulation) space; and about 615,800 gsf of below-grade parking. The UPC project would also include residential private and common open space and several areas of publicly accessible open space, along with new streets, alleyways, and pedestrian walkways.

B. SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table II-1 summarizes the impacts of the proposed project found to be potentially significant in this SEIR and their corresponding mitigation measures. Impacts related to transportation are first identified for the proposed project, and then separately for each individual development project. Impacts related to air quality are first identified under the 1999 BAAQMD Guidelines, and then under the recently adopted 2010 BAAQMD Guidelines.

Table II-1: Summary of Potentially Significant Impacts and Mitigation Measures

Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
ARCHAEOLOGICAL RESOURCES			
CP-1: Construction activities for the proposed development projects could remove or disturb archaeological deposits/features.	S	Mitigation Measure M-CP-1: Archaeological Testing, Monitoring, Data Recovery and Reporting Based on a reasonable presumption that archaeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor shall retain the services of an archaeological consultant from the Planning Department (“Department”) pool of qualified archaeological consultants as provided by the Department archaeologist. The archaeological consultant shall undertake an archaeological testing program as specified herein. In addition, the consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure. The archaeological consultant’s work shall be conducted in accordance with this measure and the requirements of the ARDTP (Archeo-Tec, Archaeological Research Design and Treatment Plan for the Executive Park Project, March 2009) at the direction of the Environmental Review Officer (ERO). In instances of inconsistency between the requirements of the project ARDTP and the requirements of this mitigation measure, the requirements of this archaeological mitigation measure shall prevail. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archaeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks cumulative, as measured from the commencement of site grading to the issuance of a Certificate of Occupancy. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less-than-significant level potential effects on a significant archaeological resource as defined in CEQA Guidelines Section 15064.5(a)(c). The Department shall initiate further consultation with Native American/Ohlone representatives through the California State Native American Heritage Commission	LS

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Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
		(NAHC) regarding the significance of the remains CA-SFR-7 shell mound and appropriate investigation and treatment protocols. Any NAHC-recognized Ohlone participant in the Department consultation shall be given the opportunity to review and comment on any draft archaeological testing, monitoring, or data recovery plan required by this measure prior to document approval. <u>Archaeological Testing Program</u> The archaeological consultant shall prepare and submit to the ERO for review and approval an archaeological testing plan (ATP). The archaeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archaeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archaeological testing program will be to determine to the extent possible the presence or absence of archaeological resources and to identify and to evaluate whether any archaeological resource encountered on the site constitutes an historical resource under CEQA. At the completion of the archaeological testing program, the archaeological consultant shall submit a written report of the findings to the ERO. If based on the archaeological testing program the archaeological consultant finds that significant archaeological resources may be present, the ERO in consultation with the archaeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archaeological testing, archaeological monitoring, and/or an archaeological data recovery program. If the ERO determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either: A) The proposed project shall be re-designed so as to avoid any adverse effect on the significant archaeological resource; or B) A data recovery program shall be implemented, unless the ERO determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.	

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Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
		<u>Archaeological Monitoring Program (AMP)</u> If the ERO in consultation with the archaeological consultant determines that an archaeological monitoring program shall be implemented the archaeological monitoring program shall minimally include the following provisions: • The archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils-disturbing activities commencing. The ERO in consultation with the archaeological consultant shall determine what project activities shall be archaeologically monitored. In most cases, any soils-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archaeological monitoring because of the risk these activities pose to potential archaeological resources and to their depositional context; • The archaeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archaeological resource; • The archaeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archaeological consultant and the ERO until the ERO has, in consultation with the project archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits; • The archaeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis; • If an intact archaeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archaeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. If in the case of pile-driving activity (foundation, shoring, etc.), the archaeological monitor has cause to believe that the pile-driving activity may affect an archaeological resource, the pile-driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the	

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Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
		ERO. The archaeological consultant shall immediately notify the ERO of the encountered archaeological deposit. The archaeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, and present the findings of this assessment to the ERO. Whether or not significant archaeological resources are encountered, the archaeological consultant shall submit a written report of the findings of the monitoring program to the ERO. <u>Archaeological Data Recovery Program</u> The archaeological data recovery program shall be conducted in accord with an archaeological data recovery plan (ADRP). The archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archaeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if non-destructive methods are practical. The scope of the ADRP shall include the following elements: • <i>Field Methods and Procedures.</i> Descriptions of proposed field strategies, procedures, and operations. • <i>Cataloguing and Laboratory Analysis.</i> Description of selected cataloguing system and artifact analysis procedures. • <i>Discard and De-accession Policy.</i> Description of and rationale for field and post-field discard and de-accession policies. • <i>Interpretive Program.</i> Consideration of an on-site/off-site public interpretive program during the course of the archaeological data recovery program.	

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Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
		• <i>Security Measures.</i> Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities. • <i>Final Report.</i> Description of proposed report format and distribution of results. • <i>Curation.</i> Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities. <u>Human Remains and Associated or Unassociated Funerary Objects</u> The treatment of human remains and of associated or unassociated funerary objects discovered during any soils-disturbing activity shall comply with applicable State and Federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The ERO, archaeological consultant, project sponsor, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. <u>Final Archaeological Resources Report</u> The archaeological consultant shall submit a Draft Final Archaeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archaeological resource shall be provided in a separate removable insert within the final report. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall	

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		receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Major Environmental Analysis division of the Planning Department shall receive two copies (bound and unbound) and one unlocked, searchable PDF copy on a CD or DVD of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.	
CP-2: Construction activities for the proposed development projects could remove or disturb human remains.	S	See Mitigation Measure M-CP-1.	LS
CP-3: Disturbance of archaeological resources within the Yerby and UPC development sites, in combination with other past and proposed development projects along and near the San Francisco shoreline, could contribute to a cumulative loss in the ability of the sites to yield significant historic and scientific information.	S	See Mitigation Measure M-CP-1.	LS
TRANSPORTATION AND CIRCULATION			
TR-1: The proposed project would result in deterioration in the Level of Service at the Tunnel Avenue / Blanken Avenue intersection.		Mitigation Measure M-TR-1: Tunnel Avenue / Blanken Avenue The intersection would meet signal warrants during both the weekday AM and PM peak hours. The signal would need to be part of the Bayshore Boulevard / Third Street system, and the timing plan would be optimized to minimize queues along Blanken Avenue between Bayshore Boulevard and Tunnel Avenue. The northbound and southbound left turns would be provided with protected phasing, and the corresponding right turns would be provided with overlap phasing. On-street parking would be removed and left-turn pockets installed along Tunnel Avenue and right-turn pockets installed along Blanken Avenue. On the northbound approach, on-street parking would need to be removed on the east side of Tunnel Avenue to accommodate a left-turn pocket. On the southbound approach, parking would need to be	

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		removed on the west side of Tunnel Avenue to accommodate a left-turn pocket. On the eastbound approach, parking would need to be removed on the south side of Blanken Avenue to accommodate a right-turn pocket. On the westbound approach, parking would need to be removed on the north side of Blanken Avenue to accommodate a right-turn pocket. To evaluate the feasibility of this measure, a preliminary signal timing / phasing plan was developed and queues at the intersection evaluated. The supplemental analysis indicated that signalization and restriping of this intersection is feasible. After implementing this mitigation measure, the intersection would operate at LOS D in both the AM and PM peak hours under Baseline plus Project Conditions	
TR-2: The proposed project would result in deterioration in the Level of Service at U.S.101 mainline north of Alanna Way / Harney Way (southbound).	S	No feasible mitigation is available.	SU
TR-3: The proposed project would increase ridership in Executive Park Shuttle service.	S	Mitigation Measure M-TR-3: Executive Park Shuttle Service Increase outbound shuttle service in the weekday AM peak hour and inbound shuttle service in the weekday PM peak hour. The shuttle operations plan should be sufficient to accommodate the expected transit demand—i.e., 105 inbound and 271 outbound transit trips in the weekday AM peak hour and 283 inbound and 197 outbound transit trips in the weekday PM peak hour. Assuming the current shuttle capacities, this would require approximately five (5) inbound and 13 outbound trips in the weekday AM peak hour and 14 inbound and ten (10) outbound trips in the weekday PM peak hour (average headways of about four to five minutes). Lower service levels could be provided during the midday, evening, and weekend periods. These changes to the shuttle service would be implemented as needed, based on the percentage of buildout of the proposed project along with a revised route and stop pattern to make the Bayshore Caltrain Station a permanent stop and include two additional stops—one on Bayshore Boulevard near Arleta Avenue to improve connections to the T-Third Street and the various bus lines and one stop on Bayshore Boulevard between Leland and Visitacion Avenues to improve access to the Visitacion Valley commercial area. The location of these stops would be coordinated with MTA and the Visitacion Valley community.	LS

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		Since these measures were previously identified as project-related mitigation measures in the 1999 FSEIR and were included in the Conditions of Approval for the project in the 1985 FSEIR, it was assumed that these measures would be included as part of the proposed project and not represent new mitigation measures. However, they would still be considered required mitigation for the proposed project.	
TR-10: The proposed project would contribute to a cumulative impact at the Bayshore Boulevard / Tunnel Avenue intersection.	S	No feasible mitigation is available.	SU
TR-11: The proposed project would contribute to a cumulative impact at the Bayshore Boulevard / Blanken Avenue intersection.	S	No feasible mitigation is available.	SU
TR-12: The proposed project would contribute to a cumulative impact at the Tunnel Avenue / Blanken Avenue intersection.	S	Mitigation Measure M-TR-12: Tunnel Avenue/ Bayshore Boulevard The intersection would meet the MUTCD peak hour signal warrant in both the AM and PM peak hours. In addition to the mitigations proposed under Mitigation Measure TR-1, left turns from Blanken Avenue would need to be prohibited in both directions and the eastbound and westbound approaches programmed to run concurrently instead of on split phases. This would have minimal effect on the eastbound approach, since the volumes on the eastbound left movement are very low and alternative access is provided via Bayshore Boulevard / Tunnel Avenue. On the westbound approach, the volumes on the westbound left movement are also very low and could be prohibited without substantial impacts on neighboring roadways. It is expected that this traffic would switch to Lathrop Avenue—one block south of Blanken Avenue—or find alternative routes to reach the freeway (e.g., via eastbound Blanken Avenue, Executive Park Boulevard West, and Alanna Way). After implementing these measures, the intersection would operate at LOS C in the weekday AM peak hour and LOS D in the weekday PM peak hour. The Yerby Project sponsor and UPC Project sponsor would be required to make a fair-share contribution to the implementation of this mitigation measure.	LS
TR-13: The proposed project would contribute to a cumulative impact at the Alanna Way / Beatty Road intersection.	S	No feasible mitigation is available.	SU

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Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
TR-15: The proposed project would contribute to a cumulative impact at the U.S. 101 mainline north of Alanna Way / Harney Way (northbound) segment.	S	No feasible mitigation is available.	SU
TR-16: The proposed project would contribute to a cumulative impact at the U.S. 101 mainline south of Alanna Way / Harney Way (northbound) segment.	S	No feasible mitigation is available.	SU
TR-17: The proposed project would contribute to a cumulative impact at the U.S. 101 Northbound On-Ramp at Harney Way.	S	No feasible mitigation is available.	SU
TR-11: The proposed project would contribute to a cumulative impact at the Bayshore Boulevard / Blanken Avenue intersection.	S	No feasible mitigation is available.	SU
TR-19: The proposed project would contribute to a cumulative impact at the Bayshore Boulevard / Tunnel Avenue intersection.	S	No feasible mitigation is available.	SU
TR-20: The proposed project would contribute to a cumulative impact at the Bayshore Boulevard / Blanken Avenue intersection.	S	No feasible mitigation is available.	SU
TR-21: The proposed project would contribute to a cumulative impact at the Tunnel Avenue / Blanken Avenue intersection.	S	Mitigation Measure M-TR-21: Tunnel Avenue/ Blanken Avenue The intersection would meet the MUTCD peak hour signal warrant in both the AM and PM peak hours. If the mitigation measure described in Mitigation Measure TR-16 for 2030 Cumulative Conditions without Improvements were implemented, the intersection would operate at LOS C in the weekday AM peak hour and LOS D in the weekday PM peak hour. The Yerby Project sponsor and UPC Project sponsor would be required to make a fair-share contribution to the implementation of this mitigation measure.	LS

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TR-22: The proposed project would contribute to a cumulative impact at the Harney Way / Executive Park Boulevard East intersection.	S	Mitigation Measure M-TR-22: Harney Way/ Executive Park Boulevard East The poor operations of this intersection in the weekday PM peak hour would be a result of conflict on the westbound approach (specifically westbound right turns) with the Harney BRT. Due to a shared westbound through-right lane at this intersection, all movements along westbound Harney Way must be stopped during the BRT phase, reducing the efficiency of the signal and the vehicle throughput at the intersection. If instead, an exclusive right-turn pocket were provided, right-turns and through movements along westbound Harney Way could be segregated and given separate phases, and the through movements could occur concurrently with the BRT phase, reducing delay and improving intersection operations. This proposed configuration was evaluated under 2030 Cumulative Conditions Alternative B (Option 1), where both Harney Way / Thomas Mellon Drive and Harney Way / Executive Park Boulevard East were shown to operate at LOS C and LOS D during the weekday AM and PM peak hours. The Yerby Project sponsor and UPC Project sponsor would be required to make a fair-share contribution to the implementation of this mitigation measure.	LS
TR-23: The proposed project would contribute to a cumulative impact at the Geneva Avenue / U.S. 101 SB Ramps intersection.	S	The City of Brisbane and Caltrans, as part of the Harney Interchange Project, shall account for existing traffic, background traffic growth, and the most recent forecasts of traffic expected to be associated with each of several adjacent development projects, including the proposed project. The San Francisco County Transportation Authority (SFCTA) shall coordinate with the City of Brisbane and Caltrans to ensure project-generated vehicle trips are accounted for in the Harney Interchange analyses and design. Mitigations and associated fair-share funding measures for cumulative regional roadway system impacts, including freeway segment impacts, shall be formulated through the current interjurisdictional Bi-County Transportation Study effort being led by the SFCTA. The project applicant shall contribute its fair share to the Harney Interchange Project.	SU
TR-24: The proposed project would contribute to a cumulative impact at the Geneva Avenue / U.S. 101 SB Ramps intersection.	S	The City of Brisbane and Caltrans, as part of the Harney Interchange Project, shall account for existing traffic, background traffic growth, and the most recent forecasts of traffic expected to be associated with each of several adjacent development projects, including the proposed project. The San Francisco County Transportation Authority (SFCTA) shall coordinate with the City of Brisbane and Caltrans to ensure project-generated vehicle trips are accounted for in the Harney Interchange analyses and design.	SU

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		Mitigations and associated fair-share funding measures for cumulative regional roadway system impacts, including freeway segment impacts, shall be formulated through the current interjurisdictional Bi-County Transportation Study effort being led by the SFCTA. The project applicant shall contribute its fair share to the Harney Interchange Project.	
TR-25: The proposed project would contribute to a cumulative impact at the U.S. 101 mainline north of Alanna Way / Harney Way (northbound) segment.	S	No feasible mitigation is available.	SU
TR-26: The proposed project would contribute to a cumulative impact at the U.S. 101 Northbound On-Ramp at Harney Way.	S	No feasible mitigation is available.	SU
TR-27: The proposed project would contribute to a cumulative impact at the U.S. 101 Southbound On-Ramp at Alanna Way.	S	No feasible mitigation is available.	SU
Yerby Development Project			
TR-28: The proposed Yerby development project would affect the Level of Service at the Tunnel Avenue / Blanken Avenue intersection.	S	Mitigation Measure M-TR-28: Tunnel Avenue / Blanken Avenue The Yerby project sponsor would need to make a fair-share contribution to the signalization and restriping of Tunnel Avenue / Blanken Avenue as detailed in Mitigation Measure TR-1.	LS
TR-29: The proposed Yerby development project would contribute to a cumulative impact at the U.S.101 mainline north of Alanna Way / Harney Way (southbound).	S	No feasible mitigation is available.	SU
TR-30: The proposed Yerby development project would increase ridership on the Executive Park Shuttle service.	S	Mitigation Measure M-TR-30: Executive Park Shuttle Service As detailed in Mitigation Measure TR-3, the Yerby project sponsor would be required to make a fair-share contribution to the costs of providing the Executive Park shuttle service, including any capital, operating, and maintenance costs. The Yerby Project would generate 115 trips (32 inbound, 83 outbound) in the AM peak hour and 117 trips (69	LS

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Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
		inbound, 48 outbound) in the PM peak hour, or approximately 27 percent of the total project transit demand.	
UPC Development Project			
TR-36: The proposed UPC development project would affect the Level of Service at the Tunnel Avenue / Blanken Avenue intersection.	S	Mitigation Measure M-TR-36: Tunnel Avenue / Blanken Avenue The UPC project sponsor would need to make a fair-share contribution to the signalization and restriping of Tunnel Avenue / Blanken Avenue as detailed in Mitigation Measure TR-1.	LS
TR-37: The proposed UPC development project would affect the Level of Service at U.S.101 mainline north of Alanna Way / Harney Way (southbound).	S	No feasible mitigation is available.	SU
TR-38: The proposed UPC development project would increase ridership on Executive Park Shuttle service.	S	Mitigation Measure M-TR-38: Executive Park Shuttle Service As detailed in Mitigation Measure M-TR-3, the project sponsor would be required to make a fair-share contribution to the costs of providing the Executive Park shuttle service, including any capital, operating, and maintenance costs. The UPC Project would generate 261 trips (73 inbound, 188 outbound) in the AM peak hour and 363 trips (214 inbound, 149 outbound) in the PM peak hour, or approximately 73 percent of the total project transit demand.	LS
NOISE			
NO-2: Project-related traffic, in combination with that from other development projects proposed in nearby areas, would contribute to cumulative traffic noise impacts on ambient noise levels along project access routes.	S	No feasible mitigation is available.	SU

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Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
AIR QUALITY			
Under 1999 BAAQMD Guidelines			
AQ-2: Construction equipment exhaust emissions could expose sensitive receptors to substantial concentrations of pollutants or affect regional air quality.	S	Mitigation Measure M-AQ-1: Construction Exhaust Emissions. The development project sponsors shall include in contract specifications a requirement for the following BAAQMD-recommended measures: • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 2 minutes and as required by the California airborne toxics control measures, Title 13, Section 2485 of California Code of Regulations. Clear signage shall be provided for construction workers at all access points. • All construction equipment, diesel trucks, and generators shall be equipped with best available control technology for emission reductions of particulate matter and NOx. • Develop and adhere to a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent PM reduction compared to the most recent California Air Resources Board fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. • All contractors shall use equipment that meets the California Air Resources Board's most recent certification standard for off-road heavy duty diesel engines. • All construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.	LS

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Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
AQ-3: Operation of the proposed Yerby and UPC development projects could affect regional air quality.	S	No feasible mitigation is available.	SU
AQ-9: The Yerby and UPC development projects could result in cumulative air quality impacts.	S	No feasible mitigation is available.	SU
Under 2010 BAAQMD Guidelines			
AQ-10: Construction equipment exhaust emissions could affect regional air quality under recently adopted guidelines.	S	See Mitigation Measure M-AQ-1 above.	SU
AQ-11: Construction equipment exhaust emissions could expose sensitive receptors to substantial concentrations of pollutants under recently adopted guidelines.	S	See Mitigation Measure M-AQ-1 above.	SU
AQ-12: The proposed development projects could result in operation-related impacts to regional air quality under recently adopted guidelines.	S	No feasible mitigation is available.	SU
AQ-14: The proposed development projects could expose sensitive receptors to substantial pollutant concentrations of toxic air contaminants and PM _{2.5} under recently adopted guidelines.	S	Mitigation Measure M-AQ-2: Air Pollution from U.S. 101 Traffic. The development project sponsors shall ensure that all new residential units within 800 feet of a U.S. 101 traveled lane are equipped with a ventilation system that achieves performance compliant with the requirements in San Francisco <i>Health Code</i> Article 38.	LS

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S = Significant; LS = Less than Significant; SU = Significant and Unavoidable

Impacts	Impact Significance Without Mitigation	Mitigation Measures	Impact Significance With Mitigation
AQ-17: The proposed development projects could result in cumulative construction impacts under recently adopted guidelines.	S	See Mitigation Measure M-AQ-1 above.	SU
AQ-18: The proposed development projects could result in cumulative criteria pollutant impacts under recently adopted guidelines.	S	No feasible mitigation is available.	SU

Note:

S = Significant; LS = Less than Significant; SU = Significant and Unavoidable

C SUMMARY OF PROJECT ALTERNATIVES

Three alternatives are evaluated in this chapter: Alternative A - No Project Alternative; Alternative B - Development under Existing Zoning and Height and Bulk Controls ; and Alternative C – Alanna Way Realignment.

ALTERNATIVE A - NO PROJECT ALTERNATIVE

CEQA requires that a “No-Project Alternative” be evaluated in an EIR. Under this alternative, the Executive Park Subarea Plan would not be amended; the zoning and height and bulk districts would not be amended; the office buildings on the Yerby and UPC sites would not be demolished; and the current office and retail uses there would continue. It also assumes that construction of the adjacent Signature Properties and Top Vision Phase III developments would be completed as approved.

ALTERNATIVE B - DEVELOPMENT UNDER EXISTING ZONING AND HEIGHT AND BULK CONTROLS

This alternative would call for buildout of the Executive Park Subarea Plan Area on the Yerby and UPC development sites under the existing C-2 (Community Business) District zoning and 40-X and 80-X Height and Bulk Districts. (See Figure VII-1: Alternative B - Development under Existing Zoning and Height and Bulk Controls) The Subarea Plan would not be amended and associated Design Guidelines would not be adopted.

Under this alternative, the combined Yerby and UPC development sites would support about 785 residential units (roughly half of the 1,600 units proposed under the Yerby and UPC development projects).¹ This alternative would provide 1,190 off-street residential parking spaces, maintaining the same ratio of parking to residential units as provided under the proposed development projects. It would also provide about 31,815 gross square feet (gsf) of retail space, maintaining the same ratio of retail space to residential units as provided under the proposed development projects. Development within the Yerby and UPC development sites under this alternative would be along a street network that would be similar to the one proposed under the Yerby and UPC development projects. Within the 80-X Height and Bulk District would be constructed two mid-rise, 80-foot-tall, 7-story buildings totaling about 226 residential units. The remainder of the combined Yerby and UPC development site is within the 40-X Height and Bulk District and

¹ The maximum residential density under the existing C-2 zoning applicable to the Yerby and UPC development sites is one unit for every 800 square feet of lot area. Pursuant to Section 215(a) of the Planning Code, the maximum residential density in a C-2 District is based on the maximum residential density of the nearest R District. However, that section provides that the maximum residential density in a C-2 District shall in no case be less than that of an RM-1 District, which is one unit for every 800 square feet of lot area.

would be developed with low-rise residential buildings (up to four stories). Ground-floor retail would front along Executive Park North, Harney Way, and Thomas Mellon Drive.

ALTERNATIVE C – ALANNA WAY REALIGNMENT

This alternative assumes the realignment of Alanna Way would be implemented in the future as recommended in the proposed Amended Subarea Plan. Under this alternative, the land use program and buildings would remain the same with respect to the proposed Yerby development project. The land use program would differ slightly with respect to the proposed UPC development project. It would increase the total number of units within Building 8 from 72 units to 124 units. However, the total unit count would remain the same as with the proposed development projects (1,100 units for UPC, and 1,600 units for the combined Yerby UPC development projects). With the exception of UPC Building 8, building footprints and envelopes would remain the same as with the proposed development projects. Retail space for the proposed UPC development project would increase slightly under this alternative by about 550 gsf (from 70,237gsf to 70,787). Parking spaces for the proposed UPC development project would also increase slightly under this alternative by about 81 spaces (from 1,677 spaces to 1,758 spaces).

Table II-2: Comparison of Significant Impacts of the Proposed Project to Alternatives B and C

	Proposed Project	Alternative B: Development Under Existing Zoning and Height and Bulk Controls	Alternative C: Realignment of Alanna Way
Description	1,600 Residential Units 73,200 gsf retail uses 2,427 parking spaces	785 Residential Units 31,815 gsf retail uses 1,190 parking spaces	1,600 Residential Units 73,750 gsf retail uses 2,508 parking spaces
Impacts			
Land Use	No significant effects	No significant effects	No significant effects
Aesthetics	No significant effects	No significant effects	No significant effects
Population and Housing	No significant effects	No significant effects	No significant effects
Archeological Resources	CP-1: Construction activities for the proposed development projects could remove or disturb archaeological features (other than human remains).	Same as Proposed Project.	Slightly greater ground disturbance due to realignment.
	CP-2: Construction activities for the proposed development projects could remove or disturb human remains.	Same as Proposed Project.	Slightly greater ground disturbance due to realignment.
	CP-3: Disturbance of archaeological resources within the Yerby and UPC development sites, in combination with other past and proposed development projects along and near the San Francisco shoreline, could contribute to a cumulative loss in the ability of the sites to yield significant historic and scientific information.	Same as Proposed Project.	Slightly greater ground disturbance due to realignment.
Transportation and Circulation	TR-1: The proposed project would result in deterioration in the Level of Service at the Tunnel Avenue / Blanken Avenue intersection.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
	TR-2: The proposed project would result in deterioration in the Level of Service at U.S.101 mainline north of Alanna Way / Harney Way (southbound).	Impacts would be reduced by about half due to fewer residents. No significant impact.	Same as Proposed Project.
	TR-3: The proposed project would increase ridership in Executive Park Shuttle service.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
	TR-10: The proposed project would contribute to a cumulative impact at the Bayshore Boulevard / Tunnel Avenue intersection.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.

Proposed Project	Alternative B: Development Under Existing Zoning and Height and Bulk Controls	Alternative C: Realignment of Alanna Way
TR-11: The proposed project would contribute to a cumulative impact at the Bayshore Boulevard / Blanken Avenue intersection.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-12: The proposed project would contribute to a cumulative impact at the Tunnel Avenue / Blanken Avenue intersection.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-13: The proposed project would contribute to a cumulative impact at the Alanna Way / Beatty Road intersection.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-15: The proposed project would contribute to a cumulative impact at the U.S. 101 mainline north of Alanna Way / Harney Way (northbound) segment.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-16: The proposed project would contribute to a cumulative impact at the U.S. 101 mainline south of Alanna Way / Harney Way (northbound) segment.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-17: The proposed project would contribute to a cumulative impact at the U.S. 101 Northbound On-Ramp at Harney Way.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-18: The proposed project would contribute to a cumulative impact at the U.S. 101 Southbound On-Ramp at Alanna Way.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-19: The proposed project would contribute to a cumulative impact at the Bayshore Boulevard / Tunnel Avenue intersection.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-20: The proposed project would contribute to a cumulative impact at the Bayshore Boulevard / Blanken Avenue intersection.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-21: The proposed project would contribute to a cumulative impact at the Tunnel Avenue / Blanken Avenue intersection.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-22: The proposed project would contribute to a cumulative impact at the Harney Way / Executive Park Boulevard East intersection.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.

Proposed Project	Alternative B: Development Under Existing Zoning and Height and Bulk Controls	Alternative C: Realignment of Alanna Way
TR-23: The proposed project would contribute to a cumulative impact at the Geneva Avenue / U.S. 101 SB Ramps intersection.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-24: The proposed project would contribute to a cumulative impact at the Geneva Avenue / U.S. 101 SB Ramps intersection.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-25: The proposed project would contribute to a cumulative impact at the U.S. 101 mainline north of Alanna Way / Harney Way (northbound) segment.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-26: The proposed project would contribute to a cumulative impact at the U.S. 101 Northbound On-Ramp at Harney Way.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-27: The proposed project would contribute to a cumulative impact at the U.S. 101 Southbound On-Ramp at Alanna Way.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-28: The proposed Yerby development project would affect the Level of Service at the Tunnel Avenue / Blanken Avenue intersection.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-29: The proposed Yerby development project would contribute to a cumulative impact at the U.S.101 mainline north of Alanna Way / Harney Way (southbound).	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-30: The proposed Yerby development project would increase ridership on the Executive Park Shuttle service.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-36: The proposed UPC development project would affect the Level of Service at the Tunnel Avenue / Blanken Avenue intersection.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
TR-37: The proposed UPC development project would affect the Level of Service at U.S.101 mainline north of Alanna Way / Harney Way (southbound).	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.

	Proposed Project	Alternative B: Development Under Existing Zoning and Height and Bulk Controls	Alternative C: Realignment of Alanna Way
	TR-38: The proposed UPC development project would increase ridership on Executive Park Shuttle service.	Impacts would be reduced by about half due to fewer residents.	Same as Proposed Project.
Noise	NO-2: Project-related traffic, in combination with that from other development projects proposed in nearby areas, would contribute to cumulative traffic noise impacts on ambient noise levels along project access routes.	Impacts would be reduced due to fewer residents.	Same as Proposed Project.
Air Quality	AQ-2: Construction equipment exhaust emissions could expose sensitive receptors to substantial concentrations of pollutants or affect regional air quality.	Same as Proposed Project.	Slightly greater construction impacts due to realignment.
	AQ-3: Operation of the proposed Yerby and UPC development projects could affect regional air quality.	Impacts would be reduced due to fewer residents.	Same as Proposed Project.
	AQ-8: The Yerby and UPC development projects could result in cumulative air quality impacts.	Impacts would be reduced due to fewer residents.	Same as Proposed Project.
	AQ-10: Construction equipment exhaust emissions could affect regional air quality under recently adopted guidelines.	Same as Proposed Project.	Slightly greater construction impacts due to realignment.
	AQ-11: Construction equipment exhaust emissions could expose sensitive receptors to substantial concentrations of pollutants under recently adopted guidelines.	Impacts would be reduced due to fewer residents.	Slightly greater construction impacts due to realignment.
	AQ-12: The proposed development projects could result in operation-related impacts to regional air quality under recently adopted guidelines.	Impacts would be reduced due to fewer residents.	Same as Proposed Project.
	AQ-14: The proposed development projects could expose sensitive receptors to substantial pollutant concentrations of toxic air contaminants and PM _{2.5} under recently adopted guidelines.	Impacts would be reduced due to fewer residents.	Same as Proposed Project.

	Proposed Project	Alternative B: Development Under Existing Zoning and Height and Bulk Controls	Alternative C: Realignment of Alanna Way
	AQ-17: The proposed development projects could result in cumulative construction impacts under recently adopted guidelines.	Same as Proposed Project.	Slightly greater construction impacts due to realignment.
	AQ-18: The proposed development projects could result in cumulative criteria pollutant impacts under recently adopted guidelines.	Impacts would be reduced due to fewer residents.	Same as Proposed Project.
Greenhouse Gases	No significant effects.	No significant effects.	No significant effects.
Wind	No significant effects.	No significant effects.	No significant effects.
Shadow	No significant effects.	No significant effects.	No significant effects.
Recreation	No significant effects.	No significant effects.	No significant effects.
Water Supply	No significant effects.	No significant effects.	No significant effects.
Police and Fire Services	No significant effects.	No significant effects.	No significant effects.

III. PROJECT DESCRIPTION

A. PROJECT OBJECTIVES

PROPOSED AMENDED SUBAREA PLAN OBJECTIVES

The Planning Department, on behalf of the City and County of San Francisco, is the sponsor of the proposed amended Executive Park Subarea Plan. As sponsor of the proposed amended Subarea Plan, the City's primary goal is to realize the proposed amended Subarea Plan's vision for the Executive Park neighborhood:

"The Executive Park Subarea Plan...envision[s] a new San Francisco neighborhood: a mixed-used residential neighborhood with attractive public streets and open space connectivity. This pervasive public quality would be achieved through a street and open space system that knits all the various neighborhood parts together and in turn links the neighborhood to its surroundings. The plan focuses on providing a welcoming environment for visitors and residents to the area through the creation of good streets, good urban design, and sound land use policies."¹

The proposed amended Subarea Plan's objectives and policies are based on the following overall goals:²

1. Create a new residential neighborhood to help address the City's and the region's housing needs, support regional transit use, and strengthen community facilities and services, including neighborhood-serving retail.
2. Create a livable urban community with easy access to the waterfront and well-designed streets and open spaces.
3. Create a pedestrian-oriented urban environment that encourages walking.
4. Enhance public linkages within the area and to nearby neighborhood commercial districts.
5. Encourage residents, workers, and visitors to use alternative modes of transportation.
6. This plan sets the stage for Executive Park to become the home of some 8,000 residents in as [much as] 2,800 dwelling units.

¹ San Francisco Planning Department, Revised Draft *Executive Park, a Subarea Plan of the Bayview Hunters Point Area Plan*, March 19, 2009, p. 1. This report is on file with the Planning Department, 1650 Mission Street, Suite 400, and is available for public review as part of the project file.

² Revised Draft *Executive Park, a Subarea Plan of the Bayview Hunters Point Area Plan*, March 19, 2009 p. 2.

YERBY AND UPC PROJECT OBJECTIVES

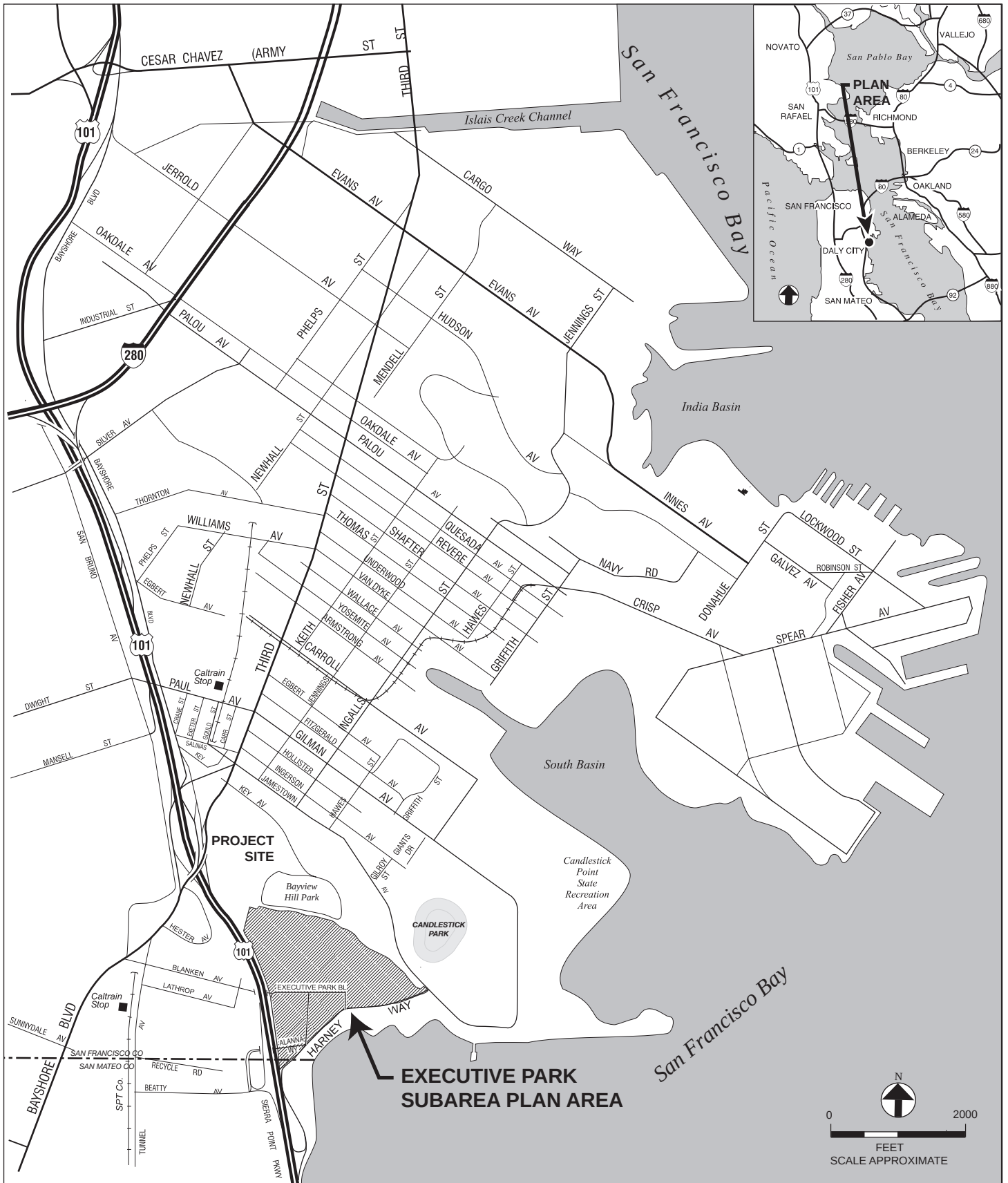
- A. Develop economically feasible, high-quality affordable homes for families.
- B. Develop the site to its highest and best use to meet the region's housing needs and the neighborhood's retail needs.
- C. Create a new residential community to serve San Francisco residents and those households who may commute to jobs on the Peninsula.
- D. Produce a model, sustainable, residential community that future generations may learn from and enjoy. Such a community will include "green" buildings as well as sensitive environmental site design and improvements.
- E. Create a streetscape that recognizes the unique physical characteristics of the topography of the neighborhood and its access to the Bay. Such a site plan should allow for views and vistas to public space areas and the bay from walkways, open space and buildings.
- F. Create a secure environment for residents and visitors to the public open space areas and the buildings so that they may be useable to the entire San Francisco community.
- G. Support regional transit plans by providing shuttle services, access areas and bicycle parking facilities to support all modes of transit.
- H. Support community facilities, such as a library or a community center, through the Visitacion Valley Community Facilities Fund to complement the needs of the residential community.

B. SUBAREA PLAN AREA LOCATION

REGIONAL LOCATION AND PROPERTY HOLDINGS

The Executive Park Subarea Plan Area encompasses 71 acres and is located near the southeastern boundary of the City and County of San Francisco. (See Figure III-1: Project Location.) The area is bounded on the west by U.S. Highway 101, on the east by the Candlestick Point Special Use District (which includes Candlestick Park stadium), on the north by Bayview Hill Park, and on the south by Candlestick Point State Recreation Area and San Francisco Bay. The southern tip of the Subarea Plan Area abuts the San Francisco/San Mateo County boundary.³ U.S. Highway 101 provides direct access from the Subarea Plan Area to downtown San Francisco, located about six miles to the north, and to San Francisco International Airport, located about six miles to the south.

³ Approximately one acre of the Executive Park area is in San Mateo County. This land is not included in the Executive Park Subarea Plan Area.



SOURCE: Turnstone Consulting

EXECUTIVE PARK

2006.0422E

FIGURE III-1: PROJECT LOCATION

The Subarea Plan Area currently includes 349 lots within Assessor's Block 4991: Lots 24, 61, 65, 74, 75, 85, 86, 240, 278, 282 through 409, 423 through 598, and 599 through 634.⁴ Property holdings within the Subarea Plan Area include The Yerby Company, Universal Paragon Corporation (UPC), Top Vision, and Signature Properties development sites.⁵ (See Figure III-2: Executive Park Subarea Plan Area Properties.)

EXISTING AND APPROVED USES

The Subarea Plan Area is developed with office, retail, and residential uses. Office buildings OB 1, OB 2, and OB 3 in the southwest portion of the Subarea Plan Area (on the Yerby and UPC development sites) include about 310,000 gsf, with about 307,600 gsf of office space and about 2,400 gsf of retail uses, and 830 surface parking spaces. The existing office buildings are 40 feet to 48 feet in height.

Five residential buildings in the eastern part of the Subarea Plan Area (approved under Top Vision Phases I and II) contain 304 units. The Phase I residential buildings are four stories tall with two levels of parking partially above grade, and the Phase II residential buildings are 40 feet in height. Top Vision Phases I and II contain 517 parking spaces for the residential uses.

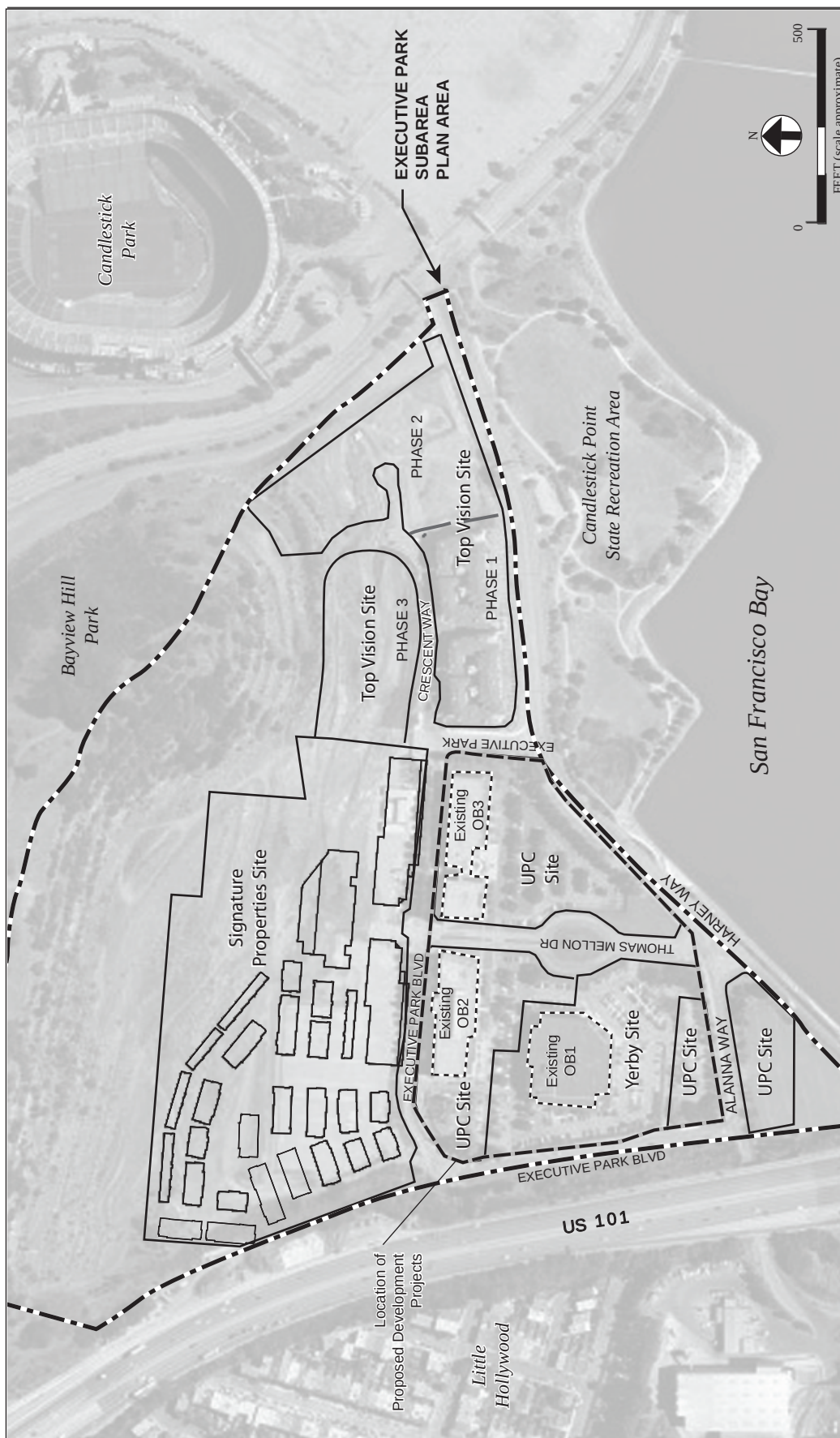
The third phase of the Top Vision development was approved by the Planning Commission in 2007. As of the publication date of this Draft SEIR, construction of the structures for this project has not begun. The Top Vision Phase III development will include 465 units and about 776 parking spaces north of the existing residential buildings. The Phase III buildings will range from 60 to 165 feet in height.

In the northern portion of the Subarea Plan Area, the Signature Properties development, approved in 2005, is currently under construction. It will include up to a total of 499 residential units, 12,500 gsf of retail space, 2,500 gsf of restaurant space, and 720 parking spaces. The 155 townhouses and three mid-rise buildings will range from 30 feet to 90 feet in height.

Bordering the Executive Park Subarea Plan Area to the northeast, is the 702-acre site of the recently approved Candlestick Point-Hunters Point Shipyard Phase II Project. That project envisions a new mixed-use community with a wide range of uses including residential, retail, office, research and development, and recreational space.

⁴ From SF Parcel, June 10, 2008. The number of lots will increase as parcels are in the process of being subdivided for the St. Francis Bay development. The Plan Area also includes four open space lots (Lots OS1, 2, 7, and 8) two lots (Lots PCLA and PCLB) associated with Crescent Way and Crescent Way West, private roads within the St. Francis Bay development; and two lots (ROWA and ROWB) associated with private roads within the Signature development.

⁵ Since receiving its entitlements, Signature Properties has transferred a portion of its site (at the southeast corner,) to Hanover Company which is constructing the approved multi-unit building along the north side of Executive Park Boulevard North, east of Thomas Mellon Drive.



SOURCE: Heller-Manus, Turnstone Consulting

EXECUTIVE PARK

2006.0422E

FIGURE III-2: EXECUTIVE PARK SUBAREA PLAN AREA PROPERTIES

As shown in Table III-1, existing and approved development projects in the Executive Park Subarea Plan Area include up to 1,268 residential units, 307,600 gsf of office space, 17,400 gsf of retail and restaurant space, and a total of about 2,843 residential and office parking spaces.

Table III-1: Existing and Approved Development within Subarea Plan Area

Land Use	Existing	Signature Properties	Top Vision Phase III	Total
Residential (du)	304 ¹	499 ³	465 ⁴	1,268
Residential Parking (spaces)	517	720	776	2,013
Office (gsf)	307,600 ²	0	0	307,600
Office Parking (spaces)	830	0	0	830
Retail/Restaurant (gsf)	2,400 ²	15,000 ³	0	17,400

Notes:

du = dwelling units; gsf = gross square feet.

¹ Existing residential development consists of the units approved under Top Vision Phases I and II.

² Existing office and retail development consists of office and retail space in OB 1, OB 2, and OB 3 on the Yerby and UPC development sites.

³ The Signature Properties site consists of the following approved development: residential units and retail/restaurant space that are currently constructed; residential units and retail/restaurant space that is currently under construction; and residential units and retail/restaurant space that is to be constructed in the future.

⁴ The Top Vision Phase III site includes approved residential units that are to be constructed in the future.

Source: Turnstone Consulting

EXISTING ZONING AND HEIGHT AND BULK DISTRICTS

Most of the Subarea Plan Area is within the C-2 (Community Business) Use District. The southernmost tip of the Subarea Plan Area is zoned M-1 (Light Industrial) (see Figure III-3: Executive Park Existing and Proposed Zoning). The height and bulk districts in the Subarea Plan Area are the 40-X, 60-X, 80-X, 100-G, 140-H, 165-I, and 200-I districts (see Figure III-4: Executive Park Existing and Proposed Height and Bulk Districts). The 40-X Height and Bulk District covers the northern part and most of the southwestern part of the Subarea Plan Area; the districts allowing the tallest heights are just north of Executive Park Boulevard North.

SITE ACCESS

The principal access to the Subarea Plan Area is provided via the U.S. Highway 101 southbound ramps at Beatty Avenue and the U.S. 101 northbound ramps at Harney Way. The Subarea Plan Area is served directly by a San Francisco Municipal Railway (Muni) bus line (the 56-Rutland).



Existing Zoning



Proposed Zoning

SOURCE: Turnstone Consulting

EXECUTIVE PARK

2006.0422E

FIGURE III-3: EXECUTIVE PARK EXISTING AND PROPOSED ZONING



Existing Height and Bulk Districts



Proposed Height and Bulk Districts

SOURCE: Turnstone Consulting

EXECUTIVE PARK

2006.0422E

FIGURE III-4: EXECUTIVE PARK EXISTING AND PROPOSED HEIGHT AND BULK DISTRICTS

At Bayshore Boulevard and Arleta Avenue, there are stops for other Muni bus lines (the 9-San Bruno and the 9X/AX/BX-Bayshore Expresses), a Muni light rail line (the T-Third), and San Mateo County Transit (SamTrans Route 292). The existing Executive Park shuttle, operated by owner, UPC, connects the Subarea Plan Area with the Bayshore Caltrain station, the Balboa Park and Glen Park BART stations, and SamTrans bus stops.

C. PROPOSED AMENDED SUBAREA PLAN

The proposed amended Subarea Plan contains five elements that are based on the overall goals for the Subarea Plan Area: Land Use; Streets and Transportation; Urban Design; Community Facilities and Services; and Recreation and Open Space. This section describes the proposed amended Subarea Plan elements and the objectives of each element. This section also identifies the key parts of the proposed amended Subarea Plan elements that would influence future development within the Subarea Plan Area.

LAND USE ELEMENT OF THE PROPOSED AMENDED SUBAREA PLAN

Objective 1: Create a sensitively planned and designed urban residential neighborhood in Executive Park, including the redevelopment over time of the office uses now there.

The intent of the proposed amended Subarea Plan is to encourage high residential densities in a way that assures high-quality livability and excellent urban design. For the portions of the Executive Park Subarea Plan Area that have not yet been entitled (i.e., the Yerby and UPC development sites), the targeted density level would be one dwelling unit for every 400 square feet of lot area, a density level similar to portions of the Marina, Nob Hill, and North Beach, among others. The proposed amended Subarea Plan calls for densities to be spread unevenly over these sites. Some portions would be at lower densities and heights, while others would feature residential towers. The proposed amended Subarea Plan also calls for at least 40 percent of new units to have two or more bedrooms, and encourages at least 10 percent of new units to have three or more bedrooms.

The proposed amended Subarea Plan calls for rezoning the Yerby and UPC development sites from C-2 (Community Business) and M-1 (Light Industrial) Districts, to a district that allows a density of one residential unit for every 400 square feet of the lot area based on the existing lot configuration or a similar zoning category that accommodates the targeted level of development. The proposed amended Subarea Plan would require the creation of a new Executive Park Special Use District (SUD) on top of the proposed new underlying zoning. The SUD would substitute most development standards of Article 1 of the Planning Code for more specific requirements and allowances that are more suitable for this site. New development controls would either be included in the provisions of the new SUD text, or refer to an external design guidelines

document. In either case, development provisions will include discussions of overall design intent, design controls (requirements and limits), and design guidelines.

Objective 2: Meet the daily needs of residents within the neighborhood.

The proposed amended Subarea Plan envisions the creation of a Town Center within an easy walk for all residents to allow them to shop via foot or bicycle for daily needs, while depending on larger commercial districts like Leland Avenue in Visitacion Valley for less frequent shopping needs. It would require ground-floor neighborhood commercial uses at the corners of Executive Park Boulevard and Thomas Mellon Drive and encourage small-scale retail uses throughout the Subarea Plan Area. The retail services provided within Executive Park should not unduly compete with existing neighborhood commercial districts outside the Subarea Plan Area. The Land Use Element calls for enhancement of pedestrian and bicycle connection to the Leland Avenue Commercial District (the neighborhood commercial district for Visitacion Valley) and calls for the City to work with the neighborhoods to improve that commercial district.

STREETS AND TRANSPORTATION ELEMENT OF THE PROPOSED AMENDED SUBAREA PLAN

The proposed amended Subarea Plan includes proposed circulation patterns for vehicles, bicyclists, and pedestrians. For vehicles, the Plan establishes a hierarchy of streets, including a reconfigured boulevard along Harney Way to serve long-term development; the existing Executive Park Boulevard and Thomas Mellon Drive; and new local streets and alleys to serve future residential and retail development.

As development occurs in the Bayview Hunters Point/Candlestick Point area east of Executive Park, it is anticipated that Harney Way would be widened and modified to accommodate transit service and capacity enhancements within an expanded roadway right-of-way. The provision of future transit service and expansion of the roadway right-of-way are addressed as part of the proposals for the Bayview Hunters Point/Candlestick Point development to the east of Executive Park, and are not part of the project analyzed in this SEIR. Similarly, the potential construction of a new interchange at U.S. 101 and Harney Way and the extension of Geneva Avenue from Bayshore Boulevard to this new intersection to serve future development, as identified in the *Brisbane General Plan* and the *Bi-County Transportation Plan*, is not part of the proposed project. The proposed Yerby and UPC development projects described in this chapter have been designed to generally accommodate currently anticipated right-of-way requirements (based on the locations and designs under consideration) for a widened Harney Way and future interchange improvements to accommodate anticipated cumulative development in 2030, including full buildout of the Bayview Hunters Point/Candlestick Point development to the east.

Objective 1: Create a city street pattern supportive of an urban residential neighborhood.

The proposed amended Subarea Plan calls for a new internal street grid between Harney Way, Alanna Way, Executive Park Boulevard, Executive Park West, and Executive Park East that would divide the existing site into smaller blocks more in keeping with the typical San Francisco built pattern. The intent of the proposed amended Subarea Plan is to create a street network that reflects the fine grain of adjacent neighborhoods; organizes neighborhood activities; is walkable, landscaped, and adequately furnished; lit at night; and is designed for all modes of travel. The proposed amended Subarea Plan calls for development of a detailed “Streetscape Master Plan” to establish standards for street cross sections, streetscape improvements, and plantings.

The Streets and Transportation Element of the proposed amended Subarea Plan identifies the need to address new traffic volumes at the intersection of Harney Way, Mellon Drive, and Alanna Way. The Streets and Transportation Element anticipates that Harney Way will be widened and reconfigured to handle heavier traffic volumes and to provide dedicated transit lanes to accommodate additional development at Candlestick Point and Hunters Point Shipyard. Also anticipated is a new Harney/U.S. 101 Interchange. Since studies are ongoing as to the best solution for Harney Way and the interchange, it is not possible to prescribe one specific intersection solution for the Harney/Alanna/Thomas Mellon intersection at this time. The proposed amended Subarea Plan describes one possible solution that would separate the Alanna Way and Thomas Mellon Drive interfaces with Harney Way as two separate intersections, with Alanna Way and Thomas Mellon Drive each turning to meet Harney Way at a 90-degree angle (this solution is described and analyzed as an alternative in Chapter VII, Alternatives to the Proposed Project). Regardless of the final configuration, the proposed amended Subarea Plan would require that buildings along Harney Way and Alanna Way face those streets with appropriate entries, setbacks, and other features that will enable appropriate activation of Harney Way and Alanna Way as urban streets, regardless of the final configuration. The proposed amended Subarea Plan calls for establishment of a mechanism that will assign responsibility in an equitable way for the implementation of streetscape and infrastructure improvements along with other possible off-site improvements.

As currently envisioned, Subarea Plan Area roadways would be configured in keeping with the proposed amended Subarea Plan objectives as follows:

- A reconfigured Harney Way would provide a sidewalk/westbound bike lane along the north side of Harney Way, with its outside edge north of the current lot line. The space between the sidewalk/bike path and roadway would be landscaped and planted with street trees. The roadway would be restriped, if needed, to accommodate future traffic. As development occurs to the east of Executive Park, Harney Way should be able to accommodate transit service and capacity enhancements within the roadway right-of-way.

Executive Park Boulevard East and West and portions of Executive Park Boulevard North would include three travel lanes, and one to two bike lanes; and parking lanes, planting strips/tree grates, and sidewalks would be established on both sides of these streets. At the Executive Park Boulevard North / Executive Park Boulevard East intersection, stop signs and turn pockets would be provided, while at the Executive Park Boulevard North / Thomas Mellon Drive intersection, an eastbound left-turn pocket would be provided.

- Near the intersection with Thomas Mellon Drive, Executive Park Boulevard North would include an expanded right-of-way for diagonal parking along the north side and parallel parking along the south side, and would have two travel lanes, two bike lanes, and planting strips/tree grates and sidewalks on both sides of the street. In addition, an eastbound left-turn pocket would be provided and the intersection would be stop-controlled.
- Thomas Mellon Drive would include two travel lanes. A center turn lane, and planting strips/tree grates and sidewalks would be established on both sides. The existing Thomas Mellon Circle would be removed and replaced with a stop-controlled intersection with A Alley (see Figure III-5 on p. III.17). B Street, though designated a “Local Street,” will have two travel lanes, planting strips, and widened sidewalks on both sides.
- Local streets would have two travel lanes, two parking lanes, and planting strips/tree grates and sidewalks on both sides.
- Alleys would have two travel lanes and a sidewalk on each side, including planting strips/tree grates.

Objective 2: Encourage walking and bicycling as the primary means of accessing daily services and needs.

The Streets and Transportation Element envisions safe and attractive travel routes for all modes of transportation. It calls for walkable streets, a pedestrian network including public plazas and open spaces, and for land uses adjacent to the major links in the pedestrian network to be of interest to pedestrians. Conflicts between pedestrians and vehicular traffic should be minimized and street crossings should be gracious. The proposed pedestrian network would connect pedestrians to the new Town Center for the Subarea Plan Area, to parks and open spaces, and to adjacent neighborhoods.

Objective 3: Reduce dependency on the automobile.

The Streets and Transportation Element encourages bicycle use as a means of transportation. It calls for the provision of a number of new bike lanes along many of the public streets within Executive Park. New bike facilities would be established throughout the Subarea Plan Area consistent with the City’s Bike Plan and any other relevant Metropolitan Transportation Agency policies.

In addition, the proposed amended Subarea Plan includes revisions to the existing Transportation Management Plan for Executive Park and would require all property owners within the Subarea Plan Area to maintain, manage, and implement the program. The proposed amended Subarea

Plan also calls for the provision of carshare spaces throughout the Subarea Plan Area, the provision of transit passes to Subarea Plan Area residents, and the unbundling of parking cost from the purchase price or rental cost of a condominium unit.

URBAN DESIGN ELEMENT OF THE PROPOSED AMENDED SUBAREA PLAN

Objective 1: Establish a residential community that reflects the scale and character of a typical San Francisco urban neighborhood.

The Urban Design Element would require that new development create a consistent streetwall. It calls for development that complements and enhances the neighborhood environment. As an implementing action, the Design Guidelines (discussed below) would provide guidance about how to achieve these policies.

Objective 2: Create a distinctive skyline that complements the larger form of Bayview Hill, the surrounding neighborhoods and the bay, and is a gateway to San Francisco from the south.

The proposed amended Subarea Plan would call for changing the height and bulk districts on the Yerby and UPC development sites from their current 40-X and 80-X Districts, to the following: 65/85-EP, 68-EP, 85/170-EP, 85/200-EP, and 85/240-EP (see Figure III-4, p. III.8). The height and bulk districts within the rest of the Subarea Plan Area would remain unchanged. The areas with the tallest buildings allowed would be in the north-central and northwestern parts of the Subarea Plan Area. Buildings with mid-range heights would be allowed in the southern and southeastern parts of the Subarea Plan Area. The proposed Design Guidelines include limits for building floor plates and dimensions for new buildings taller than 85 feet.

The Urban Design Element calls for new buildings that extend to heights greater than 85 feet to preserve significant views of public open spaces, especially large parks and the Bay. Buildings near these open spaces should be designed to permit visual access, and in some cases physical access, to them. New buildings should accentuate the topography of Bayview Hill while allowing for visual permeability to the Bay. The Urban Design Element calls for maximization of sky exposure to streets. As an implementing action, the Design Guidelines (discussed below) would provide guidance about how to achieve these policies.

Objective 3: Promote the sustainability of resources.

The Urban Design Element also calls for sustainable design and resource conservation in the design and construction of new buildings, streets, and open space in the Subarea Plan Area. The components of green building standards include resource-efficient design principles both in rehabilitation and deconstruction projects, the appropriate selection of materials, space allocation

within buildings and sites for recycling, and low-waste landscaping techniques. As an implementing action, Design Guidelines (discussed below) would provide guidance for how to achieve these policies.

Executive Park Design Guidelines

The primary concept in the Urban Design Element of the proposed amended Subarea Plan is the use of proposed design guidelines to achieve proposed Subarea Plan goals and objectives. The proposed Subarea Plan Design Guidelines are intended to “help property owners understand what is expected of them as they move forward with development proposals,” and would be used by the Planning Department in evaluating projects within the Subarea Plan Area.⁶

The proposed Design Guidelines include four general principles:

1. **Livable Neighborhood Scale:** New development should reflect pedestrian-oriented character of nearby neighborhoods and of traditional San Francisco neighborhoods in general, with small blocks, a compact, fine-grained building pattern, and good quality streets and public spaces.
2. **Links to Existing Neighborhoods:** Executive Park is adjacent to existing neighborhoods, and street visual connections should be designed to connect them. Access through the site should be public and inviting, and the design of the streets, open spaces and buildings should reinforce the idea of Executive Park as an extension of the existing community.
3. **Housing:** Housing should be concentrated and oriented to the streets and focused on the activities of the ground-level.
4. **Pedestrian and Transit Orientation:** New development should reflect a pedestrian-oriented community that encourages alternatives to auto ownership and use to the greatest degree possible.

The Design Guidelines include specific guidance for streets, stormwater runoff, alleys, pathways, public open space, parking, and buildings.

The Design Guidelines would set height limits on the streetwalls for buildings along alleys and pathways and promote the placement of buildings at front property lines. Minimum heights would be established for residential streetwalls, and ground-floor units would be set back from the street. The guidelines include a taller height for ground-floor retail uses to create a more prominent retail front on the street. Other guidelines relate to the streetwall address windows, entrances, articulation, and architectural detail, among other topics.

The Design Guidelines call for the use of traffic-calming devices along Subarea Plan Area streets and alleys, and the connection of streets and alleys to publicly accessible rights-of-way at both

⁶ City of San Francisco, Revised Draft *Executive Park Design Guidelines*, March 19, 2009, p. 1.

ends; the guidelines also encourage the placement of townhouse-style entries along pathways. The guidelines specify the number, size, and locations of parking entrances, call for the screening of parking from public rights-of-way, and recommend that above-ground parking be surrounded by active uses. Other guidelines relating to the private-public interface address lighting, lobbies, stoops and porches, and security measures; many of the guidelines relating to the building streetwalls would also apply.

The Design Guidelines call for buildings to be sized proportionally to the scale of alleys, streets, and pathways. The guidelines also recommend that buildings on sloping sites be stepped up with the topography of the hill. In addition, the guidelines call for buildings of more than 85 feet in height to be “slender and adequately spaced” to allow for sunlight and sky access and to preserve views.⁷

The proposed Design Guidelines call for the use of a “green building” approach to development involving “best practices for sustainable design and resource conservation.” The Design Guidelines recommend that developments within the Subarea Plan Area seek “green” certifications such as Leadership in Energy and Environmental Design (LEED or green points). (Development within the Subarea Plan Area would also be subject to all applicable requirements of the recently adopted San Francisco Green Building Ordinance.⁸) The major aspects of environmentally friendly building design, such as energy efficiency, stormwater management, water efficiency, building materials, and indoor air quality, are described. The guidelines also call for an analysis to determine the appropriateness of various techniques for slowing, maintaining, and treating stormwater on site.

COMMUNITY SERVICES AND FACILITIES ELEMENT OF THE PROPOSED AMENDED SUBAREA PLAN

Objective 1: Provide and enhance community facilities to serve existing and future residents.

The proposed amended Subarea Plan calls for development within the Subarea Plan Area to include necessary community facilities as an integral component. In addition, a key goal of the proposed amended Subarea Plan is to contribute to the strengthening, improvement, and enhancement of the neighborhoods to the west of Executive Park.

The proposed amended Subarea Plan points to the Visitacion Valley Community Facilities and Infrastructure Fee and Fund, which is currently in effect, and notes that the increased levels of residential development called for under the proposed amended Subarea Plan would generate additional revenue for the Fund than was envisioned when the fund was established. The

⁷ Revised Draft *Executive Park Design Guidelines*, March 19, 2009, p. 8.

⁸ Chapter 13C, San Francisco Building Code.

Community Facilities and Services Element calls for the City to work with the communities to articulate priorities for the use of additional funds generated by the greater level of development.

RECREATION AND OPEN SPACE ELEMENT OF THE PROPOSED AMENDED SUBAREA PLAN

Objective 1: Enhance public open space and connections to it.

The Open Space Element of the proposed amended Subarea Plan includes a Pedestrian Network and Public Open Space Plan that shows proposed active and passive public open spaces and a network of pedestrian connections. The areas designated for open space include the lower slopes of Bayview Hill; the northeastern, northwestern, and southwestern parts of the Signature development site; the area north of and adjacent to the St. Francis Bay development site; two areas along the north side of Harney Way within the UPC and Yerby development sites; and the land along several pedestrian connections within the UPC and Yerby development sites. The pedestrian network is intended to provide connections to Candlestick Point State Recreation Area and Bayview Hill Park. The proposed pedestrian connections include the trail and sidewalks discussed earlier in this section, as well as walkways through the proposed neighborhoods.

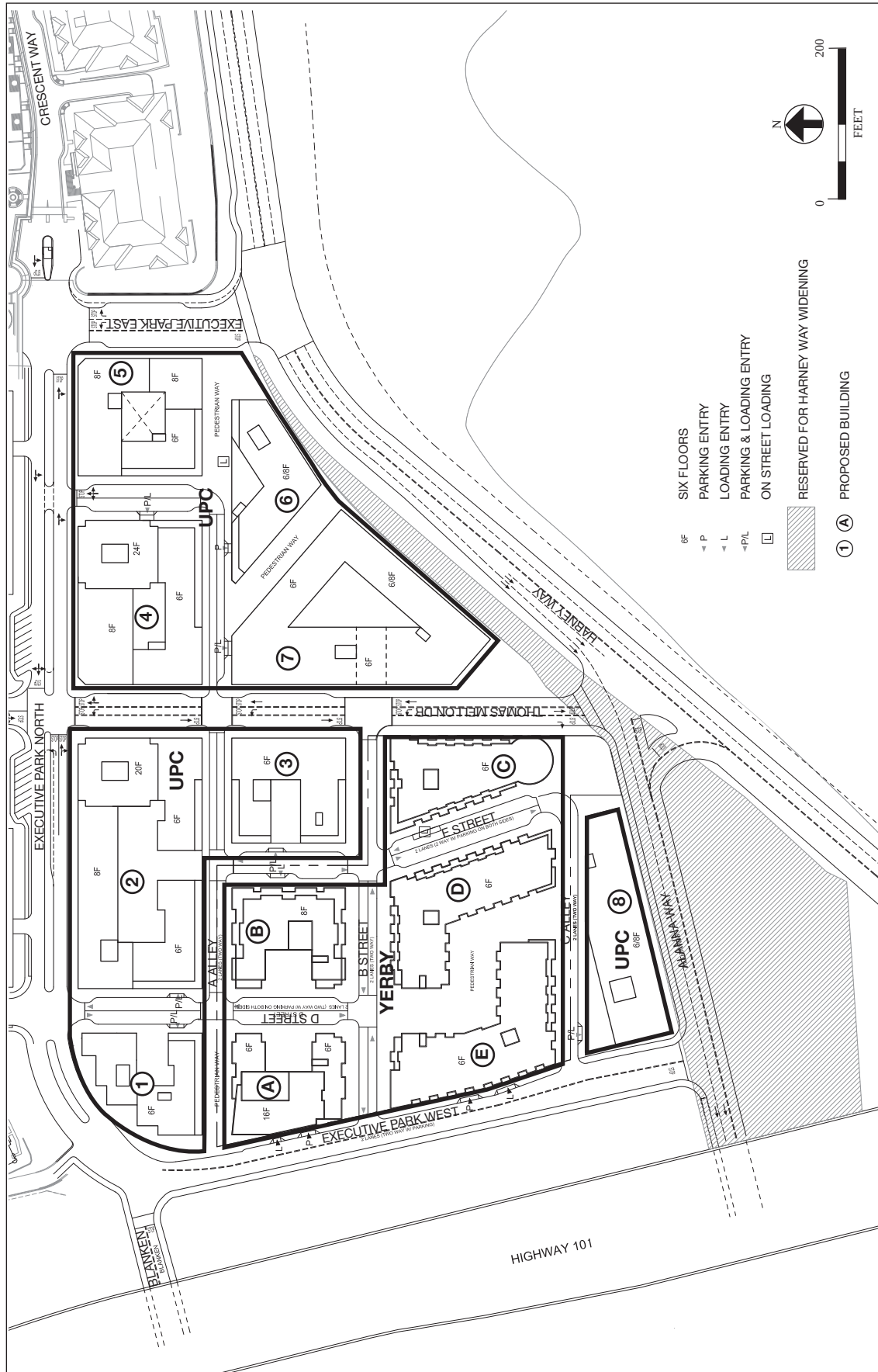
D. DEVELOPMENT PROJECTS

As noted earlier in this chapter, parts of the Subarea Plan Area are already developed, and development of other parts of the Subarea Plan Area is approved and under way. Therefore, this SEIR focuses on the areas that would change as the result of the proposed amended Subarea Plan: the Yerby and UPC development sites at the southern portion of the Subarea Plan Area.

The Yerby Company and UPC project sponsors have proposed the removal of the three existing office buildings and surface parking within the Yerby and UPC development sites, and construction of 13 buildings with residential and commercial uses and subsurface parking. Figure III-5: Proposed Yerby and UPC Development Projects – Combined Site Plan, shows the location and layout of the proposed Yerby and UPC buildings. The proposed Yerby buildings are denoted by letters A-E. The proposed UPC buildings are denoted by numbers 1-8.

As shown in Table III-2, the Yerby and UPC projects would include approximately 3.4 million square feet of building space with approximately 1,600 residential units and about 73,000 gsf of neighborhood-serving retail space. With existing and approved development, these projects would realize the full buildout potential of the proposed Subarea Plan Area.

Implementation of the proposed amended Subarea Plan would require lot line adjustments to implement exchanges of land within the Subarea Plan Area between Yerby and UPC. The four quadrants making up Thomas Mellon Circle would be absorbed into the Yerby/UPC sites.



SOURCE: Heller-Manus; C.Y. Lee Architects, Turnstone Consulting

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FIGURE III-5: PROPOSED YERBY AND UPC DEVELOPMENT PROJECTS - COMBINED SITE PLAN

Table III-2: Summary, Yerby and UPC Development Projects

Category/Project	Yerby	UPC	Total
<i>Proposed Space (gsf)</i>			
Residential	596,200	1,350,000	1,946,200
Retail	2,900	70,300	73,200
Parking	300,500	615,800	916,300
Other	<u>142,500</u>	<u>274,600</u>	<u>417,100</u>
Total	1,042,100	2,310,700	3,352,800
<i>Residential Units</i>	500	1,100	1,600
<i>Parking Spaces</i>	750	1,677	2,427
<i>Number of Buildings</i>	5	8	13
<i>Height (feet)</i>	68-170	65-240	

Note: GSF = gross square feet. Space totals have been rounded to nearest 100 gsf. “Other” building space includes lobbies and other residential common space, building core, and service and mechanical spaces.

Source: Heller-Manus Architects, C.Y. Lee & Partners/LTC Design Group, Turnstone Consulting

Approximately 3,340 square feet of area of the southwest quadrant of the Circle would be acquired by Yerby from the City of San Francisco, while 4,800 square feet of the northwest quadrant and 8,140 square feet of the eastern quadrants would be acquired by UPC from the City of San Francisco. The Yerby and UPC development site acreages and development plans described and depicted in this chapter reflect the proposed land exchange.

For the other land exchange, Yerby would transfer to UPC approximately 6,200 square feet (0.142 acre) of land along its northern and northeastern boundaries. In exchange, UPC would transfer to Yerby approximately 6,200 square feet of land from Lot 86, at the southern end of the OB 2 parcel. The proposed land exchange would create more regular boundaries for the Yerby and UPC development sites.

DESIGN VARIANTS

The proposed development projects include two design variants: Design Variant A – Building Setback and Articulation; and Design Variant B – Reconfigure Buildings 6 and 7. Both design variants would include substantially the same amount and mix of residential units, commercial space, and the same number of parking spaces and vehicular access locations as called for under the proposed projects.

Design Variant A – Building Setback and Articulation

Design Variant A would modify the street setbacks and the facades of the proposed buildings within the development sites. The changes would include the provision of a 5-foot setback from the street at the ground level, upper story setback changes, and configurations of bay windows, and stoops that may project up to 5 feet into the street setback. See Figure III-6: Design Variant A – Site Plan. This design variant would allow for greater depth and articulation of building facades.

Design Variant B – Reconfigure Buildings 6 and 7

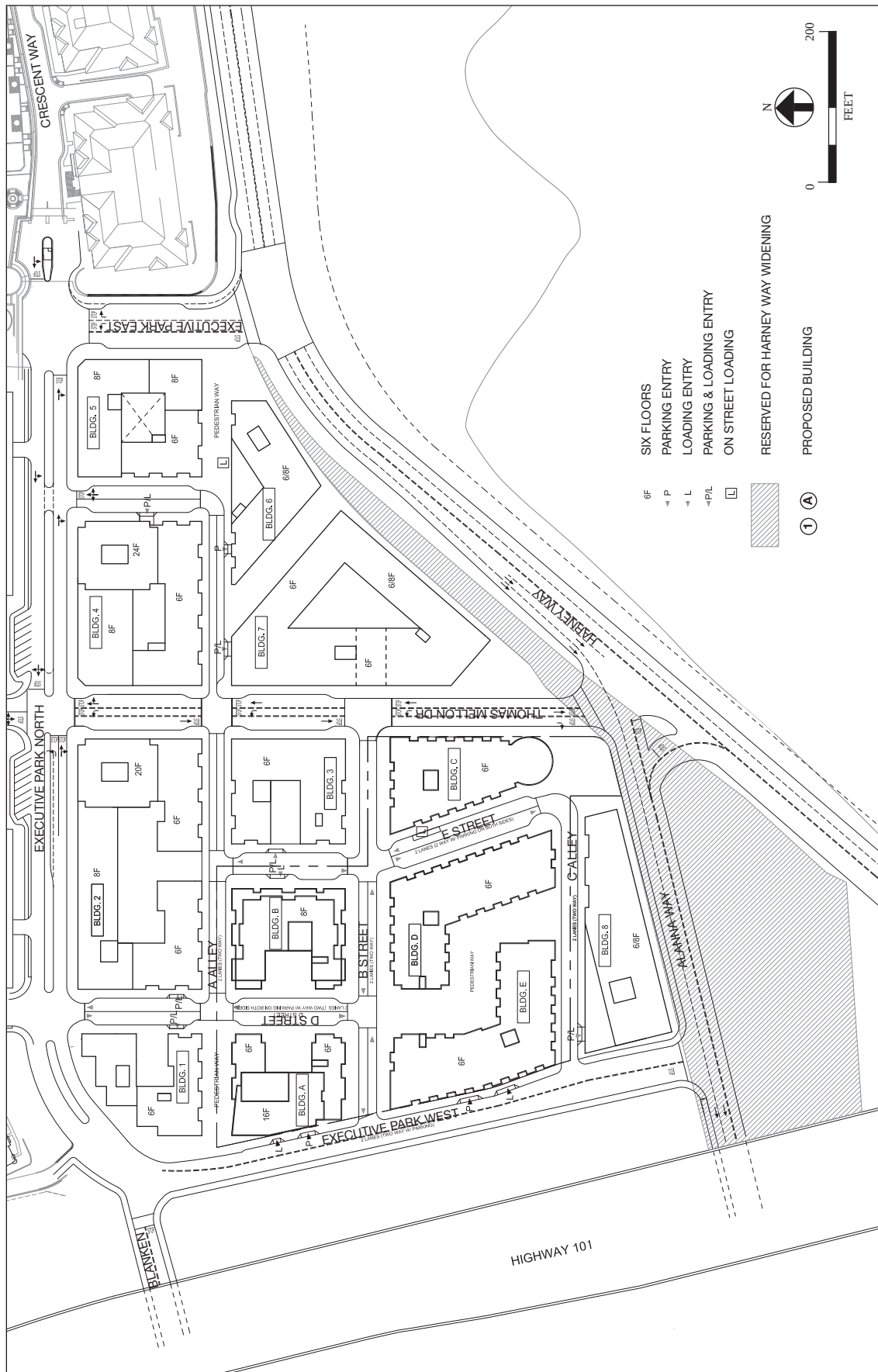
Design Variant B would modify the configurations of UPC Buildings 6 and 7. This variant would reorient the street-level pedestrian way that would run between the two buildings from being perpendicular to Harney Way, to running parallel to Harney Way. This modification would create a continuous streetwall along Harney Way. See Figure III-7: Design Variant B – Site Plan. This design variant would allow for improved floor plan efficiencies within Buildings 6 and 7, reduce the bulk of Building 7, as well as provide for additional publicly accessible open space at the ground level by eliminating the private interior courtyard within Building 7. Retail space would be about 7,130 gsf less than the 73,200 gsf proposed under the Yerby and UPC development projects. The proposed Yerby development project would not be changed in this variant.

E. YERBY DEVELOPMENT PROJECT

YERBY PROJECT LOCATION

The approximately 4.8-acre Yerby development site is in the southwest part of the Subarea Plan Area. (See Figure III-2, p. III.5.) The irregularly-shaped Yerby site is bounded by Executive Park Boulevard West on the west, OB 2 and Executive Park Boulevard North on the north, OB 3 and Thomas Mellon Drive on the east, and UPC property and Alanna Way on the south. The Yerby development site occupies all of Assessor's Block 4991, Lot 75. Local access to the site is provided by driveways from Executive Park Boulevard West and North, and Thomas Mellon Circle.

The Yerby development site is occupied by Office Building OB 1, which includes about 99,200 gsf of office uses and about 800 gsf of ground-floor retail uses. OB 1 is a three-story (40-foot-tall with no basement), pre-cast concrete and stucco building first occupied in 1981. Existing parking includes about 300 spaces in surface lots. OB 1 is in the northeast part of the Yerby development site and the surface parking and landscaping occupy the remainder of the Yerby site.

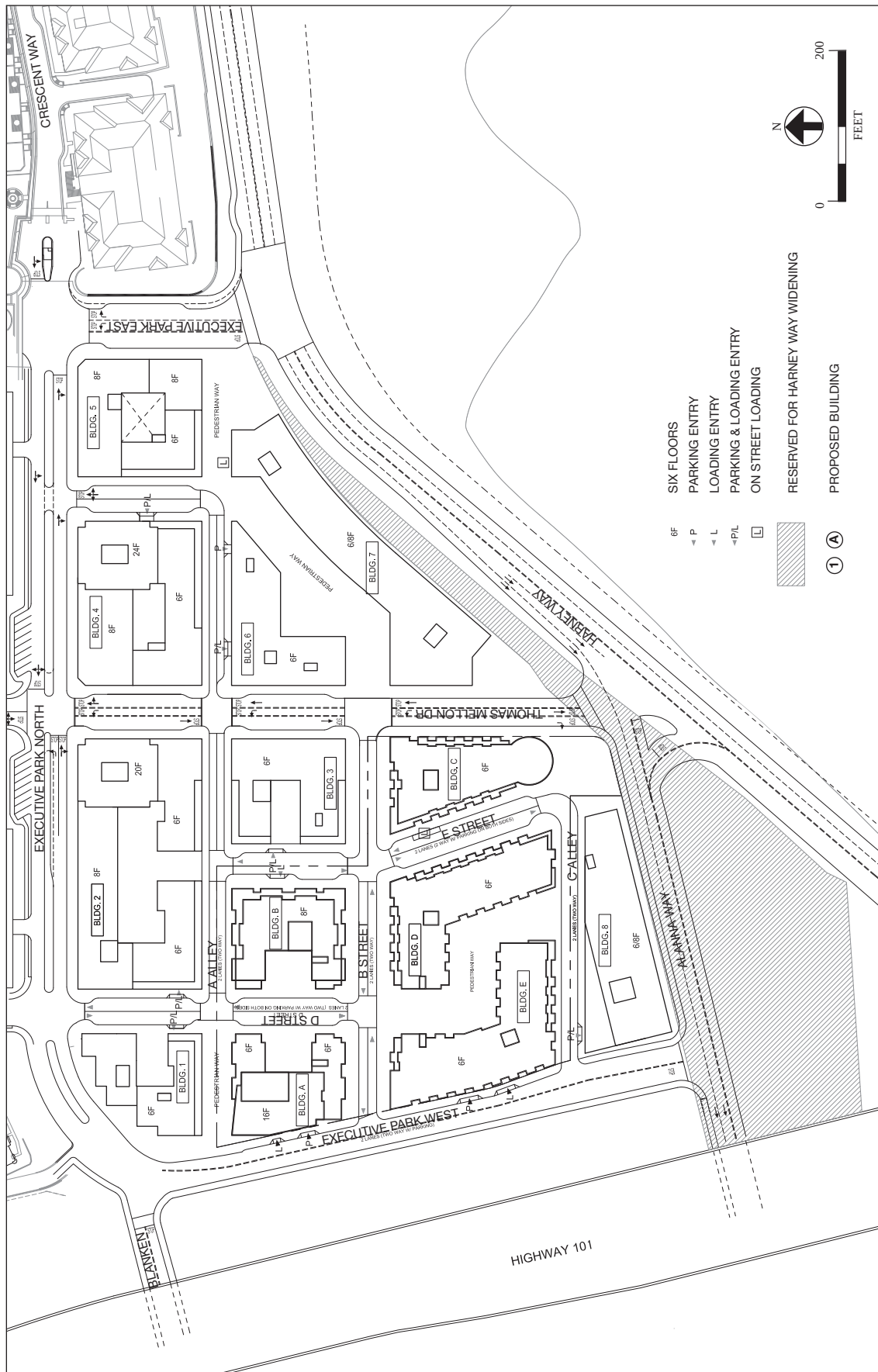


SOURCE: Heller-Manus; C.Y. Lee Architects, Turnstone Consulting

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FIGURE III-6: DESIGN VARIANT A - SITE PLAN



SOURCE: Heller-Manus; C.Y. Lee Architects, Turnstone Consulting

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FIGURE III-7: DESIGN VARIANT B - SITE PLAN

The Yerby development site is gently sloped, with elevations ranging from about 5 feet to about 23 feet above mean sea level (msl). Site grades generally slope from the northeast down toward the west and south; a landscaped berm along the western edge of the site slopes more steeply down to Executive Park Boulevard West. The existing vegetation includes trees adjacent to OB 1, along the edges of the Yerby site, and within the parking lot, and areas of turf and other landscaping. The Yerby development site is in a C-2 Use District and a 40-X Height and Bulk District.

YERBY DEVELOPMENT PROJECT OVERVIEW

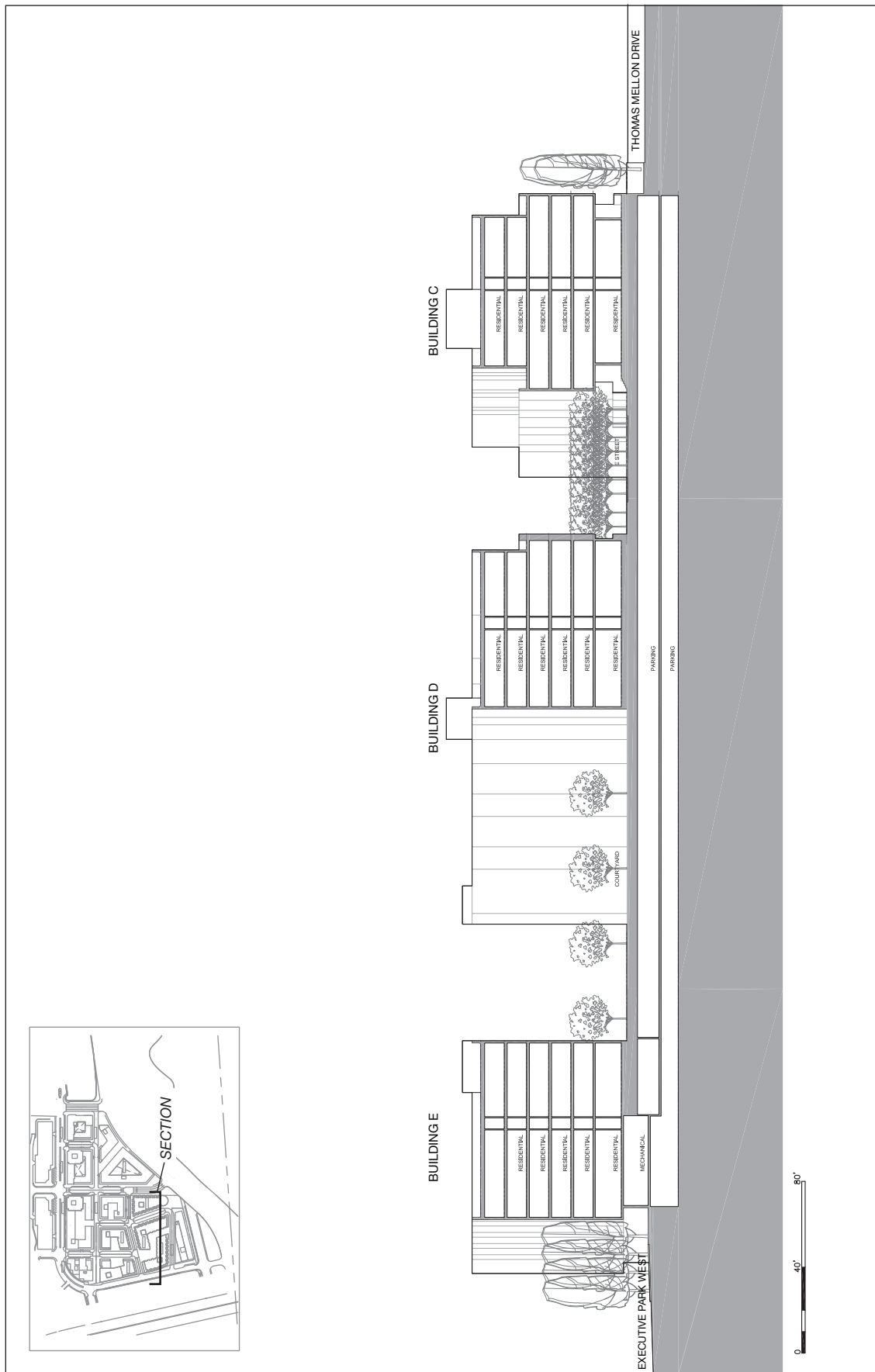
The Yerby development project would demolish the existing office building and remove the surface parking spaces on the Yerby site, and redevelop the site with five new residential buildings, below-ground parking, open space, and pedestrian walkways. The buildings would range from approximately 68 to 170 feet (6 stories to 16 stories) tall. (See Figure III-8: Yerby Development Project - Buildings E, D, and C Sections; Figure III-9: Yerby Development Project - Buildings A and B Sections; Figure III-10: Yerby Development Project - Buildings A and E Sections; and Figure III-11: Yerby Development Project - Buildings B and D Sections.) The Yerby buildings would contain approximately 500 residential units. Underground parking would provide up to 750 parking spaces.

Table III-3 shows the proposed space by building and type of use. With the proposed Yerby project, there would be a total of about 1,042,100 gsf of developed space on the Yerby site, including about 596,200 gsf of residential uses; about 2,900 gsf of neighborhood commercial uses; about 17,100 gsf of common residential activity space; about 125,400 gsf of service and core space; and about 300,500 gsf of below-grade parking. The Yerby project would also include residential private and common open space and a publicly accessible park.

PROPOSED BUILDINGS

Buildings A and E would be at the western end of the Yerby site, along Executive Park Boulevard West. Building C would be at the eastern end of the site, along Thomas Mellon Drive. Building B would be in the north-central part of the site, and Building D would be in the south-central part of the site.

The proposed Yerby project buildings would be separated from each other and from the proposed UPC buildings by a grid of local streets and alleys. Building A would be bounded on the north side by a pedestrian corridor; Building C would be bounded on the south side by the proposed park.

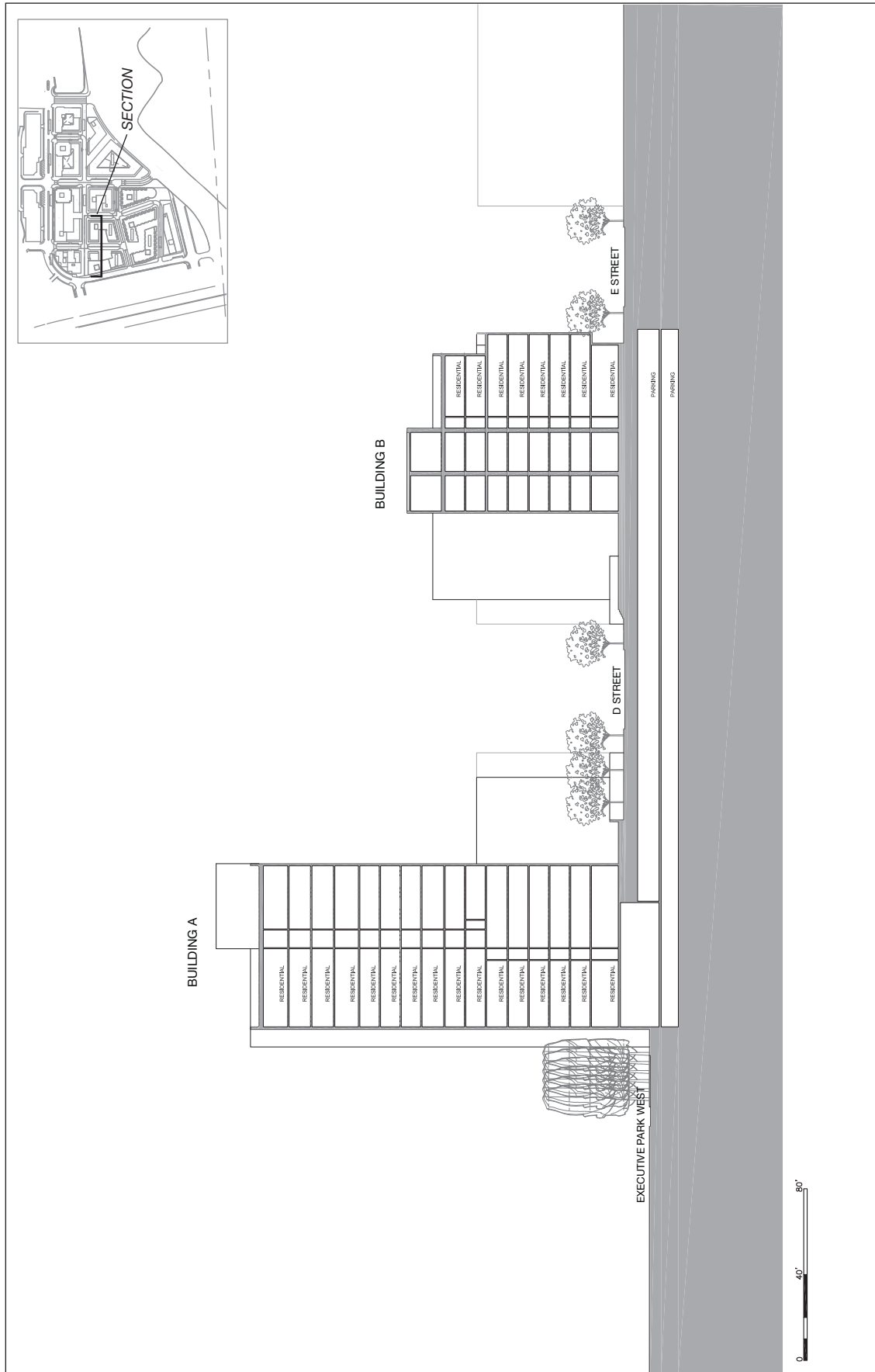


SOURCE: Heller-Manus

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FIGURE III-8: YERBY DEVELOPMENT PROJECT-BUILDINGS E, D AND C SECTIONS

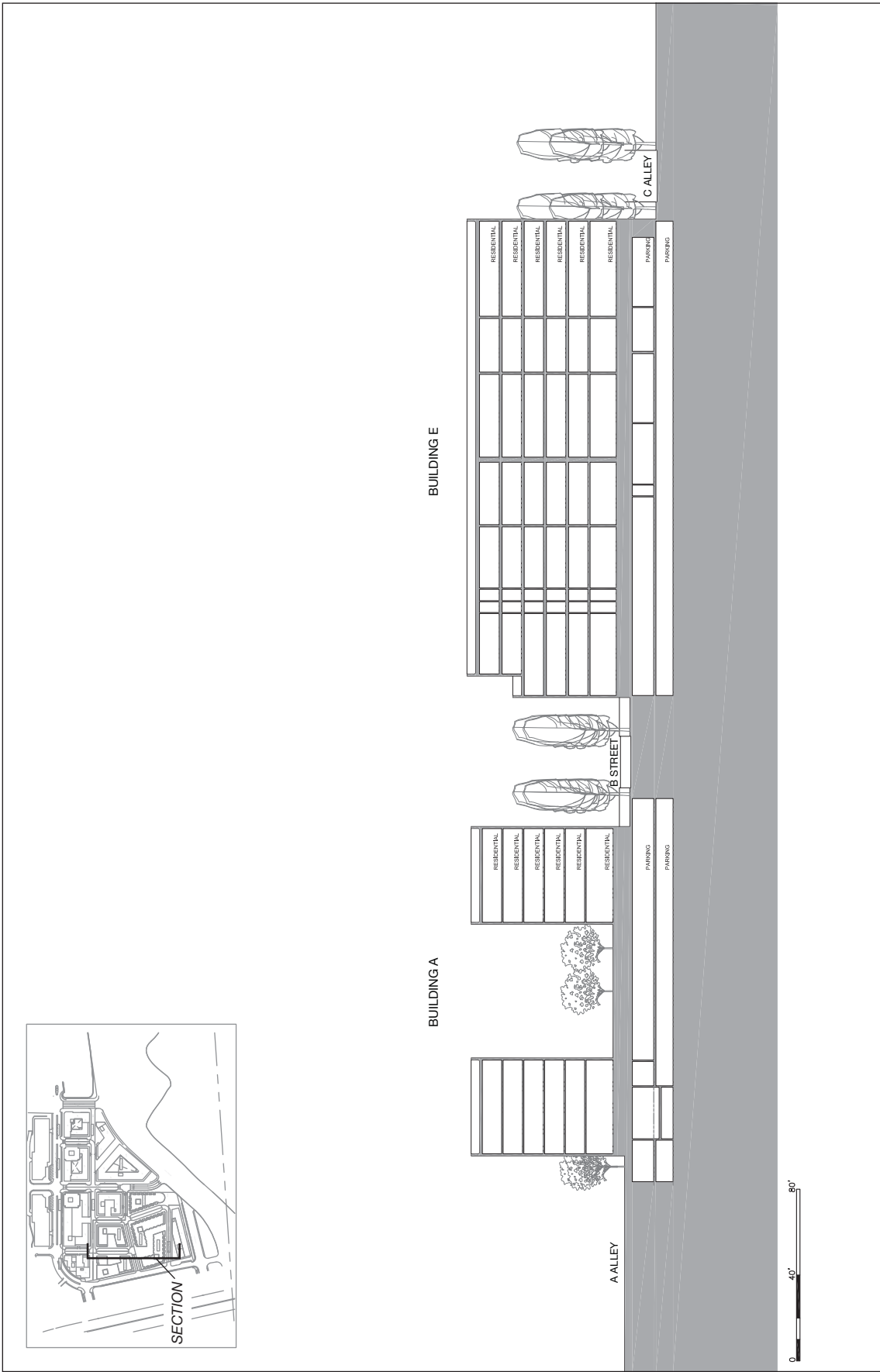


SOURCE: Heller-Manus

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FIGURE III-9: YERBY DEVELOPMENT PROJECT-BUILDINGS A AND B SECTIONS



SOURCE: Heller-Manus

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FIGURE III-10: YERBY DEVELOPMENT PROJECT-BUILDINGS A AND E SECTIONS

Table III-3: Proposed Space by Building and Type of Use, Yerby Project

Building	Proposed Space (gsf)						Units
	Residential	Retail	Amenity	Service/Circulation	Parking	Total	
A	167,900	0	4,600	40,500	66,000	279,000	102
B	101,300	0	2,700	23,900	41,200	169,100	69
C	88,400	2,900	3,800	15,200	51,200	161,500	82
D	116,500	0	0	17,900	64,100	198,500	117
E	<u>122,100</u>	<u>0</u>	<u>6,000</u>	<u>27,900</u>	<u>78,000</u>	<u>234,000</u>	<u>130</u>
Total	596,200	2,900	17,100	125,400	300,500	1,042,100	500

Note: GSF = gross square feet. Amenity space is common activity space for project residents. Space totals have been rounded to nearest 100 gsf.

Source: Heller-Manus Architects

Table III-4 shows the proposed number of floors and heights at each building.

Table III-4: Proposed Floors and Building Heights, Yerby Project

Building	Floors	Height
A	6/16	65/170
B	8	85
C	6	68
D	6	68
E	6	68

Note: Building heights are measured from the main entry.

Source: Heller-Manus Architects

Building A would include a high-rise section at the north end that would be about 170 feet tall, and low-rise sections at the northeast end and along the south side that would be about 65 feet tall. Building B would be about 85 feet tall, and Buildings C through E would be about 68 feet tall. Mechanical penthouses would be constructed on top of all of the buildings; the penthouses would add approximately 16 feet to 20 feet.

Relatively level grades would be created within the Yerby development site; changes in grade would be incorporated at the western and eastern site boundaries. The proposed grades within the Yerby site would slope downward from north to south (particularly along the western site boundary) and from east to west. Buildings A and E would incorporate these grade changes by bringing the western end of Level B1 (the top level of proposed parking) above grade.

Buildings A and B would extend along three sides of their respective sites; a landscaped common open space would extend from the sidewalk into the site on the fourth side. Buildings C, D, and

E would extend along the eastern and western boundaries of their respective building sites, and would be separated from each other by a street and a landscaped pedestrian corridor.

In general, the proposed buildings would be set back from the building site edges at ground level, providing exterior entries to individual residences. Upper floors of the buildings would extend out over the ground-level setbacks in the form of bay windows. The proposed use of a range of building shapes, setbacks, as well as the use of building elements of differing heights, would create variety at the upper floors of buildings.

PROPOSED RESIDENTIAL USES

As shown in Table III-3, p. III.27, the Yerby project would include about 596,200 gsf of residential uses in all five buildings. The proposed 500 residential units would include about 263 one-bedroom units, about 138 two-bedroom units, and about 99 three-bedroom units. The units would be located on all floors of the proposed buildings. In addition, all buildings would provide exterior entrances for most of the first-floor individual units. The buildings would include residential lobbies on the first floor.

PROPOSED COMMERCIAL USES

As shown in Table III-3, the Yerby project would include about 2,900 gsf of neighborhood-serving commercial uses in the southern end of Building C. The commercial uses would include ground-floor retail shops, services, and/or cafes/eateries. The retail space would front onto the proposed publicly accessible park south of the building, and would be accessed from Thomas Mellon, the proposed park and the adjacent E Street.

PROPOSED COMMUNITY ROOM

The proposed Yerby project would also include a 6,020-gsf community room on Level B1, at level with Executive Park Boulevard West, in Building E. The community room would be open to the Yerby project residents, as well as to residents from other Executive Park neighborhoods and the Little Hollywood and Bayview/ Hunters Point communities.

PROPOSED PARKING

A two-level, below-grade parking garage would be constructed beneath Buildings A and B, and a two-level, below-grade garage would be constructed in Buildings C, D and E. The lowest garage floor (Level B2) would be generally about 3 feet below San Francisco Datum, and about 24 to 25.5 feet below the proposed ground level.

The garage would contain about 324,500 gsf, including about 300,500 gsf of parking space and about 24,000 gsf of space for circulation and building services. The garage would provide about

750 residential parking spaces and about 123 dedicated bicycle parking stalls. Additional parking for visitors and retail customers would be available on neighborhood streets.

SITE ACCESS, CIRCULATION, AND LOADING

The primary vehicle access to the Yerby development site would be from Executive Park Boulevard West and Thomas Mellon Drive, north-south roads that are adjacent to the Yerby site. Vehicles would enter and exit the proposed parking garages at Executive Park Boulevard West (along the west side of Buildings A and E).

Vehicles would travel to and within the Yerby site via a proposed street grid composed of A Alley, B Street, and C Alley (east-west roads) and D Street and E Street (north-south roads). The streets would be constructed to be consistent with the Street Concept Plan, Circulation Plan, and street guidelines in the proposed amended Subarea Plan.

Pedestrians would be able to enter the proposed buildings from elevators in the underground garage, ground-level entrances to building lobbies, and, in some instances, doors to individual ground-level units. Sidewalks would be provided along the frontage of each proposed building.

The proposed Yerby project would include a loading dock in each of the two garages. The loading dock in the north garage would have one space for truck loading/unloading. The loading dock in the south garage would have two spaces serving Buildings D and E. The loading docks would be adjacent to the parking garage driveways. Building B would also have loading dock (with one space) at the ground level. All of the loading docks would be enclosed in the buildings by roll-down gates. In addition, an on-street loading zone would be provided in “cut-outs” along E Street west of Building C. The cut-outs would also provide access to the loading facilities in Building C.

PROPOSED OPEN SPACE AND LANDSCAPING

According to Planning Code Section 135, the open space requirements for the proposed project (which would be in an RC-3 District) would be about 60 square feet of private open space per residential unit; about 80 square feet of common open space per unit could be substituted for the private open space. These requirements would translate into 30,000 square feet of private open space (500 units multiplied by 60 square feet per unit) or 39,900 square feet if all open space were common for the use of all residents (500 units multiplied by 79.8 square feet per unit).

The Yerby project includes private open space for 361 units that would comply with the Planning Code requirement. The project also includes common open space in the form of landscaped courtyards at each building and the proposed pedestrian corridor between Buildings D and E.

Table III-5 shows the proposed private and common open space for each building. For Buildings A through E, the proposed open space would exceed the Planning Code requirements for each building.

Table III-5: Proposed Open Space, Yerby Project

Building	Units	Proposed Open Space		Meets Code?
		Private ¹	Common	
A	102	3,660	3,330	Yes
B	69	2,100	3,330	Yes
C	82	3,600	2,520	Yes
D	117	5,940	7,630	Yes
E	<u>130</u>	<u>6,480</u>	<u>7,630</u>	Yes
Total	500	21,660	24,440	

Notes: Planning Code Section 135 requirement in the RC-3 District is 60 square feet of private open space per residential unit, or about 80 square feet of common open space per unit. Space numbers rounded to nearest 10 feet.

¹ Numbers are estimates based on assumed provision of required open space for a specified number of units.

Source: Heller-Manus Architects, Turnstone Consulting

In addition, the proposed Yerby development project would provide 5,470 square feet of a 18,200-square-foot publicly accessible park in the southeastern corner of the Yerby site (the remainder of the park would be provided as part of the proposed UPC development project).

The Yerby project would include landscaping throughout the Yerby site, along proposed roadways, within public access open space and residential common open space areas, and around individual buildings. The Yerby Company intends the proposed landscaping to be consistent with the landscaping and design guidelines in the proposed amended Subarea Plan.

PROPOSED UTILITIES AND DRAINAGE

The Yerby project would connect to the existing combined sewer/stormwater collection system, which includes major lines in Harney Way and Executive Park Boulevard West. Construction of additional major sewer/stormwater lines would not be required.

PROPOSED FOUNDATION AND GRADING

As currently envisioned, the Yerby project would use mat foundations where allowed by surface conditions; the potential for liquefaction could require that other foundation techniques be used beneath portions of the Yerby development site, as determined by Department of Building Inspection review. The average depth of excavation would range from approximately 20 feet

below the ground surface at Building A to approximately 24.5 feet at Building B. Approximately 120,300 cubic yards of soil would be removed from the Yerby site.

PROJECT CONSTRUCTION

Project construction, including demolition, site and foundation work, construction of the parking garage sections, and construction of Buildings A through E, would last approximately 46 months. Assuming that construction would begin in 2010, the last building constructed would be ready for occupancy in 2014. The actual timing of construction would depend on market conditions and other factors.

The Yerby project would have two development phases. Buildings C through E and the section of garage below them would be constructed in the first phase, and Buildings A and B and the corresponding garage section would be constructed in the second phase. Construction of each phase would last approximately 23 months.

The first stage of construction would last about 10 months during the first development phase and about 8 months during the second phase, and would include demolition, excavation, and foundation work. Excavation would last about two months during those times.

F. UPC DEVELOPMENT PROJECT

UPC PROJECT LOCATION

The approximately 9.73-acre UPC development site is in the southwest part of the Subarea Plan Area. (See Figure III-2, p. III.5.) The UPC site is bounded by Executive Park Boulevard on the west, north, and east, and Harney Way and Alanna Way on the south. The UPC development site occupies six lots within Assessor's Block 4991: Lots 24, 61, 65, 74, 85, and 86. The parcels are not contiguous, and are separated from each other by Thomas Mellon Drive, the Yerby development site, and Alanna Way. Local access to the UPC site is provided by driveways from Executive Park West, North, and East and Thomas Mellon Drive.

Existing uses in the immediate vicinity of the UPC site include OB 1, the construction site for the approved Signature development to the north, the existing St. Francis Bay residences to the east, Candlestick Point State Recreation Area and San Francisco Bay to the south, and a landscaped berm and U.S. 101 to the west. Other uses in the vicinity are described as part of the discussion of the Subarea Plan Area.

The UPC development site is occupied by Buildings OB 2 and OB 3, which include about 208,400 gsf of office uses and about 1,600 gsf of ground-floor retail uses. OB 2 and OB 3 are four-story (48-foot-tall, with no basement), blue tile/metal panel buildings constructed in the early 1980s. Existing parking includes about 530 spaces in surface lots (including the area south of

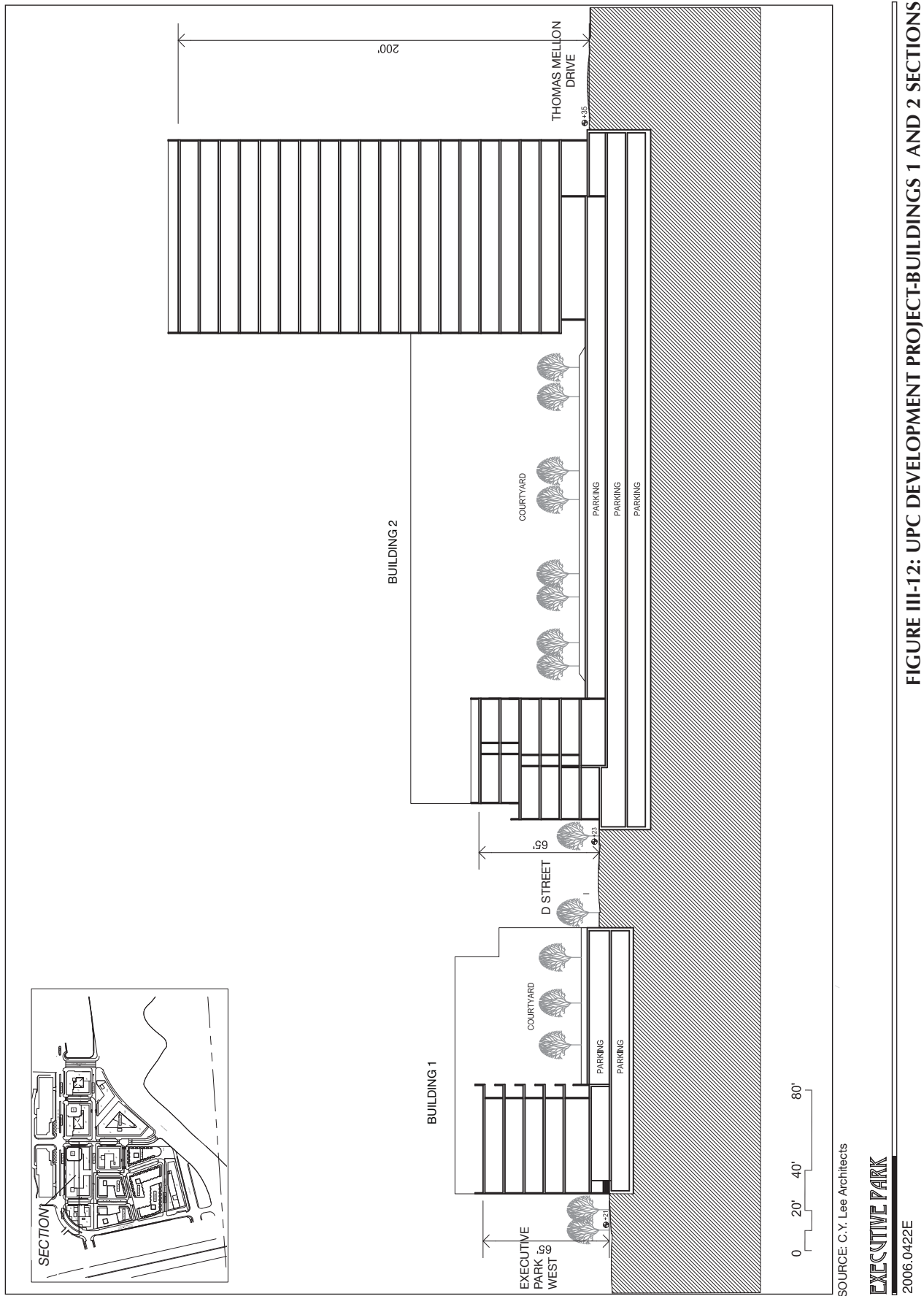
Alanna Way). OB 2 is in the northwest part of the UPC site, OB 3 is in the northeast part of the site, and surface parking and landscaping occupy the remainder of the site.

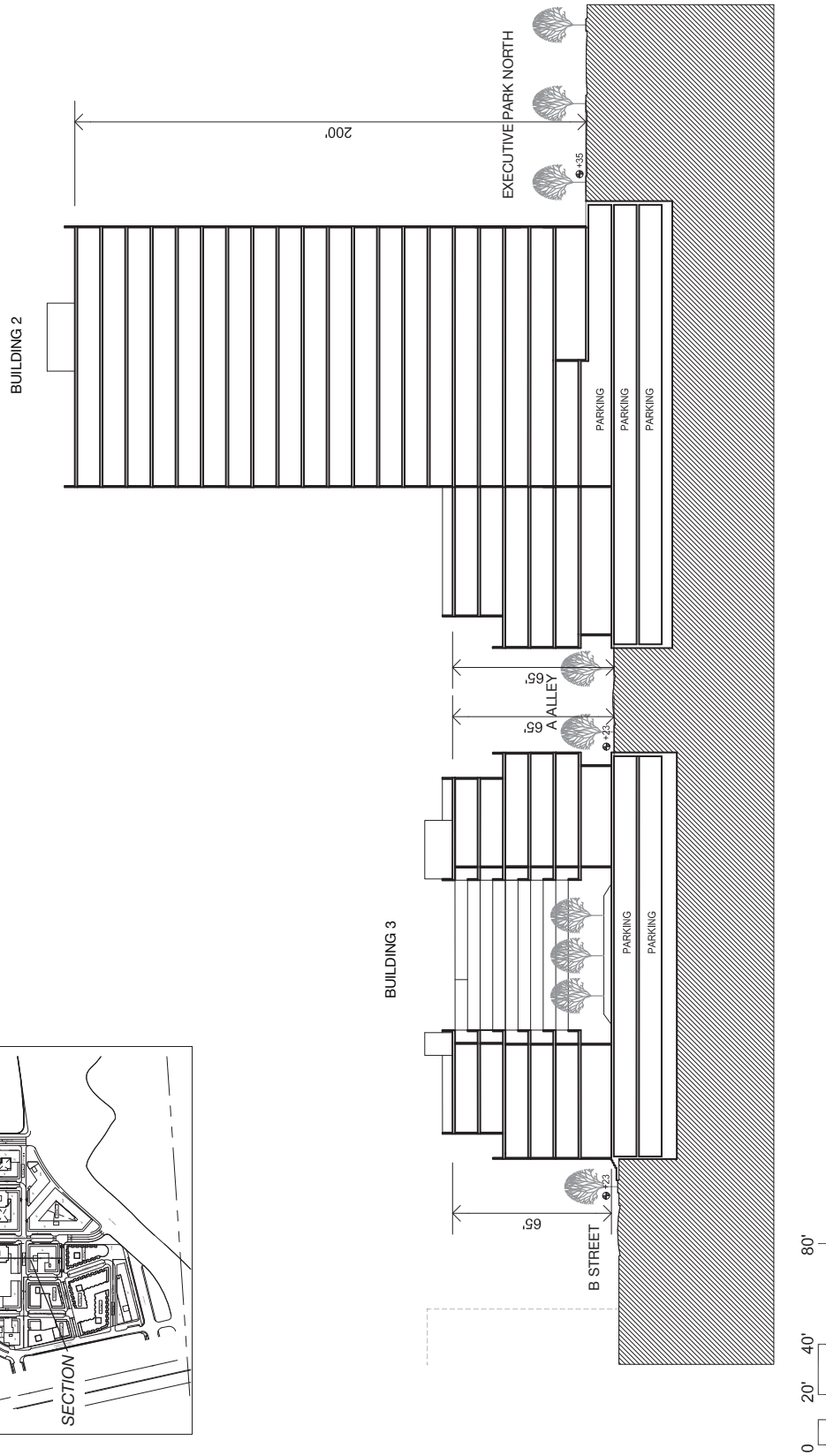
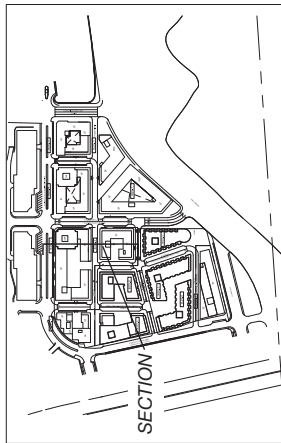
The UPC development site has relatively gentle slopes, with elevations ranging from about 5 feet above msl (at the southern end of the site) to about 38 feet above msl (in the northern part of the OB 3 parcel). Site grades generally slope downward from north to south and east to west, with steeper grades present in the landscaped areas along the site edges. The existing vegetation includes trees along the edges of the UPC site and within the parking lots, and areas of turf and other landscaping. The UPC development site is in a C-2 Use District. Most of the UPC site is in a 40-X Height and Bulk District; the part of the site south of OB 3 and extending just west of Thomas Mellon Drive is in an 80-X Height and Bulk District.

PROJECT OVERVIEW

UPC proposes to demolish the two existing office buildings, remove the surface parking spaces on the UPC site, and to redevelop the site with eight mixed-use buildings, below-ground parking, open space, and pedestrian walkways. The buildings would range from 65 feet to 240 feet (6 stories to 24 stories) tall. (See Figure III-12: UPC Development Project - Buildings 1 and 2 Sections; Figure III-13: UPC Development Project - Buildings 3 and 2 Sections; Figure III-14: UPC Development Project - Buildings 4 and 5 Sections; Figure III-15: UPC Development Project – Building 6 Section; Figure III-16: UPC Development Project – Building 7 Section; and Figure III-17: UPC Development Project - Building 8 Section.) The UPC buildings would contain approximately 1,100 residential units. The underground garages would provide up to 1,677 parking spaces.

Table III-6 shows the proposed space by building and type of use. With the proposed UPC project, there would be a total of about 2,310,700 gsf of space developed on the UPC site, including about 1,350,000 gsf of residential uses; about 70,300 gsf of neighborhood commercial uses; about 19,300 gsf of residential amenity space; about 255,300 gsf of service and circulation space; and about 615,800 gsf of below-grade parking. The UPC project would also include residential private and common open space and several areas of publicly accessible open space.



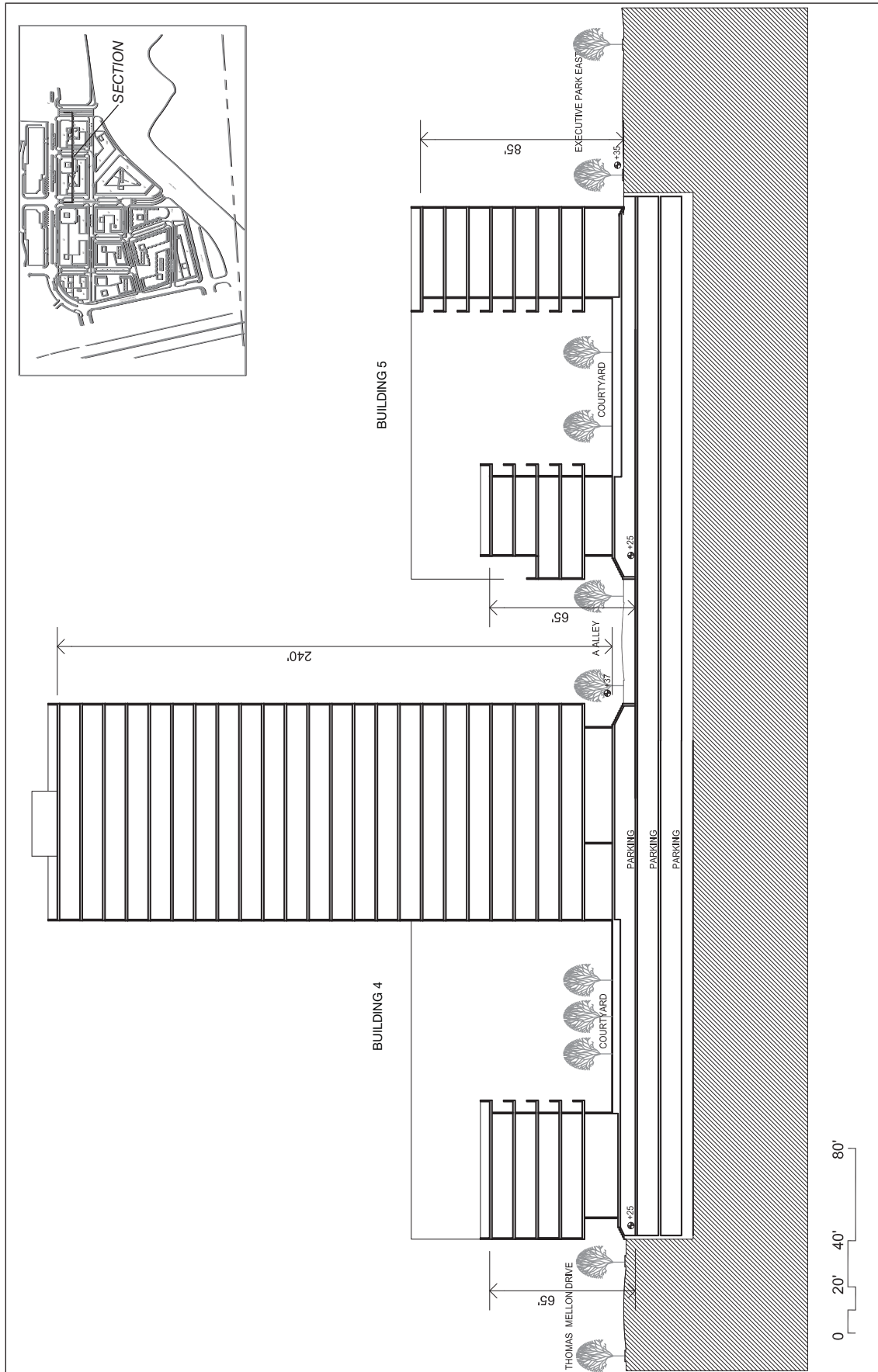


SOURCE: C.Y. Lee Architects

EXECUTIVE PARK

2006.0422E

FIGURE III-13: UPC DEVELOPMENT PROJECT-BUILDINGS 3 AND 2 SECTIONS

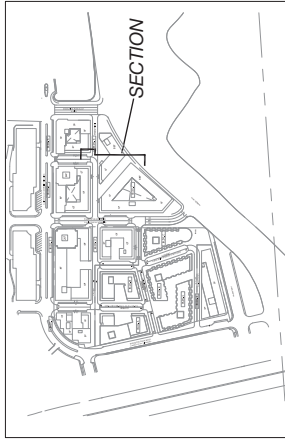


SOURCE: C.Y. Lee Architects

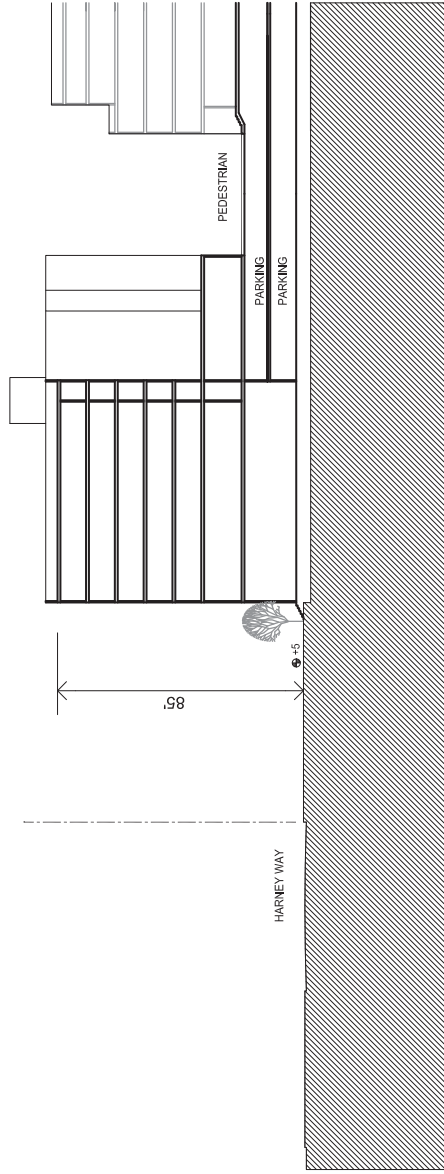
EXECUTIVE PARK

2006.0422E

FIGURE III-14: UPC DEVELOPMENT PROJECT-BUILDINGS 4 AND 5 SECTIONS



BUILDING 6



SOURCE: C.Y. Lee Architects

EXECUTIVE PARK

2006.0422E

FIGURE III-15: UPC DEVELOPMENT PROJECT-BUILDING 6 SECTION

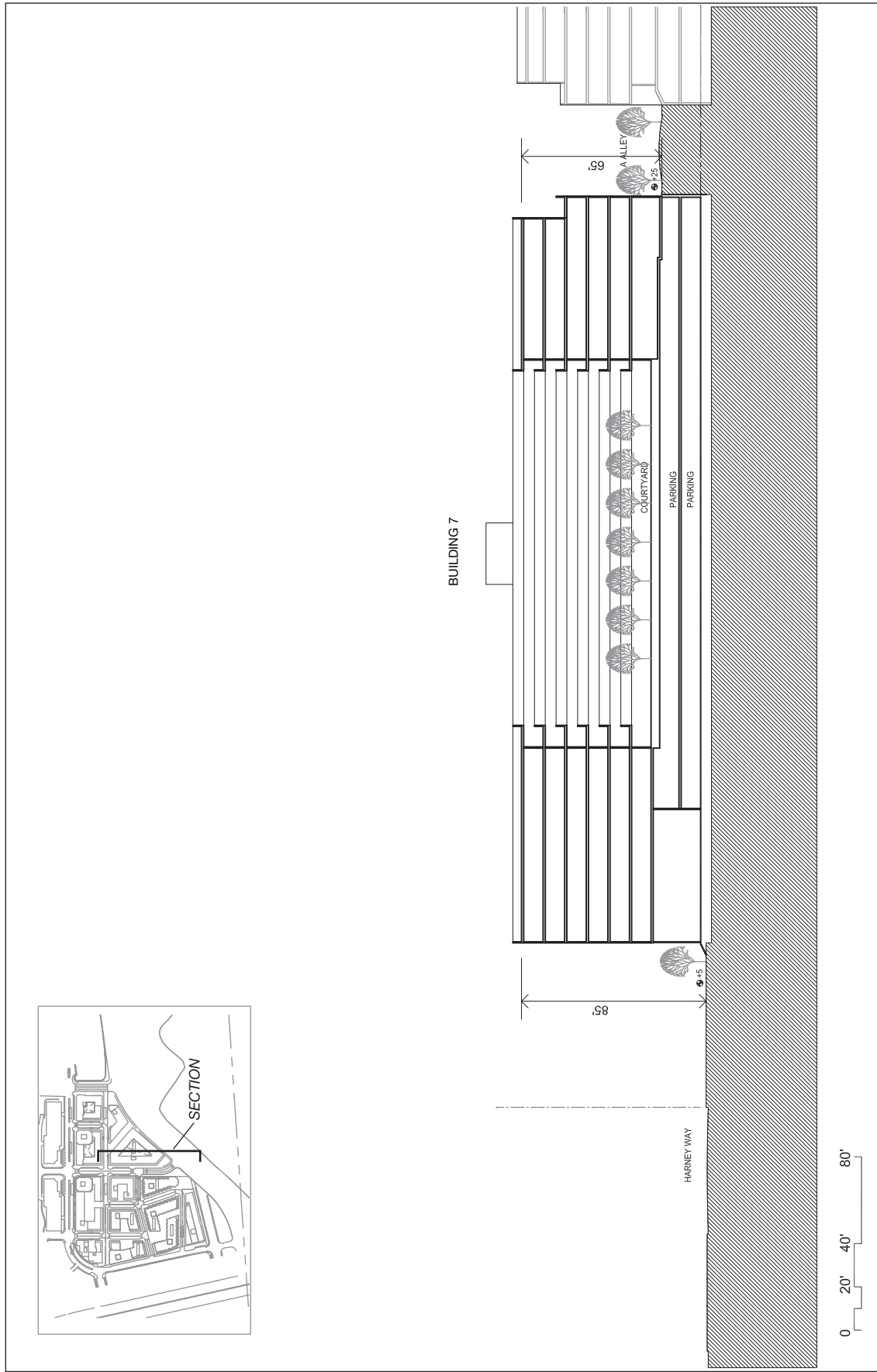
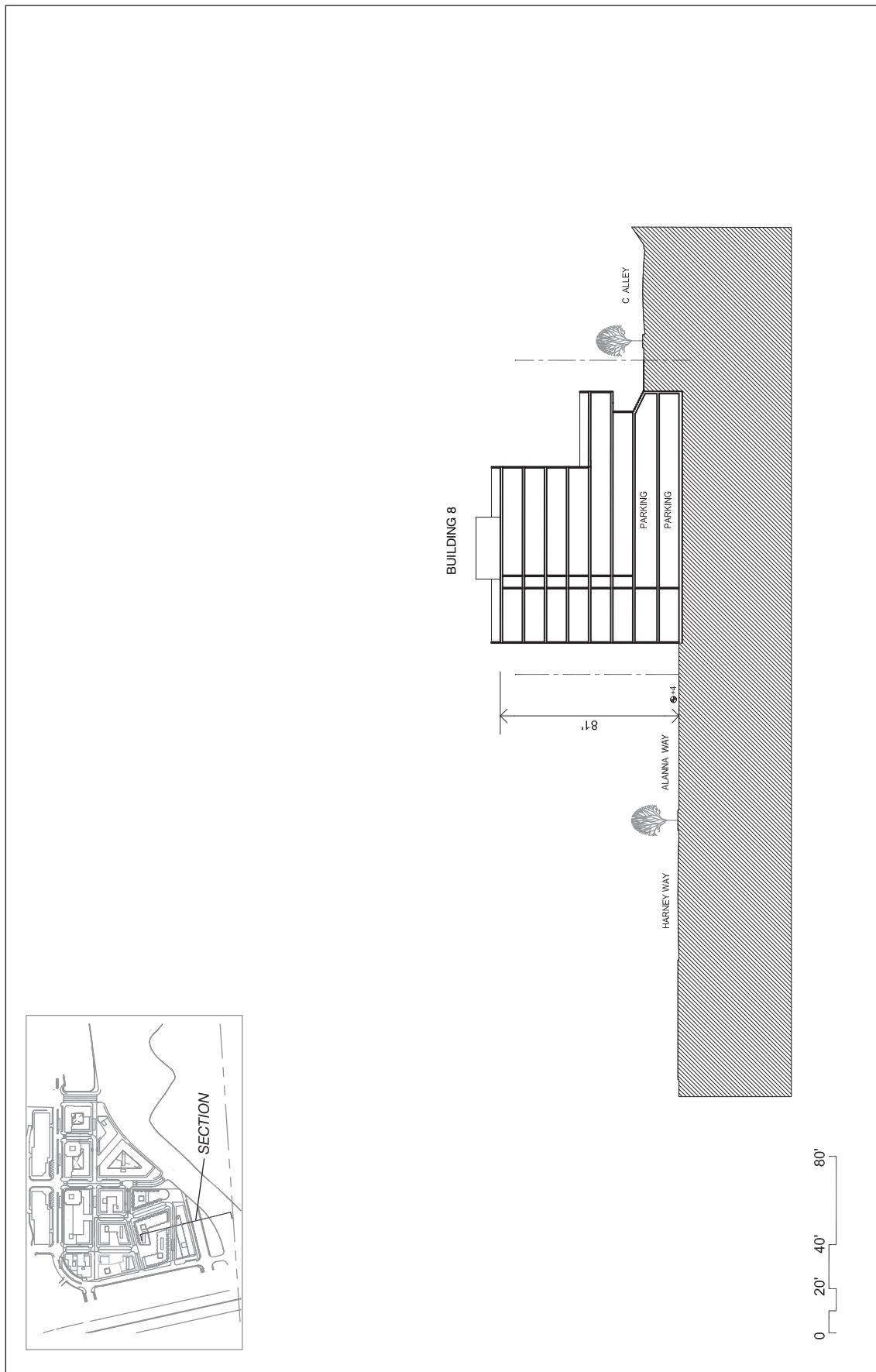


FIGURE III-16: UPC DEVELOPMENT PROJECT-BUILDING 7 SECTION

EXECUTIVE PARK

2006.0422E



SOURCE: C.Y. Lee Architects

EXECUTIVE PARK

2006.0422E

FIGURE III-17: UPC DEVELOPMENT PROJECT-BUILDING 8 SECTION

Table III-6: Proposed Space by Building and Type of Use, UPC Project

Building	Proposed Space (in Gross Square Feet)						Units
	Residential	Retail	Amenity	Service/Circ	Parking	Total	
1	67,000	0	2,200	14,700	32,800	116,700	47
2	355,400	11,300	4,100	70,400	150,500	591,700	304
3	92,900	6,300	1,100	18,400	47,600	166,300	74
4	297,600	16,300	3,300	69,200	146,700	533,100	257
5	132,500	0	1,100	20,000	69,400	223,000	120
6	75,400	18,200	2,200	12,900	39,200	147,900	64
7	209,200	18,200	2,800	26,700	83,600	340,500	162
8	<u>120,000</u>	<u>0</u>	<u>2,500</u>	<u>23,000</u>	<u>46,000</u>	<u>191,500</u>	<u>72</u>
Total	1,350,000	70,300	19,300	255,300	615,800	2,310,700	1,100

Note: GSF = gross square feet. Amenity space is common activity space for the use of project residents. Space totals have been rounded to nearest 100 gsf.

Source: C.Y. Lee & Partners/LTC Design Group

PROPOSED BUILDINGS

UPC Buildings 1, 2, 4, and 5 would be located along Executive Park Boulevard North. Buildings 2 and 4 would also front onto Thomas Mellon Drive. Building 3 would be adjacent to Thomas Mellon Drive and south of Building 2. Building 6 would be north of Harney Way and south of Buildings 4 and 5; Building 7 would be just north of Harney Way and east of Thomas Mellon Drive; and Building 8 would be in the southwest corner of the UPC site, just north of Alanna Way.

Buildings 1, 2, 3, 4, 5, and 8 would be separated from each other and from the proposed Yerby buildings by a grid of local streets and alleys. In addition, Building 1 would be bounded on one side by a pedestrian corridor. Buildings 6 and 7 may be separated from each other by a pedestrian corridor. (The pedestrian corridors are discussed under “Proposed Open Space and Landscaping.”)

Table III-7 shows the proposed number of floors and heights of each building.

As shown in the table, Buildings 1 and 3 would have heights of about 65 feet. Buildings 2 and 4 would consist of a high-rise tower at the east end, flanked by lower-rise sections to the west and south. The high-rise sections would be about 200 feet tall in Building 2 and about 240 feet tall in Building 4; the lower-rise sections would be about 65 feet to 85 feet tall. (See Figures III-12 to III-17.)

Table III-7: Proposed Floors and Building Heights, UPC Project

Building	Floors	Height
1	6	65
2	6/8/20	65/85/200
3	6	65.5
4	6/8/24	65/85/240
5	6/8	65/85
6	6/8	85
7	6/8	85
8	6/8	81

Note: Building heights are measured from the midpoint of the south-facing facades on Buildings 1, 6, and 8, the east-facing facades on Buildings 3 and 7, and the north- and south-facing facades on Buildings 2, 4, and 5.

Source: C.Y. Lee & Partners/LTC Design Group

Buildings 6 through 8 would be 65 to 85 feet tall, as measured on their northern/western sides, and 85 feet tall on the sides that face south. Mechanical penthouses would be constructed on top of all of the buildings; the penthouses would be approximately 16 feet tall, and exit stair towers would be approximately 10 feet tall.

The proposed UPC project would accommodate grade changes on the site into the proposed buildings. For example, the site grades at Buildings 1, 2, 4, and 5 would slope downward from north to south, so that the ground-level floor at the north end of the building would be one level above ground at the south end of the building. At Building 1, the grade would also slope downward from east to west, so that the ground-level floor at the east end of the building would be one level above ground at the west end. At Buildings 6 and 7, the grade would slope downward from north to south, so that the ground-level floor at the north end of the buildings would be two levels above ground at the south end. In some buildings, the top level of parking (Level B1) below the buildings would be partly shared by residential units and/or retail spaces that meet the street at grade. The fitness and commercial space fronting onto Harney Way would share the same grade level as the lowest level of parking for Buildings 6 and 7 (Level B3).

In general, the proposed buildings would be set back from the building site edges at ground level to accommodate residential and retail entrances and landscaping. The south end of Building 1 would be directly adjacent to landscaping and a pedestrian corridor; the west side of the building would step outward (from north to south) along the western site boundary, creating a series of landscaped setbacks. Buildings 2 and 4 would include setbacks at the street-level retail uses to help create the Town Center along Executive Park Boulevard North and Thomas Mellon Drive. The south end of Building 5 would be adjacent to landscaping and a pedestrian corridor.

Buildings 6 and 7 would include ground- and plaza-level setbacks for retail entrances and landscaping along the pedestrian corridors, and to help create the varied pedestrian and plaza spaces.

The incorporation of site grades into the buildings, as well as the use of building elements of differing heights, would create a variety of upper-floor building setbacks.

PROPOSED RESIDENTIAL USES

As shown in Table III-6, the UPC project would include about 1,350,000 gsf of residential uses in eight buildings. The approximately 1,100 proposed residential units would be comprised of about 188 one-bedroom units, about 706 two-bedroom units, and about 206 three-bedroom units. The units would be on all above-ground floors of the buildings. In addition, some of the buildings would provide exterior entrances for certain ground-level residential units. The buildings would include residential lobbies on the first floor or Level B1.

PROPOSED COMMERCIAL USES

As shown in Table III-6, p. III.39, the UPC project would include about 70,300 gsf of neighborhood-serving commercial uses in Buildings 2, 3, 4, 6, and 7. The commercial uses would include about 49,000 gsf of retail shops, services, and cafes/eateries.

The retail space at the north end of Buildings 2 and 4 would be accessed from a “town center” space along Executive Park Boulevard North and Thomas Mellon Drive. The retail space between Buildings 6 and 7 would front onto a proposed pedestrian corridor; the remainder of the retail space in Buildings 6 and 7 would front onto a second pedestrian corridor. Other proposed retail space would be accessed from Thomas Mellon Drive and A Alley. Canopies or marquees would be constructed for some of the retail spaces.

PROPOSED PARKING

Parking would be constructed below all of the proposed buildings on the UPC development site. Separate garages would be constructed beneath Buildings 1, 2, 3, 7, and 8; and a single garage would be constructed beneath Buildings 4, 5, and 6. The garages beneath Buildings 1, 3, 7, and 8 would have two levels; the garages beneath Building 2 and Buildings 4, 5, and 6 would have three levels. The lowest garage floor would be approximately 13 feet above San Francisco Datum at Building 1, about 5 feet at Buildings 2 and 3, about 7 feet at Buildings 4 through 7, and about 4 feet at Building 8. The lowest garage levels would vary in depth from the proposed ground level (from about 2 feet above the proposed grade to 30 feet below the proposed grade), because the development site and individual building sites would be sloped.

Combined, the garages would contain about 615,800 gsf of parking. The garages would provide about 1,677 residential parking spaces and about 375 dedicated bicycle parking stalls. Table III-8 shows the proposed allocation of spaces by garage. Parking for visitors and retail customers would be available on neighborhood streets.

Table III-8: Parking and Bicycle Spaces by Garage, UPC Project

Building	Vehicle Spaces	Bicycle Stalls
1	73	22
2	461	89
3	115	31
4/5/6	676	149
7	243	53
8	<u>109</u>	<u>31</u>
Total	1,677	375

Source: C.Y. Lee & Partners/LTC Design Group

SITE ACCESS, CIRCULATION, AND LOADING

The primary vehicle access to the UPC development site would be from Executive Park Boulevard North, Executive Park Boulevard West, and Thomas Mellon Drive. Vehicles would travel within the UPC site via a proposed street grid composed of D Street and E Street (north-south roads) and A Alley and C Alley (primarily east-west roads); Thomas Mellon Drive would also provide internal circulation. The streets would be constructed to be consistent with the Street Concept Plan, Circulation Plan, and street guidelines in the proposed amended Design Guidelines.

Vehicles would access the parking garages for Buildings 1 and 2 at D Street and the garage for Building 3 at E Street. Vehicles would access the parking garage for Buildings 4, 5, and 6 from multiple points along A Alley (however, right-turns from northbound Thomas Mellon Drive to A Alley would not be permitted); the garage for Building 7 would also be accessed from A Alley. The Building 7 garage would be accessed from C Alley.

Pedestrians would be able to enter the proposed buildings from elevators in the underground garage, ground-level entrances to building lobbies, and in some instances, doors to individual units at the ground level. Sidewalks would be provided along the frontage of all of the proposed buildings.

The proposed UPC project would include no more than one loading dock in each building. The loading docks would each provide one to two spaces for truck loading/unloading. All of the loading docks would be enclosed in the buildings with roll-down gates, except for Buildings 5 and 6 which would share an on-grade loading space.

PROPOSED OPEN SPACE AND LANDSCAPING

According to Planning Code Section 135, the open space requirements for the proposed project (which would be in an RC-3 District) would be about 60 square feet of private open space per residential unit; about 80 square feet of common open space per unit could be substituted for the private open space. These requirements would translate into about 66,000 square feet of private open space (1,100 units multiplied by 60 square feet per unit) or about 87,780 square feet if all open space were common for the use of all residents (1,100 units multiplied by 79.8 square feet per unit).

The UPC project includes private open space in each of the buildings, in the form of balconies for some of the individual units. The project also includes common open space in the form of landscaped courtyards at each building. Table III-9 shows the proposed private and common open space for each building. The table shows that the proposed open space would exceed the applicable Planning Code requirements for each building.

Table III-9: Open Space Requirements and Proposed Open Space, UPC Project

Building	Units	Private Open Space		Meets Code?
		Private	Common	
1	47	1,300	3,320	Yes
2	304	3,800	36,070	Yes
3	74	1,100	10,230	Yes
4	257	3,600	29,800	Yes
5	120	1,800	7,820	Yes
6	64	1,200	4,800	Yes
7	162	1,200	18,200	Yes
8	<u>72</u>	<u>1,300</u>	<u>7,200</u>	Yes
Total	1,100	15,300	117,440	Yes

Note: Planning Code Section 135 requirement in the RC-3 district is 60 square feet of private open space per residential unit, or 80 square feet of common open space per unit. Common open space numbers rounded to nearest 10 feet.

Source: C.Y. Lee & Partners/LTC Design Group, Turnstone Consulting

The UPC project would provide multiple areas of publicly accessible open space totaling about 20,700 square feet. These areas would include the pedestrian way to the south of Building 1, the portion of the pedestrian way to the south of Building 5; a park at the corner of Executive Park Boulevard East and Harney Way; the pedestrian way adjacent to Buildings 6 and 7; and part of the park at the corner of Thomas Mellon Drive and Harney Way.

The UPC project would include landscaping throughout the UPC site, along proposed roadways, within public access open space and residential common open space areas, and around individual buildings. The UPC project sponsor intends the proposed landscaping to be consistent with the landscaping and design guidelines in the proposed amended Subarea Plan and/or a Streetscape Master Plan and/or a stand-alone Design Guidelines document.

PROPOSED UTILITIES AND DRAINAGE

The UPC project would connect to the existing combined sewer/stormwater collection system, which includes major lines in Harney Way and Executive Park Boulevard West. Construction of additional sewer/stormwater lines would not be required.

PROPOSED FOUNDATION AND GRADING

The UPC project would use mat foundations where allowed by surface conditions; the potential for liquefaction could require that other foundation techniques be used beneath portions of the UPC development site, as determined by Department of Building Inspection review. The average depth of excavation would be approximately 8 feet to 23 feet below the ground surface. Approximately 174,400 cubic yards of soil would be removed from the UPC site. Table III-10 shows the average depth and estimated volume of excavation by building.

**Table III-10: Excavation Depth and Volume by Building,
UPC Project**

Building	Mean Excavation Depth (feet)	Excavation Volume (cubic yards)
1	11	8,500
2	23	50,100
3	16	15,400
4-5-6	16	68,400
7	10	23,200
8	8	<u>8,800</u>
Total		174,400

Note: Depths have been rounded to nearest foot. Volumes have been rounded to nearest 100 cubic yards.

Source: C.Y. Lee & Partners/LTC Design Group, Turnstone Consulting

PROJECT CONSTRUCTION

Project construction, including demolition, site and foundation work, construction of the parking garages, and construction of Buildings 1 through 8, would take about 10 years. Assuming that construction would begin in late 2011, the last building constructed could be ready for occupancy in 2021.

Construction of the eight buildings would be undertaken in four development phases, with each phase lasting approximately 15 months. The anticipated development phasing sequence would start with Building 7, progress to Buildings 4 through 6, then Buildings 1 through 3, and ending with Building 8. The actual development phasing sequence would depend on market conditions.

The initial phases of construction would last about 13 to 21 months, and would include demolition, excavation, and foundation work. Major excavation would take about three months during that time.

G. REQUIRED APPROVALS

The required approvals would include the following:

- Certification of the Final SEIR (Planning Commission, appealable to the San Francisco Board of Supervisors);
- Adoption of CEQA findings and mitigation monitoring programs for the proposed amended Subarea Plan, Yerby development project, and UPC development project (Planning Commission, Board of Supervisors);
- Planning Code Section 101.1 (Priority Policies) findings for the *Executive Park Subarea Plan* (Planning Commission, Board of Supervisors);
- Planning Code Section 340 approval of amendments to the *San Francisco General Plan* to amend the *Executive Park Subarea Plan*, a Subarea Plan of the *Bayview Hunters Point Area Plan* (Planning Commission, Board of Supervisors);
- Amendments to the Zoning Maps and Planning Code to establish the boundaries of and development standards for the proposed Executive Park Residential SUD, pursuant to the *Executive Park Subarea Plan* (Planning Commission, Board of Supervisors);
- Determinations that the Yerby and UPC development projects are consistent with the Executive Park Residential SUD regulations (Planning Commission, appealable to the Board of Appeals);
- San Francisco Department of Public Works approval of street improvements and other public infrastructure improvements;
- Municipal Transportation Agency approval of traffic control and striping changes, changes to MUNI routes and stops; and improvements in the public right-of-way related to MUNI;

III. Project Description

- Roadway changes and reconfiguration, including land exchange and street vacation, within the Executive Park Subarea (Board of Supervisors);
- Shadow impact determination under Planning Code Section 295 for the Yerby and UPC development projects (Recreation and Park Commission, Planning Commission);
- Approval of Tentative and Final Subdivision Maps for the Yerby and UPC development projects (Department of Public Works);
- Demolition, site, and building permits for the Yerby and UPC development projects (Department of Building Inspection); and
- Caltrans encroachment permit;
- Approval of transfer/acquisition of UPC land adjacent to Harney Way may be required for future development of off-site projects to the east of the Executive Park Area Plan.

IV. PLANS AND POLICIES

For informational purposes, this section provides a summary of relevant plans and policies of the City and County of San Francisco (City) and of the regional agencies that have policy and regulatory control over the project site. It also assesses the proposed project's potential to conflict with these plans and policies.

A. SAN FRANCISCO PLANS AND POLICIES

PRIORITY POLICIES

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 to the Planning Code to establish eight Priority Policies. These policies are (1) preservation and enhancement of neighborhood-serving retail uses; (2) protection of neighborhood character; (3) preservation and enhancement of affordable housing ; (4) discouragement of commuter automobiles; (5) protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership; (6) maximization of earthquake preparedness; (7) landmark and historic building preservation; and (8) protection of open space. The case report and approval motions for the proposed project will contain a comprehensive project analysis and findings regarding consistency of the proposed project with the Priority Policies.

Prior to issuing a permit for any project that requires an Initial Study under the California Environmental Quality Act (CEQA), and prior to issuing a permit for any demolition, conversion, or change of use, and prior to taking any action which requires a finding of consistency with the *San Francisco General Plan (General Plan)*, the City is required to find that the proposed project or legislation is consistent with the Priority Policies. The Planning Commission review of the project for consistency with the Priority Policies will take place during its final review of the required project approvals outlined in the Project Approvals section in Chapter 2 of this SEIR. The case report and approval motions for the project will contain the Department's comprehensive project analysis and findings regarding consistency of the proposed project with the Priority Policies.

SAN FRANCISCO GENERAL PLAN ELEMENTS

The *General Plan* is the embodiment of the City's vision for the future of San Francisco. It is comprised of a series of 10 elements, each of which deals with a particular topic that applies citywide: Air Quality, Arts, Commerce and Industry, Community Facilities, Community Safety, Environmental Protection, Housing, Recreation and Open Space, Transportation, and Urban Design Elements.

Development in the City is subject to the *General Plan*. The *General Plan* provides general policies and objectives to guide land-use decisions and contains some policies that relate to physical environmental issues. The Planning Department, the Zoning Administrator, the Planning Commission, the Board of Supervisors, and other City decision-makers will evaluate the proposed project in accordance with provisions of the *General Plan*, and will consider potential conflicts as part of the decision-making process. This consideration of *General Plan* objectives and policies is carried out independent of the environmental review process, as part of the decision to approve, modify, or disapprove a proposed project. Potential conflicts with provisions of the *General Plan* that would cause physical environmental impacts have been evaluated as part of the impacts analysis carried out for relevant, specific topics in this EIR. Any potential conflicts with General Plan objectives and policies not identified in the EIR could be considered in the project evaluation process and would not alter the physical environmental effects of the proposed project. The project would be reviewed by the Planning Commission in the context of all applicable objectives and policies of the *General Plan*.

EXECUTIVE PARK SUBAREA PLAN

The *General Plan* also contains ten area plans that identify specific localized goals and objectives for a neighborhood or district of the City. Among these is the *Bayview Hunters Point Area Plan*, which sets forth objectives and policies to guide the development of the southeastern corner of San Francisco. The *Executive Park Subarea Plan*, which focuses on the 71 acres that comprise Executive Park, is a more specific plan within the *Bayview Hunters Point Area Plan*. Proposed amendments to the *Executive Park Subarea Plan* are a subject of this SEIR.

The proposed amendments to the Subarea Plan, development projects, and variants would be inconsistent with current provisions of the existing Subarea Plan. The proposed amendments to the Subarea Plan will therefore be necessary in order to implement the proposed development projects or project design variants.

Existing Subarea Plan

The existing Executive Park Subarea Plan addresses development in the Subarea Plan Area. The Subarea Plan seeks to “create, as a ‘gateway to the city,’ a balanced urban development ...” The Land Use Plan within the existing Subarea Plan reflects the proposed site plan from the 1985 SEIR, and includes the three existing office buildings, housing to the east (in the area occupied by the St. Francis Bay development), office and retail structures north of Executive Park Boulevard North, a hotel at Thomas Mellon Circle, and a restaurant south of Alanna Way. Policies 19.1 through 19.5 in the existing Subarea Plan address the amounts and locations of these land uses, and Policy 19.6 addresses open space and building coverage. The existing Subarea Plan also includes several transportation policies: implementing a transportation management program (Policy 19.7), limiting parking (Policy 19.8), and providing shuttle service (Policy 19.9).

Proposed Amended Subarea Plan

The overall vision of the proposed amended Subarea Plan is expressed as follows:

Executive Park is now an office park with some housing on the far eastern end. The office buildings are surrounded by surface parking and the housing is internally focused and gated. The area as it exists does not provide a physical framework for supporting a vital San Francisco neighborhood. The [proposed] Subarea Plan challenges this pattern. It envisions a new San Francisco neighborhood: a mixed-used residential neighborhood with attractive public streets and open space connectivity. This pervasive public quality would be achieved through a street and open space system that knits all the various neighborhood parts together and in turn links the neighborhood to its surroundings. The plan focuses on providing a welcoming environment for visitors and residents to the area through the creation of good streets, good urban design, and sound land use policies.¹

The proposed amended Subarea Plan, the proposed Yerby and UPC development projects, and variants are not consistent with Policies 19.1 and 19.3 of the existing Subarea Plan. Policy 19.1 calls for the development of up to 1.7 million square feet of office space, and Policy 19.3 calls for the development of an approximately 350-room tourist hotel.

Environmental Protection Element, Transportation Noise.

The Transportation Noise Plan Element of the City's *General Plan* contains objectives and policies directed toward achieving an environment in which noise levels will not interfere with the health and welfare of people and their everyday activities. The plan specifies quantitative noise compatibility guidelines for various types of land uses. These guidelines are primarily used for determining the compatibility of new noise sensitive development. For example, residential land use is considered "satisfactory" when exposed to a Day/Night Average Sound Level (L_{dn}) of 60 dBA or less. Above this sound level, new construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design.

Information developed for the San Francisco Department of Public Health indicates that noise levels within Executive Park range from 65 dBA L_{dn} to 70 dBA L_{dn} .² Therefore the proposed buildings would be required to incorporate additional sound attenuation features. (The installation of sound walls along U.S. 101, recommended by the Department of Public Health

¹ San Francisco Planning Department, Revised Draft *Executive Park, a Subarea Plan of the Bayview Hunters Point Area Plan*, March 19, 2009, p. 1.

² San Francisco Department of Public Health (SFDPH), Executive Park Subarea Plan Health Impact Assessment, draft report, accessed at http://www.thehdm.org/executive_park.php, September 18, 2008.

report, is not within the authority of the project sponsors.) Therefore, the project sponsors would implement Mitigation Measure Noise-2 (see NOP/IS, Appendix A, p. 101), which includes a detailed analysis of the noise reduction requirements for the projects and the incorporation of the required features into the project design. In addition, the Department of Building Inspection would review the final building plans to ensure compliance with Title 24 noise standards.

For those reasons, the impact of exterior noise levels on the proposed residences within the Subarea Plan Area would not be significant.

SAN FRANCISCO PLANNING CODE

The San Francisco Planning Code (Planning Code), which incorporates by reference the City's Zoning Maps, implements the *General Plan* and governs permitted uses, densities, and configuration of buildings within the City. Permits to construct new buildings (or to alter or demolish existing ones) may not be issued unless (1) the proposed project conforms to the Planning Code, (2) allowable exceptions are granted pursuant to provisions of the Planning Code, or (3) amendments to the Planning Code are included as part of the project.

The proposed Subarea Plan, development projects, and project design variants are inconsistent with existing zoning, density, and height and bulk controls. Amendments to the Planning Code, Zoning Map, and the existing height and bulk districts would be necessary to implement the proposed development projects and design variants, as discussed below.

Zoning

Existing Zoning

Most of the Subarea Plan Area is within a C-2 (Community Business) District; the southwestern tip (part of the UPC development site) is within an M-1 (Light Industrial) District (see Figure III-3, p. III.7). Community Business Districts, as described in Section 210.2 of the Planning Code, "provide convenience goods and services to residential areas" and "provide comparison shopping goods and services on a general or specialized basis to a citywide or regional market area, complementing the main area for such types of trade in downtown San Francisco." As described in Section 210.5 of the Planning Code, M-1 Districts provide land for industrial development, particularly for smaller industries dependent upon truck transportation.

Proposed Zoning

The proposed Yerby and UPC development projects and variants would exceed the maximum residential density for the C-2 District. As part of the proposed amended Subarea Plan, there would be legislative amendments to change the current zoning controls and establish the Executive Park Special Use District (SUD). The underlying zoning would change from C-2 to

RC-3 (Residential-Commercial Combined, Medium Density), which has a maximum residential density that is twice that of the current C-2 zoning. In addition, the Executive Park SUD would include specific development standards and design guidelines that would be unique to the Yerby and UPC development sites. As described in Section 206.3 of the Planning Code, RC-3 Districts provide for a mixture of medium-density dwellings with supporting commercial uses. The commercial uses, which are generally located on or below the ground floor, are those permitted in C-2 Districts.

Height and Bulk Districts

Existing Height and Bulk Districts

Height and bulk districts express the building height limit (e.g., 100 feet in a 100-G Height and Bulk District) and the bulk limitations (e.g., the “G” symbol limits the maximum plan dimensions above a certain height, in this case, to 170 feet by 200 feet, above a height of 80 feet). The existing height and bulk districts in the Subarea Plan Area are 40-X, 60-X, 80-X, 100-G, 140-H, 165-I, and 200-I. Pursuant to Section 270 of the Planning Code, the “X” designation exempts buildings from bulk requirements. The G, H, and I bulk designations restrict building plan dimensions to a maximum length of 170 feet and a maximum diagonal of 200 feet above heights of 80, 100, and 150 feet, respectively, thereby providing setbacks at the upper levels.

The 40-X Height and Bulk District covers the northern part, the eastern end, and most of the southwestern part of the Subarea Plan Area; the districts allowing the tallest heights are within the Signature Properties development site, just north of Executive Park Boulevard North (see Figure III-5, p. III.17). Most of the Yerby development site is in a 40-X Height and Bulk District; a small area adjacent to Thomas Mellon Drive is within an 80-X Height and Bulk District. The northern and southwestern parts of the UPC development site are within a 40-X Height and Bulk District; the southeastern part of the development site is within an 80-X Height and Bulk District. The proposed development projects are inconsistent with the existing height and bulk districts.

Proposed Height and Bulk Districts

The proposed Subarea Plan would call for changing the height and bulk districts on the Yerby and UPC development sites from 40-X and 80-X to the following: 65/85-EP, 68-EP, 85/170-EP, 85/200-EP, and 85/240-EP. The height and bulk districts within the rest of the Subarea Plan Area would remain unchanged. The areas with the tallest buildings allowed would be in the north-central and northwestern parts of the Subarea Plan Area. Buildings with mid-range heights would be allowed in the southern and southeastern parts of the Subarea Plan Area. The proposed Design Guidelines include limits for building floor plates and dimensions for all new buildings taller than 85 feet.

OTHER LOCAL PLANS AND POLICIES

Other local plans and policies reviewed against the proposed project were the *Bayview Hunters Point Area Plan*, *Better Streets Plan*, *San Francisco Sustainability Plan*, the *Climate Action Plan*, the Transit First Policy, the San Francisco Congestion Management Program, and the *San Francisco Bicycle Plan*. In preparation of this SEIR, the proposed project was reviewed against these policies. The proposed project would not conflict with these local plans and policies.

B. REGIONAL PLANS AND POLICIES

The five principal regional planning agencies and their policy plans that guide planning in the nine-county Bay Area are (1) the Association of Bay Area Governments' *San Francisco Bay Area Housing Needs Plan 2007-2014* and *A Land Use Policy Framework and Projections 2005*; (2) the Bay Area Air Quality Management District's *Clean Air Plan* and *Bay Area 2005 Ozone Strategy*; (3) the Metropolitan Transportation Commission's *Regional Transportation Plan – Transportation 2030*; (4) the San Francisco Regional Water Quality Control Board's *San Francisco Bay Basin Plan*; and (5) the San Francisco Bay Conservation and Development Commission's *San Francisco Bay Plan*. The proposed project would not conflict with these regional plans and policies.

V. ENVIRONMENTAL SETTING AND IMPACTS

This chapter is organized by environmental topic and addresses 12 topics that were identified in the Initial Study as requiring further study in this EIR: Land Use; Aesthetics; Population; Housing; Archaeological Resources; Transportation; Noise; Air Quality; Shadow; Recreation; Water Supply; and Police and Fire Services. In each of these environmental sections, existing conditions in the Subarea Plan Area are described first under the heading “Setting.” These existing conditions serve as the baseline for analysis of potential environmental impacts, under the heading “Impacts,” including program-level and project-specific impacts that would result from implementation of the Subarea Plan. Cumulative impacts from the overall Area Plan, the specific development projects and project design variants within the Area Plan, and reasonably foreseeable future development are analyzed for each environmental topic when appropriate. Under the heading “Mitigation and Improvement Measures,” mitigation measures are identified to avoid, eliminate, or reduce significant adverse impacts of the proposed project. Where called for, improvement measures are also identified to reduce the effects of impacts that would be less than significant.

A. LAND USE

This section examines the effects of the proposed amended Subarea Plan and the proposed Yerby and UPC development projects and variants related to Land Use. The Setting discussion describes the existing land uses and zoning in the existing Subarea Plan Area, while the Impacts discussion identifies significance criteria for land use impacts and analyzes the changes in land use, zoning, and height and bulk limits that would occur if the proposed Subarea Plan were implemented. Finally, cumulative effects with the proposed Subarea Plan and reasonably foreseeable development are discussed. Land use is discussed at a program level for the proposed Subarea Plan and at a more detailed, project-specific level for the proposed Yerby and UPC development projects and variants.

SETTING

EXISTING NEARBY AND ADJACENT USES

The Subarea Plan Area vicinity is characterized by public open space and recreation facilities, views of San Francisco Bay, major transportation corridors, and a mix of residential, commercial, and industrial uses (see Figure V.A-1: Existing Land Uses in the Subarea Plan Area and Vicinity).



SOURCE: Turnstone Consulting

EXECUTIVE PARK

2006.0422E

Existing Nearby Uses

Uses in the vicinity include the Bayview Hunters Point, Little Hollywood, and Visitacion Valley neighborhoods; two waste management facilities; and the Brisbane Baylands to the southwest.

The Bayview Hunters Point neighborhood, commonly referred to as the Bayview, is located north and northeast of the Subarea Plan Area beyond Bayview Hill. Bayview Hunters Point is a predominantly industrial and residential area; commercial uses are concentrated along Third Street, the primary corridor. Historically, the neighborhood has been the location of the City's heaviest industrial uses and its greatest concentration of public housing. The neighborhood includes the former Hunters Point Shipyard, a 500-acre area that once housed naval ship repair facilities. Bayview Hunters Point is the subject of a variety of redevelopment efforts, including the *Bayview Hunters Point Redevelopment Plan* and the *Hunters Point Shipyard Redevelopment Plan*. Phase I of the *Hunters Point Shipyard Redevelopment Plan* is being implemented with the construction of up to 1,600 housing units.¹

U.S. 101 separates the Subarea Plan Area from the Little Hollywood and Visitacion Valley neighborhoods to the west and northwest. The homes in these neighborhoods are predominantly single family, and Bayshore Boulevard and Leland Avenue are the main commercial corridors. In Phase I of the Third Street light rail project, service was extended along Bayshore Boulevard to Sunnysdale Avenue. The Visitacion Valley neighborhood is the subject of the *Visitacion Valley Redevelopment Plan*, which is discussed below.

Industrial and public facility uses to the west and southwest of the Subarea Plan Area include the Sunset Scavenger Company and SF Recycling and Disposal, Inc. waste management facilities, both of which are subsidiaries of Norcal Waste Systems, Inc.

Existing Adjacent Uses

Adjacent uses include Bayview Hill Park, which sits atop Bayview Hill to the north; the Candlestick Point Special Use District (which includes Candlestick Park stadium) to the east; Candlestick Point State Recreation Area to the east and south; San Francisco Bay to the south; and U.S. 101 to the west. These uses and the topography of the area isolate the Subarea Plan Area from the neighborhoods to the northeast, north, and west.

¹ San Francisco Office of Economic and Workforce Development website, http://oewd.org/Development_Projects-Candlestick_Park_-_Hunters_Point_Shipyard.aspx. Accessed March 25, 2009.

Bayview Hill Park² is a 36-acre natural open space area under the jurisdiction of the San Francisco Recreation and Park Department. Primary public access is via Key Avenue on the north side of the park; currently, there is no direct access from the Subarea Plan Area. The park includes a network of paved roads and trails, and a radio tower within the park is operated through an easement with the City. A draft *Significant Natural Resource Area Management Plan* has been prepared for Bayview Hill Park, and it includes recommendations for vegetation management, recommendations for improvements to wildlife habitat, measures to encourage use of established trails, and measures to control erosion.³

Candlestick Park, directly east of Executive Park, is home to the National Football League's San Francisco 49ers football team. The 49ers typically play 11 pre-season and regular season games at home, plus up to 3 post-season games. The stadium capacity for football games is approximately 71,000 people.⁴ In addition, Candlestick Park hosts about 10 other events throughout the year, including soccer games, concerts, and auto/motorcross races. Typical attendance for these events is between 10,000 and 40,000.

Candlestick Point State Recreation Area is a 252-acre regional open space with active and passive recreational opportunities.⁵ The park extends south from Yosemite Slough, along the east side of Candlestick Park, and along the south side of Harney Way. The park includes hiking and cycling trails, a community garden, fishing piers, picnic areas, and a windsurfing launch area. A segment of the Bay Trail, a regional multi-use trail, traverses the park.

U.S. 101 is a north-south freeway with eight lanes in the vicinity of the Subarea Plan Area. In 2009 (the most recent year for which data are available), U.S. 101 carried an average of 188,000 vehicles each day.⁶ Underpasses at Blanken Avenue and Beatty Avenue provide access to the neighborhoods west of U.S. 101. A landscaped berm separates the freeway from Executive Park Boulevard West.

² This park is also referred to as Bayview Hill Natural Area in the facility listings on the San Francisco Recreation and Park Department website, http://www.parks.sfgov.org/site/recpark_index.asp?id=1503#b, accessed March 25, 2009.

³ Section 6.17, Final Draft of *Significant Natural Resource Area Management Plan*, February 2006, http://www.parks.sfgov.org/site/recpark_index.asp?id=32662, accessed March 25, 2009.

⁴ San Francisco Recreation and Park Department website, http://www.parks.sfgov.org/site/recpark_index.asp?id=18977, accessed March 25, 2009.

⁵ Candlestick Point State Recreation Area park brochure, <http://www.parks.ca.gov/pages/519/files/CandlestickPt.pdf>, accessed March 25, 2009.

⁶ Caltrans data on freeway volumes, 2009, <http://www.dot.ca.gov/hq/traffops/saferest/trafdata/2009all.htm>, accessed September 13, 2010.

EXISTING AND APPROVED USES IN THE SUBAREA PLAN AREA

The existing and approved uses in the Subarea Plan Area are discussed in Chapter III, Project Description. As discussed in that chapter, the Subarea Plan Area is developed with office, parking, and retail uses along the south side of Executive Park North Boulevard. There are existing residential uses at the eastern end of the Subarea Plan Area. Approved uses that are currently or will be under construction in the Subarea Plan Area include parking, residential, restaurant, and retail on the north side of Executive Park North Boulevard.

PROPOSED AND APPROVED DEVELOPMENT IN THE SUBAREA PLAN VICINITY

Several development proposals in the vicinity of the Subarea Plan Area are recently approved or are under consideration. The recently approved Candlestick Point-Hunters Point Shipyard Phase II (CPHPSII) Project, a plan for the redevelopment of the Candlestick Point and Hunters Point Shipyard; India Basin; the demolition and reconstruction of the Hunters View public housing project; a redevelopment program within the Visitacion Valley neighborhood across U.S. 101 and west of the Subarea Plan Area; a Phase I Specific Plan and later phase plans for redevelopment of the Brisbane Baylands area across U.S. 101 and southwest of the Subarea Plan Area. There are also several potential development projects in Daly City that are at various stages of conceptualization, including the Cow Palace (about 1,500 residential units and about 280,000 square feet of commercial space), the Carter and Martin commercial and Research and Development site adjacent to the Cow Palace, and the Midway Village apartment complex (about 200 dwelling units).

The CPHPSII Project is a plan for the redevelopment of the Candlestick Point and Hunters Point Shipyard areas of San Francisco, encompassing an approximately 702-acre area east of U.S. 101 on the waterfront. The plans consists of a new stadium for the San Francisco 49ers and a mixed-use community with residential, retail, office/research & development (R&D)/industrial, civic and community uses, and parks and recreational open space (should the 49ers relocate to another city, the stadium area would be developed with other such uses). The proposed development plan for the Candlestick Point and Hunters Point Shipyard areas includes approximately 10,500 dwelling units, 885,000 square feet of retail uses, 2 million square feet of office/R&D/industrial uses, a 69,000-seat stadium, and a 10,000-seat arena.

The San Francisco Planning Department and the [Redevelopment Agency](#) are in the midst of a collaborative planning process to create new land use controls, design guidelines, and a redevelopment program for India Basin area. The proposed rezoning for the India Basin area would accommodate a mix of residential and commercial uses, along with some continued industrial use and development controls to facilitate mixed-use development.

Hunters View is a 267-unit public housing project in Bayview Hunters Point that was constructed in 1956. In 2005, faced with the reality that Hunters View had deteriorated beyond repair and would soon become uninhabitable, the San Francisco Housing Authority selected a development team to collaborate with the residents, the community, and the City to demolish and reconstruct Hunters View. The project consists of 650 to 800 units (including the one-for-one replacement of all 267 existing units), a childcare center, neighborhood-serving retail uses, parks, and new infrastructure.⁷ The first phase of demolition and construction began in 2009, and the entire project is expected to be completed in 2015.⁸

On February 3, 2009, the San Francisco Redevelopment Commission adopted the *Visitacion Valley Redevelopment Plan* for a 35-acre area within the Visitacion Valley neighborhood.⁹ The irregularly-shaped redevelopment project area, which is generally bounded by Tunnel Avenue on the east, the city/county limit on the south, Bayshore Boulevard on the west, and Arleta Avenue on the north, includes a four-block-long “panhandle” along Leland Avenue from Bayshore Boulevard to Rutland Street. It is estimated that the proposed redevelopment program would facilitate a net increase of approximately 1,600 units of housing, 132,000 square feet of retail space, and 25,000 square feet of neighborhood cultural, institutional, and educational space.¹⁰ On April 28, 2009, the San Francisco Board of Supervisors adopted the *Visitacion Valley Redevelopment Plan*.¹¹

The Brisbane Baylands Planning Subarea, a 659-acre site planned for redevelopment, is to the southwest of the Subarea Plan Area across U.S. 101 in the city of Brisbane. Commonly known as the Baylands, the area was once used as a railroad yard and a municipal landfill. A Phase I Specific Plan has been proposed for the 446-acre eastern portion of the Baylands that includes approximately 107 acres of commercial uses, 68 acres of office/institutional uses, 118 acres of aquatic open space, 99 acres of upland open space/open area, and 54 acres of right-of-way. These uses would accommodate up to five million square feet of retail, office, hotel, and light industrial uses. An Alternative Plan is still being prepared through the community process. The Phase I

⁷ San Francisco Planning Department, *Hunters View Redevelopment Project Final EIR*, certified June 12, 2008.

⁸ San Francisco Housing Authority website, http://www.sfha.org/hopesf/hunters_view.htm, accessed on September 8, 2009.

⁹ Minutes from the February 3, 2009 meeting of the San Francisco Redevelopment Commission. Available on the San Francisco Redevelopment Agency website, http://sfgov.org/site/sfra_meeting.asp?id=21846, accessed March 25, 2009.

¹⁰ San Francisco Planning Department, *Visitacion Valley Redevelopment Program Draft EIR*, published June 3, 2008. Available on the San Francisco Redevelopment Agency website, http://www.sfgov.org/site/sfra_page.asp?id=33654 accessed March 25, 2009.

¹¹ Minutes from the April 28, 2009 meeting of the San Francisco Board of Supervisors. Available on the San Francisco Board of Supervisors website, http://www.sfgov.org/site/bdsupvrs_page.asp?id=104615, accessed on September 4, 2009.

Specific Plan would undergo environmental review after the alternative plan is determined. A proposed framework plan that addresses overall land use, infrastructure, and future phases of development within the remainder of the 659-acre Baylands has also been prepared.^{12, 13}

The three potential development projects in Daly City are at various stages of conceptualization, but no formal applications or proposals have been submitted for review.¹⁴ These anticipated projects are the Cow Palace project (approximately 1,500 dwelling units and 280,000 square feet of commercial space), the Carter and Martin project, and the Midway Village project (approximately 200 units, approximately 80,000 square feet of commercial space, and 193,000 square feet of R&D space).

IMPACTS

EFFECTS ADDRESSED IN PRIOR ENVIRONMENTAL REVIEW

Previous environmental analyses of Executive Park development include an EIR in 1976 (“1976 EIR”), a Subsequent EIR in 1985 (“1985 FSEIR”), a Supplemental EIR in 1999 (“1999 FSEIR”), and EIR Addenda in 2005 and 2007.

The 1976 EIR, which analyzed a development project that included office space, a tourist hotel, convention/restaurant/retail space, and parking, concluded that implementation of the development project would result in (1) a change in land use on the project site, (2) an increase in population on the project site, and (3) a diminished sense of open space.

The 1985 FSEIR analyzed a revised development project that included office space, a tourist hotel, restaurant/retail space, residential uses, and parking. The 1985 FSEIR concluded that the revised development project would not change the existing character of the surrounding neighborhoods or have a direct impact on the industrial uses west of U.S. 101. However, it also concluded that implementation of the project could cause growth-inducing effects on nearby land uses.

¹² Initial Study for the Brisbane Baylands Phase I Specific Plan, City of Brisbane, February 22, 2006. Available on the City of Brisbane website, <http://www.ci.brisbane.ca.us/html/cityDept/comDev/baylands.asp>, naccessed March 25, 2009.

¹³ Brisbane Baylands Phase I Specific Plan. Available on the City of Brisbane website, http://www.ci.brisbane.ca.us/Content.asp?Cat_Id=240000724&C_ID=240000625, accessed March 25, 2009.

¹⁴ Telephone conversation with Victor Spano of the Economic and Community Development Department, City of Daly City, on March 25, 2009.

The 1999 FSEIR analyzed a proposal to modify certain aspects of the development project that was analyzed in the 1985 FSEIR. The modifications included a more even distribution of retail and restaurant uses throughout the project, a reduction in residential units (from 600 to 550), and an increase in parking (up to an additional 1,870 spaces), and a Residential Variant in which the previously analyzed hotel would be replaced by up to 258 residential units. The 1999 FSEIR concluded that while the revised development project would intensify land use on the project site, the project would be compatible with existing land uses in the vicinity of Executive Park and would not disrupt or divide the physical arrangement of an established community.

The 2005 Addendum analyzed a proposal to modify the Signature Properties portion of the development program that was analyzed in the 1999 FSEIR. Specifically, the 2005 Addendum analyzed a proposal to replace 1,324,000 square feet of office space with 499 residential units, 12,500 square feet of retail space, 2,500 square feet of restaurant space, and 720 parking spaces. The 2005 Addendum concluded that the Signature Properties development project would be compatible with existing land uses in the vicinity of Executive Park and would not disrupt or divide the physical arrangement of an established community.

The 2007 Addendum analyzed a proposal to modify the Top Vision portion of the development program that was analyzed in the 1999 FSEIR. Since the modified project consisted of reductions in the number of residential units (from 504 to 465) and parking spaces (from 875 to 776) that were analyzed in the 1999 FSEIR, the 2007 Addendum concluded that the Top Vision development project would be compatible with existing land uses in the vicinity of Executive Park and would not disrupt or divide the physical arrangement of an established community.

SIGNIFICANCE THRESHOLDS

The City has not formally adopted significance standards for impacts related to land use, but generally considers that implementation of a project could have a potentially significant impact related to land use if the project were to:

- 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;
- Physically divide an established community; or
- Have a substantial impact upon the existing character of the vicinity.

The proposed amended Subarea Plan and the proposed Yerby and UPC development projects and design variants conflict with certain land use plans and policies, and those conflicts are discussed in Chapter IV, Plans and Policies. The Initial Study (Appendix A of this SEIR) concluded that the proposed amended Subarea Plan and the proposed Yerby and UPC development projects and variants would not physically divide an established community and would not have a substantial

adverse impact upon the existing character of the vicinity. Although the land use impacts were determined to be less than significant, a detailed discussion of land use impact has been included below for informational purposes.

IMPACT EVALUATION

Impact LU-1: The Amended Subarea Plan and development projects would not have a substantial impact on the existing character of the vicinity or result in conflicts between incompatible land uses. (*Less than Significant*)

The proposed Subarea Plan amendments would set forth objectives and policies to guide the Subarea Plan Area's transition from a primarily office-oriented development to a residential neighborhood. The program-level land use changes would include new zoning controls and new height and bulk limits, which would result in substantial physical changes to the land use character of the Subarea Plan Area. As discussed in Chapter IV, Plans and Policies, the proposed Subarea Plan would conflict with existing zoning and height and bulk controls. A number of legislative amendments would be required to implement the proposed Subarea Plan. Conflict with existing controls does not alter the physical environmental effects of the proposed Subarea Plan amendments.

Rather than dividing an established community, the program-level land use changes would allow for the expansion of the residential community that currently exists and is under construction. The intent of the Subarea Plan's proposed Street Network is to enhance pedestrian, vehicular, and bicycle connections with existing and approved development within the Subarea Plan Area and with nearby communities.

The existing land use character of the Subarea Plan Area vicinity is a mix of retail, residential, open space, and industrial uses. There is a retail corridor along Bayshore Boulevard, three residential neighborhoods (Bayview Hunters Point, Little Hollywood, and Visitacion Valley), a number of public open spaces and parks (Bayview Hill Park, Candlestick Point State Recreation Area, Gilman Playground, Little Hollywood Park, McLaren Park, Visitacion Valley Greenway, and Visitacion Valley Playground), and some industrial uses (the Sunset Scavenger and San Francisco Recycling and Disposal waste management facilities). The proposed residential and retail/restaurant uses would be compatible with the existing character of nearby communities. There would be no land use conflicts with nearby industrial uses or the Brisbane Baylands, which are physically separated from the Subarea Plan Area by U.S. 101.

The proposed Subarea Plan amendments would allow substantially taller buildings within the Yerby and UPC portion of the Subarea Plan Area. As discussed in Section V.B, Aesthetics, the Subarea Plan would include Urban Design Guidelines to ensure that new construction would provide "a welcoming environment for visitors and residents of the area through the creation of

good streets, good urban design and sound land use policies.” The proposed Subarea Plan would reinforce and enhance the residential character of the Subarea Plan Area.

For these reasons, the proposed Subarea Plan would have a less-than-significant impact related to land use, and no mitigation measures would be necessary.

Impact LU-2: The proposed Amended Subarea Plan and development projects would not physically disrupt or divide an established community. (*Less than Significant*)

The Yerby development project would replace a three-story office building and surface parking for approximately 300 vehicles with residential, retail, and open space uses, and the UPC development project would replace two four-story office buildings and surface parking for approximately 530 vehicles with residential, retail, and open space uses, and with approximately 2,400 parking spaces within underground parking garages. Although the proposed change in land use from office to residential would constitute a substantial physical change to the project site, the Yerby and UPC development projects would not physically disrupt or divide an established community. In recent years, two high-density residential projects (Signature Properties and Top Vision) have been under construction several hundred feet to the north and east of the proposed development projects, and the Yerby and UPC development projects would be similar to and compatible with these other high-density residential projects to the north and east within the Subarea Plan Area, thus enhancing and expanding the established community rather than disrupting or dividing it. As discussed in Section V.B. Aesthetics, the proposed Yerby and UPC development projects would be required to conform to the proposed Urban Design Guidelines. The proposed Yerby and UPC development projects would reinforce and enhance the residential character of the Subarea Plan Area. Since the Yerby and UPC development projects expand the existing residential community and enhance the residential character of Executive Park; would not physically disrupt or divide an established community; and would not adversely affect the existing character of the vicinity, the proposed change in land use, therefore, would not be a significant impact. No mitigation measures would be necessary.

Under Design Variant A (which calls for changes in building setbacks and façade articulation along certain internal streets and alleys) and Design Variant B (which would reconfigure Buildings 6 and 7, creating a single continuous streetwall along Harney Way), impacts related to land use would be substantially the same as described for the proposed Yerby and UPC development projects. The variants would not change proposed building height, scale, density, and the mix and character of land uses from that of the proposed Yerby and UPC development projects.

Impact LU-3: The proposed development projects, when considered with other development projects proposed in the vicinity, would not contribute considerably to cumulative land use impacts. (*Less than Significant*)

In addition to the proposed Yerby and UPC development projects, there are several other development projects being proposed in the vicinity of the Subarea Plan Area. These other development projects include the CPHPSII Project, the Hunters View Project, the *Visitacion Valley Redevelopment Plan*, the Brisbane Baylands, and three development projects in Daly City that are at various stages of conceptualization.

As development occurs to the area east of the Subarea Plan Area, the CPHPSII Project, Harney Way would be widened and modified to accommodate transit service and capacity enhancements within an expanded roadway right-of-way. The provision of future enhanced transit service and expansion of the roadway right-of-way would be addressed as part of the proposal for the CPHPSII Project and are not part of the project analyzed in this SEIR. Similarly, the potential construction of an interchange at U.S. 101 and Harney Way to serve future development, as identified in the *Brisbane General Plan* and the *Bi-County Transportation Plan*, is not part of the proposed project. The proposed Yerby and UPC development projects described in this chapter have been designed to generally accommodate currently anticipated right-of-way requirements (based on the locations and designs under consideration) for a widened Harney Way and future freeway interchange improvements. Even without the widening of Harney Way and/or the future freeway interchange improvements, the proposed Yerby and UPC development projects would be compatible with existing and proposed land uses in the vicinity of the Subarea Plan Area.

The Subarea Plan Area is physically separated from the other development sites by Bayview Hill to the north and U.S. 101 to the west, so the cumulative land use impacts attributable to the proposed Yerby and UPC development projects or their design variants would be minimized. Although the other development projects would introduce residential, R&D, recreation, office, institutional, industrial, and commercial uses to the southeast corner of San Francisco, these types of land uses already exist at lower intensities in the vicinity of the Subarea Plan Area. For these reasons, the proposed Yerby and UPC development projects and variants would not combine with the other development projects to create incompatible land uses or cumulative impacts on established communities. No mitigation measures would be necessary.

The proposed Yerby and UPC development projects and variants, and the other proposed development projects, would intensify land uses in the southeastern corner of San Francisco. One of the primary effects of cumulative development would be an increase in vehicle and pedestrian activity. The transportation and circulation impacts of cumulative development are analyzed in Section V.E, Transportation and Circulation.

B. AESTHETICS

The Setting discussion in this section describes the existing visual character of the Executive Park Subarea Plan Area; presents and describes photographic views of existing conditions of the project site and its visual setting; and identifies existing scenic views and scenic resources in the area that could be potentially affected by the proposed project. The Impacts discussion begins by reviewing the visual effects addressed in prior environmental review of Executive Park, identifies the considerations applied when evaluating the significance of impacts on visual quality, and describes and evaluates impacts on visual and scenic resources and visual quality with reference to visual simulations prepared for the proposed project.

SETTING

EXISTING VISUAL CONDITIONS

Subarea Plan Area

The Subarea Plan Area is located at the southern and southeastern foot of Bayview Hill. Consistent with the 1985 SEIR and for the purposes of this discussion, the Subarea Plan Area consists of three main areas (see Figure III-2, p. III.5).

The Yerby and UPC Development Sites

The Yerby and UPC development sites occupy the flat southern portion of the Subarea Plan Area (the lowland portion) bounded by Executive Park Boulevard, West, North, and East and by Harney Way at the edge of the Bay. Much of this area lies on fill. The Yerby and UPC development sites have low visibility from low-lying surrounding areas. U.S. 101 to the west, running atop a steep landscaped berm, is a visual barrier that interrupts views of this area from the west, and views from this area to the west. However, this area is prominent from U.S. 101, especially when traveling northbound.

The existing visual character of Area 1 is substantially similar to that described in the 1985 SEIR, except that, in addition to Buildings OB 1 and OB 2, OB 3 has since been constructed to the east of OB 2. Existing development on the Yerby and UPC development sites shares many visual characteristics with other office park development of its time: low-rise office buildings set within large expanses of lawns and landscaped surface parking lots that separate each building from other buildings and from surrounding streets.

OB 1 and OB 3 are four-story horizontal volumes along the northern end of the development sites flanking Thomas Mellon Drive. Their horizontal expression is accentuated by horizontally-oriented windows of dark reflective glass alternating with horizontal spandrels. The ground floor

of OB 2 is clad in blue tile, further accentuating the horizontal expression of that building. Fenestration is not recessed but flush with the concrete surface, lending a smooth texture to the facades. The three-story OB 3 is also horizontal in its expression. The third floor cantilevers beyond the wall plane of the floor below it, giving the building a stacked appearance. At the third floor, a horizontal band of dark reflective glass is uninterrupted by vertical piers. The buildings are painted white in contrast with the landscape cover of vegetation, the water of the Bay, and Bayview Hill. The buildings are a visually prominent at the base of Bayview Hill when traveling northbound on U.S. 101.

Thomas Mellon Drive and Circle are edged with lawns and landscaping. Planting strips within the parking lots are planted with trees and shrubs that have matured over the years, softening hard urban surfaces; adding visual interest with color, pattern, texture and form; and creating a cohesive visual identity for the Yerby and UPC development sites. The Initial Study (Appendix A to this SEIR, pp. 68-69) concluded that the proposed amended Subarea Plan would not conflict with local tree protection policies or ordinances.

The Signature Properties Site

The Signature Properties site occupies the southern foot of Bayview Hill (the western upland portion of the Subarea Plan Area), rising from Executive Park Boulevard North at about 40 to 50 feet in elevation, up the slope of Bayview Hill to about 250-390 feet in elevation along the northern boundary of the Subarea Plan Area. The steep upper slope near the crest of Bayview Hill is graded into a series of benches cut into the rock. Much of this upper portion of this area is exposed red shale and is bare of vegetation, although some grasses and scattered clusters of trees and scrub have taken hold, providing some vegetative cover.

Since certification of the 1985 FSEIR, the Signature Properties development was approved in 2005. Construction began in 2006 and is ongoing. Two mid-rise (70-foot-tall), multi-unit residential buildings are to be located along the north side of Executive Park North Boulevard, flanking a drive that would align with Thomas Mellon Drive. These buildings are to include ground-floor restaurant and retail space. North of these buildings, a 90-foot-tall, multi-unit residential building would be constructed at the terminus of the drive. To the west and northwest of these multi-unit residential buildings, a network of roads has been constructed at the foot of Bayview Hill and up its southwest slope. About 155 40-foot-tall townhouses will line these roads. The northernmost portion of this area, near the crest of Bayview Hill, is to remain permanently undeveloped.

The Top Vision Site

The Top Vision site occupies the eastern foot and slope of Bayview Hill (the eastern upland portion of the Subarea Plan Area), rising from Harney Way, north of Candlestick Point at about 40

feet in elevation, up the slope of Bayview Hill to about 370 feet along the northern boundary of the Subarea Plan Area. The steep upper slope near the crest of Bayview Hill is graded into a series of benches cut into the rock. Much of this upper portion of Area 3 is exposed red shale and is bare of vegetation, although some grasses and scattered clusters of trees and scrub have taken hold, providing some vegetative cover.

Since certification of the 1985 FSEIR, five residential buildings have been constructed (Top Vision Phase I (2000) and Phase II (2005)). The buildings are served by Crescent Way. These residential buildings are four stories tall above parking levels that are partially above grade. The low horizontal profile of these buildings is offset by variations in the facade plane that create smaller vertically oriented sub-volumes. The buildings are capped by a low-pitched roof with deeply overhanging eaves. Window openings are recessed behind the stucco surface of the facade. These features contribute rhythm, depth, and texture to the facade and to a play of light and shadow. The buildings are painted in a pallet of earth tones that further defines the sub-volumes and blends with the exposed rock of Bayview Hill. Landscaping is provided around the base of the buildings and along streets. The buildings are oriented to the interiors of their site, presenting a blank base level of parking to surrounding streets, softened by landscaping. The buildings are surrounded by a high security fence.

Top Vision Phase III has recently been approved and is to be constructed in the future. That project is to be located up the slope of Bayview Hill from Phase I within the loop formed by Crescent Way. Phase III is to consist of four residential buildings ranging from six stories (at the downslope grade) to 16 stories. These volumes are to step up the slope of Bayview Hill from Crescent Way. The 16-story tower is to be located at the western end of the Top Vision Site. The contemporary visual character of Phase III would contrast with the more “traditional” character of Phases I and II. The glass, metal, and masonry panel facade would be characterized by a play of vertical and horizontal elements. Landscaping is to be provided around the base of the buildings and along streets.

Scenic Vistas and Scenic Resources

Bayview Hill

Bayview Hill rises from the shores of San Francisco Bay. In its setting by the Bay, it is a memorable visual feature providing contrast and vertical relief from the flatness of the water of the Bay and its shoreline. The crown of Bayview Hill is covered with clusters of trees and other vegetation. Much of the upper elevations of the prominent southern face have been cut into regular horizontal benches which contrast with the visual character of natural landforms and which have left some areas barren of vegetation. Despite its disturbed condition, Bayview Hill is a familiar visual landmark that announces the arrival into San Francisco to northbound travelers on U.S. 101.

Views of San Francisco Bay

San Francisco Bay is a highly memorable and valued visual element contributing to the visual quality of the setting. The flat expanse of the Bay surface opens broad vistas across it and provides a counterpoint to the varied surrounding topography. The Bay unifies the varied landforms that surround it, providing linear continuity along the water's edge. Reflectivity, color, and movement are properties of water that contribute to visual interest and variety to the visual setting. Where expansive scenic views of the Bay are available from public areas, such views are considered significant scenic vistas for the purposes of this section.

VIEWS OF THE EXECUTIVE PARK SUBAREA PLAN AREA

The Subarea Plan Area occupies a prominent position, rising from the shoreline of San Francisco Bay at the southern and southeastern foot of Bayview Hill, particularly when traveling on U.S. 101. Photographic views from five locations have been selected by the Planning Department as representative of existing visual conditions at the project site when viewed from publicly accessible vantage points. (See Figure V.B-1: Viewpoint Locations.) In subsequent figures (Figures V.B-2, V.B-3, V.B-4, V.B-5, and V.B-6), each existing view (denoted as "Existing") is presented at the top of the page to show the existing visual setting of the Subarea Plan Area (as it existed when the base photographs were taken). Below this image is superimposed on the same view, a visual simulation of approved projects (some of which are currently under construction) within the Subarea Plan Area (denoted as "Approved"). At the bottom of the page is a visual simulation of the Yerby and UPC development projects as seen in the context of existing and approved development in the Subarea Plan Area (denoted as "Proposed"), to be discussed later in this section under Impacts.

Viewpoint A – Looking North from U.S. 101 Northbound

Looking north and northeast while traveling northbound on U.S. 101, Bayview Hill rises at the edge of San Francisco Bay. See Figure V.B-2: Viewpoint A – Looking North from U.S. 101 Northbound. As discussed above, Bayview Hill is a familiar and recognizable geologic feature that functions as a "gateway" announcing the traveler's arrival into San Francisco. Views of the Subarea Plan Area from the south are experienced by large numbers of northbound travelers each day and are sustained for over about 2 miles along this straight and flat segment of U.S. 101 at the water's edge. At the base of the hill, Buildings OB 1, OB 2, and OB 3 on the Yerby/UPC development site are visible as low horizontal forms at the foot of Bayview Hill near the water's edge. To the east are Phases I and II of the Top Vision development. At the far right in this view is Candlestick Park stadium. These buildings are also seen as low horizontal forms at the base of Bayview Hill beyond the water.



SOURCE: Turnstone Consulting

EXECUTIVE PARK

2006.0422E

FIGURE V.B-1: VIEWPOINT LOCATIONS



Existing



Approved/Under Construction



Proposed

SOURCE: Square One Productions

EXECUTIVE PARK

2006.0422E

**FIGURE V.B-2: VIEWPOINT A-
LOOKING NORTH FROM U.S. 101 NORTHBOUND**

In Figure V.B-2 (Approved), the approved Signature Properties development is seen as low horizontal forms at the foot of Bayview Hill, rising beyond buildings OB 1, OB 2, and OB 3. To the east (right in this view), the approved Top Vision Phase III development is seen as a cluster of varied mid-rise horizontal volumes with a 16-story vertical tower volume rising at the western end of the Top Vision site from beyond Top Vision Phases I and II at the southeastern foot of Bayview Hill. Further to the east, the approved Candlestick Point-Hunters Point Shipyard Phase II project would be visible.

Viewpoint B: Looking West from Candlestick Point

From Candlestick Point State Recreation Area, looking west along the shoreline, the Subarea Plan Area is visible at the foot of Bayview Hill. See Figure V.B-3: Viewpoint B – Looking West from Candlestick Point. In this inland-facing view, the northern end of San Bruno Mountain is visible in the distance rising from beyond the water of San Francisco Bay. A fishing pier runs perpendicular to the shoreline and extends over the water.

In Figure V.B-3 (Approved), the approved Top Vision Phase III development rises at the southeastern foot of Bayview Hill, amidst the existing Top Vision Phases I and II buildings at its base. The approved Signature Properties development is not prominent in this view.

Viewpoint C - Looking East along Blanken Avenue from Tunnel Avenue

The Subarea Plan Area and San Francisco Bay are not highly visible from public streets within the low-lying portion of the Little Hollywood neighborhood immediately to the west of U.S. 101, given the topography and the visual barrier formed by U.S. 101. See Figure V.B-4: Viewpoint C - Looking West along Blanken Avenue from Tunnel Avenue. This area is generally characterized by attached or closely spaced two-story houses, forming a visual barrier to through-block views. View corridors are along existing streets. In this view, the existing low buildings within the Subarea Plan Area are minimally visible when looking east toward the Subarea Plan Area.

In Figure V.B-4 (Approved) the approved Top Vision Phase III development rises in the distance to the east (right in this view) beyond houses in along Blanken Avenue in the foreground.

Viewpoint D - Looking Southeast from Hester Avenue

The western foot of Bayview Hill (now cut off from Bayview Hill by U.S. 101) rises at the north end of the Little Hollywood neighborhood. In contrast to the rectilinear grid street pattern of the flatter area to the south, the street pattern at the northern end of the Little Hollywood



Existing



Approved/Under Construction



Proposed

SOURCE: Square One Productions

EXECUTIVE PARK

2006.0422E

FIGURE V.B-3: VIEWPOINT B-
LOOKING WEST FROM CANDLESTICK POINT



Existing



Approved/Under Construction



Proposed

SOURCE: Square One Productions

EXECUTIVE PARK

2006.0422E

FIGURE V.B-4: VIEWPOINT C-
LOOKING EAST ALONG BLANKEN AVENUE

neighborhood follows the contours of this topographic feature. The raised topography affords southeast-facing views over U.S. 101 of the Subarea Plan Area and of San Francisco Bay from public streets. See Figure V.B-5: Viewpoint D – Looking Southeast from Hester Avenue. In this view, the rooftops of houses on Tocoloma Avenue and Nueva Avenue occupy the foreground. Most of U.S. 101 is screened by dense and mature vegetation planted along its berm. Beyond U.S. 101, Bayview Hill rises steeply to the left. Existing Signature Properties buildings (under construction) are visible at the foot of Bayview Hill. Existing OB 1, OB 2, and OB 3 are visible on the flat southern (the Yerby and UPC development sites) portion of the Subarea Plan Area. The Top Vision development (Phases I and II) is visible in the distance.

Bay views from this location are not expansive. Bayview Hill looms close to the viewer, obscuring Bay views to the northeast and east. The southeast-facing view of the Bay from this location is over the rooftops of lower neighboring buildings and over U.S. 101. These features occupy much of the foreground of this view. Existing buildings and trees within the Subarea Plan Area obscure views of the Bay shoreline. San Francisco Bay and the East Bay Hills beyond appear as a narrow horizontal band beyond a visually diverse foreground. The view of the Bay from this public location is not considered a significant scenic vista for the purposes of this section. Significant scenic vistas of the Bay from this direction are available from the higher elevations of hills within John McLaren Park, as discussed below.

In Figure V.B-5 (Approved), the approved Signature Properties and Top Vision developments are seen as a varied cluster of volumes (including, most prominently, a 16-story tower) at the southern foot of Bayview Hill, beyond the rooftops of houses in the foreground.

Viewpoint E – Looking Southeast from John McLaren Park

Expansive scenic views of the Bay are available from the hills of John McLaren Park. See Figure V.B-6: Viewpoint E – Looking Southeast from John McLaren Park. Such views are among the regional attractions of John McLaren Park. In this southeast-facing view over a foreground of rolling grassland, Bayview Hill is a prominent feature, rising beyond the Little Hollywood neighborhood. A wide expanse of San Francisco Bay is visible beyond the Bayview Hill. The East Bay Hills are visible in the distance. The view of the Bay from John McLaren Park is considered a significant scenic vista for the purposes of this section.

In Figure V.B-6 (Approved), the approved Signature Properties and Top Vision developments are seen in the distance as a varied cluster of varied volumes (including, most prominently, a 16-story tower) at the southern foot of Bayview Hill.



Existing



Approved/Under Construction



Proposed

SOURCE: Square One Productions

EXECUTIVE PARK

2006.0422E

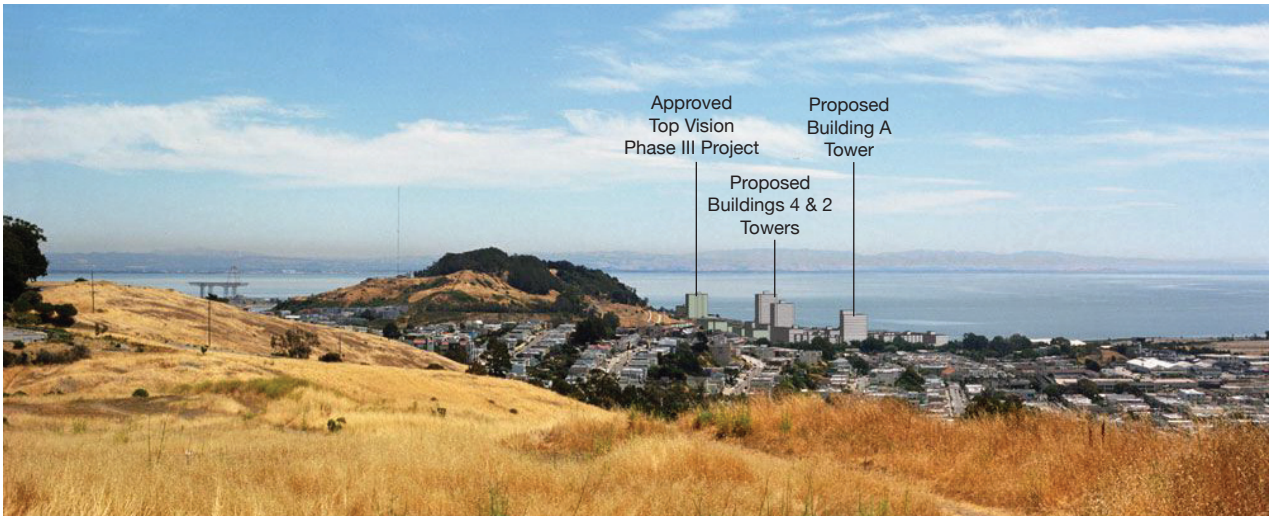
**FIGURE V.B-5: VIEWPOINT D-
LOOKING SOUTHEAST FROM HESTER AVENUE**



Existing



Approved/Under Construction



Proposed

SOURCE: Square One Productions

EXECUTIVE PARK

2006.0422E

**FIGURE V.B-6: VIEWPOINT E-
LOOKING SOUTHEAST FROM JOHN MCLAREN PARK**

Other Views

Expansive views of the Subarea Plan Area, the Bay, and the San Bruno Mountains beyond are available from the top of Bayview Hill in Bayview Hill Park when looking south over the Subarea Plan Area. Views from the crest of Bayview Hill are considered significant scenic vistas.

Traveling southbound on U.S. 101, a Bay vista over the project site opens up over the Subarea Plan Area looking southeast, as the traveler passes Bayview Hill and nears the Subarea Plan Area. The view of the Subarea Plan Area and the Bay beyond is sustained over a short distance and time until the Subarea Plan Area is passed on the traveler's left.

REGULATORY FRAMEWORK

San Francisco General Plan

The *San Francisco General Plan* Urban Design Element addresses issues related to City pattern, design of major new development, and neighborhood environment. Objectives and policies of the Urban Design Element that are particularly relevant to the proposed project include the following:

- Objective 1: Emphasis of the characteristic pattern which gives to the city and its neighborhoods an image, a sense of purpose, and a means of orientation.
 - Policy 1.1: Recognize and protect major views in the city, with particular attention to those of open space and water.
 - Policy 1.2: Recognize, protect and reinforce the existing street pattern, especially as it is related to topography.
 - Policy 1.3: Recognize that buildings, when seen together, produce a total effect that characterizes the city and its districts.
 - Policy 1.4: Protect and promote large-scale landscaping and open spaces that define districts and topography.
 - Policy 1.5: Emphasize the special nature of each district through distinctive landscaping and other features.
 - Policy 1.6: Make centers of activity more prominent through design of street features and by other means.
 - Policy 1.7: Recognize the natural boundaries of districts, and promote connections between districts.
- Objective 3: Moderation of major new development to complement the city pattern, the resources to be conserved, and the neighborhood environment.
 - Policy 3.2: Avoid extreme contrasts in color, shape and other characteristics which will cause new buildings to stand out in excess of their public importance.

- Policy 3.3: Promote efforts to achieve high quality of design for buildings to be constructed at prominent locations.
- Policy 3.4: Promote building forms that will respect and improve the integrity of open spaces and other public areas.
- Policy 3.5: Relate the height of buildings to important attributes of the city pattern and to the height and character of existing development.
- Policy 3.6: Relate the bulk of buildings to the prevailing scale of development to avoid an overwhelming or dominating appearance in new construction.
- Objective 4: Improvement of the neighborhood environment to increase personal safety, comfort, pride, and opportunity.
- Policy 4.5: Provide adequate maintenance for public areas.
- Policy 4.6: Emphasize the importance of local centers providing commercial and government services.
- Policy 4.12: Install, promote, and maintain landscaping in public and private areas.
- Policy 4.13: Improve pedestrian areas by providing human scale and interest.

IMPACTS

The Urban Design Element of the proposed amended Subarea Plan calls for changing the Height and Bulk Districts on the Yerby and UPC development sites from their current 40-X and 80-X Districts to the following: 65/85-EP, 68-EP, 85/170-EP, 85/200-EP, and 85/240-EP. The height and bulk districts within the rest of the Subarea Plan Area would remain unchanged. The areas with the tallest buildings allowed would be in the northern parts of the Yerby and UPC development sites. Mid-rise buildings would be allowed in the southern and southeastern parts of the Yerby and UPC development sites.

The proposed Urban Design Guidelines provide specific guidance about how to achieve the general policies of the Urban Design Element and would be used by the Planning Department in evaluating projects within the Subarea Plan Area. The guidelines call for buildings of more than 85 feet in height to be slender and adequately spaced to allow for sunlight and sky access and to preserve views, setting maximum floorplate dimensions for towers. The Design Guidelines would set height limits on the streetwalls for buildings along alleys and pathways and promote the placement of buildings at front property lines as a consistent build-to line. The guidelines include a taller height for ground-floor retail uses to create a more prominent retail front on the street. Other guidelines relating to the streetwall address windows, entrances, articulation, and architectural detail, among other topics. The proposed Yerby and UPC development projects and design variants would implement the Design Guidelines of the proposed amended Subarea Plan Area.

VISUAL EFFECTS ADDRESSED IN PRIOR ENVIRONMENTAL REVIEW

1985 FSEIR

The 1985 FSEIR described the changes to views of the area that would have resulted from implementation of the 1984 Development Plan. “In views from surrounding and distant locations, the visual appearance of the project area would be altered substantially by the proposed buildings and landscaping. The site would no longer appear as vacant open space; instead, the site would appear to have a variety of clustered buildings of varying shape and sizes at the foot of Bayview Hill.”¹ The 1985 FSEIR also described impacts on views of the Bay and Bayview Hill. “Most views of the Bay from US 101 and Bayview Hill would be fully preserved, except where the northernmost housing structures would obscure views of the eastern lower slope.”

1999 FSEIR

The 1999 FSEIR relied on the 1985 FSEIR analysis of impacts of the 2000 Approved Development Plan related to Visual Quality. The 1999 FSEIR concluded that “the visual impacts of the project would not change from those discussed in the 1985 FSEIR.”² “As described and illustrated in the 1985 FSEIR, the [2000 Approved Development Plan] project would change the visual appearance of the site, but would not have a substantial negative effect on visual quality or substantially degrade or obstruct a scenic view from public areas.”³

2005 and 2007 Addenda

An EIR Addendum, approved in 2005, analyzed the 499-unit residential development in the northwest portion of the Subarea Plan Area (the Signature Properties project site). The 2005 Addendum concluded that because the height of the three proposed mid-rise residential buildings (70-90 feet tall), and the townhouses (40 feet tall) would remain the same as the height of the buildings analyzed in the 1999 FSEIR, the conclusions of the 1999 FSEIR related to Visual Quality continue to apply to the Signature Properties Development.⁴

An EIR Addendum, approved in 2007, analyzed the 465-unit residential development in the northeast portion of the Subarea Plan Area (the Top Vision Phase III project site). While the 1999 FSEIR assumed four- to eight-story buildings on the site with heights of 60-80 feet, the revised project under 2007 Addendum ranged from 60 -165 feet. The 2007 Addendum concluded that because the revised project would be consistent with height and bulk districts for the project site,

¹ Executive Park Development Plan Amendment FSEIR, October 17, 1985, p. 84.

² Executive Park Development Plan Final Supplemental Environmental Impact Report, p. 114.

³ Executive Park Development Plan Final Supplemental Environmental Impact Report, p. 116.

⁴ San Francisco Planning Department, *Case No. 1990.299E: Executive Park Development Plan Addendum to 1999 Final Supplemental EIR*, approved June 8, 2005, p. 47.

and because the 16-story element would continue to preserve views of upper portions of Bayview Hill, the conclusions of the 1999 FSEIR related to visual quality continue to apply to the Top Vision Phase III project.⁵

The 2007 Addendum noted that the Planning Department is considering a General Plan Amendment that would allow for the development of a new residential neighborhood in the southern portion of Executive Park (the Yerby/UPC site) with contemplated height limits of up to 240 feet. “The visual effects of this build-out would generally be similar to the conclusions in the 1999 FSEIR,” notes the 2007 Addendum. “These cumulative visual changes would still be expected to preserve views of upper Bayview Hill, and limit views of the lower hillside, as discussed in the 1999 FSEIR.”

Previously Identified Mitigation Measures

The 1985 FSEIR identified mitigation measures to reduce potential impacts of the project related to urban design and visual quality.⁶ “Measures Proposed as Part of the Project” include stepping back proposed structures into the hillside to reduce their bulk and maximize views of the upper slopes of Bayview Hill; landscaping, erosion control, and hydroseeding the slopes of Baview Hill; landscaping the embankment of U.S. 101; and stepping buildings down to the west to provide a transition in scale from the Little Hollywood Area. The 1985 FSEIR also restated and carried forward “Applicable Measures Identified in the 1976 Final EIR” that included using outdoor materials that are resistant to the marine environment; and designing buildings to control water runoff over their surfaces. The 1999 FSEIR carried forward and restated the mitigation measures identified in the 1985 FSEIR.

The measures related to stepping the buildings back into the hillside, and landscaping and hydroseeding the slopes of Bayview Hill do not apply to the currently proposed Yerby and UPC development sites, which are not located on the slopes of Bayview Hill, but on the flat lowland portion of the Subarea Plan Area at its southern end. The measure related to landscaping the embankment of U.S. 101 has been implemented. The measure included in the 1984 Development Plan related to stepping the building down to the west to provide a transition in scale from the Little Hollywood area is not incorporated into the currently proposed Yerby and UPC development projects or variants. The other measures related to weather-resistant exterior building materials and control of water runoff over building surfaces are included as part of the currently proposed development projects and variants.

⁵ San Francisco Planning Department, *Case No. 2004.1031E: Executive Park Development Plan Addendum to Executive Park Plan Development Final Supplemental EIR*, approved February 14, 2007, pp. 21-23.

⁶ Executive Park Development Plan Amendment FSEIR, October 17, 1985, p. 166.

SIGNIFICANCE CRITERIA

The City has not formally adopted significance standards for impacts related to aesthetics, but generally considers that implementation of a project could have a potentially significant impact related to aesthetics if the project were to:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and other features of the built or natural environment that contribute to a scenic public setting;
- Substantially degrade the existing visual character or quality of the site and its surroundings; or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area or which would substantially impact other people or properties.

Design and aesthetics are, by definition, subjective and open to interpretation by decision-makers and members of the public. A proposed project would therefore be considered to have a significant adverse effect on visual quality under CEQA only if it would cause a substantial and demonstrable negative change.

Potential impacts of the project on light and glare were determined to be less than significant in the Notice of Preparation/Initial Study Checklist. On this basis, the topic of light and glare was excluded from further analysis in this EIR. Impacts related to light and glare would be substantially the same under Design Variant A and Design Variant B as for the Yerby and UPC development projects, as these would not increase the scale or density of development over the proposed development projects, and therefore would not have greater lighting needs or greater potential for glare.

METHODOLOGY

An independent consultant has photographed the Yerby and UPC development sites and their surroundings from a range of publicly accessible vantage points. From these, the Planning Department has selected five representative views. These views are presented and described above (denoted as “Existing”). The existing view represents the existing baseline visual condition of the Yerby and UPC development sites and their vicinity (as it existed when the base photographs were taken). Below this image a visual massing simulation of approved projects (some of which are currently under construction) within the Subarea Plan Area is superimposed on the same view (denoted as “Approved”). The approved projects are part of the future baseline visual conditions of the Yerby and UPC development projects. At the bottom a massing simulation of the proposed Yerby and UPC development projects is presented in the context of existing and approved development (denoted as Proposed). Presenting the existing, approved,

and proposed views on the same page allows the reader to compare existing photographic views with massing-level visualizations of the proposed project, placed within the existing and approved visual context of the project.

IMPACT EVALUATION

Impact AE-1: Buildout under the proposed amended Subarea Plan and the proposed Yerby and UPC development projects could result in impacts on scenic resources and scenic vistas. (*Less than Significant*)

This discussion of scenic vistas and scenic resources describes impacts on scenic vistas and scenic resources that are visible from publicly accessible viewpoints. Buildout of Executive Park under the proposed Subarea Plan amendments and the proposed Yerby and UPC development projects would substantially increase the density and height of development at the foot of Bayview Hill and at the edge of San Francisco Bay, beyond that of existing buildings within the Subarea Plan Area and beyond development envisioned under the existing Subarea Plan. Such development would be a substantially more prominent visual presence within the viewer's field of view. Under Design Variant A (which calls for changes in building setbacks and façade articulation along certain internal streets and alleys) and Design Variant B (which would reconfigure Buildings 6 and 7, creating a single continuous streetwall along Harney Way), impacts related to scenic resources would be substantially the same as described for the proposed Yerby and UPC development projects. These variants would not increase the height and scale of development over that of the proposed Yerby and UPC development projects.

Impact on Views of Bayview Hill

As discussed above under Setting, Bayview Hill is a prominent visual landmark announcing the arrival into San Francisco for travelers on northbound U.S. 101. See Figure V.B-2 (Proposed) on p. V.B.6. In this view, the proposed Yerby and UPC development project is seen as three vertical high-rise tower forms (17-24 stories) rising above a dense cluster of horizontal mid-rise podium volumes, forming a six- to eight-story streetwall along the proposed grid of proposed new streets. The existing Top Vision Phase I and Phase II buildings (four stories) continue to be seen as a low horizontal cluster of buildings at the water's edge at the southeastern foot of Bayview Hill. Further east on Candlestick Point is Candlestick Park stadium. Rising from beyond the existing Top Vision Phases I and II development, the approved Top Vision Phase III development would be seen as a cluster of varied mid-rise horizontal volumes with a 16-story vertical tower volume rising at the western end of the Top Vision site. The approved Signature Properties development is seen as horizontal seven- to nine-story mid-rise volumes rising from the foot of Bayview Hill from beyond the proposed Yerby/UPC development, and through the view corridor formed by Thomas Mellon Drive. The approved four-story townhouses at the western portion of the

Signature Properties site are seen at the lower slopes of Bayview Hill, from beyond the proposed Yerby/UPC development.

Together, existing and approved development, and the proposed Yerby and UPC development projects and variants under the proposed amended Subarea Plan would appear as a dense horizontal cluster of low- and mid-rise buildings at the base of Bayview Hill, forming a podium streetwall along a grid of proposed new streets, and punctuated by four widely spaced vertical tower forms along the northern end of the Yerby and UPC development sites and the western end of the Top Vision Phase III development site. The proposed towers would reach up to about 278 feet in elevation. Existing, approved, and proposed development of Executive Park in the Subarea Plan Area would preserve views of the top of Bayview Hill (450 feet in elevation). The wide rhythmic spacing of vertical towers rising from the base of the hill across the southern face of the hill would allow views of the hill between the towers, while providing vertical counterpoint and visual relief from the broad, exposed, horizontal expanse of the hill's southern face and the horizontal benches cut into the slope.

Viewed from the southern shoreline of Candlestick Point State Recreation Area, the proposed Yerby/UPC project rises from within the flat southern portion of the site. See Figure V.B-3 (Proposed) on p. V.B.8. In this view, the proposed Yerby and UPC developments are distanced from Bayview Hill and are visible as three vertical high-rise tower volumes rising from a horizontal mid-rise streetwall. The approved Top Vision Phase III development rises at the southeastern foot of Bayview Hill, amidst the existing Top Vision Phases I and II buildings at its base. The approved Signature Properties development is not prominent in this view.

Impact on Scenic Views of San Francisco Bay

Despite the proximity to San Francisco Bay, views of the Bay from low-lying areas of the Little Hollywood neighborhood are limited by topography and by the visual barrier created by the raised berm and landscaping along U.S. 101. See Figure V.B-4 (Proposed) on p. V.B.9. Looking east toward the Bay along Blanken Avenue, the approved Top Vision Phase III tower would be visible. The three proposed towers of the Yerby/UPC development would be visible rising beyond the termination of Blanken Avenue at U.S. 101 (they appear here as a single form because they align with the Blanken Avenue axis).

From the raised north end of the Little Hollywood neighborhood, views of the Bay are now available over the rooftops of lower buildings and over U.S. 101. See Figure V.B-5 (Proposed) on p. V.B.11. As shown in this view, the approved Signature Properties and Top Vision Phase III developments at the base of Bayview Hill, together with the proposed Yerby/UPC development to the south, would obscure much of the existing southeast-facing view of the Bay from this location. Buildout of the Subarea Plan Area under the proposed amended Subarea Plan would replace views of the Bay, with views of new buildings. Bay views from this location would

continue to be available to the south of the Subarea Plan Area. Any view of the Bay is likely to be valued by nearby residents. The partial blockage of this view of the Bay is likely to be experienced as an undesirable change for nearby residents who have become accustomed to the existing view of San Francisco Bay.

From the hills of John McLaren Park, approved development and the proposed Yerby and UPC development projects or their variants would be seen beyond the Little Hollywood neighborhood as a cluster of buildings south of Bayview Hill at the edge of the Bay. See Figure V.B-6 (Proposed) on p. V.B.12. The existing, approved, and proposed development within Executive Park is prominently visible in this view, but it would not dominate this view of the Bay (or Bayview Hill) given its lowered position in the landscape in relation to the viewer, and the overall expansiveness of this view. Large expanses of water, and the East Bay Hills beyond, would continue to be visible.

From the top of Bayview Hill (up to about 450 feet in elevation) expansive distant south-facing views of the Bay, its shoreline, and the San Bruno Mountains would continue to be available over the tops of the proposed mid-rise and high-rise development south of Bayview Hill (up to about 278 feet in elevation). From the top of Bayview Hill, south-facing views of the Bay at its near shoreline (adjacent to the project site) would be over the tops of the mid-rise development and in between widely spaced vertical towers. Southeast- and east-facing views of the Bay would not be obstructed by the buildout of Executive Park under the proposed amended Subarea Plan.

From the network of streets within the Signature Properties development site, public views of the Bay over the Yerby and UPC development sites will be largely obstructed by the new construction (now in progress) of approved townhouse (up to 40 feet tall) and multi-unit residential buildings (up to 60 to 90 feet tall) that would line the streets of the Signature Properties site. Likewise, public views from the streets of the Top Vision development site are largely obstructed by the existing Phase I and Phase II buildings (up to 40 feet tall) and by the approved Phase III development (up to 165 feet tall) that will be constructed in the future. As such, public views from these areas are not considered significant scenic vistas for the purposes of CEQA.

Impact Conclusion

Existing, approved, and proposed development within Executive Park under the proposed amended Subarea Plan would increase the scale and prominence of development at the base of Bayview Hill at the edge of San Francisco Bay. Such development would not damage Bayview Hill as a scenic resource, nor obscure or detract from scenic views of Bayview Hill as seen from important public vantage points. The Hill would continue to serve as the visual backdrop of Executive Park at buildout. The distinctive profile and form of Bayview Hill would remain intact

and would continue to be seen as a prominent and recognizable geographic feature rising to the north of the Subarea Plan Area.

The proposed Yerby and UPC development projects and variants would not substantially obstruct or detract from an expansive scenic view from a public vantage point. As discussed above, the existing public view of the Bay from the higher northern end of the Little Hollywood neighborhood is not considered a significant scenic vista (although it is likely valued by nearby residents). Public views from the Signature Properties and Top Vision development sites within the Executive Park Subarea Plan Area are also not considered significant scenic vistas. Bay views from John McLaren Park and from the crest of Bayview Hill are considered significant scenic vistas. These views would not be substantially obstructed by buildout of Executive Park under the proposed amended Subarea Plan.

For these reasons, the impact of buildout of Executive Park under the proposed amended Subarea Plan Amendments and the proposed Yerby/UPC development projects and their design variants would not rise to the level of a substantial adverse impact on a scenic resource or scenic vista, and no mitigation would be necessary.

Impact AE-2: Implementation of the proposed amended Subarea Plan and the proposed Yerby and UPC development projects would transform the visual character and quality of the project site. (*Less than Significant*)

Implementation of the proposed amended Subarea Plan and the proposed Yerby and UPC development projects and their design variants under the proposed amended Subarea Plan would transform the existing visual character of Yerby and UPC development sites in Executive Park from that of a low-rise office park set amidst large expanses of landscaped surface parking and a low-rise gated residential community at its eastern end, to that of a dense urban residential neighborhood. Under Design Variant A (which calls for changes in building setbacks and façade articulation along certain internal streets and alleys) and Design Variant B (which would reconfigure Buildings 6 and 7, creating a single continuous streetwall along Harney Way), impacts related to visual character/quality would be substantially the same as those described for the proposed Yerby and UPC development projects. These variants would not increase the height and scale of development over that of the proposed Yerby and UPC development projects.

Development under the Proposed Amended Executive Park Subarea Plan

The proposed amended Subarea Plan envisions “a mixed-use residential neighborhood with attractive public streets and open spaces. The plan focuses on providing a welcoming environment for visitors and residents of the area through the creation of good streets, good urban

design, and sound land uses policies.”⁷ The Plan also includes Urban Design Guidelines to implement the overall goal of creating an inviting, pedestrian-oriented urban neighborhood. These guidelines would inform the design of new development and would be used by the Planning Department to evaluate development projects within the Subarea Plan Area. The guidelines specify design characteristics and features intended to improve the visual quality of the Subarea Plan Area. They call for creation of an active street frontage for buildings; provision of landscaping, provision of public open space, screening of parking; use of high-quality, authentic and durable materials; use of fenestration that would add depth and rhythm to the facade; and creation of an attractive roofscape.

Specific design guidelines for podium buildings (at 85 feet or lower) call for articulation of facades to express a rhythm along the street; building to the front property lines to define a consistent streetwall, provision of stoops, porches and landscaped areas; use of architectural detail, ornamentation, and projections to create visual interest and depth; vertically oriented windows; provision of a high, pedestrian-oriented, transparent, retail ground floor; and definition of a base, middle, and top. Consistent with the proposed bulk restrictions, the Design Guidelines for towers (greater than 85 feet) specify maximum floorplates, maximum horizontal and diagonal dimensions of floorplates, and a minimum distance between towers.

Under the proposed height and bulk districts and the Urban Design Guidelines, the Yerby and UPC development sites at the southern end of the Subarea Plan Area would be covered by six- to eight-story residential buildings forming a dense consistent streetwall along a regular grid of new streets. The profile of this mid-rise podium development would be offset by three widely spaced high-rise vertical tower forms (6 to 24 stories) on the Yerby and UPC development sites at its northern end, together with the approved Top Vision Phase III tower (16 stories) to the northeast. These towers would contribute to a more varied juxtaposition of horizontal and vertical forms than the horizontal form of existing buildings, and of the stacked and stepped volumes envisioned under the existing Subarea Plan. Streets would be lined with trees, which would mature to screen and soften hard urban surfaces and provide visual interest and color. Landscaped public parks, plazas, and greenways would punctuate the area to provide visual relief from buildings and hardscape.

Impact Conclusion

Changes in visual character, even substantial and transformative changes such as those proposed under the proposed amended Executive Park Subarea Plan and the Yerby and UPC development projects and their design variants, do not in themselves constitute a significant adverse impact on

⁷ City and County of San Francisco, *Draft Executive Park Subarea Plan of the Bayview Hunters Point Area Plan*, March 19, 2009, p. 3.

visual character under CEQA, unless they would substantially degrade the existing visual character or quality of the site and its surroundings.

If the proposed amended Subarea Plan is adopted, it would reflect the City's long-term vision for the Subarea Plan Area. The proposed amended Subarea Plan includes Urban Design Guidelines intended to enhance the visual quality of the Subarea Plan Area that would inform the design and review of specific development projects within the Subarea Plan Area. The Yerby and UPC development projects and variants would be subject to design review by Planning Department staff for conformity with the proposed Urban Design Guidelines. The Planning Commission would approve a new development under the proposed amended Subarea Plan if it finds the development consistent with the Plan on balance. Implementation of the Urban Design Guidelines would thereby ensure that the impacts on visual quality resulting from the buildout of the Subarea Plan Area under the Plan would be less than significant, and no mitigation would be necessary.

Impact AE-3: The Yerby and UPC development projects would not contribute to a significant cumulative degradation of visual quality when considered with other planned development projects in the vicinity of the Subarea Plan Area. (*Less than Significant*)

Anticipated cumulative development in the Subarea Plan region includes redevelopment in Visitacion Valley and the Brisbane Baylands area across U.S. 101; continued redevelopment of the Hunters Point Shipyard and Hunters Point areas north of Bayview Hill; and redevelopment of the Candlestick Point/Candlestick Park stadium area directly to the east of the Subarea Plan Area. Despite the relative proximity and the scale of these development proposals, most would be not be part of the immediate visual setting of Executive Park. The Subarea Plan Area is physically and visually isolated from the cumulative development sites by physical and visual barriers (U.S. 101 and Bayview Hill). The anticipated Candlestick Point-Hunters Point Shipyard Phase II project would be visible to the east of Bayview Hill and Executive Park when viewing the plan area from the south. Together, the proposed buildout of the Executive Park under the proposed Specific Plan and the anticipated Candlestick Point/Candlestick Park stadium redevelopment would appear as dense urban development rising near the shores of the Bay to the south and east of Bayview Hill. Both projects would include landscaping, open space, and building design features that are intended to improve the visual quality of their sites. While the proposed project and design variants would contribute to a substantial cumulative change in the visual character of Candlestick Point, buildout of Executive Park under the proposed amended Subarea Plan and anticipated development in the vicinity would not contribute to a significant cumulative degradation of the visual environment of the greater project vicinity. No mitigation is necessary.

C. POPULATION AND HOUSING

The Setting discussion in this section describes existing population, housing, and employment conditions and trends. The Impacts discussion evaluates potential population, employment, and housing effects that would result from implementation of the Subarea Plan and the Yerby and UPC development projects. In themselves, changes in population, housing, and employment are not considered adverse physical impacts on the environment. Such changes are embodied in physical environmental effects (such as those related to aesthetics, transportation, noise, air quality, and water supply) that are discussed under other environmental topics in other sections of this chapter.

This section is based on the proposed amended Subarea Plan and the Yerby and UPC Development projects; data prepared by the San Francisco Planning Department for the Executive Park Subarea Plan; 2000 U.S. Census data; and Association of Bay Area Governments (ABAG) *Projections 2009*¹ and *Housing Needs Plan 2007-2014*. Estimates of existing housing units and characteristics are based on 2000 U.S. Census data and *Projections 2009* data.

SETTING

The Setting section describes existing citywide and regional population, housing, and employment-related conditions and trends to establish a context against which to evaluate the significance of the proposed amended Subarea Plan and the implementing development projects' effects related to population, housing, and employment.

CITY AND REGIONAL POPULATION AND HOUSING TRENDS

Population

In 2000, the population of the City and County of San Francisco (City) was recorded by the U.S. Census as 776,733, ranking San Francisco as the second most populous city, behind San Jose, in the nine-county Bay Area, and the fourth most populous county, behind Santa Clara, Alameda, and Contra Costa. San Francisco comprised approximately 11.45 percent of the Bay Area's total population (6,783,762).²

¹ The Association of Bay Area Governments (ABAG) is the regional agency that is responsible for preparing forecasts of population, housing, and employment growth in the nine Bay Area counties and their cities. The most recent forecast, *Projections 2009*, was published in August 2009. *Projections 2009* is ABAG's biennial forecast of population, housing, jobs, and income for the nine-county San Francisco Bay Region.

² ABAG, *Projections 2009*, pp. 26-27.

The population of the Bay Area grew by approximately 4.6 percent (312,738 persons) over a five-year period between 2000 and 2005.³ During that same period, the population of San Francisco grew by approximately 2.5 percent (an increase of approximately 19,067 people).⁴ For the ten-year period between 2005 and 2015, around the time period of the proposed development projects' buildout, ABAG projects an overall Bay Area population growth increase of approximately 8.2 percent (an increase of 581,000 people). For that same ten-year period (2005-2015), ABAG projects that the population of San Francisco will increase by approximately 5.2 percent (an increase of 41,700 people). A 20-year (2005-2025) population growth increase projected for the Bay Area is about 17.9 percent (an increase of 1,268,400 people). The projected growth for San Francisco during the same period, 2005-2025, is approximately 13.1 percent (104,700 people).

Housing

U.S. Census 2000 data recorded an average household size of 2.69 persons per unit in the Bay Area.⁵ Based on ABAG projections, the average household size for the Bay Area will increase slightly from 2.69 persons per unit to 2.70 persons per unit in 2025.⁶ In 2000, the U.S. Census data recorded an average household size in the City to be 2.30 persons per unit.⁷ Based on ABAG projections, there were an estimated 2.29 persons per household in the City in 2005. The average household size in the City is projected to decrease slightly in 2015 to approximately 2.27 and remain at 2.27 in 2025.

Based on ABAG projections, the total number of households in the City (which roughly equates to the number of housing units) totaled approximately 338,920 in 2005, and will increase by approximately 6 percent (an increase of 20,250 households) between 2005 and 2015, and will reach a total of 386,800 households by 2025 (an increase of approximately 14.1 percent from 2005).⁸

Employment

According to *Projections 2009*, the total number of jobs in the City was estimated to be approximately 553,090 in 2005. The City is projected to have a total of approximately 606,540 jobs by 2015, which would represent about a 9.6 percent increase in citywide employment

³ ABAG, *Projections 2009*, p. 26.

⁴ ABAG, *Projections 2009*, p. 27.

⁵ ABAG, *Projections 2009*, p. 26.

⁶ *Ibid.*

⁷ ABAG, *Projections 2009*, p. 92.

⁸ *Ibid.*

between 2005-2015.⁹ By 2025, the total number of citywide jobs is anticipated to increase to about 694,830, an increase of approximately 25.6 percent between 2005-2025.¹⁰

The City had approximately 388,100 employed residents in 2005.¹¹ Approximately 75 percent (291,075) of these employed residents were employed in the City itself, while 25 percent of the employed residents commuted to jobs elsewhere.¹² The total number of the City's employed residents is projected to increase to approximately 424,800 by 2015.¹³ Assuming the same percentage (25 percent) of the City's employed residents would continue to commute to jobs elsewhere, approximately 75 percent (318,600) of these employed residents would live and work in the City by 2015. The total number of the City's employed residents is projected to increase to approximately 493,500 by 2025.¹⁴ Assuming the same percentage (25 percent) of the City's employed residents would continue to commute to jobs elsewhere, approximately 75 percent (370,125) of these employed residents would live and work in the City by 2025.

Jobs and Housing Balance in San Francisco

The *General Plan* Housing Element summarizes population, housing, and employment challenges facing the City in the future. Notable jobs-housing challenges facing the City include a lag in the number of new housing units compared to population growth during the past 10 years; the geographic and income mismatch between jobs and housing in the City and the people employed in those jobs, resulting in a large number of commuters, increased commute time, and adverse effects on traffic and air quality;¹⁵ and insufficient affordable housing construction.

2005 Estimated Jobs-to-Housing Ratio

According to *ABAG Projections 2009*, the total number of jobs in the City was estimated to be approximately 553,090, and the total number of households or occupied housing units was estimated to be approximately 338,920 in 2005 for a year 2005 jobs-to-housing ratio of 1.63. There were approximately 388,100 employed residents in the City in 2005, averaging about 1.15 wage earners per household.

⁹ *Ibid.*

¹⁰ *Ibid.*

¹¹ *Ibid.*

¹² According to the U.S. Census Bureau's 2005 American Community Survey, about 76.9 percent of the City's employed residents work in the City itself.

¹³ *ABAG, Projections 2009*, p. 92.

¹⁴ *Ibid.*

¹⁵ Spatial mismatch of jobs and housing is due also to the substantial number of workers from the City seeking affordable housing in surrounding communities. The City's ability to provide housing for its workers is thus not keeping up with the citywide growth in jobs.

2005-2015 Estimated Jobs-to-Housing Ratio

Between 2005 and 2015, the City's population is projected to grow from 795,800 to 837,500 persons, and the City's household total is projected to grow from 338,920 to 359,170. During this same time period (2005-2015), the number of jobs in San Francisco is projected to increase by approximately 9.6 percent (553,090 to 606,540).¹⁶ As a result, the jobs-to-household ratio in the City is projected to be 1.69 by 2015, higher than the estimated jobs-to-household ratio in 2005 (1.63). Approximately 424,800 employed residents are anticipated in San Francisco by 2015, averaging about 1.18 wage earners per household, which is approximately 2.6 percent higher than the wage earners per household anticipated in 2005 (1.15).

2015-2025 Estimated Jobs-to-Housing Ratio

Between 2015 and 2025, the City's population is projected to grow from 837,500 to 900,500, and the number of households is projected to grow from 359,170 to 386,800. During the same time period (2015-2025), an approximately 15 percent increase is anticipated in citywide employment (from 606,540 to 694,830).¹⁷ The resulting jobs-to-household ratio in the City is projected to be 1.79 by 2025, higher than the jobs-to-household ratio in 2005 (1.63). The City's jobs-to-household ratio is projected to become less balanced between the 2015-2025 period, because the City is projected to experience a 14.5 percent increase in employment but only a 7.5 percent increase in population. However, a higher number of wage earners per household is anticipated in San Francisco by 2025, with 493,500 employed residents representing about 1.28 wage earners per household. This ratio would be higher than the 2005-year wage earners per household (1.15 ratio).

Jobs-to-Employed-Residents Ratio

To account for retired persons and other residents who are not employed, another useful relationship to consider is the ratio of jobs to the total number of employed residents. According to the 2000 U.S. Census, out of a total citywide population of approximately 776,730, about 437,533 residents in the year 2000 labor force were employed either in the City or elsewhere, while the remaining residents were unemployed. In 2000, the ratio of jobs in San Francisco (642,500) to employed residents (437,533) was about 1.47. By 2015, the ratio of jobs in San Francisco (606,540) to employed residents (424,800) is anticipated to decrease slightly to about 1.43. By 2025, the ratio of jobs in San Francisco (694,830) to employed residents (386,800) is anticipated to increase to about 1.80.¹⁸

¹⁶ ABAG, *Projections 2009*, p. 92.

¹⁷ *Ibid.*

¹⁸ *Ibid.*

REGULATORY FRAMEWORK

Regional Housing Needs Determination

In order to respond to Statewide population and household growth, and to ensure the availability of decent affordable housing for all income groups, the State enacted Government Code section 65584 in 1981, which requires each Council of Government (COG) to periodically distribute State-identified housing needs to all jurisdictions within its region. The State Department of Housing and Community Development (HCD) is responsible for determining this regional need and for initiating the process by which each COG must then distribute its share of statewide need to all jurisdictions within its region. This statute requires development of a new Regional Housing Needs Assessment (RHNA) every five years. ABAG has currently released its *San Francisco Bay Area Housing Needs Plan*, which includes RHNA for the San Francisco Bay Area, for the subsequent 2007-2014 planning period.

Government Code section 65584 also requires that a City's share of regional housing needs include housing needs of persons at all income levels. The different income levels to be studied within the parameters of State-mandated local Housing Elements, which must be prepared by every City and County in California, are "Very Low Income," "Low Income," "Moderate Income," and "Above Moderate Income." Based on a Federal Housing and Urban Development (HUD) formula, San Francisco's Area Median Income (AMI) in 2006 was estimated to be approximately \$72,950 for a two-person household and approximately \$82,100 for a three-person household. Based on the HUD formula, San Francisco is estimated to have the distribution (by percentage) of income levels shown in Table V.C-1.

Table V.C-1: Income Distribution of San Francisco Households

Income Group	Income Level	Income Range ¹	Percentage of SF Households
Very low	≤ 50% of AMI	≤ \$36,475	26.3%
Low	50%-80% of AMI	\$36,475 - \$58,360	14.1%
Moderate	80%-1-20% of AMI	\$58,360 - \$87,540	15.7%
Above moderate	>120% of AMI	>\$87,540	43.9%

Note: AMI – Area Median Income

¹ *San Francisco General Plan*, Housing Element, May 2004, Data and Needs Analysis, Table I-23: Household Income Standards by Household Size, 2001, and Table I-24: Income Distribution, p. 30. The "Income Range" shown above is the average income range for two- to three-person households in the City.

Source: Turnstone Consulting

The ABAG Policy Board established housing needs for all jurisdictions within its boundaries for the 2007-2014 planning period by using a "fair share" approach, based on household and job

growth of the region as well as regional income level percentages. Each jurisdiction was required by State law to incorporate its housing need numbers into an updated version of its general plan housing element. According to *ABAG Housing Needs Plan 2007-2014*, the Bay Area's overall housing need would be for a total of about 214,500 new residential units by 2014.¹⁹ The jurisdictional need of the City for 2007-2014 is 31,193 dwelling units,²⁰ or an average yearly need of 4,456 units.

In terms of affordability, the distribution of housing units needed between 2007 and 2014 by income level for San Francisco is as follows:²¹

Very Low Income ($\leq$ 50% of median income)	6,589 units
Low Income (50-80% of median income)	5,535 units
Moderate Income (80-120% of median income)	6,754 units
Above Moderate Income ($>$ 120% of median income)	<u>12,315 units</u>
Total	31,193 units

During the period from 1990 to 2000, the number of new housing units completed citywide ranged from a low of about 380 units (1993) to a high of about 2,065 units (1990) per year. The citywide annual average over that 11-year period (1990-2000) was about 1,130 units.²² The California Department of Finance estimates that San Francisco gained about 15,252 new housing units between 2000-2008.²³ The citywide annual average over this eight-year period (2000-2008) was about 1,905 units. In 2007, the City and County of San Francisco had issued building permits for 2,197 total units.²⁴ To meet current regional housing need projections, the City would need to increase housing units on average annually by 4,456. Thus, the City and County of San Francisco is currently not on track to meet its share of the regional housing allocation forecasted for the 2007-2014 planning period.

Residential Inclusionary Affordable Housing Program

In 2006, the City adopted amendments to the Residential Inclusionary Affordable Housing Program contained in Planning Code Section 315. The amended Section 315 requires that a project involving five or more new dwelling units must (a) provide on-site Below Market Rate

¹⁹ ABAG, *San Francisco Bay Area Housing Needs Plan, 2007-2014*, June 2008, pp. 43-50.

²⁰ *Ibid*, p. 46

²¹ *Ibid*, p. 46

²² San Francisco Planning Department, Data and Needs Analysis - Part 1 of the 2004 Housing Element, May 13, 2004, p. 33.

²³ The California Department of Finance (DOF) estimates that the City had 361,777 housing units on 1/1/08 and about 346,525 units on 4/1/00 (2000 U.S. Census date), which means that the City gained about 15,252 units between those two dates. Source: http://www.dof.ca.gov/research/demographic/reports/estimates/e-5_2001-06/. (*E-5 Population and Housing Estimates*). Accessed 3/26/2009.

²⁴ ABAG, *San Francisco Bay Area Housing Annual Production*, 2008, p. 6.

(BMR) units equal to 15 percent of the total number of units, (b) provide off-site BMR units equal to 20 percent of the total number of units, or (c) pay an in-lieu fee equivalent to 20 percent of the total number of units.

IMPACTS

EFFECTS ADDRESSED IN PRIOR ENVIRONMENTAL REVIEW

Previous environmental analyses of Executive Park development include an EIR in 1976 (“1976 EIR”), a Subsequent EIR in 1985 (“1985 FSEIR”), a Supplemental EIR in 1999 (“1999 FSEIR”), and EIR Addenda in 2005 and 2007.

The 1976 EIR analyzed a development project that included office space, a tourist hotel, convention/restaurant/retail space, and parking. In 1976, the California Environmental Quality Act (CEQA) did not require an analysis of potential impacts on population growth or housing demand. The 1976 EIR discussed the demographic characteristics of nearby neighborhoods for informational purposes. No mitigation measures related to impacts on population growth or housing demand were adopted as part of the 1976 EIR.

The 1985 FSEIR analyzed a revised development project that included office space, a tourist hotel, restaurant/retail space, residential uses, and parking. In 1985, CEQA did not require an analysis of potential impacts on population growth or housing demand. The 1985 FSEIR discussed population growth and housing demand for informational purposes. Two mitigation measures related to the construction of housing to offset the demand from the proposed office uses were adopted as part of the 1985 FSEIR.

The 1999 FSEIR analyzed a proposal to modify certain aspects of the development project that was analyzed in the 1985 FSEIR. The 1999 FSEIR concluded that the revised development project would have similar less-than-significant impacts related to population growth and housing demand as those identified in the 1985 FSEIR. No mitigation measures related to impacts on population growth or housing demand were adopted as part of the 1999 FSEIR.

The 2005 Addendum for the Signature Properties development project analyzed a proposal to modify certain aspects of the development program that was analyzed in the 1999 FSEIR. The 2005 Addendum concluded that the Signature Properties development project would not result in any new significant impacts related to population growth or housing demand beyond those identified in the 1999 FSEIR. No mitigation measures related to impacts on population growth or housing demand were adopted as part of the 2005 Addendum.

The 2007 Addendum for the Top Vision development project analyzed a proposal to modify certain aspects of the development program that was analyzed in the 1999 FSEIR. The 2005

Addendum concluded that the Top Vision development project would not result in any new significant impacts related to population growth or housing demand beyond those identified in the 1999 FSEIR. No mitigation measures related to impacts on population growth or housing demand were adopted as part of the 2007 Addendum.

SIGNIFICANCE THRESHOLDS

The City has not formally adopted significance standards for impacts related to population and housing, but generally considers that implementation of a project could have a potentially significant impact related to population and housing if the project were to:

- Induce substantial growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for instance, through extension of roads or other infrastructure).
- Displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing.
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The Initial Study (Appendix A to this EIR) determined that the impacts related to displacement of housing and displacement of people would not occur. Therefore, no further discussion of these issues is called for in this EIR.

METHODOLOGY

CEQA Guidelines Section 15064(e) notes that an economic or social change by itself would not be considered a significant effect on the environment. Generally, a project that induces substantial growth or concentration of population is not viewed as having a significant impact on the environment, unless this growth results in significant physical impacts on the environment. The effect and significance of a project's related growth and concentration are evaluated under other environmental topics such as transportation, air quality, noise, wastewater, and growth inducement, and are also considered in the context of local and regional plans and projections dealing with population, housing, and employment. Thus, the growth and changes in housing, employment, and population that would occur with implementation of the project are not adverse physical impacts in themselves. However, the physical changes needed to accommodate the project-generated growth and change may have physical impacts on the environment. Potential effects of these physical changes are evaluated in other topic sections of this SEIR.

IMPACT EVALUATION

Implementation of the proposed amended Subarea Plan and buildout of the Subarea Plan Area with the Yerby and UPC development projects would include the demolition of the existing office

buildings on the Yerby and UPC development sites (about 307,600 gross square feet [gsf] of office), and redevelopment of this portion of the Subarea Plan Area with residential (1,600 residential units), retail (about 73,000 gsf), and open space uses.

Under Design Variant A (which calls for changes in building setbacks and façade articulation along certain internal streets and alleys) and Design Variant B (which would reconfigure Buildings 6 and 7, creating a single continuous streetwall along Harney Way), impacts related to population, housing and employment would be substantially the same as described for the proposed Yerby and UPC development projects. The variants would not change the proposed residential density and the character or amount of commercial space from that of the proposed Yerby and UPC development projects.

Impact PH-1: Buildout of the Subarea Plan Area under the proposed amended Subarea Plan would increase the residential population within the Subarea Plan Area. (*Less than Significant*)

The proposed amended Subarea Plan and the Yerby and UPC development projects would directly induce population growth in the Subarea Plan Area. At full buildout of the project in 2014, implementation of the proposed Subarea Plan and construction of the approximately 1,600 residential units in the proposed Yerby and UPC development projects, residential population within the Subarea Plan Area would increase population on the site from about 2,890²⁵ people (in existing and approved units) to about 6,520 people.²⁶ The net increase of about 3,630 residents would constitute a 126 percent increase in Subarea Plan Area population and about 0.45 percent of the citywide population at buildout. The increase would be higher than what was analyzed in the 1985 FSEIR.²⁷ ABAG's *Projections 2009* estimates that San Francisco will gain about 104,700 residents between 2005 and 2025. Future population growth due to implementation of the proposed Subarea Plan including the Yerby and UPC development projects would comprise about 3.5 percent of citywide population growth anticipated during this 20-year period.

Growth would be an intended and inherent effect of the implementation of the proposed Subarea Plan which would encourage new housing development and open space, and establish design guidelines to enhance the residential neighborhood character of the Subarea Plan Area. If

²⁵ Combined, the existing residential development and approved and under-construction residential development projects in the Subarea Plan Area currently include about 1,268 residential units. A factor of 2.28 persons per household was used, based on Association of Bay Area Governments (ABAG) Citywide projections (*Projections 2009*). This factor was used instead of the 3.73-person average household size for Census Tract 610 (the tract in which Executive Park is located) because it was more representative of the existing and proposed unit and household sizes.

²⁶ Based on the 2.27 persons per household forecast for 2025, from ABAG *Projections 2009*.

²⁷ The 1985 FSEIR considered the increased population from 600 dwelling units. The 1999 FSEIR did not analyze growth-inducement impacts.

successfully implemented, the proposed project would induce substantial population growth in the Subarea Plan Area.

New residential development under the proposed Subarea Plan would contribute to the attainment of goals for the provision of affordable housing. It would be subject to the affordability requirements of the City's Inclusionary Housing Program, and could provide up to 240 units of below market rate housing within the Subarea Plan Area, or provide 360 affordable units off site.

The Subarea is one of a few urban infill sites in San Francisco with the potential to absorb large amounts of residential population growth to meet City and regional needs for housing production. The intended effect of the proposed Subarea Plan is to increase the residential population within the Subarea Plan Area by rezoning the Yerby and UBC sites for denser development. Although the increase in population anticipated with the proposed project would be substantial from a localized perspective (126 percent), and would also constitute a substantial portion of projected citywide population growth between 2005 and 2025 (3.5 percent), the growth is accounted for in citywide projections and is intended, and planned for, by the proposed Subarea Plan. For these reasons, implementation of the proposed project and/or their design variants would not result in significant impacts on population in San Francisco, and no mitigation would be necessary.

Impact PH-2: Implementation of the proposed amended Subarea Plan and the proposed Yerby and UPC projects would not induce substantial growth or concentration of employment nor increase housing demand. (*Less than Significant*)

Implementation of the proposed Subarea Plan and buildout of the proposed Yerby and UPC projects would involve the demolition of three existing on-site office buildings with a total of about 310,000 gsf of commercial space, including about 307,600 gsf of office space and about 2,400 gsf of retail uses. At full occupancy, these existing office buildings were estimated to have approximately 1,120 office employees and approximately 10 retail employees, for a total of approximately 1,130 on-site employees.²⁸ The project would result in changes in business activity in the Subarea Plan Area, including replacement of about 310,000 gsf of (mainly) office with about 73,000 gsf of retail uses.

Retail employment under the proposed Subarea Plan development is expected to number about 210 employees. Implementation of the Subarea Plan would therefore result in a net decrease in

²⁸ Based on a standard multiplier of 275 square feet per employee in office space, based on San Francisco Planning Department transportation analysis guidelines and Keyser Marston Associates, Inc., *San Francisco Cumulative Growth Scenario: Final Technical Memorandum*, prepared for the San Francisco Redevelopment Agency, March 30, 1998. Retail employment density estimated at 350 square feet per employee, based on San Francisco Planning Department transportation analysis guidelines. Totals are rounded to the nearest 10 employees.

employment in the Subarea Plan Area.²⁹ Based on assumptions about commute patterns and household size, retail employment under the proposed Subarea Plan and Yerby and UPC projects could generate a demand for up to 82 new dwelling units in San Francisco (if the retail employees were newly attracted to the San Francisco Bay Area).³⁰ These new households would represent less than 1 percent of the City's estimated household growth by the year 2025 (and would be substantially less than the housing demand identified in the 1999 FSEIR).³¹ This potential increase in housing demand would be negligible in the context of total households in San Francisco.

The increase in residential population in the Subarea Plan Area would generate demand for local goods and services. New retail within the Subarea Plan Area is intended to meet the daily needs of residents within the Subarea Plan Area. The demand for goods and services could spread to nearby areas such as Little Hollywood and Visitacion Valley. Such "spillover" demand for goods and services into surrounding communities is an intended consequence of the proposed amended Subarea Plan. Its policy is expressed as follows:

Create a town center within an easy walk for all residents to allow them to shop via foot or bicycle for daily needs, while depending on larger commercial districts like Leland Avenue in Visitacion Valley for less frequent shopping needs. Small-scale retail uses should be scattered throughout the area as it grows. The retail services provided within Executive Park should not unduly compete with existing neighborhood commercial districts outside the subarea.

Implementation of the proposed Subarea Plan and development projects or their design variants would not induce substantial growth or concentration of employment. New employees would not create a substantial demand for housing. Increased demand for goods and services could be largely met within the Subarea Plan Area and its neighboring communities. For these reasons, impacts related to employment would be less than significant, and no mitigation is necessary.

²⁹ As of March 2008, OB 2 and OB 3 were approximately 97 percent to 98 percent occupied; as of August 2008, OB 1 was approximately 40 percent occupied.

³⁰ This method multiplies the estimated project-related employment (approximately 209 employees) by the proportion of jobs in San Francisco held by people who live in the City (55 percent). This result, the approximate number of project-related employees who would live in the City (115), is divided by the projected number of workers per household in San Francisco (1.4). The estimated housing demand would be 82 units. Based on data from ABAG *Projections 2002* and the Metropolitan Transportation Commission.

³¹ The project analyzed in the 1999 FSEIR would have generated a demand for about 1,840 new dwelling units. See the 1999 FSEIR, p. 117.

Impact PH-3: Implementation of the proposed Subarea Plan and Yerby and UPC development projects would not contribute considerably to cumulative impacts related to population growth, housing, and employment. *Less than Significant*

Cumulatively, buildout of the proposed Subarea Plan and Yerby and UPC development projects and variants, in combination with other residential development proposed in nearby areas such as Visitacion Valley, the Brisbane Baylands, Candlestick Point, Hunters Point, and India Basin, is estimated to increase the total population in the project region by about 45,500 people by 2025.³² Of that growth, the cumulative population increase within San Francisco would be about 41,600 people, and would comprise about 45 percent of the anticipated citywide population growth to 2025. The project would increase housing development and population in an established urban area with high levels of local and interregional transit services and facilities, as well as other neighborhood amenities and services that could accommodate this increase.

The proposed amended Subarea Plan-related commercial development would not contribute substantially to citywide employment growth by 2025. Regional projections indicate that by 2025 San Francisco will have about 520,900 employed residents and 776,100 jobs.³³ According to the Housing Element of the *San Francisco General Plan*, an estimated 44 percent of San Francisco jobs were held by in-commuters, and this share is projected to increase to approximately 48.3 percent by 2020 before decreasing slightly to approximately 47 percent by 2030.³⁴ Implementation of the proposed Subarea Plan could contribute to the slowing of this trend in the City, because it would encourage new residential development in the Subarea Plan Area to accommodate households of all income levels, sizes, and needs in close proximity to transit, public amenities and neighborhood-serving uses.

Overall, the anticipated project-facilitated development increment is not expected to result in significant cumulative environmental impacts directly related to population, housing or employment, and no mitigation would be necessary. Cumulative impacts related to physical environmental topics (like Aesthetics, Transportation and Circulation, Noise, Air Quality, and Recreation) are discussed in other sections of this chapter.

³² The population data and projections are based on information provided by the SFCTA and DMJM+Harris. The spreadsheet with the land use assumptions is available for public review as part of the Planning Department case file for this project at 1650 Mission Street, Suite 400, San Francisco.

³³ *Ibid.*

³⁴ San Francisco Planning Department, April 2009, *San Francisco General Plan*, Housing Element, Part I: Data and Needs Analysis, p. 14.

D. ARCHAEOLOGICAL RESOURCES

This section assesses the potential impacts on historical resources (specifically, archaeological resources) resulting from implementation of the proposed amended Subarea Plan for Executive Park and the proposed Yerby and UPC development projects and variants. The Initial Study (see Appendix A) found that implementation of the proposed amended Subarea Plan and development projects would not adversely affect historic architectural resources or unique paleontological resources. Therefore, those topics will not be discussed in this EIR section.

CEQA considers archaeological resources as an intrinsic part of the physical environment and, thus, requires for any project that the potential of the project to adversely affect archaeological resources be analyzed (CEQA Sect. 21083.2). For a project that may have an adverse effect on a significant archaeological resource, CEQA requires preparation of an environmental impact report (CEQA and Guidelines Sect. 21083.2, Sect. 15065). CEQA recognizes two different categories of significant archaeological resources: “unique archaeological resource” (CEQA Sect. 21083.2) and an archaeological resource that qualifies as a “historical resource” under CEQA (CEQA and Guidelines. 21084.1, 15064.5).

SIGNIFICANCE OF ARCHAEOLOGICAL RESOURCES

An archaeological resource is an “*historical resource*” under CEQA if the resource is:

- 1) listed on or determined eligible for listing on the CRHR (CEQA Guidelines Sect. 15064.5). This includes National Register-listed or –eligible archaeological properties.
- 2) listed in a “local register of historical resources”¹
- 3) listed in a “historical resource survey”(CEQA Guidelines Sect. 15064.5(a)(2)).

Under Public Resources Code Section 5024.1, an historic resource is eligible for listing in the CRHR if it:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (“Events”);
- (2) Is associated with the lives of persons important in our past (“Persons”);
- (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values (“Design/Construction”); or
- (4) Has yielded, or may be likely to yield, information important in prehistory or history (“Information Potential”).

¹ A “local register of historical resources” is a list of historical or archeological properties officially adopted by ordinance or resolution by a local government.(Public Resources Code 5020.1 (k).

To be eligible for listing to the CRHP under Criteria 1, 2, or 3, an archaeological site must contain artifact assemblages, features, or stratigraphic relationships associated with important events, or important persons, or be exemplary of a type, period, or method of construction (CEQA Guidelines Section 15064.5(a)(1) and (3) and (c)(1) and (2)). An archaeological resource that qualifies as a “historical resource” under CEQA, generally, qualifies for listing under Criterion “4” of the CRHR (CEQA Guidelines Section 15064.5 (a)(3)(D)). An archaeological resource may qualify for listing under Criterion “4” when it can be demonstrated that the resource has the potential to significantly contribute to questions of scientific/historical importance. The research value of an archaeological resource can only be evaluated within the context of the ability of the resource to address questions posed in a research design for the resource.

A “*unique archaeological resource*” is a category of archaeological resources created by the CEQA statutes (CEQA Guidelines Sect. 21083.2(g)). An archaeological resource is a unique archaeological resource if it meets any of one of three criteria:

- 1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- 2) Has a special and particular quality such as being the oldest of its type or the best available example of its type;
- 3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Under CEQA, evaluation of an archaeological resource as an “historical resource” is privileged over the evaluation of the resource as a “unique archaeological resource”, in that, CEQA requires that “when a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource” (CEQA Sect. 15064.5 (c)(1)).

Evaluation of an Archaeological Resource as Scientifically Significant

In requiring that a potentially affected archaeological resource be evaluated as an historical resource, that is as an archaeological site of sufficient scientific value to be CRHR-eligible, CEQA presupposes that the published guidance of the California Office of Historic Preservation (OHP) for CEQA providers is to serve as the methodological standard by which the scientific, and thus, the CRHR-eligibility, of an archaeological resource is to be evaluated. As guidance for the evaluation of the scientific value of an archaeological resource, the OHP has issued two guidelines: *Archaeological Resource Management Reports* (1989) and the *Guidelines for Archaeological Research Designs* (1991).

Integrity of an Archaeological Resource

Integrity is a requisite criterion in the evaluation of an archaeological resource as a historical resource. With respect to CEQA “integrity” can, in part, be expressed in the requirement that an archaeological resource must retain “the physical characteristics that convey its historical significance” (*CEQA Sect. 15064.5 (b)*).

For an archaeological resource evaluated for CRHR-eligibility under Evaluation Criterion 4, that is, “has yielded or may be likely to yield information important to prehistory or history”, integrity is conceptually different than how it is usually applied to the built environment. For an historic building, possessing integrity means that the building retains the defining characteristics from the period of significance of the building. In archaeology, an archaeological deposit or feature may have undergone substantial physical change from the time of its deposition but it may yet have sufficient integrity to qualify as a historical resource. The integrity test for an archaeological resource is not the condition of the resource but the ability of the resource to yield sufficient data (in type, quantity, quality, diagnosticity) to address significant research questions. Thus, in archaeology “integrity” is closely associated with the development of a research design that identifies the types of physical characteristics (“data needs”) that must be present in the archaeological resource and its physical context to adequately address research questions appropriate to the archaeological resource.

Significant Adverse Effect on an Archaeological Resource

The determination of whether an effect on an archaeological resource is significant depends on the effect of the project on those characteristics of the archaeological resource that make the archaeological resource significant. For an archaeological resource that is an historical resource because of its prehistoric or historical information value, that is, its scientific data, a significant effect is impairment of the potential information value of the resource.

The depositional context of an archaeological resource, especially soils stratigraphy, can be informationally important to the resource in terms of datation, reconstructing characteristics of the resource at the time of deposition and interpreting the impacts of later deposition events on the resource. For an archaeological resource eligible to the CRHR under Criterion 4, a significant adverse effect to its significance may not be limited to impacts on the artifactual material but may include effects on the soils matrix in which the artifactual matrix is situated.

Mitigation of an Adverse Effect on an Archaeological Resource

Preservation in place is the preferred treatment of an archaeological resource (*CEQA* and *Guidelines* Sect. 21083.2(b); 15126.4 (b)(3)(a)). When preservation in place of an archaeological resource is not feasible, data recovery, in accord with a data recovery plan prepared and adopted by the lead agency is the appropriate mitigation for a resource that is significant for its scientific value (*CEQA* 15126.4 (b)(3)(C)). In addition to data recovery, under *CEQA*, the mitigation of effects to an archaeological resource that is significant for its scientific value, requires curation of the recovered scientifically significant data in an appropriate curation facility (*CEQA* 15126.4(b)(3)(C), that is a curation facility compliant with the *Guidelines for the Curation of Archaeological Collections* (California Office of Historic Preservation. 1993). Final studies reporting the interpretation, results, and analysis of data recovered from the archaeological site are to be deposited in the California Historical Resources Regional Information Center (*CEQA Guidelines* 15126.4(b)(3)(C)).

Effects on Human Remains

Under State law, human remains and associated burial items may be significant resources in two ways: they may be significant to descendent communities for patrimonial, cultural, lineage, and religious reasons and human remains may also be important to the scientific community, such as prehistorians, epidemiologists, and physical anthropologists. The specific stake of some descendent groups in ancestral burials is a matter of law for some groups, such as Native Americans (*CEQA Guidelines* 15064.5 (d), Public Resources Code Sect. 5097.98). In other cases, the concerns of the associated descendent group regarding appropriate treatment and disposition of discovered human burials may become known only through outreach. Beliefs concerning appropriate treatment, study, and disposition of human remains and associated burial items may be inconsistent and even conflictual between descendent and scientific communities. *CEQA* and other State regulations concerning Native American human remains provide the following procedural requirements to assist in avoiding potential adverse effects to human remains within the contexts of their value to both descendent communities and the scientific community:

- When an initial study identifies the existence or probable likelihood that a project would impact Native American human remains, the lead agency is to contact and work with the appropriate Native American representatives identified through the Native American Heritage Commission (NAHC) to develop an agreement for the treatment and disposal of the human remains and any associated burial items (*CEQA Guidelines* 15064.5 (d), Public Resources Code Sect. 5097.98)
- If human remains are accidentally discovered, the county coroner must be contacted. If the county coroner determines that the human remains are Native American, the coroner must contact the NAHC within 24 hours. The NAHC must identify the most likely descendant (MLD) to provide for the opportunity to make recommendations for the

treatment and disposal of the human remains and associated burial items. If the MLD fails to make recommendations within 24 hours of notification or the project applicant rejects the recommendations of the MLD, the Native American human remains and associated burial items must be reburied in a location not subject to future disturbance within the project site (Public Resources Code Sect. 5097.98).

- If potentially affected human remains/burial may have scientific significance, whether or not having significance to Native Americans or other descendent communities, then under CEQA, the appropriate mitigation of effect may require the recovery of the scientific information of the remains/burial through identification, evaluation, data recovery, analysis, and documentation (CEQA *Guidelines* 15064.5(c)(2)).

SETTING

As discussed in Chapter III, Project Description, p. III.1, the northern and northeastern portions of the Executive Park Subarea Plan Area are developed with existing buildings, or are entitled with approved development. The Yerby and UPC development sites are the remaining sites to be developed within the Executive Park Subarea Plan Area. The archaeological site, CA-SFR-7,² is known to lie beneath portions of the proposed Yerby and UPC development sites under the office buildings and parking lots that currently occupy these sites. CA-SFR-7 has been determined eligible for listing on the National Register of Historic Places³.

An independent consultant has prepared an Archaeological Research Design and Treatment Plan (ARDTP) for the Yerby and UPC development sites.⁴ The research and recommendations of the ARDTP are the basis for the analysis and conclusions of this EIR. Archaeological auger testing in 1981⁵ and again in 2008⁶ confirmed the presence of both intact and apparently disturbed shell midden deposits.

² Also known as “Bayshore Mound,” “Crocker Mound,” and “Johnson’s Landing Mound.”

³ Sandy Elder, State Historic Preservation Office to Randall Dean, City and County of San Francisco Planning Department, June 22, 1988: CA-SFR-7 determined NRHP-eligible on November 18, 1981 in concurrence of Dr. Knox Mellon, State Historic Preservation Officer with finding by Colonel Paul Bazilwich, Jr. District Engineer of San Francisco District, Corps of Engineers of Department of the Army on June 20, 1981.

⁴ Archeo-Tec, *Archaeological Research Design and Treatment Plan for the Executive Park Project*, City and County of San Francisco, CA, March 5, 2009.

⁵ Banks, Peter M. *Preliminary Subsurface Archaeological Investigations at CA-SFR-7, the Griffith-Shafter Mound, and the Thomas-Hawes Mound along the Sunnysdale-Yosemite Alignment 2A-1*, City and County of San Francisco. 1981.

⁶ Pastron, Allen G., Emily Wick and Richard D. Ambro. *Report of Preliminary Archaeological Testing for the Executive Park Project*. May 2008

HISTORIC CONTEXT

In order to assess the likelihood of encountering archaeological resources within the Yerby and UPC development sites, predict the archaeological property types that may exist within the Yerby and UPC development sites, and provide a context for assessing the significance of archaeological resources that may be encountered, the ARDTP provides a historic context for indigenous settlement in the vicinity of the development project sites.

Natural Setting

The gradual development of a shellmound along the shoreline has altered the shape and outline of the natural shore at CA-SFR-7. Dumping areas along the Bay or lagoon shore created platforms that eventually became suitable for occupation. An 1852 United States Coast Survey Map shows that CA-SFR-7 was located on a small sheltered sandy terrace with direct frontage both on the Bay and a tidal lagoon. Historic explorers' accounts of the vicinity of the present-day Executive Park Subarea Plan Area, prior to Mexican or Euro-American settlement, describe an area in the proximity of marshes and uplands, offering abundant plant and animal resources from San Francisco Bay. Islais Creek was a major stream originating in the hills that form the central spine of the peninsula. A map dated 1862 clearly indicated that there were marshes between Hunters Point and Candlestick Point and immediately southwest of CA-SFR-7. Thus, the area would have been well provided with water, marine resources, marsh plants and waterfowl, and upland game and plant foods. In addition to access to natural resources, there were important symbolic factors considered in choosing sites for the development of the large prehistoric shellmounds around San Francisco Bay. These factors included the presence of an established cemetery, visibility to other communities and to indigenous navigators on the Bay, and possession of a commanding view.

Indigenous Settlement in the San Francisco Bay Area

Humans have lived in the San Francisco Bay Area since at least 11,000 years ago. Archaeological survey work in the early 1900s documented over 400 prehistoric shellmounds around the shore of San Francisco Bay. Subsequent researchers established various systems to classify the complex nature of Bay Area prehistory based on changes in social complexity, technological developments, and subsistence patterns. More recently, archaeologists have opted, for simplicity's sake, to describe the prehistoric archaeological record in terms of the three geological epochs: Early Holocene (11,000-8,000 B.P.), Middle Holocene (8,000-4,000 B.P.), and late Holocene (4,000-230 B.P.).

When the Spanish first explored Northern California in the late 1700s, it is estimated that between 7,000 and 10,000 Native Americans inhabited the coastal area between Monterey and the San Francisco Bay. Population density varied from one ecological zone to another within the Bay Area with the highest densities found along the shorelines of the southern and northern ends of

San Francisco Bay itself, where populations of approximately six people per square mile were found. The largest reported Bay Area village, near Carquinez Strait, contained some 400 people.

Ohlone Social Structure

Knowledge about the cultural characteristics of peoples living during the Late Period is more detailed in terms of artifact diversity, language, and social organization than of earlier periods in California prehistory. The basic social unit of the Ohlone peoples in the San Francisco Bay Region during the Late Period was a patrilineally extended family household, comprising an average of 15 individuals. The next level of social organization was the clan, followed by “moieties”—the Bear and the Deer. The largest social unit throughout most of California was the tribelet. The tribelet, or group of interrelated villages under the leadership of a single headman, consisted of about 200 to 400 people. Each Ohlone tribelet, of which there may have been several, served as an autonomous political unit, presumably for enforcing equal access to resources for its members and for protection from hostile neighbors. While in some areas of California the families composing a tribelet would share a single central village location for most of the year, in the San Francisco Bay Area tribelets were settled in a more dispersed and nomadic fashion.

Ohlone Subsistence Practices

The Ohlone people during the Late Period were primarily hunters of fish and game and collectors. Plant foods probably contributed the majority of calories to the diet. The staple was the acorn, pounded by stone mortar and pestle to form flour used to make mush (a gruel) or bread, following the complex technique of leaching tannic acids. The buckeye tree yielded edible nuts, processed similarly to acorns. Many species of berries were harvested for direct consumption, for flavoring the bland acorn starch, and for cider. Roots, shoots, and seeds were derived from wild onion, cattail, wild carrot, dock, tarweed, chia, and other species. Controlled burning of the land was practiced in order to renew the succession of plant communities.

The Ohlone people extensively exploited clams, ocean and bay mussels, and oysters. Many other shoreline food resources, including varieties of gastropods and crustaceans, contributed protein. Other sources of meat included many species of land and waterfowl as well as terrestrial and marine mammals. Fish also contributed a large measure of protein to the Ohlone diet, and were taken by net, trap, hook, spear, and poison. Ocean and estuarine environments yielded a wide variety of species including steelhead, sturgeon, salmon, ray, lamprey and varieties of small sharks, perches, and smelts.

The Ohlone people and their neighbors in the San Francisco Bay region used the flora and fauna for many purposes. Tules were harvested and used as building materials for structures and for crude balsa canoes, which were instrumental to the Ohlone people for fishing, hunting waterfowl

and probably for hunting marine mammals. These canoes were also used to navigate the salt marshes and permitted transportation of both people and goods across the Bay.

Vegetal resources also provided the fiber for net and cord manufacture and, especially, basket material. Baskets were used in their various forms as cooking containers and utensils, storage containers, seed beaters, water jugs, cradles, fish traps, trays for leaching and drying acorn meal, and for bearing burdens.

Various animal parts were used to make awls, pins, daggers, scrapers, knives, and other tools. Pelts and feathers provided clothing and bedding. Sinew was used for bow support and bow strings. Feather, bone, and especially shell were used for items of ornamentation such as beads, pendants, hair bangles, septum inserts, and earrings.

Local rock outcrops and mineral sources provided chert, metamorphic, and igneous materials for tool manufacture, while sandstone was used for grinding and pounding tools. Exotic materials, such as steatite and particularly obsidian, were obtained in trade. Prehistoric inhabitants of the Late Period San Francisco Bay Area bartered using locally available commodities such as cinnabar and hematite. Other valuable local resources used in trade with inland peoples included salt, shellfish meat, and shell to be used as raw material for ornament manufacture.

Indigenous Settlements in the Vicinity of Executive Park

The Executive Park Subarea Plan Area is situated in an area that held one of the densest concentration of indigenous sites found to date in San Francisco, i.e., Candlestick Point, Hunters Point, and Islais Creek. In addition to CA-SFR-7, within the Yerby and UPC development sites, two indigenous sites are located within ¼-mile of the Subarea Plan Area. Thirteen additional indigenous sites are recorded in the greater Hunters Point–Islais Creek Area.

The *Yelamu* were one of a number of smaller tribal groups within the larger Ohlone language family. There are numerous, but ambiguous, descriptions of the location of the indigenous settlements. Mission records mention a group of settlements named *Chuchui*, *Sisćastac*, and *Sitlínthac*. As described by another account, the Yelamus, no more than 160 individuals, spent much of the year split into three semisedentary village groups. One group moved between *Amuctac* and *Tubsinte* villages in the Visitacion area. Research suggests that *Tubsinte*, also known as La Visitacion, was probably located at CA-SFR-7. *Tubsinte* seems to have been the main village of a group of people who used the village site *Amuctac*.

Effects of the Mission on Indigenous People

The Mission San Francisco de Asís (Mission Dolores) was founded in June 1776, and the Presidio of San Francisco was established in July of the same year. The first conversions were recorded in June 1777. Conversion of the San Francisco villages was essentially complete by the end of 1787. A large number of children from *Sitlintac*, *Tubsinte*, *Petlenuc*, and *Yelamu* were baptized between 1777 and 1789; the first adults were baptized in 1784 and the last conversions in 1787. In total, 121 converts were recorded for the San Francisco villages, of which 31 were from *Amuctac* or *Tubsinte*. This figure provides a tentative estimate of the population seasonally exploiting the Candlestick Point–Hunters Point–Islais Creek area at contact with the Spanish.

Converts typically moved to the mission and joined the community of neophytes. Disease was a common cause of death at the mission, and burial records document more than 5,000 deaths at San Francisco. Mission Dolores reached its peak activity between 1813 and 1820; in 1820, a total of 1,252 Indian neophytes were registered on church rolls. The mission's livestock grazed widely over the peninsula, cropping native plants once collected by local Indigenous inhabitants. The mission grazed its cattle in the San Pedro, Lake Merced, San Bruno, and La Visitacion areas. Mission Dolores established agricultural and livestock stations at San Pedro (Pacifica) and San Mateo. It is not known whether any neophytes continued to live at or visited the old village of *Tubsinte* in the early 19th century.

Between 1817 and 1835, several hundred Indians were transferred from Mission Dolores to Mission San Rafael in Marin County where agriculture and grazing were better. By 1827, 241 Indian men, women, and children were reported at Mission Dolores. Traditional indigenous lifeways in San Francisco had, by 1830, been essentially destroyed. When Mission Dolores was secularized in 1834, the remnant neophytes scattered. Some attached themselves to newly granted ranchos to work as *vaqueros*. Others became servants to Spanish families that settled in the Mission Dolores neighborhood in the 1840s.

The ex-neophytes could not easily return to their traditional villages or lifeways, even if they so desired. Environmental deterioration (significant loss in food resources such as greens, bulbs, and seeds) came about as a consequence of overgrazing of Spanish livestock. Seed crops were further reduced by cessation of native fire management practices, which were banned by Spanish authorities in order to protect their cattle. Furthermore, elk and antelope had to compete with livestock for browse, and the diversion of water for farming near the missions probably hurt the fish populations. In 1841, a French traveler reported that Indians lived in hovels around the mission and cultivated small patches of good, wind-sheltered land between Hunters Point and Potrero Point. There is no evidence that the mission fields were ceded to the Indians after secularization.

Despite the devastating effects of the Mission Period, many Ohlone and other California Native Americans survived into the 21st century, and their descendents still live in the San Francisco Bay Area.

SITE CA-SFR-7

Based on evidence first discovered by the archaeologist Nels Nelson in 1910, and more recent investigations, the remains of prehistoric site CA-SFR-7 are known to be present within the Yerby and UPC development sites. The site was partially archaeologically trench tested in 1910. That effort found that the site reportedly measured 500 feet long from north to south, 75 to 100 feet wide, and at least 16.5 feet deep. The less refined crude archaeological techniques then used recovered a hundred or more artifacts, including mortars, pestles, hammerstones, charmstones, chipped stone artifacts, bird bone whistles, abalone and shell beads, and faunal remains. The effort also recovered a total of 28 burials, many with grave goods. Later research and study of the grave goods suggested that the burials (and site) dated to A.D. 300 – A.D. 1300.

Nelson's limited collections from CA-SFR-7 have been the source of several studies. Edward Gifford's (1940, 1947) typologies for California prehistoric bone and shell artifacts identified CA-SFR-7 as a type site for several artifact types. In developing his prehistoric cultural chronology of central California, Richard Beardsley (1948, 1954) described CA-SFR7 as a type site for two facies (the Ellis Landing Facies of the Middle Horizon (2000 B.C.-A.D. 250) and the Emeryville Facies of the Late Horizon (A.D. 250 to the historic period). James Bennyhoff (1972) subdivided the Emeryville Facies into two facies: the Bayshore Facies and the Crocker Facies for which CA-SFR-7 represented the type site. Studies of faunal material that Nelson recovered by Monte McCrossin and Elizabeth Wright (1980, 1981, 1982) have shown that the inhabitants of CA-SFR-7 procured a wide range of invertebrate and invertebrate organisms from a wide range of ecological habitats, including exploitation of shell fish in rocky shoreline habitats along the Pacific Coast, within open water (probably by balsa), and in salt/tule habitats. The core of Mark Rudo's dissertation on the prehistory of San Francisco was a re-analysis of the Nelson's documentary and artifactual, human osteological, and faunal record of CA-SFR-7. Rudo concluded on the basis of artifact typological comparisons but without the benefit of hard dating that the Nelson excavated stratum spanned approximately a thousand years (approximately A.D. 300 – 1300 and that based on Nelson's estimated depth of the midden deposit that CA-SFR-7 probably dated from approximately 500 B.C.. Rudo also concluded that the site had been occupied continuously for this period. Rudo also postulated the presence of conceptual distinctions between objects of symbolic value from those of utilitarian value, some level of social stratification and ascribed status, and spatial organization of site components such as burials, cooking areas, etc. On the basis of a re-analysis of the recovered human burials, Rudo concluded that Nelson's count of the number of burials excavated, 24, was too low and that Nelson had recovered the remains of 28 to 36 individuals.

Since Nelson's excavations, some archaeological field investigations have been conducted at CA-SFR-7. In conjunction with a project proposing to transect CA-SFR-7 with a large box sewer, Peter Banks (1981) undertook an archaeological boring program to determine the presence of CA-SFR-7 and to identify some of its boundaries. Banks found primary midden deposits in most of his 18 boring samples, enabling him to postulate eastern, southeastern, and southern boundaries of the midden site; estimate the average thickness of the deposit, and observe the midden deposit inclined in elevation sharply to the south. Banks noted that considerable fill had been deposited on the midden deposit since the time of Nelson's excavations, thus, archaeologically insulating the prehistoric deposit. Banks estimated the midden to be larger in area than Nelson's estimate of 330 feet by 520 feet. Subsequent auger searches for the site were conducted with positive results. In 2008, Archeo-Tec conducted a preliminary auger testing program to locate the boundaries and depth of shell midden at CA-SFR-7 as part of the planning process for the proposed Yerby and UPC development projects. They documented that significant portions of the shell midden deposits survive below fill materials.

CA-SFR-7 was determined to be eligible for the National Register of Historic Places in 1981 under Evaluation Criterion 4/D, for its potential scientific research value. Previous field research and analytical research undertaken on CA-SFR-7 demonstrates that intact remains of CA-SFR-7 have exceptional research significance in a wide range of domains including faunal and botanical analysis, stratigraphic and site formation studies, prehistoric cultural sequence and chronological studies; coastal and littoral prehistoric site studies; osteological and mortuary behavior research; geoarchaeological studies; prehistoric settlement analysis; research of the growth in prehistoric social complexity; prehistoric trade and interaction studies; and prehistoric midden analysis. Study of CA-SFR-7 could further the understanding of settlement patterns and the chronology of prehistoric occupation of San Francisco. It could contribute to the understanding of the inhabitants' food consumption, resource exploitation and adaptation to environmental change. Analysis of the site could also contribute to the understanding of social organization among the inhabitants of the site, the relationships between the site's inhabitants (e.g., wealth, rank, and gender-related differences), and relationships between the inhabitants and other groups in the region (e.g., their position in the region, and contacts and trade with other groups). The study of the human burials would contribute to the body of information about the life conditions experienced by Central California natives (e.g., health and disease, diet, population movement, and genetic affinities).

IMPACTS

EFFECTS ADDRESSED IN PRIOR ENVIRONMENTAL REVIEW

Previous environmental analyses of Executive Park development include an EIR in 1976 (“1976 EIR”), a Subsequent EIR in 1985 (“1985 FSEIR”), a Supplemental EIR in 1999 (“1999 FSEIR”), and EIR Addenda in 2005 and 2007.

The 1976 EIR, which analyzed a development project proposing office space, a tourist hotel, convention/restaurant/retail space, and parking, concluded that there would likely be no impacts on archaeological resources. No mitigation measures related to archaeological resources were adopted as part of the 1976 EIR.

The 1985 FSEIR analyzed a revised development project that included office space, a tourist hotel, restaurant/retail space, residential uses, and parking. The 1985 FSEIR concluded that pile driving for the construction of the hotel could impact archaeological site CA-SFR-7. A mitigation measure adopted as part of the 1985 FSEIR required the project sponsor to retain an archaeologist to perform archival research and site inspections to determine the potential for discovery of archaeological artifacts on the site.

The 1999 FSEIR analyzed a proposal to modify certain aspects of the development project that was analyzed in the 1985 FSEIR. The 1999 FSEIR concluded that there would be no new impacts to archaeological resources beyond those identified in the 1985 FSEIR. The mitigation measure adopted as part of the 1985 FSEIR was adopted as part of the 1999 FSEIR.

The 2005 Addendum for the Signature Properties development project analyzed a proposal to modify certain aspects of the development program that was analyzed in the 1999 FSEIR. The 2005 Addendum concluded that the Signature Properties development project would not result in any new significant impacts to archaeological resources beyond those identified in the 1999 FSEIR. The archaeological mitigation measure adopted as part of the 1985 and 1999 FSEIRs was updated to reflect current Planning Department practices and was adopted as part of the 2005 Addendum.

The 2007 Addendum for the Top Vision development project analyzed a proposal to modify certain aspects of the development program that was analyzed in the 1999 FSEIR. The 2007 Addendum concluded that the Top Vision development project would not result in any new significant impacts to archaeological resources beyond those identified in the 1999 FSEIR. The archaeological mitigation measure adopted as part of the 1985 and 1999 FSEIRs and 2005 Addendum was updated to reflect current Planning Department practices and was adopted as part of the 2007 Addendum.

SIGNIFICANCE THRESHOLDS

CEQA requires that the effects of a project on archaeological resource shall be taken into consideration and that if a project sponsor may affect an archaeological resource that it shall first be determined if the archaeological resource is an “historical resource,” that is, if the archaeological resource meets the criteria for listing in the California Register of Historical Resources (CRHR). To be eligible for listing to the CRHR under Criteria 1, 2, or 3, an archaeological site must contain artifact assemblages, features, or stratigraphic relationships associated with important events or important people, or be exemplary of a type, period, or method of construction (CEQA Guidelines Sections 15064.5(a)(1) and (3) and Sections 15064.5(c)(1) and (2)). To be eligible under Criterion 4, an archaeological site need only show the *potential* to yield important information. An archaeological resource that qualifies as a “historical resource” under CEQA, generally, qualifies for listing under Criterion 4 of the CRHR (CEQA Guidelines Section 15064.5(a)(3)(D)). An archaeological resource may qualify for listing under Criterion 4 when it can be demonstrated that the resource has the potential to significantly contribute to questions of scientific/historical importance. The research value of an archaeological resource can only be evaluated within the context of the historical background of the site of the resource and within the context of prior archaeological research related to the property type represented by the archaeological resource.

EVALUATION OF CA-SFR-7

CA-SFR-7 has been determined to be eligible for listing to the NRHP under Evaluation Criterion D for its potential scientific value related to paleodemography, paleoecology, and the interrelationship of prehistoric populations in the Central Valley and the San Francisco Bay Area. Prehistoric sites may also be eligible for listing to the NRHP/CRHR under criteria A, B, and C (or Criteria 1, 2, and 3 of the CRHR) under limited circumstances.

Criterion A/1

For a prehistoric site to be NRHP/CRHR-eligible under Criterion A/1 the site must be associated with a significant event or process in prehistory. Generally this has been interpreted as a requirement that the site be demonstrated to be a type site that defines a specific cultural complex, time period, or chronology for the region⁷. Since in the development of cultural chronologies for Bay Area prehistoric sites during the 1940s-1970s, CA-SFR-7 has been identified as a type site by Beardsley (1948, 1954), Bennyhoff (1972) and Elsasser (1978), a strong argument may exist for the NRHP/CRHR-eligibility of CA-SFR-7 under Criterion A/1.

⁷ Anthropological Studies Center. *Site Specific Archaeological Research Design, Evaluation and Data Recovery Plan for Prehistoric Midden Deposits at Fourth and Howard Streets*. 2010.

Criterion B/2

Eligibility of an Indigenous site under Criterion B/2 of the NRHP/CRHR requires the demonstration of a strong association of the site with a person of historical importance. An example would be the site of a post-secularization Native American village with documented association with the ex-neophyte founder and leader of the village. There is no ethnohistorical documentation linking CA-SFR-7 with any known Native American/Ohlone personage. In the absence of documentation in support of an association of CA-SFR-7 with an historical person of significance, no strong support currently exists for the NRHP/CRHR- eligibility of CA-SFR-7 under Criterion B/2.

Criterion C/3

For a prehistoric site to be eligible under Criterion C/3, it must possess the distinctive characteristics of a type, period, or method of construction. Luby et al.⁸ on the basis of a regional assessment of documentation regarding shell mounds in the Bay Area pose several hypotheses regarding the role of shell mounds in prehistory:

- Shell mounds as uninhabited ceremonial centers;
- Shell mounds as multi-purpose mounded villages;
- Shell mounds as refuse dumps.

Further field investigations of CA-SFR-7 are required to demonstrate that sufficient deposit/feature types are present to show that CA-SFR-7 strongly exemplifies the characteristics of one of the hypothesized shell mound types necessary to qualify for NRHP/CRHR listing under Criterion C/3.

NATIVE AMERICAN CONSULTATION

In September 2007, the archaeological consultant requested that the Native American Heritage Commission (NAHC) consult the Sacred Land Files for the proposed project⁹ (See Appendix B: Archaeological Resources). In response, the NAHC noted that no sites of indigenous cultural significance in the immediate project area are listed with the NAHC.¹⁰ The NAHC provided a list of the Native American contacts to the City and County of San Francisco for the purpose of further consultation. The archaeological consultant sent letters to the Native American contacts on the NAHC list briefly describing the proposed project and requesting any information or

⁸ Luby, Edward M., Clayton D. Drescher, and Kent G. Lightfoot. "Shell Mounds and Mounded Landscapes in the San Francisco Bay Area: An Integrated Approach". *The Journal of Island and Coastal Archaeology* 1(2) 2006.

⁹ Allen G. Pastron, Letter to Native American Heritage Commission, September 27, 2007.

¹⁰ Debbie Pilas-Treadway, Native American Heritage Commission, Letter to Allen G. Pastron, Archeo-Tec. October 9, 2007

knowledge of areas of Native American importance with respect to the project.¹¹ In further endeavoring to solicit concerns of the Native American/Ohlone community regarding the symbolic (traditional, cultural, or ancestral) importance of the project area or of CA-SFR-7, the Department will continue Native American/Ohlone consultation efforts as part of the archaeological mitigation program.

IMPACT EVALUATION

Construction activities (soils improvement, excavation, grading, pile driving) under the proposed development projects and variants would disturb CA-SFR-7, an archaeological resource that has been determined to be eligible for listing on the National Register of Historic Places and California Register of Historical Resources. Prehistoric midden deposits associated with CA-SFR-7 are known to exist within the footprints of some of the proposed Yerby and UPC buildings (see Figure III-5, p. III.17).

Under the Yerby and UPC development projects and variants, the proposed buildings would have subgrade parking. Mat foundations would be used where allowed by subsurface conditions. The potential for liquefaction of soils at the former marine edge could require the use of soil improvement techniques. The average depth of excavation would range from approximately 20 feet below the ground surface at Yerby Building A to approximately 24.5 feet at Yerby Building B. Approximately 120,300 cubic yards of soil would be removed from the Yerby site. The average depth of excavation for the construction of foundations at the UPC site would range from approximately 8 feet at UPC Building 8 to approximately 20 feet at UPC Building 2. Approximately 174,400 cubic yards of soil would be removed from the UPC site for the construction of foundations.

Based on 1981 auger testing results, excavation for subgrade parking garages associated with Yerby Building C and UPC Buildings 6 and 7 could impact the upper portions of primary shell midden deposits in certain places. Construction of buildings proposed in an area underlain by soils that are susceptible to liquefaction from seismic events would require that the mat foundation be supported on either: 1) soil-cement columns or compacted aggregate piers; 2) driven piles; or 3) drilled piers to depths ranging from 20 to 30 feet below the depth of excavation for the sub-grade parking garages and mat foundation. Thus, the depth of impact resulting from excavation and foundation work would be approximately 35 to 45 feet below ground surface. The expected depth of primary midden deposits ranges from 17 to 29 feet for

¹¹ Archeo-Tec, Letters to Jakki Kehl, Michelle Zimmer (Amah/Mutsun Tribal Band), Irene Zwierlein (Amah/Mutsun Tribal Band), Ann Marie Sayers (Indian Canyon Mutsun Band of Costanoan), Rosemary Cambra (Muwekma Ohlone Indian Tribe), Andrew Galvan (The Ohlone Indian Tribe) and Ramona Garibay (Trina Marie Ruano Family). October 10, 2007.

UPC Building 6. The depth of midden is less clear at the locations of Yerby Buildings C and D and UPC Building 7.

Under Design Variant A (which calls for changes in building setbacks and façade articulation along certain internal streets and alleys) and Design Variant B (which would reconfigure Buildings 6 and 7, creating a single continuous streetwall along Harney Way), impacts on archaeological resources would be substantially the same as described for the proposed Yerby and UPC development projects. Both variants would have substantially the same requirements for excavation depths, soils improvement, and foundations as those of the proposed Yerby and UPC development projects.

Prior Disturbance to CA-SFR-7

Between the area's indigenous occupation and the first historic period development within its borders in the late 19th century, tidal action altered the shoreline in the vicinity of Executive Park Subarea Plan Area. The pattern of closing off and cutting-through of the sand spit appears to have been an ongoing natural pattern that occurred in prehistoric times as well. These changes indicate that natural processes have played a significant role. Such changes are relevant to archaeological study because CA-SFR-7 appears to have been deposited along the shore.

Man-made changes are first apparent on an 1895 map. This map depicts a regularized road and numerous fence lines to the north and southwest and evidence of filling to create an extension to the southeast into San Francisco Bay. This extension was apparently to create a wharf, and a large structure associated with the wharf is spotted on the southwest side of the filled-in platform. Midden from site CA-SFR-7 may have been used as fill.

During the first decade of the 20th century, changes along the shoreline continued. By 1905, another small building had been built on the north side of the shell mound. By 1911, a schematic map revealed evidence that substantial impacts to the mound had already occurred by 1911, and perhaps as early as 1895. The mound may have been used as fill for portions of the site, to build the road. Portions may have been removed. Dairy buildings and bunk houses were shown on the 1911 map.

All structures previously spotted on a 1926 map had been removed by 1931. Military housing was constructed on the site during World War II and torn down after the war. By 1949, the streets had been extended into the area, but stopped to the west of the proposed development sites.

Though some topographic modification may have taken place during highway construction for U.S. 101 in the 1950s, the first large-scale development within Executive Park took place in the early 1980s. A large amount of fill was placed over the site for the 1980s construction. Development within the Executive Park Subarea as of 1995 included the three structures that

comprise the existing Executive Park business park and the associated streets that were constructed in the early 1980s.

An Archaeological Research Design and Treatment Plan (ARDTP) has been prepared to establish procedures for further archaeological investigation of the development sites should further archaeological investigation be deemed necessary. The ARDTP identifies the testing and evaluation procedures that would be employed to evaluate deposits for archaeologically significant data that would address archaeological research themes. The ARDTP identifies and delineates the most important research issues to be given priority in the field. These research priorities are presented below, as they also represent how disturbance of CA-SFR-7 could impair the ability of the site to yield important scientific and historical information should such information exist.

- **Chronological Systems.** Dating the site would allow further understanding of where CA-SFR-7 fits into the chronology of prehistoric occupation of San Francisco. Radiometric dating, artifact seriation and systematic analysis of the site matrix will be used to determine periods of occupation, platform creation, and redeposition of shellmound deposits in prehistoric times.

Data Requirements:

Charcoal, bone, obsidian, diagnostic shell beads and shaped artifacts permitting absolute and cross-dating of cultural strata and features such as house floors and burials as well as natural features such as marshes.

Related analysis of paleoclimatic change and geomorphological reconstruction would require adequate faunal, soil, and macrobotanical and microbotanical samples.

- **Settlement Patterns** encompass spatial analysis, settlement layout, and site formation. Relationships among the horizontal cultural layers or facies will be analyzed as discrete depositional episodes. Natural lithostratigraphic units will be isolated from anthropic facies. The intent is to determine if depositional events (facies) represent contemporaneous events.

Data Requirements

Sampling of sizeable portions of the site and the analysis of features such as house floors/living surfaces, burials, hearths, and rock concentrations.

Recent San Francisco Bay shellmound theory and prior research on CA-SFR-7.

An accurate map of the site showing total excavation areas and including the site's features, depth, and components.

Identification of site formation components: paleoshoreline (Bay and lagoon) and horizontal components stratigraphically incongruous with the contiguous or primary stratigraphy of the site as a result of natural or human processes.

- **Subsistence and Technology** includes identifying toolkits, seasonality of habitation and food consumption, adaptation to environmental change, and intensification of resource exploitation.

Data Requirements

Finely screened faunal and fish remains, flotation samples, shaped artifacts to permit toolkit analysis, microbotanical analysis, and numerous column samples.

- **Social Organization** will be primarily addressed through mortuary analysis and through analysis of traded items. Analyses may reveal relationships between the site's inhabitants and further our understanding of the inhabitants' position in the region. Results may refine present understanding of how burials within large shellmounds differed in rank from nearby smaller burial sites.

Data Requirements:

Careful excavation, recordation, and analysis of burials and associated artifacts found within a recognizable grave outline revealing evidence of differences in wealth, rank, and special status as well as gender-related differences.

Evidence of patterns in burial distribution such as correlation of status, age and/or gender with burial position/goods. Evidence of exotic (non-local) materials.

Unless mitigated, implementation of the proposed amended Subarea Plan could impair the significance of the site under CRHR Criterion 4 (information potential).

**Impact CP-1: Construction activities for the proposed development projects could remove or disturb archaeological deposits/features (other than human remains).
(Less than Significant with Mitigation)**

The proposed development projects and variants would disturb prehistoric features that are known to exist in the area. Unless mitigated, disturbance and/or removal of these features could materially impair the ability of this site to yield information about prehistoric indigenous people in San Francisco. This effect would be considered a substantial adverse change in the significance of an historical resource and would therefore be a potentially significant impact under CEQA.

Mitigation Measure M-CP-1, below, calls for a qualified archaeological consultant to prepare and submit a plan for pre-construction archaeological testing, construction monitoring, and data recovery, for approval by the San Francisco Environmental Review Officer (ERO).

Implementation of the approved plan for testing, monitoring, and data recovery under Mitigation Measure M-CP-1 would ensure that the significance of the resource under CRHR Criterion 4 (Information Potential) would be preserved and/or realized in place. With implementation of Mitigation Measure M-CP-1, the proposed development projects and variants would not cause a substantial adverse change to the scientific significance of an archaeological resource.

Impact CP-2: Construction activities for the proposed development projects could remove or disturb human remains. (*Less than Significant with Mitigation*)

Excavations at CA-SFR-7 in 1910-1911 resulted in the recovery of a number of burials, raising the likelihood that more human remains, either in *in situ* burials or isolated human bones, may be encountered by proposed preconstruction archaeological testing and other development project activities. Human remains may be identified in midden soils during archaeological monitoring of excavation, or during pre-construction testing or data recovery procedures during archaeological unit excavation. Discovery circumstances (*in situ* burials versus isolated human remains) have different recovery and documentation requirements, which are detailed in the ARDTP.

The ARDTP makes specific recommendations regarding the treatment, recordation and analysis of any human remains recovered from SFR-7 from an archaeological and physical anthropology perspective. However, final decisions as to the treatment of human remains encountered during the course of the proposed development projects and variants will be determined in consultation with the appropriate Native American representatives, the project sponsors, and the ERO.

Mitigation Measure M-CP-1 calls for compliance with applicable State and Federal laws regarding the treatment of human remains and of associated or unassociated funerary objects discovered during any soils-disturbing activity. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Public Resources Code Section 5097.98). The ERO, archaeological consultant, project sponsor, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines Section 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.

With implementation of Mitigation Measures M-CP-1, the proposed development projects and variants would not cause a substantial adverse change to the scientific significance of an archaeological resource.

Impact CP-3: Disturbance of archaeological resources within the Yerby and UPC development sites, in combination with other past and proposed development projects along and near the San Francisco shoreline, could contribute to a cumulative loss in the ability of the sites to yield significant historic and scientific information. (*Less than Significant with Mitigation*)

When considered with other past and proposed development projects along and near the San Francisco shoreline, the disturbance of archaeological resources within Executive Park could

contribute to a cumulative loss in the ability of the site to yield significant historic and scientific information about the existence of prehistoric indigenous people of San Francisco and Central California.

As discussed above, implementation of an approved plan for testing, monitoring, and data recovery would preserve and realize the information potential of archaeological resources under CRHR Criterion 4 (Information Potential).

The recovery, documentation, and interpretation of information about archaeological resources that may be encountered within the development project sites would enhance knowledge of the lifeways of the indigenous people of California in general and of San Francisco specifically. This information would be available to future archaeological studies, contributing to the body of historic and scientific knowledge. With implementation of Mitigation Measure M-CP-1, the proposed development projects and variants would not contribute to a significant adverse cumulative impact on archaeological resources.

MITIGATION MEASURES

Mitigation Measure M-CP-1: Archaeological Testing, Monitoring, Data Recovery and Reporting

Based on a reasonable presumption that archaeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor shall retain the services of a archaeological consultant from the Planning Department (“Department”) pool of qualified archaeological consultants as provided the Department archaeologist. The archaeological consultant shall undertake an archaeological testing program as specified herein. In addition, the consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure. The archaeological consultant’s work shall be conducted in accordance with this measure and the requirements of the ARDTP (Archeo-Tec, Archaeological Research Design and Treatment Plan for the Executive Park Project, March 2009) at the direction of the Environmental Review Officer (ERO). In instances of inconsistency between the requirements of the project ARDTP and the requirements of this mitigation measure, the requirements of this archaeological mitigation measure shall prevail. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archaeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks cumulative, as measured from the commencement of site grading to the issuance of a Certificate of Occupancy. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible

means to reduce to a less-than-significant level potential effects on a significant archaeological resource as defined in CEQA Guidelines Section 15064.5(a)(c).

The Department shall initiate further consultation with Native American/Ohlone representatives through the California State Native American Heritage Commission (NAHC) regarding the significance of the remains CA-SFR-7 shell mound and appropriate investigation and treatment protocols. Any NAHC-recognized Ohlone participant in the Department consultation shall be given the opportunity to review and comment on any draft archaeological testing, monitoring, or data recovery plan required by this measure prior to document approval.

Archaeological Testing Program

The archaeological consultant shall prepare and submit to the ERO for review and approval an archaeological testing plan (ATP). The archaeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archaeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archaeological testing program will be to determine to the extent possible the presence or absence of archaeological resources and to identify and to evaluate whether any archaeological resource encountered on the site constitutes an historical resource under CEQA.

At the completion of the archaeological testing program, the archaeological consultant shall submit a written report of the findings to the ERO. If based on the archaeological testing program the archaeological consultant finds that significant archaeological resources may be present, the ERO in consultation with the archaeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archaeological testing, archaeological monitoring, and/or an archaeological data recovery program. If the ERO determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

- A) The proposed project shall be re-designed so as to avoid any adverse effect on the significant archaeological resource; or
- B) A data recovery program shall be implemented, unless the ERO determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

Archaeological Monitoring Program (AMP)

If the ERO in consultation with the archaeological consultant determines that an archaeological monitoring program shall be implemented the archaeological monitoring program shall minimally include the following provisions:

- The archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils-disturbing activities commencing. The ERO in consultation with the archaeological consultant shall determine what project activities shall be archaeologically monitored. In most cases, any soils-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archaeological monitoring because of the risk these activities pose to potential archaeological resources and to their depositional context;
- The archaeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archaeological resource;
- The archaeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archaeological consultant and the ERO until the ERO has, in consultation with the project archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits;
- The archaeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;
- If an intact archaeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archaeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. If in the case of pile-driving activity (foundation, shoring, etc.), the archaeological monitor has cause to believe that the pile-driving activity may affect an archaeological resource, the pile-driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archaeological consultant shall immediately notify the ERO of the encountered archaeological deposit. The archaeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, and present the findings of this assessment to the ERO.

Whether or not significant archaeological resources are encountered, the archaeological consultant shall submit a written report of the findings of the monitoring program to the ERO.

Archaeological Data Recovery Program

The archaeological data recovery program shall be conducted in accord with an archaeological data recovery plan (ADRP). The archaeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archaeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely

affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if non-destructive methods are practical.

The scope of the ADRP shall include the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.
- *Discard and De-accession Policy.* Description of and rationale for field and post-field discard and de-accession policies.
- *Interpretive Program.* Consideration of an on-site/off-site public interpretive program during the course of the archaeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Description of proposed report format and distribution of results.
- *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects

The treatment of human remains and of associated or unassociated funerary objects discovered during any soils-disturbing activity shall comply with applicable State and Federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The ERO, archaeological consultant, project sponsor, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.

Final Archaeological Resources Report

The archaeological consultant shall submit a Draft Final Archaeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s) undertaken. Information that may

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put at risk any archaeological resource shall be provided in a separate removable insert within the final report.

Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Major Environmental Analysis division of the Planning Department shall receive two copies (bound and unbound) and one unlocked, searchable PDF copy on a CD or DVD of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.

E. TRANSPORTATION AND CIRCULATION

This section analyzes the potential project-level and cumulative impacts on transportation and circulation resulting from implementation of the proposed project. Transportation impacts are assessed for the land use development program for weekday AM and PM commute periods, and also for weekend midday conditions. This section also identifies mitigation measures that would reduce or avoid significant impacts.

This section summarizes and incorporates the results of the Executive Park Subarea Plan Amendment Transportation Study.¹ The Transportation Study describes existing, baseline and future (2030) transportation conditions (roadway traffic, transit, pedestrian, bicycle, parking, and loading) in the vicinity of the proposed project and evaluates environmental effects.

SETTING

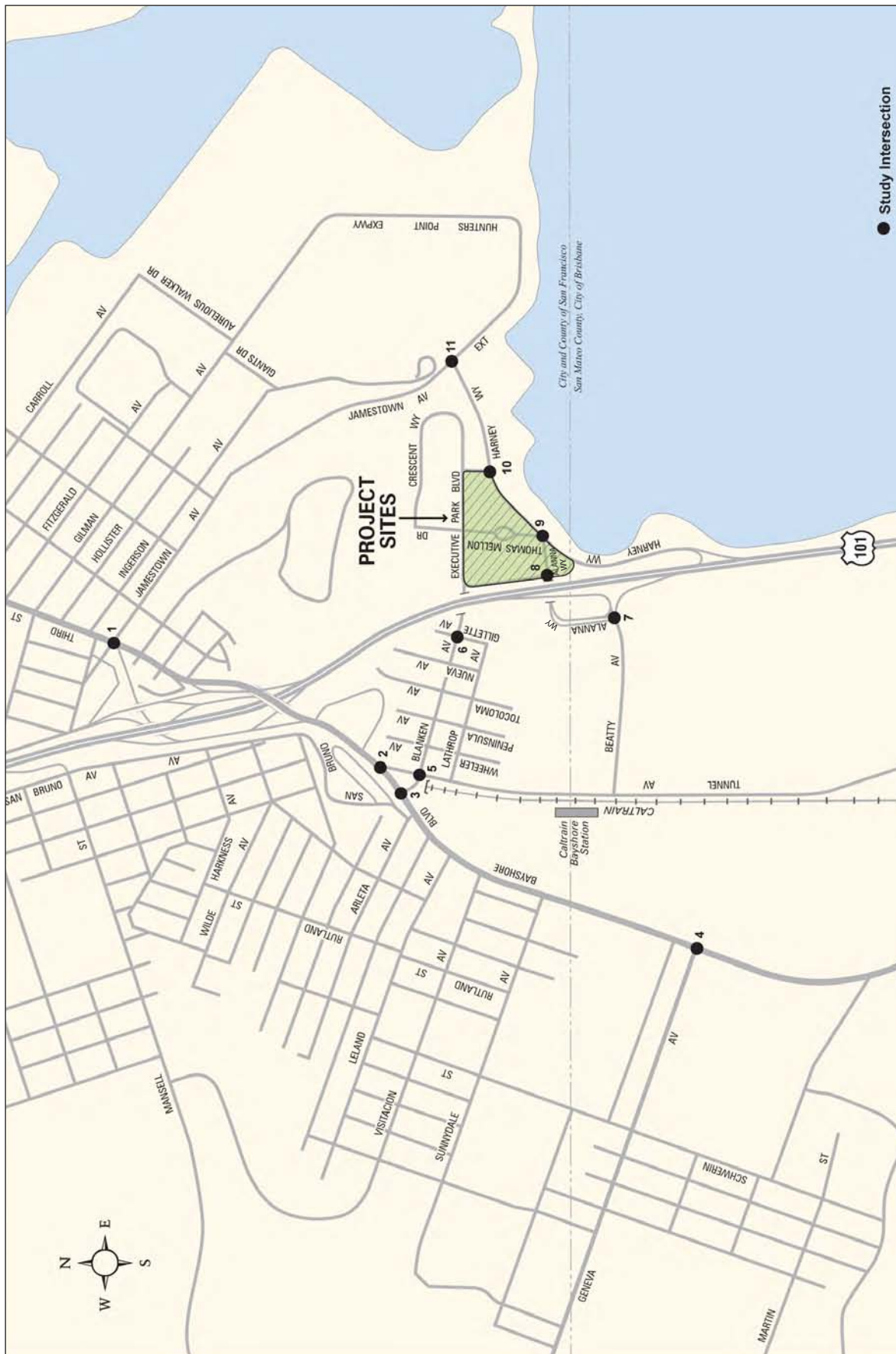
TRANSPORTATION STUDY AREA

The transportation Study Area includes all aspects of the transportation network that may be measurably affected by the proposed project. The transportation Study Area is defined by travel corridors and by facilities such as bus stops/transit stations (see Figure V.E-1: Project Study Area and Analysis Locations). It includes the freeway segments, freeway ramps, and existing and proposed street intersections that residents and visitors would use in traveling to and from the proposed project.

For the traffic analysis, eleven study intersections were identified as locations likely to be most affected by the proposed project:

- Third Street / Jamestown Avenue / U.S. 101 SB On-Ramp;
- Bayshore Boulevard / Tunnel Avenue;
- Bayshore Boulevard / Blanken Avenue;
- Bayshore Boulevard / Geneva Avenue;
- Tunnel Avenue / Blanken Avenue;
- Gillette Avenue / Blanken Avenue;
- Alanna Way / Beatty Road;
- Executive Park Boulevard West / Alanna Way;
- Harney Way / Alanna Way / Thomas Mellon Drive;

¹ The information in this section is from the *Executive Park Subarea Plan Amendment Transportation Study*, May 21, 2010, prepared by AECOM (hereafter *Transportation Study*). This report is on file and available for public review at the San Francisco Planning Department, in Case File Number 2006.0422E.



SOURCE: AECOM

EXECUTIVE PARK

2006.0422E

FIGURE V.E-1: PROJECT STUDY AREA AND ANALYSIS LOCATIONS

- Harney Way / Executive Park Boulevard East; and
- Harney Way / Jamestown Avenue.

Additionally, the following two freeway mainline segments and two freeway on-ramps were chosen for analysis:

- U.S. 101 Mainline, north of the Alanna Way / Harney Way Interchange;
- U.S. 101 Mainline, south of the Alanna Way / Harney Way Interchange;
- U.S. 101 Northbound on-ramp at Harney Way; and
- U.S. 101 Southbound on-ramp at Alanna Way / Beatty Road.

Separate project-specific analyses were conducted for the proposed Yerby and UPC development projects.

ROADWAY NETWORK

Regional Access

East Bay: Regional access to and from the Executive Park Subarea Plan Area and the East Bay is provided by U.S. Highway 101 (U.S. 101), which connects with Interstate 80 (I-80) and the Bay Bridge. U.S. 101 has northbound on- and off-ramps at Harney Way and southbound on- and off-ramps at Alanna Way / Beatty Road. Additional nearby ramps are provided at the Third Street / Bayshore Boulevard interchange and the Bayshore Boulevard / Sierra Point Parkway interchange. In the vicinity of Executive Park, U.S. 101 consists of eight to ten travel lanes.

South Bay: Regional access to and from the South Bay and the Peninsula is provided primarily by U.S. 101, with ramp locations as listed above. Secondary access is provided by Interstate 280 (I-280), which can be accessed via U.S. 101 via the Interstate 380 (I-380) junction, or directly at the U.S. 101 / I-280 junction near the confluence of Bayshore Boulevard, Alemany Boulevard, Industrial Street, and San Bruno Avenue. I-280 generally consists of six to eight travel lanes south of the U.S. 101 / I-280 Junction.

North Bay: Regional access to and from the North Bay is provided by U.S. 101 (via Van Ness Avenue and Lombard Avenue) and the Golden Gate Bridge.

Local Access

Harney Way is the primary access road to Executive Park, providing direct connection to U.S. 101. Vehicles destined to and from U.S. 101 northbound use the Harney Way ramps, while vehicles destined to and from U.S. 101 southbound use the Alanna Way / Beatty Road ramps on the west side of U.S. 101 (with access to Harney Way via the Alanna Way underpass). Harney Way connects with Jamestown Avenue and Hunters Point Expressway to the east of Executive

Park. Between Alanna Way and Jamestown Avenue, Harney Way has two travel lanes in each direction and an eight-foot sidewalk on the north side of the street; south of Alanna Way, Harney Way has two eastbound travel lanes and one westbound travel lane. On-street parking is not permitted at any time. The *San Francisco General Plan (General Plan)* classifies Harney Way as a Class III facility in the Citywide Bicycle Route Network, Citywide Bicycle Route (Route 805).

The San Francisco Bay Trail offers pedestrian paths and Class I bicycle facilities (bicycle paths) and lies directly to the east of Harney Way, running along the San Francisco Bay shoreline.

Alanna Way connects Beatty Road with Harney Way and serves as the primary connection between Harney Way and the U.S. 101 southbound ramps at Alanna Way / Beatty Road. Alanna Way is a two-way roadway, with one travel lane in the eastbound direction and two travel lanes in the westbound direction. Sidewalks are not provided along either side of the street. On-street parking is not permitted at any time. The *General Plan* classifies Alanna Way as a Class III designated facility in the Citywide Bicycle Route Network, Citywide Bicycle Route (Route 805).

Beatty Road is a two-way east-west roadway on the west side of U.S. 101 between Tunnel Avenue and the U.S. 101 southbound ramps at the intersection with Alanna Way. Beatty Road has one travel lane in each direction. On-street parking is generally permitted on both sides of the street, and sidewalks are provided, although not continuously, on both sides. The *General Plan* classifies Beatty Road as a Class III designated facility in the Citywide Bicycle Route Network, Citywide Bicycle Route (Route 805).

Blanken Avenue is a two-way, east-west roadway that connects Bayshore Boulevard to the Little Hollywood area, west of U.S. 101. In addition, Blanken Avenue connects with Executive Park Boulevard North and Executive Park Boulevard West via a tunnel under U.S. 101. The roadway has one travel lane in each direction and sidewalks on both sides of the street. On-street parking is permitted on both sides of the street and is generally unrestricted. Commercial vehicles weighing more than 6,000 pounds are prohibited from using Blanken Avenue as a through route.

Bayshore Boulevard is a north-south arterial that generally parallels U.S. 101, extending from Airport Boulevard in South San Francisco, through the City of Brisbane, to Cesar Chavez Street (formerly Army Street) in San Francisco. In the vicinity of Executive Park, Bayshore Boulevard has two travel lanes in each direction and an exclusive center median for T-Third Street Muni Metro light rail operations (between Sunnydale Avenue and Hester Avenue only). The *General Plan* classifies Bayshore Boulevard as a Major Arterial in the Congestion Management Program (CMP) Network within the City and County of San Francisco and part of the Metropolitan Transportation System (MTS) Network along its entire length.^{2,3} It is also classified as a

² The Congestion Management Program Network is a network of freeways, State highways, and major arterials established in accordance with State Congestion Management legislation. Transit Conflict Streets are also included in this network.

Secondary Transit Street within the City and County of San Francisco, and a Neighborhood Commercial Street in the Neighborhood Pedestrian Network between Arleta Avenue and Sunnydale Avenue. Bayshore Boulevard is a mixed Class II/Class III designated facility in the Citywide Bicycle Route Network, Citywide Bicycle Route (Route 5 and Route 25).

Third Street is the principal north-south arterial in the southeast part of San Francisco, extending from the U.S. 101 / Bayshore Boulevard Interchange to Market Street. It is the main commercial street in the Bayview-Hunters Point neighborhood, and also serves as a through-street and an access way to industrial areas north and east of U.S. 101. In the vicinity of Executive Park, Third Street has two travel lanes in each direction and an exclusive center median for T-Third Street Muni Metro light rail operations. The *General Plan* classifies Third Street as a Major Arterial in the CMP Network and part of the MTS Network along its entire length. It is also a Transit Important Street for its entire length, with the exception of the segment between Fourth Street and King Street, and a Neighborhood Commercial Street in the Neighborhood Pedestrian Network along its entire length. Bayshore Boulevard is a Class III designated facility in the Citywide Bicycle Route Network, along most of its length south of Cesar Chavez Street, Citywide Bicycle Route (Route 5 and Route 7).

Jamestown Avenue is an east-west street between Third Street and Hunters Point Expressway. West of Redondo Street, Jamestown Avenue has one travel lane in each direction, and between Redondo Street and Giants Drive, it has one travel lane in the eastbound direction and two travel lanes in the westbound direction. Commercial vehicles weighing more than 6,000 pounds are prohibited from using Jamestown Avenue as a through-route. On-street parking is generally permitted, except during events at Candlestick Park stadium. The *General Plan* classifies Jamestown Avenue as a Recreational Street in the CMP Network.

Hunters Point Expressway (and the road southeast of the Harney Way / Jamestown Avenue intersection, called Jamestown Avenue Extension) circles the Candlestick Park stadium and parking lots at Candlestick Point State Recreation Area, and provides a connection between Jamestown Avenue and Gilman Avenue. Hunters Point Expressway provides access to the Candlestick Point State Recreation Area to the east of Executive Park. The number of travel lanes on Hunters Point Expressway varies, but in general, there are two continuous travel lanes in each direction. On-street parking is generally not permitted at any time, with the exception of some sections of the Jamestown Avenue Extension, where on-street parking is generally restricted only on event days. The *General Plan* classifies Hunters Point Expressway as a Class III facility in the Citywide Bicycle Route Network, Citywide Bicycle Route (Route 805).

³ The Metropolitan Transportation System Streets, Highways, and Freight Network is a regional network of freeways, major and secondary arterials, transit conflict, and recreational streets for San Francisco which meet nine criteria developed by the Metropolitan Transportation Commission as part of the Regional Transportation Plan.

Executive Park Boulevard is an internal roadway within the Executive Park area and provides access to the existing land uses and parking facilities. Executive Park Boulevard consists of three roadways: North, East and West. Executive Park Boulevard East connects with Harney Way; Executive Park Boulevard North connects with Thomas Mellon Drive and Blanken Avenue; and Executive Park Boulevard West connects with Alanna Way and Blanken Avenue. Executive Park Boulevard North, East, and West have one travel lane in each direction, plus sidewalks and a landscaped median. On-street parking is not currently permitted, and loading bays are provided adjacent to the existing office buildings.

Thomas Mellon Drive is a two-way, north-south roadway that serves as the main entrance to the existing Executive Park development. The roadway connects Harney Way and Executive Park Boulevard North and provides access to the main parking lots for the existing office buildings. Thomas Mellon Drive has one travel lane in each direction, but no sidewalk. On-street parking is not permitted.

Crescent Way is a roadway internal to the St. Francis Bay development that provides direct access to Executive Park Boulevard East. Sidewalks are provided on the south side of Crescent Way adjacent to the existing five buildings comprising St. Francis Bay Phases I and II. Access to Crescent Way is restricted to residents and guests only by a gate at the intersection of Executive Park Boulevard East / Executive Park Boulevard North.

TRAFFIC OPERATING CONDITIONS

Methodology

The operations of roadway facilities are described with the term “Level of Service” (LOS). LOS is a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to maneuver. LOS ranges from LOS A, which indicates free flow or excellent conditions with short delays, to LOS F, which indicates congested or overloaded conditions with extremely long delays. Typically, LOS E and LOS F represent unacceptable Levels of Service. In San Francisco, LOS A through D are considered excellent to satisfactory service levels, and LOS E and F represent unacceptable service levels. Table V.E-1 defines each of the levels of service and shows the correlation between average control delay and level of service. The LOS for a freeway section, weaving section, and ramp junction with the freeway is based on vehicle density (passenger cars/lane/mile) and service volume (passenger cars/hour) using the relationships presented in Table V.E-2. Service volume is the primary measure of the overall weaving segment. The specific level of service, and thus service volume, is prescribed by the weaving

movement predicated on the weaving volume, number of lanes, and length of weave relationship.⁴

Existing Conditions

Existing intersection operating conditions were evaluated for the peak hour of the weekday AM and PM peak periods for the eleven study intersections in the vicinity of Executive Park. Intersection turning movement counts were conducted at all study intersections in December 2007 and September 2008. Table V.E-1 presents the results of the intersection LOS analysis for Existing Conditions AM and PM peak hours.

Existing freeway mainline and ramp conditions were evaluated for the peak hour of the weekday AM and PM peak periods for the six study locations in the vicinity of Executive Park. Table V.E-2 presents the freeway mainline and on-ramp junction analysis results for the weekday AM and PM peak hours.

As shown in Table V.E-3, all study intersections operate with acceptable conditions (LOS D or better) during both the weekday AM and PM peak hours.

As shown in Table V.E-4, the study mainlines generally operate at LOS D or LOS E during both the weekday AM and PM peak hours. At LOS D conditions, speeds and the ability to maneuver are substantially restricted because of traffic congestion; however, traffic continues to travel with stable flow. At LOS E conditions, disruptions in traffic flow can propagate throughout the upstream flow. The two study on-ramps operate at LOS B or LOS C during both time periods.

TRANSIT

Executive Park is served by public transit, with both local and regional service provided near the project site (see Figure V.E-2: Existing Transit Network). In the vicinity of the project, local service is provided by the San Francisco Municipal Railway (Muni) and regional service provided by Caltrain and SamTrans. Executive Park is also served by a shuttle service that connects it with Balboa Park BART station.

Local Transit Service

Muni provides transit service within the City and County of San Francisco. Muni operates several types of service, including bus (diesel and electric), surface / subway light rail (Muni Metro), streetcar, and cable car lines. Muni provides direct connections with regional transit hubs

⁴ The value of service volume is determined with the aid of monographs published in *Completion of Procedures for Analysis and Design of Traffic Weaving Sections*, by J. Leisch & Associates, September 1983.

Table V.E-1: LOS Definitions for Signalized and Unsignalized Intersections

Control/LOS	Description of Operations	Average Control Delay (seconds per vehicle)
Signalized		
A	Insignificant Delays: No approach phase is fully used and no vehicle waits longer than one red indication.	≤ 10
B	Minimal Delays: An occasional approach phase is fully used. Drivers begin to feel restricted.	> 10.0 and ≤ 20.0
C	Acceptable Delays: Major approach phase may become fully used. Most drivers feel somewhat restricted.	> 20.0 and ≤ 35.0
D	Tolerable Delays: Drivers may wait through no more than one red indication. Queues may develop but dissipate rapidly without excessive delays.	> 35.0 and ≤ 55.0
E	Significant Delays: Volumes approaching capacity. Vehicles may wait through several signal cycles and long queues form upstream.	> 55 and ≤ 80
F	Excessive Delays: Represents conditions at capacity, with extremely long delays. Queues may block upstream intersections.	> 80.0
Unsignalized		
A	No delay for STOP-controlled approach.	≤ 10.0
B	Operations with minor delays.	> 10.0 and ≤ 15.0
C	Operations with moderate delays.	> 15 and ≤ 25.0
D	Operations with some delays.	> 25.0 and ≤ 35.0
E	Operations with high delays and long queues.	> 35.0 and ≤ 50.0
F	Operations with extreme congestion, with very high delays and long queues unacceptable to most drivers.	> 50.0

Source: *Highway Capacity Manual – Special Report 209* (Transportation Research Board, 2000).

Table V.E-2: LOS Definitions for Freeway Mainline Segments, Weaving Segments, and Ramp Junctions

LOS	Description of Operations	Maximum Density (Passenger Cars Per Mile Per Lane)		Service Volume (Passenger Cars Per Hour)		
		Basic Freeway Sections	Freeway Weaving Segments and Ramp Junctions	Freeway Weaving Sections (Lanes)		
				2	3	4
A	Free-flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.	< 11	< 10	< 750	< 800	< 850
B	Free-flow speeds are maintained. The ability to maneuver with the traffic stream is only slightly restricted.	> 11 to 18	> 11 to 20	>750 to 1,000	>800 to 1,100	>850 to 1,200
C	Flow with speeds at or near free-flow speeds. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver.	> 18 to 26	> 20 to 28	>1,000 to 1250	>1,100 to 1,350	>1200 to 1,450
D	Speeds decline slightly with increasing flows. Freedom to maneuver with the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort.	> 26 to 35	> 28 to 35	>1,250 to 1550	>1,350 to 1,600	>1,450 to 1,650
E	Operation at capacity. There are virtually no usable gaps within the traffic stream, leaving little room to maneuver. Any disruption can be expected to produce a breakdown with queuing.	> 35 to 45	> 35	>1,550 to 1,900	>1,600 to 1,900	>1,650 to 1900
F	Represents a breakdown in flow.	> 45	Demand exceeds capacity		> 1900	

Source: *Highway Capacity Manual (HCM)* – Chapter 23: Basic Freeway Sections and Chapter 25: Ramps and Ramp Junctions Methodology, Transportation Research Board, 2000; and *Completion of Procedures for Analysis and Design of Traffic Weaving Sections*, Jack E. Leisch & Associates, September 1983.

Table V.E-3: Intersection Level of Service – Existing Conditions

Intersection	Traffic Control	Existing Conditions		
		LOS	Delay	
<i>AM Peak Hour</i>				
1 Third / Jamestown / U.S. 101 SB On-Ramp	Signal	B	12.1	
2 Bayshore / Tunnel	Signal	B	16.7	
3 Bayshore / Blanken	Signal	C	25.5	
4 Bayshore / Geneva	Signal	C	23.6	
5 Tunnel / Blanken	AWSC	B	10.7	
6 Gillette / Blanken	AWSC	A	8.2	
7 Alanna / Beatty	AWSC	A	9.6	
8 Executive Park West / Alanna	OWSC	B	11.1	
9 Harney / Alanna / Thomas Mellon	TWSC	B	11.7	
10 Harney / Executive Park East	OWSC	A	8.9	
11 Harney / Jamestown	AWSC	A	8.5	
<i>PM Peak Hour</i>				
1 Third / Jamestown / U.S. 101 SB On-Ramp	Signal	B	13.9	
2 Bayshore / Tunnel	Signal	A	9.9	
3 Bayshore / Blanken	Signal	C	20.3	
4 Bayshore / Geneva	Signal	C	24.5	
5 Tunnel / Blanken	AWSC	A	9.3	
6 Gillette / Blanken	AWSC	A	7.9	
7 Alanna / Beatty	AWSC	A	9.3	
8 Executive Park West / Alanna	OWSC	A	9.1	
9 Harney / Alanna / Thomas Mellon	TWSC	B	12.2	
10 Harney / Executive Park East	OWSC	A	8.8	
11 Harney / Jamestown	AWSC	A	8.3	

Notes:

Delay in seconds per vehicle.

Bold indicates unacceptable conditions.

AWSC = All-way stop-controlled

OWSC = One-way stop-controlled

TWSC = Two-way stop-controlled

Source: AECOM, 2010.

Table V.E-4: Freeway Level of Service – Existing Conditions

Location		Dir.	AM Peak Hour		PM Peak Hour	
			LOS	Density	LOS	Density
Freeway Mainline						
1	U.S. 101 Mainline	NB	D	28.7	E	35.5
	North of Alanna / Harney	SB	E	35.6	D	30.4
2	U.S. 101 Mainline	NB	D	28.5	E	36.2
	South of Alanna / Harney	SB	E	35.7	D	31.2
Freeway On-Ramp						
3	U.S. 101 NB On-Ramp		B	19.0	C	21.5
	at Harney Way					
4	U.S. 101 SB On-Ramp		C	21.7	C	20.3
	at Alanna Way					

Notes:

Density in passenger car equivalents per mile per lane.

Bold indicates unacceptable conditions.

Source: AECOM, 2010.

at the Ferry Building, Transbay Terminal, BART stations, and Caltrain's San Francisco Terminal at Fourth Street / King Street and its 22nd Street Station and Bayshore Station.

One Muni bus line, the 56-Rutland, provides direct service to Executive Park and four other routes (T-Third Street, 9-San Bruno, 9L-San Bruno Limited, and the 8X/AX/BX-Bayshore Expresses) operate in the vicinity of Executive Park.

The **T-Third Street** is a major Downtown trunk line, connecting Visitacion Valley, Bayview-Hunters Point, Potrero Hill / Dogpatch, Mission Bay, and South Beach with Downtown via the Market Street Subway to Castro Station. In the project vicinity, the T-Third Street operates on Bayshore Boulevard, with the nearest stop at Arleta Station at Arleta Avenue, approximately 0.5 mile (15-minute walk) from the development project sites. Service on the T-Third Street is currently provided by one-car trains operating at approximately 10-minute headways.

The **8X/AX/BX-Bayshore Expresses** primarily serve as express services for the 9-San Bruno. Weekday peak commute service (inbound to Downtown in the morning, outbound to City College in the evening) is provided on the 8AX and 8BX lines. The 8X-Bayshore Express offers reverse-peak service during the commute periods and is the basic express service at all other times, including midday, late evening, and weekends.

The **9-San Bruno** is a major Downtown trunk line, connecting Sunnydale, Visitacion Valley, Portola / Silver Terrace, and Potrero Hill with Downtown via Market Street to Mission Street /



SOURCE: AECOM

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FIGURE V.E-2: EXISTING TRANSIT NETWORK

Main Street. The **9L-San Bruno Limited** provides limited-stop service until 5:40 PM weekdays along the same route, but does not operate on weekends.

The **56-Rutland** is a Community Service line serving Executive Park, Little Hollywood, and Visitacion Valley. The line offers connections to the T-Third Street, 9-San Bruno, 9L-San Bruno Limited, and 8X/AX/BX-Bayshore Expresses at Bayshore Boulevard / Arleta Avenue / San Bruno Avenue. However, the latest set of Transit Effectiveness Project (TEP) recommendations from staff at the San Francisco Municipal Transportation Agency (MTA) have suggested the elimination of the Little Hollywood / Executive Park branch of the 56-Rutland.

In the project vicinity, there is generally excess capacity available on Muni vehicles. Observations of Muni vehicle loading indicate that the heaviest passenger loads occur on peak period expresses (8AX and 8BX), but there is still capacity available to handle additional standees.

In addition to the above Muni service, a free shuttle service is provided for Executive Park employees and residents. This shuttle operates as a loop between BART, Caltrain, Executive Park, and back to BART to provide service for both residents and employees. Service is provided only during the weekday peak periods, at approximately 40-minute headways, and the fleet consists of one 21-passenger vehicle that operates all trips.

Regional Transit Service

Caltrain provides commuter heavy rail service between San Francisco, the Peninsula, and Santa Clara County. Caltrain operates a combination of local (all-stop), limited, and “Baby Bullet” (express) trains, with approximately five (5) trains per hour during the peak hour arriving and departing the San Francisco terminal at Fourth Street / King Street. However, Bayshore Station is only served by one limited train per hour (approximately 0.75 from the development project sites), with no timed transfers to Baby Bullet services.

The San Mateo County Transit District (SamTrans) provides bus service between San Francisco and San Mateo County, operating mostly peak period express services to and from Downtown San Francisco. In the vicinity of the project, SamTrans operates Route 292, which serves Hillsdale Shopping Center, San Mateo, Burlingame, San Francisco International Airport, South San Francisco, Brisbane, and San Francisco (with stops along Bayshore Boulevard, Potrero Avenue, and Mission Street to the Transbay Terminal). The closest stop is located at Bayshore Boulevard / Arleta Avenue / San Bruno Avenue, but because this service area is inside the City and County of San Francisco, passengers may only board in the southbound direction, with approximately 15- to 20-minute headways during the peak period. Additional SamTrans service is provided on the Route 391, which stops at Mission Street / Geneva Avenue, accessible by the

8X/AX/BX-Bayshore Expresses. Late-night service is provided by the Route 397, which follows the route of the 292 in the vicinity of the project.

Connections to other regional services, including BART (East Bay, South Bay), AC Transit (East Bay), Golden Gate Transit (North Bay), and ferry services (East Bay, North Bay) is provided by Muni. The closest transfer hub for regional service is at Balboa Park BART station, accessible by the 8X/AX/BX-Bayshore Expresses.

Caltrain trains stopping at Bayshore Station in both directions operate with substantial excess capacity, largely because these are local trains and most passengers take advantage of the limited and Baby Bullet services, which offer shorter journey times. SamTrans buses in the reverse commute direction (southbound in the morning, northbound in the evening) also operate with substantial excess capacity.

PEDESTRIANS

Sidewalk and Crosswalk Conditions

On typical weekdays, pedestrian activity in the vicinity of Executive Park is light throughout the day. Pedestrian activity is generally limited to trips within Executive Park, and trips to and from Bayshore Boulevard, including trips to the nearby transit providers. Sidewalks are provided within the Executive Park site surrounding the existing office buildings and along Executive Park Boulevard (West, North and East) and on the north side of Harney Way and Alanna Way fronting the office buildings. However, sidewalks are currently not provided at the south entrance to Executive Park at the Harney Way / Alanna Way / Thomas Mellon Drive entrance, nor along Thomas Mellon Drive within the site.

Blanken Avenue has sidewalks on both sides of the street, but the sidewalks underneath U.S. 101 are relatively narrow and do not directly connect with the existing sidewalks along Executive Park Boulevard North and Executive Park Boulevard West. In addition, sidewalks are provided along Crescent Way which connect to the sidewalks along Executive Park Boulevard. No sidewalks are provided on Alanna Way underneath U.S. 101, and most crosswalks within the site and the vicinity are unmarked.

San Francisco Bay Trail

A portion of the regional Bay Trail runs in the vicinity of Executive Park, as illustrated in Figure V.E-3: San Francisco Bay Trail and Existing Bicycle Facilities. The Bay Trail is intended to provide continuous recreational pedestrian access to the San Francisco Bay shoreline. Within the Candlestick Point State Recreation Area, an improved trail exists in the southern section across from the Executive Park site, but the northern section east of Candlestick Park stadium is

as yet unimproved. The trail starts northeast of the U.S. 101 northbound on- and off-ramps, on the south side of Harney Way.

Parking is available off of Harney Way, west of Jamestown Avenue (approximately 30 parking spaces are currently provided), and parking, restrooms, and boat ramp facilities are provided off of Hunters Point Expressway near Gilman Avenue. However, there is no easy pedestrian access from the Executive Park area to these recreational paths, as there is no traffic signal or marked crosswalk along Harney Way.

BICYCLES

In the vicinity of Executive Park, there are four main Citywide Bicycle Routes, consisting of Class II and Class III facilities. Class II bicycle facilities are separate bicycle lanes adjacent to the curb lane, while Class III bicycle facilities are signed routes only, where bicyclists share travel lanes with vehicles. The San Francisco Bay Trail is mostly a Class I facility (dedicated path separate from the roadway) and provides for recreational bicycling. The major bicycle routes in the study area are illustrated in Figure V.E-3 and include the following routes: Route 5 (mixed Class II / Class III), Route 25 (mixed Class II / Class III), Route 805 (Class III), and Route 905 (Class III).

PARKING

For the three existing office buildings, there are approximately 790 off-street parking spaces. On-street parking is prohibited along all streets within Executive Park except Executive Park Boulevard West (east side only) and Executive Park Boulevard East (both sides). Limited on-street parking is provided along Crescent Way (primarily used by residents' guests), and parking for all current and approved residential buildings within the area is generally provided within each building. There is no designated residential parking permit area in the project vicinity.

EVENTS

Candlestick Park stadium, located off Harney Way directly east of Executive Park, is the home stadium of the San Francisco 49ers National Football League franchise. In addition to football games, Candlestick Park stadium hosts about ten other events throughout the year, including soccer games, concerts, and races. Typical attendance for these types of events is between 10,000 and 40,000 patrons. Most of these events occur on weekday evenings or on weekends.

Auxiliary parking for events at Candlestick Park stadium is currently provided at Executive Park, primarily for large events. Currently, about 1,020 event parking spaces can be created within Executive Park, including 750 parking spaces adjacent to the existing office buildings and 270 parking spaces within the unpaved lot located between Alanna Way, Harney Way, and U.S. 101.



SOURCE: AECOM

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Overall, events held at Candlestick Park stadium substantially affect the operation of the roadways in the vicinity of the stadium, especially along Harney Way. Both before and after events, localized congestion occurs on the freeway and ramps, and high levels of congestion and substantial queues form on the local streets. However, there are relatively low volumes of traffic destined to and from Executive Park before, during, and after these events. As a result, there are few conflicts between stadium traffic and vehicles destined to and from Executive Park.

IMPACTS

This section presents the assessment of transportation impacts due to the proposed project. The impacts were analyzed for seven topics: traffic, transit, pedestrians, bicycles, parking, loading, and construction. An assessment of Candlestick Park stadium event-day conditions is also included. The transportation conditions were assessed for Baseline plus Project Conditions and 2030 Cumulative Conditions.

EFFECTS ADDRESSED IN PRIOR ENVIRONMENTAL REVIEW

The 1985 EIR found that construction truck traffic would result in a slight lessening of the capacities of access streets. Onsite development as then proposed would cause three intersections to operate at LOS F (Alanna Way/Beatty Avenue; Harney Way/Alanna Way; and Alanna Way/Executive Park Boulevard). Project plus cumulative development would cause U.S. Highway to operate at LOS E southbound during the p.m. peak hour.

The 1999 SEIR found that the then proposed project, under baseline plus project conditions, would cause U.S. 101 to change from LOS D to LOS E, resulting in a significant impact. All six nearby and onsite intersections studied were found to operate at LOS D or better with the then proposed project. Under cumulative conditions, only two of the six intersections studied would operate at acceptable levels of service. The remaining study intersections would operate at LOS F. The 1999 SEIR projected that the then proposed project would generate 215 p.m. peak hour transit trips, which would not substantially increase occupancy on local and regional transit. It found that the then proposed project would not meet parking demand, resulting in spillover into the Little Hollywood neighborhood. This impact was then considered a significant impact.

SIGNIFICANCE THRESHOLDS

The following significance criteria for transportation are used by the San Francisco Planning Department to determine the significance of transportation impacts associated with a proposed project:

- **Traffic Operations**

The operational impact on signalized intersections is considered significant when project-related traffic causes the intersection level of service to deteriorate from LOS D or better to LOS E or F, or from LOS E to LOS F. The operational impacts on unsignalized intersections are considered potentially significant if project-related traffic causes the level of service at the worst approach to deteriorate from LOS D or better to LOS E or F and Caltrans signal warrants would be met, or would cause Caltrans signal warrants to be met when the worst approach is already operating at LOS E or LOS F.

The project may result in significant adverse impacts at intersections that operate at LOS E or F under existing conditions depending upon the magnitude of the project's contribution to the worsening of the average delay per vehicle. In addition, the project would have a significant adverse impact if it would cause major traffic hazards or contribute considerably to cumulative traffic increases that would cause deterioration in levels of service to unacceptable levels.

- **Freeway Mainline and On-Ramp Operations**

The operational impact on freeway mainline and on-ramp locations is considered significant when project-related traffic causes the level of service to deteriorate from LOS D or better to LOS E or F, or from LOS E to LOS F. In addition, a project would have a significant effect on the environment if it would contribute substantially to congestion already at unacceptable levels, such that the period of peak congestion would be substantially lengthened.

- **Transit**

The project would have a significant effect on the environment if it would cause a substantial increase in transit demand that could not be accommodated by adjacent transit capacity, resulting in unacceptable levels of transit service; or cause a substantial increase in delays or operating costs such that significant adverse impacts in transit service levels could result. With the Muni and regional transit screenlines analyses, the project would have a significant effect on the transit provider if project-related transit trips would cause the capacity utilization standard to be exceeded during the PM peak hour.

- **Pedestrians**

The project would have a significant effect on the environment if it would result in substantial overcrowding on public sidewalks, create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to the site and adjoining areas.

- **Bicycles**

The project would have a significant effect on the environment if it would create potentially hazardous conditions for bicyclists or otherwise substantially interfere with bicycle accessibility to the site and adjoining areas.

- **Loading**

A project would have a significant effect on the environment if it would result in a loading demand during the peak hour of loading activities that could not be accommodated within proposed on-site loading facilities or within convenient on-street

loading zones, and create potentially hazardous conditions or significant delays affecting traffic, transit, bicycles, or pedestrians.

- **Emergency Access**

The project would have a significant effect on the environment if it would result in inadequate emergency access.

- **Construction**

Construction-related impacts generally would not be considered significant due to their temporary and limited duration.

San Francisco does not consider parking supply as part of the permanent physical environment and therefore does not consider changes in parking conditions to be environmental impacts as defined by CEQA. The San Francisco Planning Department acknowledges, however, that parking conditions may be of interest to the public and decision-makers. Therefore, this report presents a parking analysis for information purposes.

Parking conditions are not static, as parking supply and demand varies from day to day, from day to night, from month to month, etc. Hence, the availability of parking spaces (or lack thereof) is not a permanent physical condition, but changes over time as people change their modes and patterns of travel. Parking deficits are considered to be social effects, rather than impacts on the physical environment as defined by CEQA. Under CEQA, a project's social impacts need not be treated as significant impacts on the environment. Environmental documents should, however, address the secondary physical impacts that could be triggered by a social impact (CEQA Guidelines Section 15131 (a)). The social inconvenience of parking deficits, such as having to hunt for scarce parking spaces, is not an environmental impact, but there may be secondary physical environmental impacts, such as increased traffic congestion at intersections, air quality impacts, safety impacts, or noise impacts caused by congestion. In the experience of San Francisco transportation planners, however, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, taxis, bicycles or travel by foot) and a relatively dense pattern of urban development, induces many drivers to seek and find alternative parking facilities, shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service in particular would be in keeping with the City's "Transit First" policy. The City's Transit First Policy, established in the City's Charter Article 8A, Section 8A.115, provides that "parking policies for areas well served by public transit shall be designed to encourage travel by public transportation and alternative transportation."

The transportation analysis accounts for potential secondary effects, such as cars circling and looking for a parking space in areas of limited parking supply, by assuming that all drivers would attempt to find parking at or near the project site and then seek parking farther away if convenient parking is available. Moreover, the secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to others who are aware of constrained parking

conditions in a given area. Hence, any secondary environmental impacts which may result from a shortfall in parking in the vicinity of the proposed project would be minor, and the traffic assignments used in the transportation analysis, as well as in the associated air quality, noise, and pedestrian safety analyses, reasonably addresses potential secondary effects.

In summary, changes in parking conditions are considered to be social impacts rather than impacts on the physical environment. Accordingly, the parking analysis presented in this study is for informational purposes only.

METHODOLOGY

Project Travel Demand

The travel demand, parking demand, and loading demand estimates were based on information and methodology contained in the *Transportation Impact Analysis Guidelines for Environmental Review*, October 2002 (*SF Guidelines*), augmented with data and information from the San Francisco County Transportation Authority (SFCTA) travel demand model which was run assuming the maximum proposed redevelopment and the various roadway and transit network changes. Existing uses slated for removal—primarily the 320,000 square feet of office space—were taken as a trip generation “credit,” as the traffic generated by these uses would no longer be active in the proposed project land use program.

The person-trip generation includes residents and visitors of the proposed residential units, plus employees and visitors of the proposed retail and office uses, and was based upon weekday daily, AM peak hour, and PM peak hour trip generation rates expressed in number of trips per residential unit and number of trips per 1,000 square feet of office / retail space. The proposed project would generate 15,797 weekday daily person-trips, 1,822 weekday AM peak hour person-trips, and 2,334 weekday PM peak hour person-trips.

The person-trips were assigned to travel modes in order to determine the number of auto, transit / shuttle, and other trips (other includes walk, bicycle, motorcycle, taxi, and additional modes, plus internal trips within Executive Park) that would be generated by the project. To support the estimated transit mode share (72 percent auto, 21 percent transit, 1 percent walk, and 6 percent internal), it was assumed that the existing Executive Park shuttle would be modified to accommodate trips in both the inbound and outbound directions with increased frequencies. This measure is already required of the Executive Park Property Owners as part of previous conditions of approval. Table V.E-5 presents the trip generation by mode for the proposed project for the weekday AM and PM peak hours.

Table V.E-5: Net Project Person-Trips by Mode – Weekday AM and PM Peak Hours

Project	Person-Trips by Mode				Total	Vehicle Trips
	Auto	Transit	Walk/Bike/ Other	Internal		
<i>AM Peak Hour</i>						
Yerby	400	115	9	30	554	268
UPC	<u>914</u>	<u>261</u>	<u>19</u>	<u>74</u>	<u>1,268</u>	<u>615</u>
Total	1,314	376	28	104	1,822	883
<i>PM Peak Hour</i>						
Yerby	409	117	10	31	567	275
UPC	<u>1,273</u>	<u>363</u>	<u>27</u>	<u>104</u>	<u>1,767</u>	<u>856</u>
Total	1,682	480	37	135	2,334	1,131

Source: AECOM, 2010.

As shown in Table V.E-5, the proposed project would generate 883 net-new vehicle trips during the weekday AM peak hour and 1,131 net-new vehicle trips during the weekday PM peak hour.

Trip Distribution / Assignment

The trips generated by a project were distributed to the four quadrants of San Francisco (Superdistricts 1, 2, 3, and 4), East Bay, North Bay, South Bay / Peninsula, and out of the region, based on the origin / destination of each trip. The trip distribution and assignment assumptions for the net-new project trips were derived from the SFCTA model output.

Parking Demand

Parking demand was estimated for the weekday midday and evening conditions and is based on the methodology and rates from the *SF Guidelines*, with long-term demand based on the number of new residential units and the number of employees at the commercial spaces, and short-term demand based on the total daily visitor trips by auto and an average parking turnover rate. Overall, the proposed project would generate a parking demand for 1,935 spaces during the weekday midday period and 2,355 spaces during the weekday evening period.

Loading Demand

Loading demand consists of the number of freight delivery and service vehicle trips generated by a project, plus the number of loading spaces required to accommodate this demand. The number of daily delivery / service vehicles was estimated based on the size of each land use and land use-specific truck trip generation rates obtained from the SF Guidelines. Overall, the proposed

project would generate 75 loading trips per day, resulting in a demand for loading spaces of 3.5 spaces during the average hour and 4.3 spaces during the peak hour.

Design Variants

For the purposes of this EIR, the travel demand for the design variants were not calculated separately, as the land uses proposed under the design variants are identical to the project under the “Base Scheme” (i.e., the project with no changes to roadway configuration). The design variants would not change the proposed residential unit counts or the character or amount of commercial space from that of the proposed Yerby and UPC development projects. Design Variant A calls for changes in building setbacks and façade articulation along certain internal streets and alleys, and Design Variant B would reconfigure Buildings 6 and 7, creating a single continuous streetwall along Harney Way. Impacts related to population, housing, and employment (including traffic) would be substantially the same as those described for the proposed Yerby and UPC development projects.

Baseline Traffic Conditions

This analysis considers a Baseline Conditions scenario which assumes full occupancy of Top Vision’s St. Francis Bay Phase II and Phase III and FuturePlex Associates / Signature Properties’ Candlestick Cove projects, all of which are approved and will have finished construction within the next several years. St. Francis Bay Phase II is already constructed and partially occupied. Based on the percentage of units that were sold at the time the traffic counts were taken, an estimated 50 percent of the units are currently generating trips that would be accounted for in Existing Conditions.

The travel demand (in terms of trip generation, trip distribution, and mode split) associated with these Baseline projects was obtained directly from their transportation studies. The peak hour vehicle trips were then assigned to the local and regional roadway network, which includes the study intersections, freeway mainlines, and freeway ramps, using the vehicular routing patterns also obtained from the appropriate transportation studies.

The Baseline Conditions LOS at the study intersections are summarized in Table V.E-6.

As shown in Table V.E-7, all study intersections would operate with acceptable conditions (LOS D or better) during both the weekday AM and PM peak hours.

Table V.E-6: Intersection Level of Service – Baseline Conditions

Intersection	Existing Conditions		Baseline Conditions	
	LOS	Delay	LOS	Delay
AM Peak Hour				
1 Third / Jamestown / U.S. 101 SB On-Ramp	B	12.1	B	13.2
2 Bayshore / Tunnel	B	16.7	C	29.5
3 Bayshore / Blanken	C	25.5	C	29.8
4 Bayshore / Geneva	C	23.6	C	24.7
5 Tunnel / Blanken	B	10.7	D	29.6
6 Gillette / Blanken	A	8.2	B	12.6
7 Alanna / Beatty	A	9.6	C	17.2
8 Executive Park West / Alanna	B	11.1	C	16.3
9 Harney / Alanna / Thomas Mellon	B	11.7	D	28.4
10 Harney / Executive Park East	A	8.9	B	13.6
11 Harney / Jamestown	A	8.5	A	8.6
PM Peak Hour				
1 Third / Jamestown / U.S. 101 SB On-Ramp	B	13.9	B	14.8
2 Bayshore / Tunnel	A	9.9	B	19.2
3 Bayshore / Blanken	C	20.3	C	22.0
4 Bayshore / Geneva	C	24.5	C	24.6
5 Tunnel / Blanken	A	9.3	C	20.3
6 Gillette / Blanken	A	7.9	B	11.5
7 Alanna / Beatty	A	9.3	B	11.6
8 Executive Park West / Alanna	A	9.1	B	13.8
9 Harney / Alanna / Thomas Mellon ¹	B	12.2	C	30.7
10 Harney / Executive Park East	A	8.8	B	12.4
11 Harney / Jamestown	A	8.3	A	8.4

Notes:

Delay in seconds per vehicle.

Bold indicates unacceptable conditions.

¹Without improvements, the intersection would operate at LOS E / 38.5 in the PM peak hour under Baseline Conditions.

Source: AECOM, 2010.

Table V.E-7: Freeway Level of Service – Baseline Conditions

			Existing Conditions				Baseline Conditions			
			AM Peak		PM Peak		AM Peak		PM Peak	
			Hour		Hour		Hour		Hour	
Location	Dir.	LOS	Den.	LOS	Den.	LOS	Den.	LOS	Den.	
Freeway Mainline										
1 U.S. 101 Mainline	NB	D	28.7	E	35.5	D	31.3	E	37.2	
	SB	E	35.6	D	30.4	E	36.0	D	32.9	
2 U.S. 101 Mainline	NB	D	28.5	E	36.2	D	28.7	E	38.4	
	SB	E	35.7	D	31.2	E	38.2	D	32.0	
Freeway On-Ramp										
3 U.S. 101 NB On-Ramp		B	19.0	C	21.5	B	19.2	C	21.3	
4 U.S. 101 SB On-Ramp		C	21.7	C	20.3	C	21.5	C	20.3	

Notes:

Density in passenger car equivalents per mile per lane.

Bold indicates unacceptable conditions.

Source: AECOM, 2010.

The intersection of Harney Way / Alanna Way / Thomas Mellon Drive would need to be signalized to accommodate the increase in traffic volumes under Baseline Conditions. Since a new traffic signal was required as a mitigation measure in previous Executive Park development approvals, the new signal was assumed to be implemented when necessary and therefore would not constitute a new mitigation measure. Without a traffic signal, this intersection would worsen to LOS E during the weekday PM peak hour.

The Baseline Conditions LOS at the study freeway mainlines and on-ramps are summarized in Table V.E-7.

As shown in Table V.E-7, freeway mainline and on-ramp operations are expected to worsen under Baseline Conditions. The project would not contribute to a significant cumulative impact on the freeway mainline or on-ramps under Baseline Conditions.

IMPACT EVALUATION: BASELINE PLUS PROJECT

The net-new project weekday AM and PM peak hour vehicle trips were added to Baseline Conditions traffic volumes to obtain Baseline plus Project Conditions traffic volumes. After the project trips were assigned to the roadway network, the operational performance of each study

intersection was then reevaluated to determine if the project would cause any significant traffic-related impacts.

The Baseline plus Project Conditions analysis assumed the signalization of the intersection of Harney Way / Alanna Way / Thomas Mellon Drive as required under Baseline Conditions, as previously discussed, and includes the signalization of the intersection of Executive Park Boulevard West / Alanna Way and the restriping of the southbound approach (implemented by project sponsors per their earlier Conditions of Approval). Since these measures were previously identified overall as Executive Park project-related mitigation measures in the 1999 FSEIR and were included in the Conditions of Approval for the project in the 1985 FSEIR, it was assumed that these measures would be included as part of the proposed project and not represent new mitigation measures. However, they would still be considered required mitigation for the proposed project.

The roadway network proposed in the Subarea Plan would not permit a right-turn from northbound Thomas Mellon Drive to Alley A (which provides vehicular access to UPC Buildings 4, 5, 6, and 7). As a result, vehicles destined to these buildings from Harney Way would need to enter Alley A from Executive Park Boulevard North (see Figure III-5 on p. III.17).

The Baseline plus Project Conditions LOS at the study intersections are summarized in Table V.E-8. As shown in Table V.E-8, delays at each intersection are generally expected to worsen, resulting in minor changes to the intersection levels of service, except for Tunnel / Blanken. The project would contribute to a significant cumulative impact at one intersection under Baseline plus Project Conditions.

Impact TR-1: The proposed project would result in deterioration in the Level of Service at the Tunnel Avenue / Blanken Avenue intersection. (*Less than Significant with Mitigation*)

The project would cause the overall level of service to degrade from LOS C/D to LOS F. The project would result in a significant impact under Baseline plus Project Conditions. The intersection would meet the Manual on Uniform Traffic Control Devices (MUTCD) peak hour signal warrant in both the AM and PM peak hours. Since this intersection was not previously assessed in earlier Executive Park environmental review documents, this LOS degradation would constitute a new significant impact; and, therefore, a new mitigation measure (Mitigation Measure M-TR-1) would be required of the two proposed development projects. After implementing this mitigation measure, the intersection would operate at LOS D in both the AM and PM peak hours under Baseline plus Project Conditions. Thus, this impact would be *not significant with mitigation*.

Table V.E-8: Intersection Level of Service – Baseline plus Project Conditions

Intersection	Baseline Conditions		Baseline plus Project Conditions	
	LOS	Delay	LOS	Delay
AM Peak Hour				
1 Third / Jamestown / U.S. 101 SB On-Ramp	B	13.2	B	14.3
2 Bayshore / Tunnel	C	29.5	D	44.8
3 Bayshore / Blanken	C	29.8	D	40.3
4 Bayshore / Geneva	C	24.7	C	25.5
5 Tunnel / Blanken	D	29.6	F	>50.0
6 Gillette / Blanken	B	12.6	C	23.0
7 Alanna / Beatty	C	17.2	D	25.3
8 Executive Park West / Alanna ¹	C	16.3	C	26.8
9 Harney / Alanna / Thomas Mellon ¹	D	28.4	C	33.4
10 Harney / Executive Park East	B	13.6	B	14.8
11 Harney / Jamestown	A	8.6	A	8.8
PM Peak Hour				
1 Third / Jamestown / U.S. 101 SB On-Ramp	B	14.8	B	15.7
2 Bayshore / Tunnel	B	19.2	C	23.0
3 Bayshore / Blanken	C	22.0	C	24.0
4 Bayshore / Geneva	C	24.6	C	24.7
5 Tunnel / Blanken	C	20.3	F	>50.0
6 Gillette / Blanken	B	11.5	C	17.9
7 Alanna / Beatty	B	11.6	B	12.9
8 Executive Park West / Alanna ¹	B	13.8	D	36.1
9 Harney / Alanna / Thomas Mellon ¹	C	30.7	D	37.0
10 Harney / Executive Park East	B	12.4	C	15.7
11 Harney / Jamestown	A	8.4	A	8.6

Notes:

Delay in seconds per vehicle.

Bold indicates unacceptable conditions.

¹ Without improvements, the intersection would operate at LOS F / >50.0 in both the AM and PM peak hours under Baseline plus Project Conditions.

Source: AECOM, 2010.

The Baseline plus Project Conditions LOS at the study freeway mainlines and on-ramps are summarized in Table V.E-9. As shown in Table V.E-9, freeway mainline and on-ramp operations are expected to worsen under Baseline plus Project Conditions. The project would contribute to a significant cumulative impact at one freeway mainline location under Baseline plus Project Conditions.

Table V.E-9: Freeway Level of Service – Baseline plus Project Conditions

Location		Dir.	Baseline Conditions				Baseline plus Project Conditions			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			LOS	Den.	LOS	Den.	LOS	Den.	LOS	Den.
Freeway Mainline										
1	U.S. 101 Mainline	NB	D	31.3	E	37.2	D	33.7	E	40.0
	North of Alanna / Harney	SB	E	36.0	D	32.9	E	37.0	E	35.9
2	U.S. 101 Mainline	NB	D	28.7	E	38.4	D	28.9	E	39.3
	South of Alanna / Harney	SB	E	38.2	D	32.0	E	39.0	D	32.3
Freeway On-Ramp										
3	U.S. 101 NB On-Ramp at Harney Way		B	19.2	C	21.3	B	19.4	C	21.1
4	U.S. 101 SB On-Ramp at Alanna Way		C	21.5	C	20.3	C	21.4	C	20.3

Notes:

Density in passenger car equivalents per mile per lane.

“--” indicates density is beyond the calculable range of the 2000 HCM methodology.

Bold indicates unacceptable conditions.

Source: AECOM, 2010.

**Impact TR-2: The proposed project would result in deterioration in the Level of Service at U.S.101 mainline north of Alanna Way / Harney Way (southbound).
(Significant and Unavoidable)**

Project-generated traffic would cause the mainline LOS to degrade from LOS D to LOS E. Mitigation of this impact would require an additional travel lane on the freeway mainline, which would be infeasible due to the need for land acquisition or substantial modifications to the design.

of the existing freeway structures. In addition, since these facilities are under the management of Caltrans, any proposed mitigation measures would require further study and Caltrans approval. Therefore, this impact is considered significant and unavoidable.

Impact TR-3: The proposed project would increase ridership in Executive Park Shuttle service. (*Less than Significant with Mitigation*)

The proposed project would generate 105 inbound and 271 outbound transit trips during the weekday AM peak hour and 283 inbound and 197 outbound transit trips during the weekday PM peak hour.

Considering that most of the local and regional transit services are located beyond walking distance from the Executive Park area, the majority of transit trips generated by the proposed project would likely take advantage of the Executive Park shuttle service, which connects to other transit services. The remainder of the transit trips would likely be bike to transit service or drive to transit service. Since there is generally substantial capacity available on all transit services in the vicinity of the project (with the exception of the 8AX/BX), the addition of project-generated transit trips is not anticipated to substantially change capacity utilization on these services.

However, given that the majority of transit trips would make use of the Executive Park shuttle and that the proposed project is mostly residential in nature (i.e., the commuting patterns will be reversed from the existing office uses), the shuttle service would need to be redesigned with adequate capacity to handle the additional demand. The existing three stops within Executive Park would likely be sufficient to serve all areas of the neighborhood, but stop relocation or rerouting may be necessary to better serve residents.

If additional shuttle service were not provided, the two project-related additional person-trips would result in a significant impact to traffic conditions, as residents and visitors would need to switch to auto modes. The Executive Park Property Owners have been required per previous conditions of approval to implement shuttle enhancements when warranted by demand. As such, the expansion of the shuttle to accommodate the new transit riders is included as a mitigation measure (Mitigation Measure M-TR-3) for the proposed project. With implementation of this mitigation measure, this impact would be less than significant with mitigation.

Impact TR-4: The proposed project would not result in a significant impact on pedestrian conditions. (*Less than Significant*)

As part of the street network within Executive Park, new sidewalks would be included along all streets, primarily 10 to 15 feet in width. It is anticipated that the proposed sidewalk widths would be sufficient to accommodate these increases in pedestrian activity. All intersections within Executive Park would contain crosswalks and most intersections would have sidewalk bulbs to improve pedestrian visibility and to decrease walk distances.

The development would also result in a slight increase in pedestrian trips outside of Executive Park, including trips to and from the transit stops on Tunnel Avenue and Bayshore Boulevard or to and from destinations in the Visitacion Valley and Little Hollywood neighborhoods. Based on the low pedestrian volumes currently in the area, the new pedestrian trips associated with the proposed project could be accommodated on proposed sidewalks within Executive Park and on Blanken Avenue.

However, the existing sidewalks on Blanken Avenue underneath U.S. 101 are relatively narrow and do not directly connect with the existing sidewalks along Executive Park Boulevard North and Executive Park Boulevard West. As a result, it may be somewhat difficult and inconvenient for a substantial volume of pedestrians to use Blanken Avenue to walk to and from Executive Park.

Since the proposed project would not result in substantial overcrowding on public sidewalks, create hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to the site and adjoining areas, the proposed project would not result in a significant impact to pedestrian conditions. Thus, no mitigation is required.

Impact TR-5: The proposed project would not result in a significant impact on bicycling conditions. (*Less than Significant*)

With the current low traffic volumes in the area, bicycle travel generally occurs without major impedance or safety issues. In general, as the number of vehicles would increase with the proposed project, the potential for conflicts between motorists and bicyclists would also increase, as there would be more competition for road space between bicycles, autos, and trucks. Since the proposed project would not create potentially hazardous conditions for bicyclists or otherwise substantially interfere with bicycle accessibility to the site and adjoining areas, the proposed project would not result in a significant impact to bicycling conditions. Thus, no mitigation is required.

Impact TR-6: The proposed project would not result in a significant impact related to parking. (*Less than Significant*)

The *San Francisco Planning Code* requirements for off-street parking spaces are: one (1) space per dwelling unit, and one (1) space per 500 square feet up to 20,000 square feet of retail space, plus one (1) space per each 250 square feet in excess of 20,000 square feet.

However, the proposed Subarea Plan Amendment would permit a residential parking supply of 1.5 spaces per unit, while maintaining the same allowances for retail parking. Based on these requirements, the proposed project would be required to provide a total of 1,773 spaces (1,600

spaces for the residential uses and 173⁵ spaces for the retail uses) and would be allowed to provide a total of 2,573 spaces (2,400 spaces for the residential uses and 173 spaces for the retail uses).

The proposed project would provide a total parking supply of 2,427 spaces, which would meet *Planning Code* requirements and be within the allowances of the proposed Subarea Plan Amendment. In addition, on-street parking would be provided along some streets within Executive Park, except the alleyways and Thomas Mellon Drive to the north of Harney Way.

The proposed project would have a parking demand of approximately 1,935 spaces during the weekday midday period and approximately 2,354 spaces during the weekday evening period. The proposed parking supply therefore satisfies the estimated parking demand for both the weekday midday and weekday evening periods.

During gamedays or other events at Candlestick Park stadium, the proposed event day access plan would restrict access into and out of Executive Park. No on- or off-street parking would be provided for stadium-related traffic.

As noted in the “Significance Criteria” on p. V.E.19, parking supply in San Francisco is not considered a permanent physical condition, and shortfalls in the parking supply would not be a significant environmental impact under CEQA, but rather a social effect. A shortfall of parking may cause potential social effects, which could include cars circling and looking for a parking space in neighboring streets. The secondary effects of drivers searching for parking are typically offset by a reduction in vehicle trips because some drivers, who are aware of constrained parking conditions in a given area, shift to other modes. Hence, any secondary environmental impacts that may result from a shortfall in parking would be minor.

Impact TR-7: The proposed project would not result in a significant impact related to loading. (*Less than Significant*)

The proposed Subarea Plan Amendment would not require the provision of off-street loading spaces, instead prioritizing the minimization of curb-cuts, consolidation of loading facilities, and on-street facilities. As such, the proposed project would not be required to provide any off-street loading spaces.

To access Executive Park, most delivery / service vehicles likely would use U.S. 101, Third Street, and/or Bayshore Boulevard, with direct access to the site via Alanna Way and Harney Way (trucks weighing over 6,000 pounds are not permitted on Blanken Avenue). The proposed project would provide a total supply of 13 loading spaces (one space per building), which would not meet

⁵ The parking requirements for the retail space within the Yerby Project and UPC Project were based on the code requirement for each individual building, not the total amount of retail space within the entire development.

the *Planning Code* requirements but would be within the provisions of the proposed Subarea Plan Amendment. All proposed loading spaces would meet the minimum dimensions required by the *Planning Code*. Discussion of the total supply, location, and dimension of proposed loading spaces for the Yerby Project and UPC Project are included in the Analysis of Individual Developments section.

The proposed project would generate approximately 75 daily service vehicle trips and demand for approximately five (5) spaces during the peak hour and four (4) spaces during the average hour. The proposed loading space supply, therefore, satisfies the estimated loading space demand for both the average hour and the peak hour.

Since twelve of the thirteen proposed loading spaces would be provided off-street, the impact of loading activities on other modes such as autos, pedestrians, transit, and bicycles would be minimal. Most loading access would be provided on internal roadways, which are not expected to carry a large volume of traffic from other modes and would be used almost exclusively by project-generated traffic. Elevator access would be provided in all buildings and would be adequate to serve the loading demands generated by the various retail and residential uses within each building.

Since the proposed project would not result in a loading demand during the peak hour of loading activities that could not be accommodated within proposed on-site loading facilities or within convenient on-street loading zones, nor would project-related loading demand or activities create potentially hazardous conditions or significant delays affecting traffic, transit, bicycles, or pedestrians, the proposed project would not result in a significant impact to loading. Therefore, no mitigation is required.

Impact TR-8: The proposed project construction activities would not result in a significant impact. (*Less than Significant*)

Access to Executive Park for construction-related traffic would be via U.S. 101 and the on- and off-ramps at Harney Way and Alanna Way / Beatty Road. Since trucks weighing over 6,000 pounds are prohibited on Blanken Avenue, this street would not be used as a truck access route for project construction.

Most project construction-related activities would occur Monday through Friday, between 6:00 AM and 6:00 PM, with limited activities on weekends. The project sponsors anticipate that most construction staging would occur from within the various development project sites and internal streets. When sidewalks need to be reconstructed or roadways repaved, temporary traffic lane closures, or pedestrian walkways or Muni bus stop relocations may be necessary.

During the construction period, temporary and intermittent traffic and transit impacts may result from truck movements to and from construction sites. Truck movements during periods of peak

traffic flow would have a greater potential to create conflicts than truck movement during non-peak hours.

The impact of construction traffic would vary with the volume of truck activity. Transportation impacts from construction activities are due to increased local truck traffic (such as traffic from trucks hauling excavation materials or delivering construction materials), increased traffic from construction workers driving to and from the site, and construction worker parking in the site vicinity. The impacts of construction truck traffic would be a lessening of the capacities of the local access streets and haul routes, due to slower movements and larger turning radii of the trucks. On the freeway, the effect of truck traffic under near-capacity and at-capacity conditions would be the potential for an increase in the number and duration of breakdowns in traffic flow.

Construction-related impacts generally would not be considered significant due to their temporary and limited duration. Thus, these impacts would be less than significant, and no mitigation is required.

Impact TR-9: The proposed project would not result in a significant impact related to event conditions. (*Less than Significant*)

To accommodate the flow of traffic to and from events at Candlestick Park stadium, several temporary changes to the roadway network are implemented. In addition, after large events such as football games, the U.S. 101 northbound off-ramp to Harney Way and southbound off-ramp to Alanna Way / Beatty Road are closed.

With the proposed project, there would be an increased demand for access to and from Executive Park during both weekdays and weekends. Due to the anticipated increase in the traffic volumes to and from Executive Park as a result of the proposed project, substantial conflicts would likely occur between Executive Park traffic and event traffic for the approximately 20 days of the year when events occur.

Before and after small events, limited access is available to and from Executive Park via Harney Way and Alanna Way. At these times, Parking Control Officers (PCOs) are sometimes stationed along the streets and stop traffic flow to allow vehicles to turn into and out of Executive Park Boulevard West and Thomas Mellon Drive. Although some drivers may seek other routes, access to and from Executive Park would not be substantially affected by small events.

Before and after major events, however, access to and from Executive Park via Harney Way and Alanna Way is extremely limited. With the reconfiguration of Alanna Way with the proposed project and the elimination of event parking at Executive Park, a new access plan for residential and event traffic would need to be implemented as part of the proposed project. The access plan

would separate residential traffic streams from event traffic streams to eliminate conflict.⁶ All event traffic on Harney Way would be routed to and from the stadium via Harney Way and Alanna Way and their U.S. 101 northbound and southbound on and off-ramps. Event access would not be possible from Blanken Avenue. All Executive Park residential traffic would be routed to and from Executive Park via Blanken Avenue, with freeway access provided via Bayshore Boulevard and the Sierra Point Parkway ramps. Executive Park Boulevard West would be closed to traffic at Alanna Way. Thomas Mellon Drive and Executive Park Boulevard East would be closed to traffic at Harney Way.

With this Executive Park Subarea Plan, conflicts between residential and event traffic would not occur, since the two traffic streams would be completely separated. In addition, PCOs would not be needed to allow vehicles to turn into and out of Executive Park. The potential increase in traffic volumes along Blanken Avenue during major events at Candlestick Park stadium as a result of Executive Park residential traffic would not occur on a regular basis, and thus would not be considered a significant impact, although the additional traffic on the primarily residential streets would be an inconvenience for some residents in the neighborhood.

IMPACT EVALUATION: 2030 CUMULATIVE CONDITIONS

Methodology and Approach

The background growth rates (between baseline and 2030 Cumulative Conditions) were calculated using travel demand forecasts from the recent San Francisco County Transportation Authority's (SFCTA) travel demand model which was adjusted to include six (6) recently proposed developments proposed for the southeastern area of San Francisco: Candlestick Point / Hunters Point Shipyard, India Basin, Visitacion Valley, Brisbane Baylands, and the Cow Palace. Currently, only the Visitacion Valley redevelopment project has been approved—the other projects are in various stages of planning. The trips generated by these areawide projects were added to future-year baseline volumes developed using growth factors calculated from the SFCTA travel demand model.

Transportation Improvements

Several transportation improvements are proposed in the immediate vicinity of Executive Park, and are listed below. They are not a part of the proposed Executive Park project.

- Geneva Avenue / Harney Way extension
- New U.S. 101 Interchange at Harney Way
 - Geneva Avenue / Harney Way underpass
 - o Option 1: Diamond interchange

⁶ See *Transportation Study*, Figure 15, p.63.

- o Option 2: Loop interchange
 - Geneva Avenue / Harney Way overpass
- Harney Bus Rapid Transit (BRT)
- Harney Way Widening
 - Alternative A: Three lanes in both directions, with no westbound right-turn pockets and a BRT-only phase
 - Alternative B: Two lanes eastbound and three lanes westbound, with one westbound right-turn pocket at Executive Park Boulevard East and a BRT-only phase

For both Harney alternatives discussed above, a new bypass to the existing northbound Third Street off-ramp would be constructed, with the intention of diverting traffic on the existing off-ramp from the northbound mainline and improving conditions at the weave section where the new proposed northbound on-ramp from Harney Way would join the mainline.

As part of the proposed Candlestick Point / Hunters Point Shipyard redevelopment project, Harney Way would be widened to accommodate a new BRT service, primarily to shuttle passengers to and from the Bayshore Caltrain Station, Muni T-Third Street stations, and the Balboa Park BART Station. Exclusive bus-only lanes would be provided on Harney Way from Jamestown Avenue to at least Bayshore Boulevard, with the possibility of extending the bus-only lanes further west to the Cow Palace, Naples Street, or Balboa Park BART Station.

In the immediate vicinity of Executive Park, the BRT lanes would run on the north side of Harney Way to Jamestown Avenue in a combined side configuration (both the eastbound and westbound BRT lanes would be provided on the north side). Approaching the interchange, the BRT lanes would use the existing Alanna Way underpass to pass underneath U.S. 101, then reconnect with the Geneva Avenue extension west of the new interchange. Harney Way would be widened to accommodate the BRT lane and additional traffic lanes.

Two alternatives for Harney Way widening are being considered by the City. Under Alternative A, Harney Way would be designed as a six-lane roadway (three travel lanes in each direction, with eastbound left-turn pockets at Thomas Mellon Drive and Executive Park Boulevard East). No westbound right-turn pockets would be provided at these two intersections. Under Alternative B, Harney Way would be designed as a five-lane roadway (two travel lanes eastbound and three travel lanes westbound, with eastbound left-turn pockets at Thomas Mellon Drive and Executive Park Boulevard East and a westbound right-turn pocket at Executive Park Boulevard East). Westbound right turns would be prohibited at Thomas Mellon Drive.

2030 Cumulative Conditions traffic operations were analyzed with and without improvements. The results of the analysis are provided below.

2030 Cumulative Conditions without Improvements Traffic and Circulation Impacts

This scenario analyzes 2030 Cumulative Conditions (including all traffic generated by the area projects) without the proposed transportation improvements described in the 2030 Cumulative Conditions Transportation Improvement section. The following roadway improvement measures, previously identified in earlier studies, would need to be included with the proposed project:

- Signalization of Alanna Way / Beatty Road; plus restriping of the southbound approach from one shared through-left lane and one shared through-right lane to one exclusive left lane, one shared through-left lane, and one exclusive right lane; and restriping of the eastbound approach from one shared all-movement lane to one exclusive left lane and one shared through-right lane;
- Widening of Alanna Way by two lanes in the eastbound direction;
- Signalization of Executive Park Boulevard West / Alanna Way; restriping of the southbound approach from one shared lane to one exclusive left lane and one exclusive right lane; and widening of the eastbound approach from one shared all-movement lane to one exclusive left lane and two exclusive through lanes; and
- Signalization of Harney Way / Executive Park Boulevard East, restriping of the southbound approach as one exclusive left-turn lane and one exclusive right-turn lane, and restriping and widening of the eastbound approach to accommodate one exclusive left-turn lane and two through lanes.

In addition, the 2030 Cumulative Conditions without Improvements analysis assumed the signalization of the intersection of Harney Way / Alanna Way / Thomas Mellon Drive as required under Baseline Conditions, as previously discussed, as well as the signalization and reconfiguration of the intersection of Harney Way / Jamestown Avenue (Harney Way / Arelious Walker Drive) as proposed by the Candlestick Point / Hunters Point Shipyard project.

Without these improvements, the intersections of Alanna Way / Beatty Road, Executive Park Boulevard West / Alanna Way, Harney Way / Alanna Way / Thomas Mellon Drive, and Harney Way / Executive Park Boulevard East would operate at LOS F in both the weekday AM and PM peak hours. However, since these measures were previously identified in earlier conditions of approval, they were assumed to be implemented by the project sponsors and therefore would not constitute new mitigation measures. The project sponsors would be required to contribute their fair shares (based on the size of their development proposals) to the costs of these intersection improvements.

Traffic Operations

The resulting 2030 Cumulative Conditions without Improvements traffic LOS at the study intersections are summarized in Table V.E-10.

Table V.E-10: Intersection Level of Service – 2030 Cumulative Conditions without Improvements

Intersection	Baseline Conditions		2030 Cumulative Conditions w/o Improvements	
	LOS	Delay	LOS	Delay
AM Peak Hour				
1 Third / Jamestown / U.S. 101 SB On-Ramp	B	13.2	D	51.7
2 Bayshore / Tunnel	C	29.5	F	>80.0
3 Bayshore / Blanken	C	29.8	F	>80.0
4 Bayshore / Geneva	C	24.7	E	71.2
5 Tunnel / Blanken	D	29.6	F	>50.0
6 Gillette / Blanken	B	12.6	E	46.4
7 Alanna / Beatty ¹	C	17.2	F	>80.0
8 Executive Park West / Alanna ¹	C	16.3	B	19.8
9 Harney / Alanna / Thomas Mellon ¹	D	28.4	F	>80.0
10 Harney / Executive Park East ¹	B	13.6	B	15.5
11 Harney / Jamestown	A	8.6	B	19.2
PM Peak Hour				
1 Third / Jamestown / U.S. 101 SB On-Ramp	B	14.8	F	>80.0
2 Bayshore / Tunnel	B	19.2	F	>80.0
3 Bayshore / Blanken	C	22.0	F	>80.0
4 Bayshore / Geneva	C	24.6	F	>80.0
5 Tunnel / Blanken	C	20.3	F	>50.0
6 Gillette / Blanken	B	11.5	F	>50.0
7 Alanna / Beatty ¹	B	11.6	F	>80.0
8 Executive Park West / Alanna ¹	B	13.8	D	39.0
9 Harney / Alanna / Thomas Mellon ¹	C	30.7	F	>80.0
10 Harney / Executive Park East ¹	B	12.4	D	37.7
11 Harney / Jamestown	A	8.4	D	41.2

Notes:

Delay in seconds per vehicle.

Bold indicates unacceptable conditions.

¹ Without improvements, the intersection would operate at LOS F / >50.0 in both the AM and PM peak hours under 2030 Cumulative Conditions without Improvements.

Source: AECOM, 2010.

Project Contribution to Cumulative Impacts

To assess the effect of project-generated traffic on 2030 Cumulative Conditions without Improvements, the proposed project's contribution at LOS E or LOS F study intersections to poorly performing critical movements was determined. Traffic generated by the proposed project would represent a cumulatively considerable contribution to the adverse cumulative conditions and would result in a significant cumulative impact at five (5) study intersections.

Impact TR-10: The proposed project would contribute to a cumulative impact at the Bayshore Boulevard / Tunnel Avenue intersection. (*Significant and Unavoidable*)

The project would contribute a high percentage (between 14.3 and 15.3 percent) of the projected volumes on some poorly performing critical movements at the Bayshore Boulevard / Tunnel Avenue intersection under the 2030 Cumulative Conditions without Improvements scenario. The proposed project's traffic would represent a cumulatively considerable contribution to the adverse cumulative conditions at this intersection.

Options to improve operations through additional lanes are limited due to constrained roadway widths and the T-Third Street light-rail median. In addition, during peak hours of congestion, delays at this intersection are ultimately caused by the bottleneck at Bayshore Boulevard / Hester Avenue / U.S. 101 NB On-Ramp. Spillback queuing from that intersection already affects throughput on northbound Bayshore Boulevard to as far as Leland Avenue under Existing Conditions. Likewise, this queuing affects throughput on the westbound approach at Bayshore Boulevard / Tunnel Avenue.

Options to improve operations on the southbound approach are similarly limited, as the bottleneck at Bayshore Boulevard / Arleta Avenue / San Bruno Avenue ultimately controls delay in the southbound direction along the corridor. Providing additional green time to the southbound left movement would also be undesirable, as this reduces throughput on northbound Bayshore Boulevard and would actually increase overall intersection delay. Therefore, this impact is significant and unavoidable.

Impact TR-11: The proposed project would contribute to a cumulative impact at the Bayshore Boulevard / Blanken Avenue intersection. (*Significant and Unavoidable*)

The project would contribute a moderate to high percentage (between 8.3 and 14.0 percent) of the projected volumes on some poorly performing critical movements at the Bayshore Boulevard / Blanken Avenue intersection under the 2030 Cumulative Conditions without Improvements scenario. The proposed project's traffic would represent a cumulatively considerable contribution to the adverse cumulative conditions at this intersection.

Options to improve operations through additional lanes are limited due to constrained roadway widths on all approaches as a result of buildings and the T-Third Street light-rail median. In addition, during peak hours of congestion, delays at this intersection are ultimately caused by the bottleneck at Bayshore Boulevard / Hester Avenue / U.S. 101 NB On-Ramp. Spillback queuing from that intersection already affects throughput on northbound Bayshore Boulevard to as far as Leland Avenue under Existing Conditions.

Although the westbound approach is approximately 38 feet and could be restriped to accommodate two traffic lanes instead of one, the intersection would continue to operate at LOS F / >80.0 seconds of delay in both the weekday AM and PM peak hours, even with the implementation of this measure.

Due to coordination of Bayshore Boulevard and the proximity of adjacent intersections at Arleta Avenue and Tunnel Avenue, signal timing improvements would likely not be feasible and could exacerbate throughput and spillback queuing issues discussed earlier. Therefore, there are no feasible mitigation measures and this impact is significant and unavoidable.

Impact TR-12: The proposed project would contribute to a cumulative impact at the Tunnel Avenue / Blanken Avenue intersection. (*Less than Significant with Mitigation*)

The project would contribute a high percentage (between 13.4 and 33.7 percent) of the projected volumes on some poorly performing critical movements at the Tunnel Avenue / Blanken Avenue intersection under the 2030 Cumulative Conditions without Improvements scenario. The proposed project's traffic would represent a cumulatively considerable contribution to the adverse cumulative conditions at this intersection. The mitigation measure that would reduce the impact to less than significant is M-TR-12, which would signalize the intersection and prohibit left turns from Blanken Avenue. This impact would be less than significant with mitigation.

Impact TR-13: The proposed project would contribute to a cumulative impact at the Alanna Way / Beatty Road intersection. (*Significant and Unavoidable*)

The project would contribute a moderate percentage (8.6 percent) of the projected volumes on some poorly performing critical movements at the Alanna Way / Beatty Road intersection under the 2030 Cumulative Conditions without Improvements scenario. The proposed project's traffic would represent a cumulatively considerable contribution to the adverse cumulative conditions at this intersection.

Substantial delays would occur on all approaches in both the weekday AM and PM peak hours. The analysis assumes that a through-road replaces the existing private driveway on the south leg of the intersection as part of the Brisbane Baylands project. In addition, the analysis assumes that the intersection would receive improvements through previously-approved mitigation measures, including signalization and restriping (but not widening) on the southbound and eastbound

approaches as described earlier. Even with these improvements, however, the intersection would still operate at unacceptable conditions (LOS F) during both the weekday AM and PM peak hours. To improve intersection operations to acceptable conditions would require substantial capacity improvements to all approaches, which would not be feasible due to insufficient right-of-way and adjacent properties (particularly on the southbound Alanna Way and eastbound Beatty Road approaches). As a result, mitigation of this impact is considered infeasible, and this impact is significant and unavoidable.

Impact TR-14: The proposed project would contribute to a cumulative impact at the Harney Way / Alanna Way / Thomas Mellon Drive intersection. (*Significant and Unavoidable*)

The project would contribute a high percentage (between 10.3 and 67.3 percent) of the projected volumes on some poorly performing critical movements at the Harney Way / Alanna Way / Thomas Mellon Drive intersection under the 2030 Cumulative Conditions without Improvements scenario. The proposed project's traffic would represent a cumulatively considerable contribution to the adverse cumulative conditions at this intersection.

Substantial delays would occur on all approaches during both the weekday AM and PM peak hours. Given the unusual configuration, the Alanna Way and Thomas Mellon Drive approaches must operate on split phases, reducing the efficiency of the signal. As such, there is limited opportunity to improve the intersection through changes to signal timing or phasing. However, the intersection could be redesigned as in the Project Variant, with separate T-intersections at Harney Way for Alanna Way and Thomas Mellon Drive. With these changes, the intersection of Harney Way / Thomas Mellon Drive would operate at LOS B during the weekday AM peak hour and LOS D during the weekday PM peak hour, while the intersection of Harney Way / Alanna Way would operate at LOS E in the weekday AM peak hour, but LOS F in the weekday PM peak hour. To improve operations at Harney Way / Alanna Way further, the intersection would require substantial capacity improvements to all approaches, which would not be feasible due to insufficient right-of-way and adjacent properties, both along Harney Way (limited by existing and already-improved San Francisco Bay Trail and the coastline) and Alanna Way (limited on both sides by adjacent properties). As a result, full mitigation of this impact is considered infeasible, and this impact is significant and unavoidable.

The 2030 Cumulative Conditions without Improvements LOS at the study freeway mainlines and on-ramps are summarized in Table V.E-11.

Table V.E-11: Freeway Level of Service – 2030 Cumulative Conditions without Improvements

Location		Dir.	Baseline Conditions				2030 Cumulative Conditions without Improvements			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			LOS	Den.	LOS	Den.	LOS	Den.	LOS	Den.
Freeway Mainline										
1	U.S. 101 Mainline	NB	D	31.3	E	37.2	E	41.1	F	--
	North of Alanna / Harney	SB	E	36.0	D	32.9	F	--	F	--
2	U.S. 101 Mainline	NB	D	28.7	E	38.4	D	33.7	F	--
	South of Alanna / Harney	SB	E	38.2	D	32.0	F	--	E	42.5
Freeway On-Ramp										
3	U.S. 101 NB On-Ramp at Harney Way		B	19.2	C	21.3	F	--	F	--
4	U.S. 101 SB On-Ramp at Alanna Way		C	21.5	C	20.3	F	--	F	--

Notes:

Density in passenger car equivalents per mile per lane.

“—” indicates density is beyond the calculable range of the 2000 HCM methodology.

Bold indicates unacceptable conditions.

Source: AECOM, 2010.

Project Contribution to Cumulative Impacts

To assess the effect of project-generated traffic on 2030 Cumulative Conditions without Improvements, the proposed project’s contribution to growth in volumes was determined. The U.S. 101 mainline north of Alanna Way / Harney Way (southbound) was already identified as a significant impact under Baseline plus Project Conditions, and is therefore automatically considered to be a cumulative impact. The project would have a significant contribution to the growth in volumes at four (4) mainline and ramp locations. Therefore, the project-generated traffic would represent a cumulatively considerable contribution to the adverse cumulative conditions and the proposed project would have a significant cumulative impact at these locations.

Impact TR-15: The proposed project would contribute to a cumulative impact at the U.S. 101 mainline north of Alanna Way / Harney Way (northbound) segment. (Significant and Unavoidable)

As detailed in Impact TR-2, to mitigate the impact would require additional mainline capacity, which would necessitate land acquisition and involve substantial costs and jurisdictional issues. Therefore, mitigation of this impact is considered infeasible, and the impact is significant and unavoidable.

Impact TR-16: The proposed project would contribute to a cumulative impact at the U.S. 101 mainline south of Alanna Way / Harney Way (northbound) segment. (Significant and Unavoidable)

To mitigate the impact would require additional mainline capacity, which would necessitate land acquisition and involve substantial costs and jurisdictional issues. Therefore, mitigation of this impact is considered infeasible, and the impact is significant and unavoidable.

Impact TR-17: The proposed project would contribute to a cumulative impact at the U.S. 101 Northbound On-Ramp at Harney Way. (Significant and Unavoidable)

Providing an additional travel lane at the on-ramp would not be advisable, given the large volumes attempting to access the freeway at this location. An additional travel lane would allow for more traffic to enter the freeway, but would not solve the capacity constraint on the mainline and may instead exacerbate congestion at this merge location by permitting vehicles to enter the freeway at a higher rate.

In addition, given the proximity of the nearest downstream off-ramps to Third Street and Bayshore Boulevard, providing an additional on-ramp location north of the existing interchange would likely not be feasible. To mitigate the impact would thus require additional mainline capacity, which would necessitate land acquisition and involve substantial costs and jurisdictional issues. Given these considerations, mitigation of this impact is considered infeasible, and the impact is significant and unavoidable.

Impact TR-18: The proposed project would contribute to a cumulative impact at the U.S. 101 Southbound On-Ramp at Alanna Way. (Significant and Unavoidable)

Providing an additional travel lane at the on-ramp would not be advisable, given the large volumes attempting to access the freeway at this location. An additional travel lane would allow for more traffic to enter the freeway, but would not solve the capacity constraint on the mainline and may instead exacerbate congestion at this merge location by permitting vehicles to enter the freeway at a higher rate. Given these considerations, mitigation of this impact is considered infeasible, and the impact is significant and unavoidable.

2030 Cumulative Conditions Alternative A (Option 1) Traffic and Circulation Impacts

This scenario analyzes 2030 Cumulative Conditions (including all traffic generated by the area projects) with the following transportation improvements:

- Interchange Option 1 (diamond interchange); and
- Harney Way Alternative A (three lanes in both directions, with no westbound right-turn pockets).

Traffic Operations

The 2030 Cumulative Conditions Alternative A (Option 1) LOS at the study intersections are summarized in Table V.E-12.

As shown in Table V.E-12, operations at several study intersections would improve over 2030 Cumulative Conditions without Improvements, including Gillette Avenue / Blanken Avenue and Harney Way / Thomas Mellon Drive. The reduced average delays at Gillette Avenue / Blanken Avenue, in particular, are a result of the improved east-west connection as a result of the Geneva Avenue extension.

The proposed project would have a significant contribution to poor operations at the intersection of Harney Way / Executive Park Boulevard East, which would degrade from LOS D under 2030 Cumulative Conditions without Improvements to LOS E under 2030 Cumulative Conditions Alternative A (Option 1) during the weekday PM peak hour. The increased average delays are a result of BRT phase conflicts with the westbound right-turn movement at this intersection.

The intersection of Tunnel Avenue / Blanken Avenue would meet the MUTCD peak hour signal warrant in both the AM and PM peak hours.

Project Contribution to Cumulative Impacts

To assess the effect of project-generated traffic on 2030 Cumulative Conditions Alternative A (Option 1), the proposed project's contribution at LOS E or LOS F study intersections to poorly performing critical movements was determined. Traffic generated by the proposed project would represent a cumulatively considerable contribution to the adverse cumulative conditions and would result in a significant cumulative impact at six (6) study intersections.

**Table V.E-12: Intersection Level of Service – 2030 Cumulative Conditions
Alternative A (Option 1)**

Intersection	2030 Cumulative Conditions			
	w/o Improvements		Alt. A (Option 1)	
	LOS	Delay	LOS	Delay
AM Peak Hour				
1 Third / Jamestown / U.S. 101 SB On-Ramp	D	51.7	D	51.7
2 Bayshore / Tunnel	F	>80.0	F	>80.0
3 Bayshore / Blanken	F	>80.0	F	>80.0
4 Bayshore / Geneva	E	71.2	F	>80.0
5 Tunnel / Blanken	F	>50.0	F	>50.0
6 Gillette / Blanken	E	46.4	C	20.5
7 Alanna / Beatty ¹	F	>80.0	--	--
8 Executive Park West / Alanna ¹	B	19.8	--	--
9 Harney / Alanna / Thomas Mellon ²	F	>80.0	--	--
Harney / Thomas Mellon	--	--	D	45.4
10 Harney / Executive Park East ²	B	15.5	C	27.5
11 Harney / Jamestown	B	19.2	B	19.2
12 Geneva Avenue / U.S. 101 SB Ramps	--	--	F	>80.0
13 Harney Way / U.S. 101 NB Ramps	--	--	F	>80.0
PM Peak Hour				
1 Third / Jamestown / U.S. 101 SB On-Ramp	F	>80.0	F	>80.0
2 Bayshore / Tunnel	F	>80.0	E	70.0
3 Bayshore / Blanken	F	>80.0	F	>80.0
4 Bayshore / Geneva	F	>80.0	F	>80.0
5 Tunnel / Blanken	F	>50.0	F	>50.0
6 Gillette / Blanken	F	>50.0	D	32.8
7 Alanna / Beatty ¹	F	>80.0	--	--
8 Executive Park West / Alanna ¹	C	39.0	--	--
9 Harney / Alanna / Thomas Mellon ²	F	>80.0	--	--
Harney / Thomas Mellon	--	--	D	43.0
10 Harney / Executive Park East ²	D	37.7	E	67.2
11 Harney / Jamestown	D	41.2	D	41.2
12 Geneva Avenue / U.S. 101 SB Ramps	--	--	F	>80.0
13 Harney Way / U.S. 101 NB Ramps	--	--	F	>80.0

Notes:

Delay in seconds per vehicle.

Bold indicates unacceptable conditions.

¹ Intersection would be eliminated with the proposed transportation improvements.

² Intersection would be reconfigured with the proposed transportation improvements.

Source: AECOM, 2010.

Impact TR-19: The proposed project would contribute to a cumulative impact at the Bayshore Boulevard / Tunnel Avenue intersection. (*Significant and Unavoidable*)

The project would contribute a high percentage (between 12.5 and 12.9 percent) of the projected volumes on some poorly performing critical movements at the Bayshore Boulevard / Tunnel Avenue intersection under the 2030 Cumulative Conditions Alternative A (Option 1) scenario. The proposed project's traffic would represent a cumulatively considerable contribution to the adverse cumulative conditions at this intersection.

The proposed transportation improvements would divert north-south traffic along Bayshore Boulevard coming to and from U.S. 101, as some drivers would find it more convenient to use the new Harney Way Interchange and Geneva Avenue extension to get to and from the freeway. However, the intersection would still operate at unacceptable conditions. Therefore, any feasible mitigation measures would be as described in Impact TR-4 for 2030 Cumulative Conditions without Improvements. This impact would be significant and unavoidable.

Impact TR-20: The proposed project would contribute to a cumulative impact at the Bayshore Boulevard / Blanken Avenue intersection. (*Significant and Unavoidable*)

The project would contribute a high percentage (between 11.1 and 17.1 percent) of the projected volumes on some poorly performing critical movements at the Bayshore Boulevard / Blanken Avenue intersection under the 2030 Cumulative Conditions Alternative A (Option 1) scenario. The proposed project's traffic would represent a cumulatively considerable contribution to the adverse cumulative conditions at this intersection.

The proposed transportation improvements would divert traffic as described above for the intersection of Bayshore Boulevard / Blanken Avenue, but the intersection would still operate at unacceptable conditions. Therefore, any feasible mitigation measures would be as described in Impact TR-4 for 2030 Cumulative Conditions without Improvements. This impact would be significant and unavoidable.

Impact TR-21: The proposed project would contribute to a cumulative impact at the Tunnel Avenue / Blanken Avenue intersection. (*Less than Significant with Mitigation*)

The project would contribute a high percentage (between 16.1 and 34.8 percent) of the projected volumes on some poorly performing critical movements at the Tunnel Avenue / Blanken Avenue intersection under the 2030 Cumulative Conditions Alternative A (Option 1) scenario. The proposed project's traffic would represent a cumulatively considerable contribution to the adverse cumulative conditions at this intersection. This impact would be less than significant with the mitigation described in Mitigation Measure M-TR-21, which would include signalization of the intersection.

Impact TR-22: The proposed project would contribute to a cumulative impact at the Harney Way / Executive Park Boulevard East intersection. (*Less than Significant with Mitigation*)

The project would contribute a moderate to high percentage (between 6.8 and 32.5 percent) to the volumes on some poorly performing critical movements under the 2030 Cumulative Conditions Alternative A (Option 1) scenario. The proposed project's traffic would represent a cumulatively considerable contribution to the adverse cumulative conditions at this intersection. This impact would be less than significant with the mitigation described in Mitigation Measure M-TR-22, which would include creation of a right-turn pocket.

Impact TR-23: The proposed project would contribute to a cumulative impact at the Geneva Avenue / U.S. 101 SB Ramps intersection. (*Significant and Unavoidable*)

The project would contribute a moderate to high percentage (between 8.2 and 31.9 percent) of the projected volumes on some poorly performing critical movements at the Geneva Avenue / U.S. 101 SB Ramps intersection under the 2030 Cumulative Conditions Alternative A (Option 1) scenario. The proposed project's traffic would represent a cumulatively considerable contribution to the adverse cumulative conditions at this intersection.

As the design of the new U.S. 101 interchange at Geneva Avenue / Harney Way has yet to be finalized and is still in preliminary stages, development of specific mitigation measures at this moment is not possible. Based on the expected volumes at this intersection under 2030 Cumulative Conditions with Improvements, however, the "loop" configuration described under Option 2 for Alternative 1 would allow this intersection to operate at acceptable conditions. However, as the interchange is still in a preliminary design phase and any changes would require further feasibility study and Caltrans approval, this impact is considered significant and unavoidable. The Yerby Project and UPC project sponsors will be required to contribute their fair-share to the costs of the new U.S. 101 interchange at Geneva Avenue / Harney Way (see Mitigation Measure M-TR-23).

Impact TR-24: The proposed project would contribute to a cumulative impact at the Geneva Avenue / U.S. 101 NB Ramps intersection. (*Significant and Unavoidable*)

The project would contribute a moderate to high percentage (between 5.9 and 27.3 percent) of the projected volumes on some poorly performing critical movements at the Geneva Avenue / U.S. 101 NB Ramps intersection under the 2030 Cumulative Conditions Alternative A (Option 1) scenario. The proposed project's traffic would represent a cumulatively considerable contribution to the adverse cumulative conditions at this intersection.

As the design of the new U.S. 101 interchange at Geneva Avenue / Harney Way has yet to be finalized and is still in preliminary stages, development of specific mitigation measures at this moment is not possible. Based on the expected volumes at this intersection under 2030 Cumulative Conditions with Improvements, however, this intersection would need to be designed with the following geometric considerations in order to operate at acceptable conditions:

- The U.S. 101 Northbound Off-Ramp would require four lanes.
- The westbound right-turn movement would require uncontrolled access to the freeway on-ramp.
- Special signal phasing would be needed to allow the eastbound left and northbound right movements to run concurrently.

However, as the interchange is still in a preliminary design phase and any changes would require further feasibility study and Caltrans approval, this impact is considered significant and unavoidable. The Yerby Project and UPC project sponsors will be required to contribute their fair-share to the costs of the new U.S. 101 interchange at Geneva Avenue / Harney Way (see Mitigation Measure M-TR-24).

2030 Cumulative Conditions Alternative A (Option 1) LOS at the study freeway mainlines and on-ramps are summarized in Table V.E-13. As shown in Table V.E-13, the study freeway mainlines would generally still operate at unacceptable conditions (LOS E or LOS F). With the redesigned interchange, the on-ramps would have increased capacities, but also increased volumes as vehicles divert to use a more convenient access point.

**Table V.E-13: Freeway Level of Service – 2030 Cumulative Conditions Alternative A
(Option 1)**

Location		Dir.	2030 Cumulative Conditions							
			w/o Improvements				Alt. A (Opt. 1)			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			LOS	Den.	LOS	Den.	LOS	Den.	LOS	Den.
Freeway Mainline										
1	U.S. 101 Mainline	NB	E	41.1	F	--	E	44.9	F	--
	North of Alanna / Harney	SB	F	--	F	--	F	--	F	--
2	U.S. 101 Mainline	NB	D	33.7	F	--	D	35.0	F	--
	South of Alanna / Harney	SB	F	--	E	42.5	F	--	E	43.5
Freeway On-Ramp										
3	U.S. 101 NB On-Ramp at Harney Way		F	--	F	--	F	--	F	--
4	U.S. 101 SB On-Ramp at Alanna Way		F	--	F	--	F	--	F	--
Notes: Density in passenger car equivalents per mile per lane. “--” indicates density is beyond the calculable range of the 2000 HCM methodology. Bold indicates unacceptable conditions.										

Source: AECOM, 2010.

Project Contribution to Cumulative Impacts

To assess the effect of project-generated traffic on 2030 Cumulative Conditions without Improvements, the proposed project's contribution to growth in volumes was determined. The U.S. 101 mainline north of Alanna Way / Harney Way (southbound) was already identified as a significant impact under Baseline plus Project Conditions, and is therefore automatically considered to be a cumulative impact. The project would have a significant contribution to the growth in volumes at three (3) mainline and ramp locations. Therefore, the project-generated traffic would represent a cumulatively considerable contribution to the adverse cumulative conditions and the proposed project would have a significant cumulative impact at these locations.

Impact TR-25: The proposed project would contribute to a cumulative impact at the U.S. 101 mainline north of Alanna Way / Harney Way (northbound) segment. (Significant and Unavoidable)

To mitigate the impact would require additional freeway mainline capacity, which would necessitate land acquisition and involve substantial costs and jurisdictional issues. Therefore, mitigation of this impact is considered infeasible, and the impact is significant and unavoidable.

Impact TR-26: The proposed project would contribute to a cumulative impact at the U.S. 101 Northbound On-Ramp at Harney Way. (Significant and Unavoidable)

Providing an additional travel lane at the on-ramp would not be advisable, given the large volumes attempting to access the freeway at this location. An additional travel lane would allow for more traffic to enter the freeway, but would not solve the capacity constraint on the mainline and may instead exacerbate congestion at this merge location by permitting vehicles to enter the freeway at a higher rate.

In addition, given the proximity of the nearest downstream off-ramps to Third Street and Bayshore Boulevard, providing an additional on-ramp location north of the existing interchange would likely not be feasible. To mitigate the impact would thus require additional mainline capacity, which would necessitate land acquisition and involve substantial costs and jurisdictional issues. Given these considerations, mitigation of this impact is considered infeasible, and the impact is significant and unavoidable.

Impact TR-27: The proposed project would contribute to a cumulative impact at the U.S. 101 Southbound On-Ramp at Alanna Way. (Significant and Unavoidable)

Providing an additional travel lane at the on-ramp would not be advisable, given the large volumes attempting to access the freeway at this location. An additional travel lane would allow for more traffic to enter the freeway, but would not solve the capacity constraint on the mainline and may instead exacerbate congestion at this merge location by permitting vehicles to enter the freeway at a higher rate. Given these considerations, mitigation of this impact is considered infeasible, and the impact is significant and unavoidable.

It is anticipated that, along with the other landowners within the Executive Park Subarea, the Yerby project sponsor and UPC project sponsor and their successors will contribute on a fair-share basis to the cost of the regional roadway improvements previously described, including the new Harney Way Interchange and northbound Third Street off-ramp bypass. The determination of fair share is based on the proportional trip generation of each project (including the other area projects identified in the 2030 Cumulative Conditions section).

2030 Cumulative Conditions Alternative B (Option 1) Traffic and Circulation Impacts

This scenario analyzes 2030 Cumulative Conditions (including all traffic generated by the area projects) with the following transportation improvements described in the Transportation and Improvements section:

- Interchange Option 1 (diamond interchange); and
- Harney Way Alternative B (two lanes eastbound and three lanes westbound, with one westbound right-turn pocket at Executive Park Boulevard East).

This alternative is identical to Alternative A presented in the 2030 Cumulative Conditions Alternative A (Option 1) Traffic Conditions section, with slight modifications to Harney Way as described above. These modifications affect the intersections of Harney Way / Thomas Mellon Drive and Harney Way / Executive Park Boulevard East, but do not affect other study intersections or freeway facilities when compared against 2030 Cumulative Conditions Alternative A (Option 1).

Traffic Operations

The 2030 Cumulative Conditions Alternative B (Option 1) traffic volumes at the study intersections would be identical to the traffic volumes for 2030 Cumulative Conditions Alternative A (Option 1), with slight modifications. Under Alternative A (Option 1), drivers would be permitted to make westbound right turns at both Harney Way / Thomas Mellon Drive and Harney Way / Executive Park Boulevard East. However, under Alternative B (Option 1), all of these maneuvers would occur at the westbound right-turn pocket provided at the Harney Way / Executive Park Boulevard East intersection. No westbound right turns would be permitted at Harney Way / Thomas Mellon Drive.

The 2030 Cumulative Conditions Alternative B (Option 1) LOS at the affected study intersections is summarized in Table V.E-14. The operation of other study intersections would be as shown under 2030 Cumulative Conditions Alternative A (Option 1).

As shown in Table V.E-14, the exclusive right-turn pocket at Executive Park Boulevard East would allow all westbound Harney Way lanes to run concurrently with the BRT phase; as such, operations at these locations would improve to LOS C and LOS D in weekday the PM peak hour under Alternative B (Option 1). The exclusive right-turn pocket would also allow for installation of a turn signal for this movement, substantially reducing the potential conflict issues between right-turning vehicles and BRT buses.

The prohibition of westbound right turns at Harney Way / Thomas Mellon Drive would affect internal access and circulation by diverting a small share of northbound traffic on Thomas Mellon Drive onto Executive Park Boulevard East. However, the intersection of Executive Park

Boulevard East / Executive Park Boulevard North would have sufficient capacity to accommodate the diverted traffic within the existing right of way, and without the need for widening or other substantial modifications.

**Table V.E-14: Intersection Level of Service – 2030 Cumulative Conditions
Alternative B (Option 1)**

Intersection	2030 Cumulative Conditions			
	Alt. A (Option 1)		Alt. B (Option 1)	
	LOS	Delay	LOS	Delay
AM Peak Hour				
9 Harney / Thomas Mellon	D	45.4	C	28.9
10 Harney / Executive Park East	C	27.5	C	23.5
PM Peak Hour				
9 Harney / Thomas Mellon	D	43.0	C	24.8
10 Harney / Executive Park East	E	67.2	D	43.0

Notes:

Delay in seconds per vehicle.

Bold indicates unacceptable conditions.

Source: AECOM, 2010.

Project Contribution to Cumulative Impacts

To assess the effect of project-generated traffic on 2030 Cumulative Conditions Alternative B (Option 1), the proposed project's contribution at LOS E or LOS F study intersections to poorly-performing critical movements was determined. Under this series of transportation improvements, the project would not contribute to any new intersection-related impacts over 2030 Cumulative Conditions Alternative A (Option 1). However, the intersection of Harney Way / Executive Park Boulevard East, which was identified as a significant cumulative impact under Alternative A (Option 1), would operate at acceptable conditions under Alternative B (Option 1) and would not be considered a significant cumulative impact.

IMPACT EVALUATION: YERBY DEVELOPMENT PROJECT

This section assesses the individual transportation impacts for the proposed Yerby development project within Executive Park separately. The analysis evaluates traffic (freeway and intersection), transit, bicycle, parking, loading, and construction impacts for Baseline plus Project Conditions. Impacts for the Yerby Project were evaluated as Baseline plus Yerby Conditions, which assumes Baseline Conditions and construction of only the Yerby project.

Travel Demand

The travel, parking, and loading demand analysis follows the methodology outlined in the Methodology section. It should be noted that the travel demand for the project is the net-new trips, which account for the elimination of the current office building and its associated travel activity.

Table V.E-15 and Table V.E-16 summarize the person-trip and vehicle-trip generation for the Yerby project. Table V.E-17 and Table V.E-18 summarize the parking and loading demand for the Yerby project.

Table V.E-15: Yerby Project Weekday Person-Trip Generation

Project	Person-Trips (Weekday)		
	Daily	AM Peak Hour	PM Peak Hour
New Uses	3,701	602	613
Existing Uses to be Removed	<u>-543</u>	<u>-48</u>	<u>-46</u>
Net-New Trips	3,158	554	567

Source: AECOM, 2010.

Table V.E-16: Yerby Project Person-Trips by Mode – Weekday AM and PM Peak Hours

Land Use	Person-Trips by Mode					Vehicle Trips
	Auto	Transit	Walk/ Bike/ Other	Internal	Total	
AM Peak Hour	400	115	9	30	554	268
PM Peak Hour	409	117	10	31	567	275

Source: AECOM, 2010.

Table V.E-17: Yerby Project Parking Demand

Land Use	Weekday Midday		Weekday Evening	
	Short-Term	Long-Term	Short-Term	Long-Term
Residential	0	516	0	645
Retail	<u>1</u>	<u>5</u>	<u>1</u>	<u>4</u>
Total	1	521	1	649

Source: SF Guidelines, 2002; AECOM, 2010.

Table V.E-18: Yerby Project Loading Demand

Land Use	Daily Trips	Loading Space Demand	
		Average Hour	Peak Hour
Residential	17.9	0.8	1.0
Retail	<u>0.6</u>	<u>0.1</u>	<u>0.1</u>
Total	18.5	0.9	1.1

Source: AECOM, 2010.

Traffic and Circulation Impacts

Traffic Operations

Table V.E-19 summarizes the results of the Baseline plus Yerby Conditions intersection operations analysis. As for the Baseline plus Project Conditions analysis, the following roadway improvements are assumed under Baseline plus Yerby Conditions:

- Signalization of Executive Park Boulevard West / Alanna Way and the restriping of the southbound approach from one shared lane to one exclusive left lane and one exclusive right lane; and
- Signalization and reconfiguration of Harney Way / Alanna Way / Thomas Mellon Drive.

As shown in Table V.E-19, operations at each intersection are expected to somewhat worsen under Baseline plus Yerby Conditions (but remain better than under the Baseline plus Project Conditions). The Tunnel Avenue / Blanken Avenue intersection would operate with unacceptable conditions under Baseline plus Yerby Conditions.

Table V.E-19: Intersection Level of Service – Baseline plus Yerby Conditions

Intersection	Baseline Conditions		Baseline plus Yerby Conditions	
	LOS	Delay	LOS	Delay
AM Peak Hour				
1 Third / Jamestown / U.S. 101 SB On-Ramp	B	13.2	B	13.6
2 Bayshore / Tunnel	C	29.5	C	32.0
3 Bayshore / Blanken	C	29.8	C	32.4
4 Bayshore / Geneva	C	24.7	C	25.3
5 Tunnel / Blanken	D	29.6	E	42.3
6 Gillette / Blanken	B	12.6	B	14.2
7 Alanna / Beatty	C	17.2	C	19.0
8 Executive Park West / Alanna ¹	C	16.3	C	24.6
9 Harney / Alanna / Thomas Mellon ²	D	28.4	C	32.6
10 Harney / Executive Park East	B	13.6	B	13.6
11 Harney / Jamestown	A	8.6	A	8.6
PM Peak Hour				
1 Third / Jamestown / U.S. 101 SB On-Ramp	B	14.8	B	15.1
2 Bayshore / Tunnel	B	19.2	B	19.6
3 Bayshore / Blanken	C	22.0	C	22.4
4 Bayshore / Geneva	C	24.6	C	24.8
5 Tunnel / Blanken	C	20.3	C	23.9
6 Gillette / Blanken	B	11.5	B	12.3
7 Alanna / Beatty	B	11.6	B	11.8
8 Executive Park West / Alanna ¹	B	13.8	C	22.8
9 Harney / Alanna / Thomas Mellon ²	C	30.7	C	31.3
10 Harney / Executive Park East	B	12.4	B	12.4
11 Harney / Jamestown	A	8.4	A	8.4

Notes:

Delay in seconds per vehicle.

Bold indicates unacceptable conditions.

¹ Without improvements, the intersection would operate at LOS F in both the AM and PM peak hours under Baseline plus Yerby Conditions.

² Without improvements, the intersection would operate at LOS E in both the AM and PM peak hours under Baseline plus Yerby Conditions.

Source: AECOM, 2010.

Impact TR-28: The proposed Yerby development project would affect the Level of Service at the Tunnel Avenue / Blanken Avenue intersection. (*Less than Significant with Mitigation*)

At this unsignalized intersection, the westbound approach would worsen from LOS E to LOS F in the weekday AM peak hour. The intersection would not meet the MUTCD peak hour signal warrant during the AM peak hour, but would meet it during the PM peak hour. As a result, the Yerby project would be considered to have a significant impact at this location. It should be noted that this intersection was also determined to operate with unacceptable conditions under Baseline plus Project Conditions. (See Mitigation Measure M-TR-28).

Table V.E-20 summarizes the results of the Baseline plus Yerby Conditions freeway operations analysis.

Table V.E-20: Freeway Level of Service – Baseline plus Yerby Conditions

Location		Dir.	Baseline Conditions				Baseline plus Yerby Conditions			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
			LOS	Den.	LOS	Den.	LOS	Den.	LOS	Den.
Freeway Mainline										
1	U.S. 101 Mainline	NB	D	31.3	E	37.2	D	32.1	E	38.0
	North of Alanna / Harney	SB	E	36.0	D	32.9	E	36.3	D	33.6
2	U.S. 101 Mainline	NB	D	28.7	E	38.4	D	28.8	E	38.6
	South of Alanna / Harney	SB	E	38.2	D	32.0	E	38.5	D	32.1
Freeway On-Ramp										
3	U.S. 101 NB On-Ramp at Harney Way		B	19.2	C	21.3	B	19.3	C	21.3
4	U.S. 101 SB On-Ramp at Alanna Way		C	21.5	C	20.3	C	21.5	C	20.3

Notes:

Density in passenger car equivalents per mile per lane.

Bold indicates unacceptable conditions.

Source: AECOM, 2010.

As shown in Table V.E-20, freeway operations are generally expected to worsen under Baseline plus Yerby Conditions, although would remain better than under the Baseline plus Project Conditions. A significant impact was identified at the following location under Baseline plus Yerby Conditions:

Impact TR-29: The proposed Yerby development project would contribute to a cumulative impact at the U.S.101 mainline north of Alanna Way / Harney Way (southbound). (*Significant and Unavoidable*)

The Yerby project would cause the mainline LOS to degrade from LOS D to LOS E. As detailed in Mitigation Measure TR-2, to mitigate this impact would require an additional lane on the freeway mainline, which may be infeasible due to the need for land acquisition or substantial modifications to the design of existing freeway structures. In addition, since these facilities are under the management of Caltrans, any proposed mitigation measures would require further study and Caltrans approval. Therefore, this impact is considered significant and unavoidable.

Project Contribution to Proposed Subarea Plan Amendment

To determine the effect of the proposed Yerby project in relation to the overall proposed Subarea Plan Amendment, several project contribution calculations were performed. Since the combined land use program of the various development projects is not necessarily equal to the total allowed uses under the proposed Subarea Plan Amendment, all contribution calculations are based on the combined land use program. For this assessment, the daily trip generation (person-trips) within the Subarea Plan Area were summarized and compared to the total travel demand. This approach looks at the entire Executive Park area as a whole, and assumes that each project would assign trips to the local intersections at ratios equal to the projects' contribution to the total daily trip generation. In addition, the trip generation totals represent net-new trips, and thus include the displacement of existing office space that would be eliminated with the Yerby project and the UPC project. The Yerby project would contribute 10.9 percent of the total net-new daily trips, or 3,158 daily person-trips.

The contribution of the Yerby project to 2030 Cumulative Conditions scenarios was determined based on each project's contribution to the total traffic volumes, as well as the growth in traffic volumes over Baseline Conditions, for both 2030 Cumulative Conditions without Improvements and 2030 Cumulative Conditions Alternative A (Option 1). It should be noted that for this evaluation, 2030 Cumulative Conditions Alternative A (Option 1) is the only transportation improvements scenario considered, as Alternative B (Option 1) is a minor variation of Alternative A (Option 1).

Table V.E-21 summarizes the Yerby project contributions to the total volumes and growth in volumes to 2030 Cumulative Conditions at study intersections.

Table V.E-21: Yerby Project Contributions to 2030 Cumulative Conditions – Intersections

Intersection	Cumulative without Improvements				Cumulative Alternative A (Option 1)			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Tot.	Gr.	Tot.	Gr.	Tot.	Gr.	Tot.	Gr.
1 Third / Jamestown / U.S. 101 SB On-Ramp	0.3%	0.4%	0.1%	0.2%	0.3%	0.4%	0.1%	0.2%
2 Bayshore / Tunnel	0.5%	1.1%	0.3%	0.7%	0.6%	1.5%	0.4%	0.9%
3 Bayshore / Blanken	0.9%	1.7%	0.6%	1.0%	1.0%	2.5%	0.7%	1.3%
4 Bayshore / Geneva	0.4%	0.7%	0.3%	0.4%	0.4%	0.6%	0.3%	0.4%
5 Tunnel / Blanken	2.9%	6.0%	2.1%	3.8%	2.9%	6.4%	1.9%	3.3%
6 Gillette / Blanken	5.2%	12.4%	3.7%	7.7%	6.0%	20.2%	4.1%	10.1%
7 Alanna / Beatty	1.2%	1.4%	1.6%	1.8%	--	--	--	--
8 Executive Park West / Alanna	5.8%	7.9%	4.4%	5.3%	--	--	--	--
9 Harney / Alanna / Thomas Mellon	3.2%	4.4%	1.7%	2.0%	--	--	--	--
Harney / Thomas Mellon	--	--	--	--	5.1%	7.9%	3.9%	4.9%
10 Harney / Executive Park East	0.1%	0.2%	0.0%	0.0%	0.9%	1.3%	1.3%	1.6%
11 Harney / Jamestown	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
12 Geneva Avenue / U.S. 101 SB Ramps ¹	--	--	--	--	1.0%	--	1.4%	--
13 Harney Way / U.S. 101 NB Ramps ¹	--	--	--	--	1.5%	--	1.7%	--

Notes:

Bold denotes intersections where the combined project (Yerby Project and UPC Project) would have a cumulatively considerable impact.

¹New intersection created as part of proposed transportation improvements. Contribution to growth not applicable.

Source: AECOM, 2010.

Table V.E-22 summarizes the Yerby project contributions to the total volumes and growth in volumes to 2030 Cumulative Conditions on freeway facilities.

Table V.E-22: Yerby Project Contributions to 2030 Cumulative Conditions – Freeway Facilities

		Cumulative without Improvements				Cumulative Alternative A (Option 1)				
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
Location	Dir.	Tot.	Gr.	Tot.	Gr.	Tot.	Gr.	Tot.	Gr.	
Freeway Mainline										
1	U.S. 101 Mainline	NB	1.4%	8.5%	0.7%	3.4%	1.4%	7.1%	0.8%	3.2%
	North of Alanna / Harney	SB	0.4%	1.5%	1.1%	4.4%	0.4%	1.4%	1.1%	4.0%
2	U.S. 101 Mainline	NB	0.1%	1.0%	0.2%	1.3%	0.1%	0.8%	0.2%	1.2%
	South of Alanna / Harney	SB	0.2%	1.3%	0.1%	0.7%	0.2%	1.2%	0.1%	0.6%
Freeway On-Ramp										
3	U.S. 101 NB On-Ramp at Harney Way		6.4%	9.7%	3.4%	3.9%	5.6%	7.9%	3.2%	3.6%
4	U.S. 101 SB On-Ramp at Alanna Way		1.4%	2.1%	0.5%	0.7%	1.3%	1.8%	0.5%	0.6%

Notes:

Bold denotes locations where the combined project (Yerby Project and UPC Project) would have a cumulatively considerable impact.

Source: AECOM, 2010.

Impact TR-30: The proposed Yerby development project would increase ridership on the Executive Park Shuttle service. (*Less than Significant with Mitigation*)

The Yerby project would generate 115 trips (32 inbound, 83 outbound) in the weekday AM peak hour and 117 trips (69 inbound, 48 outbound) in the weekday PM peak hour, or approximately 27 percent of the total project transit demand. As discussed in the Baseline plus Project Transit Conditions section, most of these trips would be expected to make use of the Executive Park shuttle service. Given the above estimates of transit demand, an additional four (4) shuttle runs would be needed in both the weekday AM and PM peak hours. However, this conservatively assumes that all transit trips would use the shuttle and that the shuttle service would continue to use 21-passenger vehicles.

In general, the nearby transit services (Muni, Caltrain, SamTrans) have sufficient excess capacity to accommodate the additional transit demand generated by the Yerby project without substantial impacts to transit operations.

If additional shuttle service were not provided, it would result in a significant impact to traffic conditions, as residents and visitors would need to switch to auto modes. The Executive Park Property Owners have been required per previous conditions of approval to implement shuttle enhancements when warranted by demand. As such, the expansion of the shuttle to accommodate the new transit riders is included as a mitigation measure (Mitigation Measure TR-30) for the Yerby project.

Impact TR-31: The proposed Yerby development project would not result in a significant impact on pedestrian conditions. (*Less than Significant*)

Given its primarily residential nature, the Yerby project would generate a limited number of pedestrian trips throughout the day, primarily to and from the proposed commercial center at the intersection of Thomas Mellon Drive / Executive Park Boulevard North, and to and from the new shuttle stops. Sidewalks would be provided on all internal roadways within Executive Park and a new sidewalk (approximately 10 feet wide) would be provided on the west side of Executive Park Boulevard West, connecting with the south side of Blanken Boulevard. Consistent with the principles of the Subarea Plan Amendment, the design of the project minimizes the number of curb-cuts and the potential for conflicts with pedestrians, by utilizing combined garage/loading driveways and garages and loading docks that serve multiple buildings. Overall, the Yerby project would not result in significant impacts to pedestrian conditions.

Impact TR-32: The proposed Yerby development project would not result in a significant impact on bicycling conditions. (*Less than Significant*)

For residential buildings, the *San Francisco Planning Code* requires one Class I space for every two dwelling units up to 50 dwelling units, plus an additional space for every four dwelling units over 50 dwelling units, with a maximum requirement of 400 spaces. The project would not be required to provide shower or locker facilities, as the buildings will be primarily residential uses. The *Planning Code* requires a total of 188 bicycle spaces for the proposed 500 dwelling units. The Yerby project would provide a total of 191 bicycle spaces across the five proposed buildings. The proposed bicycle parking supply within each building would satisfy the *Planning Code* requirements.

The driveways for the proposed garages and loading facilities are proposed to be on Executive Park Boulevard West and internal streets. As such, there would be a reduced potential for conflicts between vehicles entering/exiting the loading docks and bicyclists.

Although the Yerby project site is located near several Citywide Bicycle Routes, given the steep grades on some routes (particularly Bayshore Boulevard northbound approaching Hester Avenue / U.S. 101 and San Bruno Avenue northbound), most bicycle trips are expected to be confined to Executive Park or the nearby Little Hollywood and Visitacion Valley neighborhoods. Blanken Avenue and Alanna Way / Beatty Road are expected to carry the majority of bicycle traffic, as these offer east-west connections to the primary north-south routes along Bayshore Boulevard and Tunnel Avenue. Some bicycle traffic is also expected to make use of the Harney Way / Hunters Point Expressway route to access Third Street and points along the Eastern Waterfront. Overall, the Yerby project would not result in significant impacts to bicycle conditions.

Impact TR-33: The proposed Yerby development project would not result in a significant impact related to parking. (*Less than Significant*)

The *San Francisco Planning Code* requirements for off-street parking spaces are: one (1) space per dwelling unit, and one (1) space per 500 square feet up to 20,000 square feet of retail space, plus one (1) space per each 250 square feet in excess of 20,000 square feet.

However, the proposed Subarea Plan Amendment would permit a residential parking supply of 1.5 spaces per unit, while maintaining the same allowances for retail parking. Based on these requirements, the Yerby project would be required to provide a total of 500 spaces (500 spaces for the residential uses and 0 spaces for the retail uses) and would be allowed to provide up to 750 spaces (750 spaces for the residential uses and 0 spaces for the retail uses).

The proposed Yerby project would provide a total parking supply of 750 spaces, which would meet *Planning Code* requirements and be within the allowances of the Subarea Plan Amendment. However, since no retail parking would be provided, the retail patrons would need to seek available on-street parking spaces (which would be provided throughout the site). On-street parking would be provided along some streets within Executive Park, except the alleyways and Thomas Mellon Drive to the north of Harney Way.

The proposed Yerby project would have a parking demand of approximately 516 spaces during the weekday midday period and approximately 645 spaces during the weekday evening period. The proposed residential parking supply would meet the weekday midday and weekday evening peak period parking demand. Overall, the Yerby project would not result in significant impacts to parking conditions.

Impact TR-34: The proposed Yerby development project would not result in a significant impact related to loading. (*Less than Significant*)

Based on the square footage of the retail and residential uses within each building, the Yerby project would be required to provide one off-street loading space for each of Buildings A, B, D, and E. Building C would not be required to provide an off-street loading space, due to its smaller

size. However, the proposed Subarea Plan Amendment would not require the provision of off-street loading spaces, instead prioritizing the minimization of curb-cuts, consolidation of loading facilities, and on-street facilities. Based on this language, the proposed project would not be required to provide any off-street loading spaces.

Through a combination of on-street and off-street locations, the Yerby project would provide one loading space for each building. All buildings would be served by off-street spaces except Building C, which would be served by an on-street loading zone on E Street. This on-street loading zone would serve the retail space in Building C and also offer an alternative for loading operations related to Building D (Building D would still be provided with dedicated facilities with access off of Executive Park Boulevard West).

The proposed supply of loading spaces would meet the *Planning Code* requirements, as all *Code*-required spaces would be provided off-street. Although Building C is provided with an on-street loading zone, the *Planning Code* does not require provision of a loading space based on the proposed square footage of the building. The supply would also meet the requirements of the Proposed Subarea Plan Amendment, which prioritize the minimization of curb-cuts and consolidation of loading facilities, and the weekday average hour and weekday peak hour loading demand. The dimensions of the proposed loading spaces would meet the *Planning Code* requirements.

The retail space in Building C would be served by the on-street loading zone proposed for E Street. Due to the size of the retail space, this zone should be sufficient to accommodate the daily and peak hour loading demand.

Adjacent to the proposed loading docks, separate trash rooms would be provided. It is anticipated that trash pick-up would occur by garbage trucks utilizing the loading docks (which would require trucks to back into the docks). However, since most garbage truck activity occurs outside of peak residential activity times, the potential for conflicts with through traffic and vehicles destined to and from the various Yerby project buildings would be minimal.

All residential move-in and move-out activities would be directed to use the loading facilities for each representative building. However, since these spaces are between 25 and 35 feet long, they could not accommodate medium and long moving vehicles. These vehicles would need to be handled in smaller vehicles or within on-street parking spaces (if longer vehicles were used, they would block the sidewalks which would impact pedestrians). All buildings would have nearby on-street parking spaces that could be utilized for residential moving activities, with the exception of Building E (all three streets surrounding this building are not proposed to contain parking).

Overall, the Yerby project would not result in significant impacts to loading conditions.

Impact TR-35: The proposed Yerby development project construction activities would not result in a significant impact. (*Less than Significant*)

Construction activities for the Yerby project would last a total of 46 months and consist of two phases.

Heavy truck traffic is expected to be highest during excavation activities and concrete pouring, with an estimated 100 trucks per day (100 inbound and 100 outbound trips). Construction activities will require an average of approximately 95 to 100 workers per day, with parking provided either on-site or at Candlestick Park stadium. Given that the truck traffic would be spread throughout the day, however, the total traffic generated by construction activities is expected to be less than that generated after completion of construction and full occupancy of the project. Therefore, the impact of construction activities would be less substantial than the impacts of the project itself. Overall, the Yerby project would not result in significant impacts under construction conditions. Construction-related impacts generally would not be considered significant due to their temporary and limited duration. Thus, these impacts would be *less-than-significant* and no mitigation is required.

Given the location of the Yerby project site directly adjacent to the Harney Way / Alanna Way interchange, construction-related traffic is not expected to result in significant impacts to area roadways, although traffic on U.S. 101 would likely increase temporarily. Since construction activities for the Yerby project may overlap with construction activities for other projects in the Executive Park area, the construction phasing schedule, truck access plan, and location of staging areas and construction worker parking would need to be approved by the appropriate City agencies.

IMPACT EVALUATION: UPC DEVELOPMENT PROJECT

Project impacts for the UPC project were evaluated as Baseline plus UPC Conditions, which assumes Baseline Conditions and construction of only the UPC project.

Travel Demand

The travel, parking, and loading demand analysis follows the methodology outlined in the Methodology section.

Table V.E-23 and Table V.E-24 summarize the person-trip and vehicle-trip generation for the UPC project. Table V.E-25 and Table V.E-26 summarize the parking and loading demand for the UPC project.

Table V.E-23: UPC Project Person-Trip Generation

Project	Person-Trips (Weekday)		
	Daily	AM Peak Hour	PM Peak Hour
New Uses	15,327	1,504	1,996
Existing Uses to be Removed	<u>-2,688</u>	<u>-237</u>	<u>-228</u>
Net-New Trips	12,639	1,268	1,767

Source: AECOM, 2010.

Table V.E-24: UPC Project Person-Trips by Mode – Weekday AM and PM Peak Hours

Land Use	Person-Trips by Mode					Vehicle Trips
	Auto	Transit	Walk/ Bike/ Other	Internal	Total	
AM Peak Hour	914	261	19	74	1,268	615
PM Peak Hour	1,273	363	27	104	1,767	856

Source: AECOM, 2010.

Table V.E-25: UPC Project Parking Demand

Land Use	Weekday Midday		Weekday Evening	
	Short-Term	Long-Term	Short-Term	Long-Term
Residential	0	1,260	0	1,575
Retail	<u>36</u>	<u>117</u>	<u>36</u>	<u>94</u>
Total	36	1,377	36	1,669

Source: SF Guidelines, 2002; AECOM, 2010.

Table V.E-26: UPC Project Loading Demand

Land Use	Daily Trips	Loading Space Demand	
		Average Hour	Peak Hour
Residential	40.5	1.9	2.3
Retail	<u>15.5</u>	<u>0.7</u>	<u>0.9</u>
Total	56.0	2.6	3.2

Source: AECOM, 2010.

Traffic and Circulation Impacts

Traffic Operations

Table V.E-27 summarizes the results of the Baseline plus UPC Conditions intersection operations analysis. As for the Baseline plus Project Conditions analysis, the following roadway improvements are assumed under Baseline plus UPC Conditions:

- Signalization of Executive Park Boulevard West / Alanna Way and the restriping of the southbound approach from one shared lane to one exclusive left lane and one exclusive right lane; and
- Signalization and reconfiguration of Harney Way / Alanna Way / Thomas Mellon Drive.

As shown in Table V.E-27, operations at each intersection are generally expected to worsen under Baseline plus UPC Conditions. The Tunnel Avenue / Blanken Avenue intersection would operate with unacceptable conditions under Baseline plus UPC Conditions.

Impact TR-36: The proposed UPC development project would affect the Level of Service at the Tunnel Avenue / Blanken Avenue intersection. (*Less than Significant with Mitigation*)

At this unsignalized intersection, the westbound approach would worsen from LOS E to LOS F in the AM peak hour and from LOS C to LOS F in the PM peak hour. The southbound approach would also worsen from LOS D to LOS F in the weekday PM peak hour. The intersection would meet the MUTCD peak hour signal warrant during both the AM and PM peak hours. As a result, the UPC project would have a significant impact at this location. It should be noted that this intersection was also determined to operate with unacceptable conditions under Baseline plus Proposed Project Conditions, as discussed in Impact TR-1. (See Mitigation Measure M-TR-36.)

Table V.E-28 summarizes the results of the Baseline plus UPC Conditions freeway operations analysis.

Impact TR-37: The proposed UPC development project would affect the Level of Service at U.S.101 mainline north of Alanna Way / Harney Way (southbound). (*Significant and Unavoidable*)

The UPC project would cause the mainline LOS to degrade from LOS D to LOS E. As detailed in Impact TR-2, to mitigate this impact would require an additional lane on the freeway mainline, which may be infeasible due to the need for land acquisition or substantial modifications to the design of existing freeway structures. In addition, since these facilities are under the management of Caltrans, any proposed mitigation measures would require further study and Caltrans approval. Therefore, this impact is considered significant and unavoidable.

Table V.E-27: Intersection Level of Service – Baseline plus UPC Conditions

Intersection	Baseline Conditions		Baseline plus UPC Conditions	
	LOS	Delay	LOS	Delay
AM Peak Hour				
1 Third / Jamestown / U.S. 101 SB On-Ramp	B	13.2	B	14.2
2 Bayshore / Tunnel	C	29.5	D	41.0
3 Bayshore / Blanken	C	29.8	D	36.5
4 Bayshore / Geneva	C	24.7	C	25.4
5 Tunnel / Blanken	D	29.6	F	>50.0
6 Gillette / Blanken	B	12.6	C	18.8
7 Alanna / Beatty	C	17.2	C	22.1
8 Executive Park West / Alanna ¹	C	16.3	C	25.1
9 Harney / Alanna / Thomas Mellon ²	D	28.4	C	32.6
10 Harney / Executive Park East	B	13.6	B	14.8
11 Harney / Jamestown	A	8.6	A	8.8
PM Peak Hour				
1 Third / Jamestown / U.S. 101 SB On-Ramp	B	14.8	B	15.7
2 Bayshore / Tunnel	B	19.2	C	22.2
3 Bayshore / Blanken	C	22.0	C	23.4
4 Bayshore / Geneva	C	24.6	C	24.7
5 Tunnel / Blanken	C	20.3	F	>50.0
6 Gillette / Blanken	B	11.5	C	16.0
7 Alanna / Beatty	B	11.6	B	12.5
8 Executive Park West / Alanna ¹	B	13.8	C	25.7
9 Harney / Alanna / Thomas Mellon ²	C	30.7	D	37.1
10 Harney / Executive Park East	B	12.4	C	15.7
11 Harney / Jamestown	A	8.4	A	8.6

Notes:

Delay in seconds per vehicle.

Bold indicates unacceptable conditions.

¹ Without improvements, the intersection would operate at LOS C in the AM peak hour and LOS F in the PM peak hour under Baseline plus UPC Conditions.

² Without improvements, the intersection would operate at LOS F in both the AM and PM peak hours under Baseline plus UPC Conditions.

Source: AECOM, 2010.

Project Contribution to Proposed Subarea Plan Amendment

To determine the effect of the proposed UPC project in relation to the overall proposed Subarea Plan Amendment, several project contribution calculations were performed. Since the combined land use program of the various development projects is not necessarily equal to the total allowed uses under the proposed Subarea Plan Amendment, all contribution calculations are based on the combined land use program.

As shown in Table V.E-28, freeway operations are generally expected to worsen under Baseline plus UPC Conditions, although would remain better than under the Baseline plus Project Conditions. A significant impact was identified at the following location for Baseline plus UPC Conditions:

Table V.E-28: Freeway Level of Service – Baseline plus UPC Conditions

		Baseline Conditions				Baseline plus UPC Conditions				
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		
Location	Dir.	LOS	Den.	LOS	Den.	LOS	Den.	LOS	Den.	
Freeway Mainline										
1	U.S. 101 Mainline	NB	D	31.3	E	37.2	D	32.9	E	39.2
	North of Alanna / Harney	SB	E	36.0	D	32.9	E	36.7	D	35.0
2	U.S. 101 Mainline	NB	D	28.7	E	38.4	D	28.9	E	39.1
	South of Alanna / Harney	SB	E	38.2	D	32.0	E	38.8	D	32.2
Freeway On-Ramp										
3	U.S. 101 NB On-Ramp at Harney Way		B	B	19.2	C	21.3	B	19.3	C
4	U.S. 101 SB On-Ramp at Alanna Way		C	C	21.5	C	20.3	C	21.5	C

Notes:

Density in passenger car equivalents per mile per lane.

“--” indicates density is beyond the calculable range of the 2000 HCM methodology.

Bold indicates unacceptable conditions.

Source: AECOM, 2010.

For this assessment, the daily trip generation (person-trips) within the Subarea Plan Area were summarized and compared to the total travel demand. This approach looks at the entire Executive Park area as a whole, and assumes that each project would assign trips to the local intersections at ratios equal to the projects’ contribution to the total daily trip generation. In addition, the trip generation totals represent net-new trips, and thus include the displacement of

existing office space that would be eliminated with the Yerby project and the UPC project. The UPC project would contribute 43.6 percent of the total net-new daily trips, or 12,639 daily person-trips.

The contribution of the UPC project to 2030 Cumulative Conditions scenarios was determined based on each project's contribution to the total traffic volumes, as well as the growth in traffic volumes over Baseline Conditions, for both 2030 Cumulative Conditions without Improvements and 2030 Cumulative Conditions Alternative A (Option 1).

It should be noted that for this evaluation, 2030 Cumulative Conditions Alternative A (Option 1) is the only transportation improvements scenario considered, as Alternative B (Option 1) is a minor variation of Alternative A (Option 1).

Table V.E-29 summarizes the UPC project contributions to the total volumes and growth in volumes to 2030 Cumulative Conditions at the study intersections.

Table V.E-30 summarizes the UPC project contributions to the total volumes and growth in volumes to 2030 Cumulative Conditions on freeway facilities.

**Table V.E-29: UPC Project Contributions to 2030 Cumulative Conditions –
Intersections**

Intersection	Cumulative without Improvements				Cumulative Alternative A (Option 1)			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Tot.	Gr.	Tot.	Gr.	Tot.	Gr.	Tot.	Gr.
1 Third / Jamestown/ U.S. 101 SB On- Ramp	1.1%	1.7%	0.9%	1.2%	1.1%	1.7%	0.9%	1.2%
2 Bayshore / Tunnel	1.7%	3.9%	2.0%	3.9%	2.0%	5.4%	2.4%	5.3%
3 Bayshore / Blanken	2.0%	3.9%	1.9%	3.1%	2.4%	5.7%	2.1%	4.2%
4 Bayshore / Geneva	1.0%	1.7%	0.9%	1.3%	0.9%	1.3%	0.8%	1.1%
5 Tunnel / Blanken	7.8%	16.2%	8.7%	15.4%	7.9%	17.3%	8.1%	13.8%
6 Gillette / Blanken	14.0%	33.5%	15.0%	31.0%	16.4%	55.1%	16.7%	40.7%
7 Alanna / Beatty	2.5%	3.1%	4.4%	5.1%	--	--	--	--
8 Executive Park West / Alanna	4.5%	6.1%	6.9%	8.4%	--	--	--	--
9 Harney / Alanna / Thomas Mellon	7.9%	11.0%	6.2%	7.4%	--	--	--	--
Harney / Thomas Mellon	--	--	--	--	11.9%	18.5%	12.3%	15.5%
10 Harney / Executive Park East	1.8%	2.7%	2.1%	2.6%	2.5%	3.6%	3.9%	4.7%
11 Harney / Jamestown	1.1%	1.2%	1.1%	1.2%	1.1%	1.2%	1.1%	1.2%
12 Geneva Avenue / U.S. 101 SB Ramps ¹	--	--	--	--	2.2%	--	3.9%	--
13 Harney Way / U.S. 101 NB Ramps ¹	--	--	--	--	7.8%	--	8.9%	--

Notes:

Bold denotes intersections where the combined project (Yerby Project and UPC Project) would have a cumulatively considerable impact.

¹New intersection created as part of proposed transportation improvements. Contribution to growth not applicable.

Source: AECOM, 2010.

Table V.E-30: UPC Project Contributions to 2030 Cumulative Conditions – Freeway Facilities

		Cumulative without Improvements				Cumulative Alternative A (Option 1)			
Location	Dir.	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Tot.	Gr.	Tot.	Gr.	Tot.	Gr.	Tot.	Gr.
<i>Freeway Mainline</i>									
1 U.S. 101 Mainline North of Alanna / Harney	NB	2.8%	16.5%	2.0%	9.2%	2.7%	13.8%	2.0%	8.6%
	SB	0.7%	3.1%	2.9%	11.9%	0.8%	3.0%	2.9%	10.7%
2 U.S. 101 Mainline South of Alanna / Harney	NB	0.3%	2.3%	0.7%	4.0%	0.3%	2.0%	0.7%	3.6%
	SB	0.5%	3.1%	0.4%	2.2%	0.5%	2.8%	0.4%	2.1%
<i>Freeway On-Ramp</i>									
3 U.S. 101 NB On-Ramp at Harney Way		12.4%	18.7%	9.2%	10.4%	10.8%	15.3%	8.5%	9.6%
4 U.S. 101 SB On-Ramp at Alanna Way		3.3%	4.8%	1.7%	2.1%	3.0%	4.1%	1.6%	2.0%

Notes:

Bold denotes locations where the combined project (Yerby Project and UPC Project) would have a cumulatively considerable impact.

Source: AECOM, 2010.

Impact TR-38: The proposed UPC development project would increase ridership on Executive Park Shuttle service. (*Less than Significant with Mitigation*)

The UPC project would generate 261 trips (73 inbound, 188 outbound) in the weekday AM peak hour and 363 trips (214 inbound, 149 outbound) in the weekday PM peak hour, or approximately 73 percent of the total project transit demand. As discussed under the Baseline plus Project Conditions Transit section, most of these trips would be expected to make use of the Executive Park shuttle service. Given the above estimates of transit demand, an additional nine shuttle runs would be needed in the AM peak hour and an additional eleven shuttle runs needed in the PM peak hour. However, this conservatively assumes that all transit trips would use the shuttle and that the shuttle service would continue to use 21-passenger vehicles.

In general, the nearby transit services (Muni, Caltrain, SamTrans) have sufficient excess capacity to accommodate the additional transit demand generated by the UPC project without substantial impacts to transit operations.

If additional shuttle service were not provided, it would result in a significant impact to traffic conditions, as residents and visitors would need to switch to auto modes. The Executive Park Property Owners have been required per previous conditions of approval to implement shuttle enhancements when warranted by demand. As such, the expansion of the shuttle to accommodate the new transit riders is included as a mitigation measure (Mitigation Measure: M-TR-38) for the UPC project.

If the additional shuttle service as listed above were not provided, it would result in a significant impact to traffic conditions, as residents and visitors would need to switch to auto modes. The Executive Park Property Owners, including the project sponsor for the UPC project, have been required per previous conditions of approval to implement shuttle enhancements when warranted by demand. As such, the expansion of the shuttle to accommodate the new transit riders is included as a mitigation measure for the UPC project.

Impact TR-39: The proposed UPC development project would not result in a significant impact on pedestrian conditions. (*Less than Significant*)

Given its primarily residential nature, the UPC project would generate a limited number of pedestrian trips throughout the day, primarily to and from the proposed commercial center at the intersection of Thomas Mellon Drive / Executive Park Boulevard North, and to and from the new shuttle stops. Sidewalks would be provided on all internal roadways within Executive Park and new sidewalk (approximately 10 feet wide) would be provided on the west side of Executive Park Boulevard West, connecting with the south side of Blanken Boulevard. Consistent with the principles of the Proposed Subarea Plan Amendment, the design of the project minimizes the number of curb-cuts and the potential for conflicts with pedestrians, by utilizing combined garage/loading driveways and garages and loading docks that serve multiple buildings. Overall, the UPC project would not result in significant impacts to pedestrian conditions.

Impact TR-40: The proposed UPC development project would not result in a significant impact on bicycling conditions. (*Less than Significant*)

For residential buildings, the *San Francisco Planning Code* requires one Class I space for every two dwelling units up to 50 dwelling units, plus an additional space for every four (4) dwelling units over 50 dwelling units, with a maximum requirement of 400 spaces. The project would not be required to provide shower or locker facilities, as the buildings will be primarily residential uses. The *Planning Code* requires a total of 377 bicycle spaces for the proposed 1,100 dwelling units. The UPC project would provide a total of 377 bicycle spaces across the eight (8) proposed

buildings. The proposed bicycle parking supply within each building would satisfy the *Planning Code* requirements.

The driveways for the proposed garages and loading facilities are proposed to be on internal streets (D Street for Buildings 1 and 2; E Street for Building 3; A Alley for Buildings 4, 5, and 6; and C Alley for Building C). In addition, there would be shared parking facilities between buildings, with multiple access points. As a result, vehicles destined to and from the proposed project would be distributed throughout Executive Park. Although this plan would increase the amount of conflict locations for bicyclists, each location would have fewer vehicles which would overall minimize the potential impact to bicyclists.

Although the UPC project site is located near several Citywide Bicycle Routes, given the steep grades on some routes (particularly Bayshore Boulevard northbound approaching Hester Avenue / U.S. 101 and San Bruno Avenue northbound), most bicycle trips are expected to be confined to Executive Park or the nearby Little Hollywood and Visitacion Valley neighborhoods. Blanken Avenue and Alanna Way / Beatty Road are expected to carry the majority of bicycle traffic, as these offer east-west connections to the primary north-south routes along Bayshore Boulevard and Tunnel Avenue. Some bicycle traffic is also expected to make use of the Harney Way / Hunters Point Expressway route to access Third Street and points along the Eastern Waterfront. Overall, the UPC project would not result in significant impacts to bicycle conditions.

Impact TR-41: The proposed UPC development project would not result in a significant impact related to parking. (*Less than Significant*)

The *San Francisco Planning Code* requirements for off-street parking spaces are: one (1) space per dwelling unit, and one (1) space per 500 square feet up to 20,000 square feet of retail space, plus one (1) space per each 250 square feet in excess of 20,000 square feet.

However, the proposed Subarea Plan Amendment would permit a residential parking supply of 1.5 spaces per unit, while maintaining the same allowances for retail parking. Based on these requirements, the UPC project would be required to provide a total of 1,273 spaces (1,100 spaces for the residential uses and 173⁷ spaces for the retail uses) and would be allowed to provide up to 1,897 spaces (1,650 for the residential uses and 247 for the retail uses).

The UPC project would provide 1,677 parking spaces: 1,650 for the residential uses and 27 for the retail uses. The UPC project's proposed parking supply was compared against the code requirements detailed above and the weekday midday and weekday evening peak period parking demand.

⁷ The parking requirement for the retail space within the UPC Project was based on the code requirement for each individual building, not the total amount of retail space.

The proposed project would provide a total parking supply of 1,677 spaces, which would meet *Planning Code* requirements and be within the allowances of the Subarea Plan Amendment. Additionally, on-street parking would be provided along some streets within Executive Park, except the alleyways and Thomas Mellon Drive to the north of Harney Way.

The proposed project would have a parking demand of approximately 1,413 spaces during the weekday midday period and approximately 1,705 spaces during the weekday evening period. The proposed parking supply would meet the weekday midday peak period parking demand, but would not meet the weekday evening peak period parking demand, with a shortfall of approximately 28 spaces. This shortfall would primarily be with the retail parking; as such, retail patrons would need to seek available on-street parking spaces (which would be provided throughout the site). Overall, the UPC project would not result in significant impacts to parking conditions.

Impact TR-42: The proposed UPC development project would not result in a significant impact related to loading. (*Less than Significant*)

Based on the square footage of the retail and residential uses within each building, the UPC project would be required to provide one off-street loading space for each of Buildings 5, 6, and 8, and three off-street loading spaces for each of Buildings 2, 4, and 7. Buildings 1 and 3 are not required to provide an off-street loading space. The first loading space required in any structure or use must have a minimum width of ten (10) feet, a minimum length of 25 feet, and a minimum vertical clearance, including entry and exit, of 12 feet. Any additional spaces must generally have a minimum width of 12 feet, a minimum length of 35 feet, and a minimum vertical clearance, including entry and exit, of 14 feet.

However, the proposed Subarea Plan Amendment would not require the provision of off-street loading spaces, instead prioritizing the minimization of curb-cuts, consolidation of loading facilities, and off-street parking facilities. Based on this language, the proposed project would not be required to provide any off-street loading spaces.

The UPC project would provide one loading space for each building. The proposed loading supply is as follows:

- Building 1: One (1) off-street loading space (12 feet by 35 feet), with access off of D Street;
- Building 2: One (1) off-street loading space (12 feet by 35 feet), with access off of D Street;
- Building 3: One (1) off-street loading space (12 feet by 35 feet), with access off of the internal roadway immediately west of the building;
- Building 4: One (1) off-street loading space (16 feet by 40 feet), with access off of A Alley;
- Building 5: One (1) off-street loading space (16 feet by 40 feet), with access off of A Alley;

- Building 6: One (1) off-street loading space (16 feet by 40 feet), with access off of A Alley;
- Building 7: One (1) off-street loading space (16 feet by 40 feet), with access off of A Alley; and
- Building 8: One (1) off-street loading space (16 feet by 35 feet), with access off of A Alley.

All buildings would be served by off-street spaces.

The proposed supply of loading spaces would meet the *Planning Code* requirements for all but Building 2, Building 4, and Building 7, which are required to provide more than one space. The supply would meet the requirements of the Proposed Subarea Plan Amendment, which prioritize the minimization of curb-cuts and consolidation of loading facilities, and the weekday average hour and weekday peak hour loading demand.

The dimensions of the proposed loading spaces would satisfy *Planning Code* requirements. All spaces would satisfy *Planning Code* requirements for minimum vertical clearance.

The loading docks for each building would be shared between the proposed residential and retail tenants.

Trash rooms would be provided within each building as part of the UPC project, typically within the garage. Since these facilities would not be located adjacent to the proposed loading dock locations and the garages would not be big enough to accommodate garbage trucks, building management personnel would be required to manually transport the trash to the loading dock for pick-up. It is anticipated that garbage trucks would back into the docks; since most trash pick-up activity occurs outside of peak residential and retail activity times, the potential for conflicts with through traffic and vehicles destined to and from the various UPC project buildings would be minimal.

All residential move-in and move-out activities would be directed to use the loading facilities for each representative building. Since these spaces are approximately 40 feet long, they could accommodate short and medium length moving vehicles. Longer trucks would need to be handled in smaller vehicles or within on-street parking spaces (if longer vehicles were used, they would block the sidewalks which would impact pedestrians). All buildings would have nearby on-street parking spaces that could be utilized for residential moving activities, with the exception of Building 8. To reduce the potential for double-parking or other impacts due to move-ins/move-outs, improvements measures have been included in the Mitigation and Improvement Measures section.

Overall, the UPC project would not result in significant impacts to loading conditions.

Impact TR-43: The proposed UPC development project construction activities would not result in a significant impact. (*Less than Significant*)

Construction activities for the UPC project would last a total of 60 months and consist of four phases.

Heavy truck traffic is expected to be highest during excavation activities and concrete pouring, with an estimated 100 trucks per day (100 inbound and 100 outbound trips). Construction activities will require an average of approximately 95 to 100 workers per day, with parking provided either on-site or at Candlestick Park stadium. Given that the truck traffic would be spread throughout the day, however, the total traffic generated by construction activities is expected to be less than that generated after completion of construction and full occupancy of the project. Therefore, the impact of construction activities would be less substantial than the impacts of the project itself. Construction-related impacts generally would not be considered significant due to their temporary and limited duration. Thus, these impacts would be *less-than-significant* and no mitigation is required.

Given the location of the UPC project site directly adjacent to the Harney Way / Alanna Way interchange, construction-related traffic is not expected to result in significant impacts to area roadways, although traffic on U.S. 101 would likely increase temporarily. Since construction activities for the UPC project may overlap with construction activities for other projects in the Executive Park area, the construction phasing schedule, truck access plan, and location of staging areas and construction worker parking would need to be approved by the appropriate City agencies.

MITIGATION MEASURES

This section presents the mitigation measures that would be required to reduce the impacts of the proposed project to less-than-significant levels under the Baseline plus Project and the 2030 Cumulative Conditions scenarios. In addition, mitigation measures were developed to address the impacts associated with the Yerby project and UPC project, where appropriate.

It should be noted that Executive Park Property Owners would be responsible for funding their fair share of the study, design, construction, and installation of all intersection improvements listed herein, including reconfiguration of the intersections to accommodate new traffic signals, increases in pedestrian activity, and transit operations. The study and design of these improvements would be conducted by the Municipal Transportation Agency (MTA) or through an independent engineering consulting firm. The Executive Park Property Owners would coordinate the intersection redesign and construction efforts with the Planning Department, MTA, DPW, TASC, and other appropriate City agencies.

It is also anticipated that, along with the other landowners within the Executive Park Subarea, the Yerby project sponsor and UPC project sponsor and their successors will contribute on a fair-share basis to the cost of the regional transit and roadway improvements described in the 2030 Cumulative Conditions Transportation Improvements section, including the new Harney Way Interchange and Harney BRT. The determination of fair share is based on the proportional trip generation of each project (including the other area projects identified in the 2030 Cumulative Conditions section).

In general, the mitigation measures recommended below would be implemented by either the Executive Park property owners or the City and County of San Francisco, and funded by the Executive Park property owners (via fair-share contributions). Details regarding specific implementation schedules will be included in the development agreement between the Executive Park property owners and the City and County of San Francisco that would be executed if the proposed project is approved, but all mitigations measures required to address Existing plus Project impacts would be implemented prior to issuance of final occupancy permits for the project.

Mitigation Measure M- TR-1: Tunnel Avenue / Blanken Avenue

The intersection would meet signal warrants during both the weekday AM and PM peak hours. The signal would need to be part of the Bayshore Boulevard / Third Street system, and the timing plan would be optimized to minimize queues along Blanken Avenue between Bayshore Boulevard and Tunnel Avenue. The northbound and southbound left turns would be provided with protected phasing, and the corresponding right turns would be provided with overlap phasing.

On-street parking would be removed and left-turn pockets installed along Tunnel Avenue and right-turn pockets installed along Blanken Avenue. On the northbound approach, on-street parking would need to be removed on the east side of Tunnel Avenue to accommodate a left-turn pocket. On the southbound approach, parking would need to be removed on the west side of Tunnel Avenue to accommodate a left-turn pocket. On the eastbound approach, parking would need to be removed on the south side of Blanken Avenue to accommodate a right-turn pocket. On the westbound approach, parking would need to be removed on the north side of Blanken Avenue to accommodate a right-turn pocket.

To evaluate the feasibility of this measure, a preliminary signal timing / phasing plan was developed and queues at the intersection evaluated. The supplemental analysis indicated that signalization and restriping of this intersection is feasible. After implementing this mitigation measure, the intersection would operate at LOS D in both the AM and PM peak hours under Baseline plus Project Conditions.

Mitigation Measure M-TR-3: Executive Park Shuttle Service

Increase outbound shuttle service in the weekday AM peak hour and inbound shuttle service in the weekday PM peak hour. The shuttle operations plan should be sufficient to accommodate the expected transit demand—i.e., 105 inbound and 271 outbound transit trips in the weekday AM peak hour and 283 inbound and 197 outbound transit trips in the weekday PM peak hour. Assuming the current shuttle capacities, this would require approximately five (5) inbound and 13 outbound trips in the weekday AM peak hour and 14 inbound and ten (10) outbound trips in the weekday PM peak hour (average headways of about four to five minutes). Lower service levels could be provided during the midday, evening, and weekend periods. These changes to the shuttle service would be implemented as needed, based on the percentage of buildout of the proposed project along with a revised route and stop pattern to make the Bayshore Caltrain Station a permanent stop and include two additional stops—one on Bayshore Boulevard near Arleta Avenue to improve connections to the T-Third Street and the various bus lines and one stop on Bayshore Boulevard between Leland and Visitacion Avenues to improve access to the Visitacion Valley commercial area. The location of these stops would be coordinated with MTA and the Visitacion Valley community.

Since these measures were previously identified as project-related mitigation measures in the 1999 FSEIR and were included in the Conditions of Approval for the project in the 1985 FSEIR, it was assumed that these measures would be included as part of the proposed project and not represent new mitigation measures. However, they would still be considered required mitigation for the proposed project.

Mitigation Measure M-TR-12: Tunnel Avenue/ Bayshore Boulevard

The intersection would meet the MUTCD peak hour signal warrant in both the AM and PM peak hours. In addition to the mitigations proposed under Mitigation Measure TR-1, left turns from Blanken Avenue would need to be prohibited in both directions and the eastbound and westbound approaches programmed to run concurrently instead of on split phases. This would have minimal effect on the eastbound approach, since the volumes on the eastbound left movement are very low and alternative access is provided via Bayshore Boulevard / Tunnel Avenue. On the westbound approach, the volumes on the westbound left movement are also very low and could be prohibited without substantial impacts on neighboring roadways. It is expected that this traffic would switch to Lathrop Avenue—one block south of Blanken Avenue—or find alternative routes to reach the freeway (e.g., via eastbound Blanken Avenue, Executive Park Boulevard West, and Alanna Way). After implementing these measures, the intersection would operate at LOS C in the weekday AM peak hour and LOS D in the weekday PM peak hour. The Yerby project sponsor and UPC project sponsor would be required to make a fair-share contribution to the implementation of this mitigation measure.

Mitigation Measure M-TR-21: Tunnel Avenue/ Blanken Avenue

The intersection would meet the MUTCD peak hour signal warrant in both the AM and PM peak hours. If the mitigation measure described in Mitigation Measure TR-16 for 2030 Cumulative Conditions without Improvements were implemented, the intersection would operate at LOS C in the weekday AM peak hour and LOS D in the weekday PM peak hour. The Yerby project sponsor and UPC project sponsor would be required to make a fair-share contribution to the implementation of this mitigation measure.

Mitigation Measure M-TR-22: Harney Way/ Executive Park Boulevard East

The poor operations of this intersection in the weekday PM peak hour would be a result of conflict on the westbound approach (specifically westbound right turns) with the Harney BRT. Due to a shared westbound through-right lane at this intersection, all movements along westbound Harney Way must be stopped during the BRT phase, reducing the efficiency of the signal and the vehicle throughput at the intersection.

If instead, an exclusive right-turn pocket were provided, right-turns and through movements along westbound Harney Way could be segregated and given separate phases, and the through movements could occur concurrently with the BRT phase, reducing delay and improving intersection operations.

This proposed configuration was evaluated under 2030 Cumulative Conditions Alternative B (Option 1), where both Harney Way / Thomas Mellon Drive and Harney Way / Executive Park Boulevard East were shown to operate at LOS C and LOS D during the weekday AM and PM peak hours. The Yerby project sponsor and UPC project sponsor would be required to make a fair-share contribution to the implementation of this mitigation measure.

Mitigation Measure M-TR-23: Geneva Avenue / U.S. 101 SB Ramps

The City of Brisbane and Caltrans, as part of the Harney Interchange Project, shall account for existing traffic, background traffic growth, and the most recent forecasts of traffic expected to be associated with each of several adjacent development projects, including the proposed project. The San Francisco County Transportation Authority (SFCTA) shall coordinate with the City of Brisbane and Caltrans to ensure project-generated vehicle trips are accounted for in the Harney Interchange analyses and design. Mitigations and associated fair-share funding measures for cumulative regional roadway system impacts, including freeway segment impacts, shall be formulated through the current interjurisdictional Bi-County Transportation Study effort being led by the SFCTA. The project applicant shall contribute its fair share to the Harney Interchange Project.

Mitigation Measure M-TR-24: Geneva Avenue / U.S. 101 NB Ramps

The City of Brisbane and Caltrans, as part of the Harney Interchange Project, shall account for existing traffic, background traffic growth, and the most recent forecasts of traffic expected to be associated with each of several adjacent development projects, including the proposed project. The San Francisco County Transportation Authority (SFCTA) shall coordinate with the City of Brisbane and Caltrans to ensure project-generated vehicle trips are accounted for in the Harney Interchange analyses and design. Mitigations and associated fair-share funding measures for cumulative regional roadway system impacts, including freeway segment impacts, shall be formulated through the current interjurisdictional Bi-County Transportation Study effort being led by the SFCTA. The project applicant shall contribute its fair share to the Harney Interchange Project.

Mitigation Measure M-TR-28: Tunnel Avenue / Blanken Avenue

The Yerby project sponsor would need to make a fair-share contribution to the signalization and restriping of Tunnel Avenue / Blanken Avenue as detailed in Mitigation Measure TR-1.

Mitigation Measure M-TR-30: Executive Park Shuttle Service

As detailed in Mitigation Measure TR-3, the Yerby project sponsor would be required to make a fair-share contribution to the costs of providing the Executive Park shuttle service, including any capital, operating, and maintenance costs. The Yerby project would generate 115 trips (32 inbound, 83 outbound) in the AM peak hour and 117 trips (69 inbound, 48 outbound) in the PM peak hour, or approximately 27 percent of the total project transit demand.

Mitigation Measure M-TR-36: Tunnel Avenue / Blanken Avenue

The UPC project sponsor would need to make a fair-share contribution to the signalization and restriping of Tunnel Avenue / Blanken Avenue as detailed in Mitigation Measure TR-1.

Mitigation Measure M-TR-38: Executive Park Shuttle Service

As detailed in Mitigation Measure M-TR-3, the project sponsor would be required to make a fair-share contribution to the costs of providing the Executive Park shuttle service, including any capital, operating, and maintenance costs. The UPC project would generate 261 trips (73 inbound, 188 outbound) in the AM peak hour and 363 trips (214 inbound, 149 outbound) in the PM peak hour, or approximately 73 percent of the total project transit demand.

F. NOISE

This section describes the potential impacts due to substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Specifically, the effect of future traffic noise increase on the existing noise-sensitive land uses near the proposed Yerby and UPC development project sites is examined.

The Notice of Preparation/Initial Study (see Appendix A to this SEIR, p. 37) concluded that the proposed project would have a less-than-significant impact related to the following Noise subtopics: temporary construction noise; groundborne vibration; the project being within an airport land use plan area or near a private airstrip; and the project being substantially affected by existing noise levels. Discussion of these topics was therefore not called for in this SEIR.

SETTING

ENVIRONMENTAL NOISE FUNDAMENTALS

Noise can be defined as unwanted sound. It is commonly measured with an instrument called a sound level meter. The sound level meter captures the sound with a microphone and converts it into a number called a sound level. Sound levels are expressed in units of decibels. To correlate the microphone signal to a level that corresponds to the way humans perceive noise, the A-weighting filter is used. A weighting de-emphasizes low-frequency and very high-frequency sound in a manner similar to human hearing. The use of A-weighting is required by most local General Plans as well as by Federal and State noise regulations (e.g. regulations established by Caltrans, EPA, OSHA and HUD). The abbreviation dBA is sometimes used when the A weighted sound level is reported.

Because of the time-varying nature of environmental sound, there are many descriptors that are used to quantify the sound level. Although one individual descriptor alone does not fully describe a particular noise environment, taken together, they can more accurately represent the noise environment. The maximum instantaneous noise level (L_{max}) is often used to identify the loudness of a single event such as a car passby or airplane flyover. To express the average noise level the L_{eq} (equivalent noise level) is used. The L_{eq} can be measured over any length of time but is typically reported for periods of 15 minutes to 1 hour. The background noise level (or residual noise level) is the sound level during the quietest moments. It is usually generated by steady sources such as distant freeway traffic. It can be quantified with a descriptor called the L_{90} which is the sound level exceeded 90 percent of the time.

To quantify the noise level over a 24-hour period, the Day/Night Average Sound Level (DNL or L_{dn}) or Community Noise Equivalent Level (CNEL) is used. These descriptors are averages like the L_{eq} except they include a 10 dB penalty during nighttime hours (and a 5 dB penalty during

evening hours in the CNEL) to account for the increased sensitivity that people have during these hours.

In environmental noise, a change in noise level of 3 dB is considered a noticeable difference. A 5 dB change is clearly noticeable, but not dramatic. A 10 dB change is perceived as a halving or doubling in loudness.

REGULATORY FRAMEWORK

San Francisco General Plan

The Transportation Noise Plan Element of the City's *General Plan* contains objectives and policies directed toward achieving an environment in which noise levels will not interfere with the health and welfare of people and their everyday activities. The plan specifies quantitative noise compatibility guidelines for various types of land uses. These guidelines are primarily used for determining the compatibility of new noise sensitive development. For example, exposure to a Day/Night Average Sound Level (L_{dn}) of 60 dBA or less is considered "satisfactory" for residential land use. New construction or development that would be exposed to higher sound levels would have to have noise insulation features included in the design, pending a detailed analysis of noise reduction requirements.

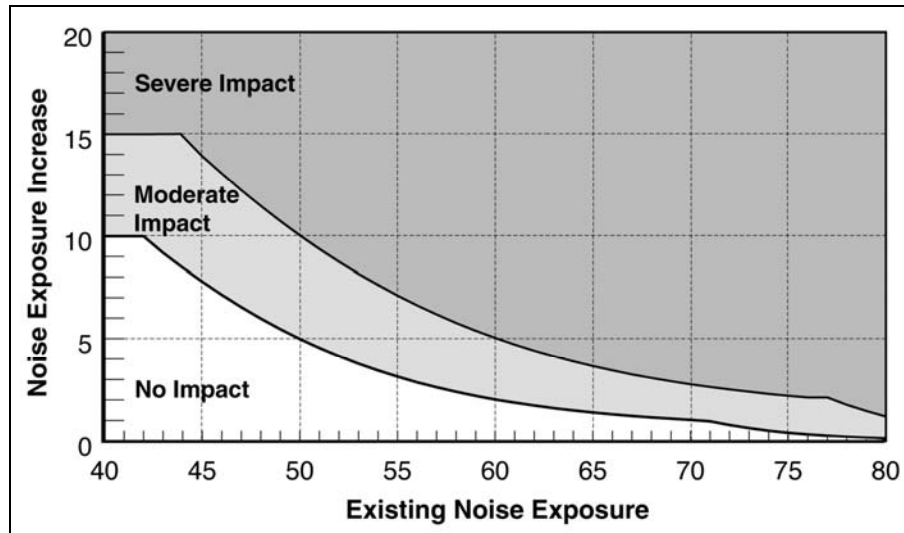
San Francisco Noise Ordinance

The City of San Francisco Noise Ordinance (Article 29) regulates certain noise sources such as mechanical ventilation equipment, waste disposal services and construction activities. The noise ordinance does not regulate noise from traffic on public roadways.

Federal Transit Administration

The Federal Transit Administration (FTA) developed a guidance manual for assessing the noise and vibration impact from new transit projects (Transit Noise and Vibration Impact Assessment, May 2006). As part of this manual the FTA presents thresholds for assessing the increase in noise levels at residential land use (see Figure IV.F-1: Criteria for Impact Due to Increase in Noise Levels). The development of these noise impact thresholds took a variety of factors into account including:

Figure V.F-1: Criteria for Impact due to Increase in Noise Levels



Source: Federal Transit Administration, 2006.

- The EPA finding that a community noise level of L_{dn} less than or equal to 55 dBA is “requisite to protect public health and welfare with an adequate margin of safety.”¹
- The conclusion by EPA and others that a 5 dB increase in L_{dn} or L_{eq} is the minimum required for a change in community reaction.
- The Department of Housing and Urban Development (HUD) in its environmental noise standards defines an L_{dn} of 65 dBA as the onset of a normally unacceptable noise zone.² Moreover, the Federal Aviation Administration (FAA) considers that residential land uses are not compatible with noise environments where L_{dn} is greater than 65 dBA³.
- The research finding that there are very few people highly annoyed when the L_{dn} is 50 dBA, and that an increase in L_{dn} from 50 dBA to 55 dBA results in an average of 2 percent more people highly annoyed.⁴

¹ U.S. Environmental Protection Agency, "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety," EPA report number 550/9-74- 004, March 1974.

² U.S. Department of Housing and Urban Development, "Environmental Criteria and Standards", 24 CFR Part 51,v 12 July 1979; amended by 49 FR 880, 6 January 1984.

³ U.S. Department of Transportation, Federal Aviation Administration, "Federal Aviation Regulations Part 150: Airport Noise Compatibility Planning," January 1981.

⁴ T.J. Schultz, "Synthesis of Social Surveys on Noise Annoyance," Journal of the Acoustical Society of America, Vol. 64, No. 2, pp. 377-405, August 1978.

EXISTING CONDITIONS

Noise Measurements

Traffic on local roadways (e.g., Harney Way and Blanken Avenue) and the U.S. 101 freeway are the dominant existing noise sources in the study area. The extent to which a particular location is exposed to freeway noise depends on the location's distance from the freeway. Also, since the freeway is elevated in the study area, the edge of the roadway itself acts as a noise barrier providing noise reduction at street level for locations closer to the freeway. Aircraft, including those from San Francisco International Airport are audible at times, but are minor contributors to the overall average noise levels at locations near the roadways.

A noise measurement program was used to help quantify the existing traffic noise levels in the study area. It consisted of long-term (24-hour) noise measurements at two locations and short-term (15-minute to one-hour) noise measurements at seven locations. The noise measurement locations were chosen to represent the existing residential land uses in the study area and provide a geographic sampling of the various noise exposures in the study area (see Figure V.F-2: Noise Measurement Locations). The noise measurements were particularly useful for identifying the relative contribution of the freeway noise at the existing land uses in the study area. At the noise measurement locations, the freeway noise tends to be relatively constant while the noise from local traffic rises and falls as individual cars and trucks pass by. This characteristic allowed the isolation of each noise source and the calculation of its relative contribution to the overall average noise level.

Table V.F-1 shows the short-term noise measurement results (ST-1 through ST-7), along with the estimated contribution of the freeway noise.

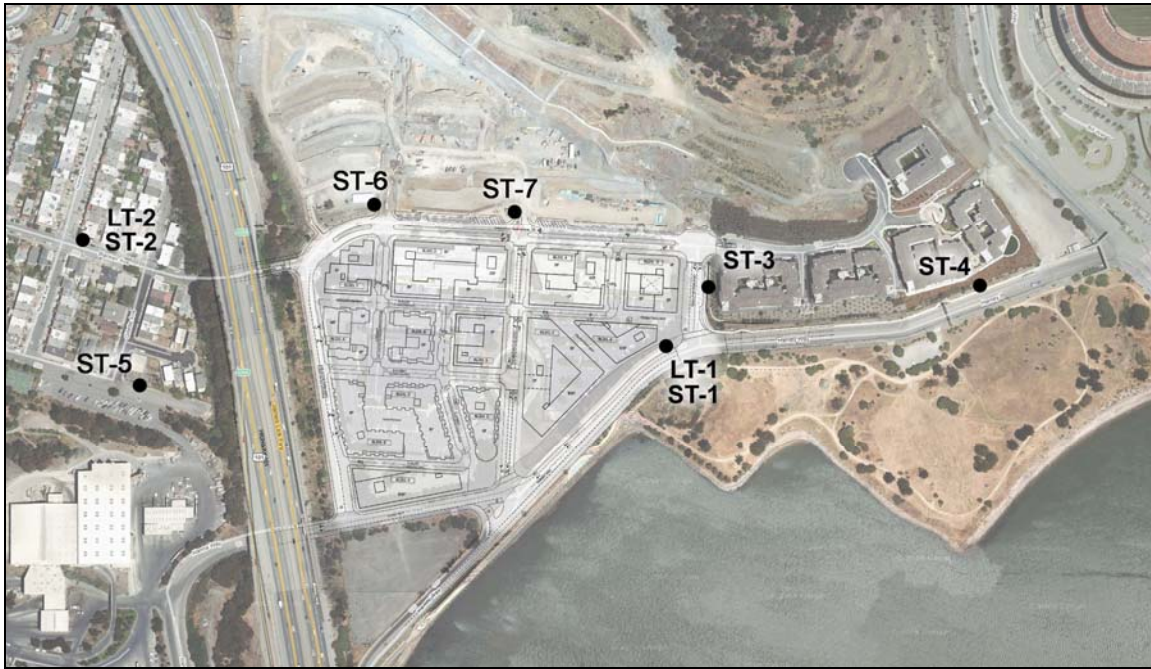
Figure V.F-3: Short-Term Noise Measurement Results, Location LT-1, Harney Way, and Figure V.F-4: Long-Term Noise Measurement Results, Location LT-2, Blanken Avenue, show the variation of the average noise level at the long-term measurement locations (LT-1 and LT-2) and the estimated contribution of the freeway noise.

IMPACTS

EFFECTS ADDRESSED IN PRIOR ENVIRONMENTAL REVIEW

The 1999 SEIR found that the noise increases associated with the traffic resulting from the then-proposed project at the existing sensitive receptors would not be considered substantial increases

Figure V.F-2: Noise Measurement Locations



Source: RGDL

Table V.F-1: Short-Term Noise Measurement Results

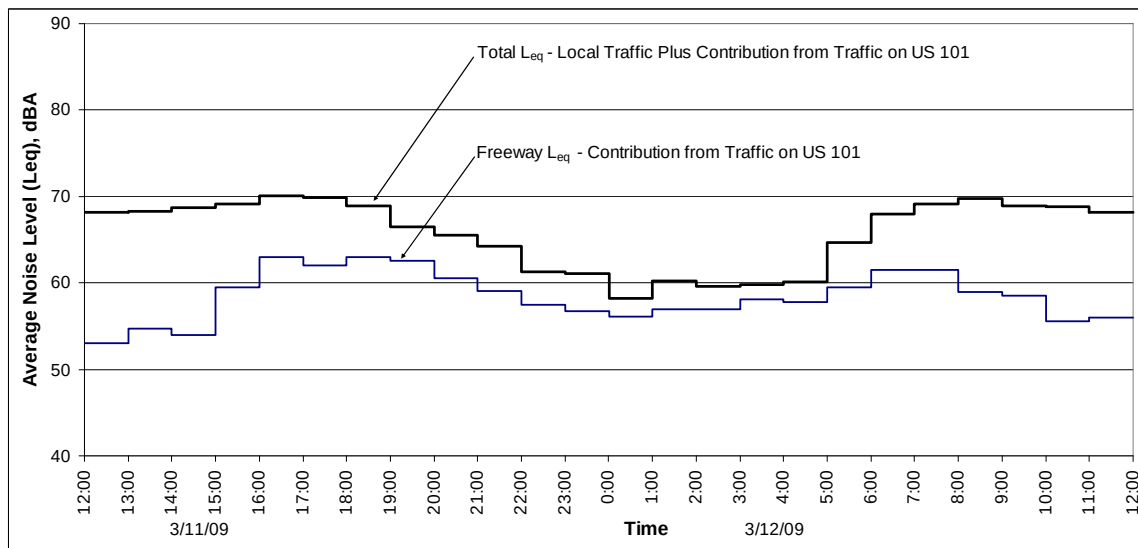
Location		Date Time	A-weighted Sound Level, dBA					
			L _{eq}	L _{max}	L ₁₀	L ₅₀	L ₉₀	FWY L _{eq} *
ST-1	Harney Way west of Executive Park East, 27 feet from roadway centerline.	11-Mar-09 1:44 - 2:00 PM	68	85	72	64	56	57
ST-2	Blanken Ave east at Nueva Ave, 15 feet from roadway centerline.	11-Mar-09 3:00 - 3:15 PM	65	85	68	56	51	53
ST-3	Executive Park East north of Harney Way.	12-Mar-09 12:15 - 12:30 PM	62	71	65	61	59	60
ST-4	Harney Way east of Executive Park East, 27 feet from roadway centerline.	11-Mar-09 2:30 - 2:45 PM	70	86	74	61	50	53
ST-5	Lathrop Ave east of Gillette Ave.	12-Mar-09 11:15 - 11:30 AM	61	70	63	59	57	59
ST-6	Executive Park North east of Candlestick Road (EP West).	29-Jul-09 5:00 - 6:00 PM	63	77	65	62	61	63
ST-7	Executive Park North east at Thomas Mellon Drive.	29-Jul-09 5:00 - 6:00 PM	62	75	63	61	59	62

Note:

* Estimated contribution of US 101 Freeway traffic to total L_{eq}.

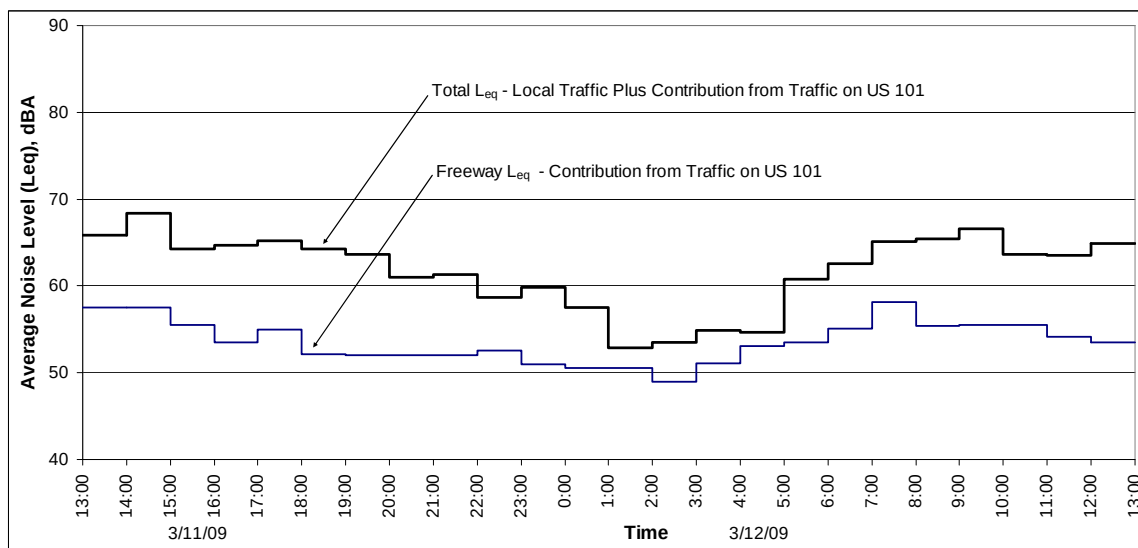
Source: RGDL

Figure V.F-3: Long-Term Noise Measurement Results, Location LT-1, Harney Way



Source: RGDL

Figure V.F-4: Long-Term Noise Measurement Results, Location LT-2, Blanken Avenue



Source: RGDL

in traffic noise, and that the impact would be considered less than significant. It also found that the noise increases at the then-planned hotel and housing locations would not be significant impacts. Finally, the 1999 SEIR analysis found that the then-proposed project would not make a substantial contribution to a cumulative impact.

The 2005 Addendum found that the Signature Properties development project would result in an increase in vehicle trips to the site, which could increase traffic noise levels at off-site locations. However, traffic volumes must double on adjacent streets in order to produce a noticeable increase in ambient noise levels. The Transportation Study for that project found that traffic volumes along the study roadway segments are not expected to double as a result of the Signature Properties development. Therefore, substantial increases in traffic noise levels would not be anticipated in the project area.

The 2007 Top Vision/St. Francis Bay Phase III Addendum analyzed off-site noise increases from the St. Francis Bay Phase III project plus implementation of the proposed Subarea Plan (and other cumulative development). The increases would range from approximately 4.6 dBA Ldn to 11.6 dBA Ldn. These changes in noise levels would be substantial.

SIGNIFICANCE THRESHOLDS

The City has not formally adopted significance standards for impacts related to traffic noise, but generally considers that increased project traffic noise would have a significant environmental impact on existing nearby residential land uses if it were to:

- Result in 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; or
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Conformity with *San Francisco General Plan* standards is discussed in Chapter IV, Plans and Policies.

Neither the City of San Francisco nor the State of California has adopted quantitative thresholds for assessing the significance of noise increases. Therefore, this EIR uses the criteria developed by the FTA to identify whether the expected traffic noise increases result in significant impacts. These levels are shown in Figure V.F-1. For the purposes of this EIR, the line separating “No Impact” from “Moderate Impact” is considered the threshold of significance. This threshold for a significant increase varies depending on the existing noise exposure. A smaller increase in noise is considered significant if the existing noise exposure is higher because people are more sensitive to increases in noise level as the absolute noise level increases. For example, an increase of

3 dBA or greater is significant if the existing L_{dn} is 55 dBA, while an increase of 1 dBA or greater is significant if the existing L_{dn} is 70 dBA.

METHODOLOGY

Future traffic noise levels were calculated using the Federal Highway Administration's Traffic Noise Model (TNM 2.5). Baseline and future traffic volumes were based on the traffic projections developed for EIR Section V.E. Transportation and Circulation. Freeway noise levels were based on the results of the noise measurement program and adjusted based on the future freeway traffic volumes. In this way the local traffic and freeway noise levels were determined separately and combined to arrive at the total, composite noise level. The total noise level for the "baseline" was subtracted from the "baseline + project" condition to determine the increase in noise level due to development and operation of the project. Table V.F-2 shows this comparison for each of the residential land uses along the project roadways or collectors/arterials that would be used to access the proposed project.

Table V.F-2: Project-Generated Traffic Noise Increase

Location	Noise Source	Day/Night Average Sound Level (L_{dn}), dBA		Increase in L_{dn} dBA	Threshold For Increase in L_{dn} , dBA	Significant Increase?
		Baseline	Baseline +Project			
Multi-Family along Harney east of project (ST-4)	Local Road	59.1	59.7			
	Freeway	<u>62.0</u>	<u>62.2</u>			
	Total	63.8	64.1	0.3	1.6	No
Multi-Family along Executive Park North west of Thomas Mellon Drive (ST-6)	Local Road	60.0	60.9			
	Freeway	<u>65.0</u>	<u>65.2</u>			
	Total	66.2	66.5	0.3	1.3	No
Multi-Family along Executive Park North east of Thomas Mellon Drive (ST-7)	Local Road	60.6	61.7			
	Freeway	<u>64.0</u>	<u>64.2</u>			
	Total	65.6	66.1	0.5	1.4	No
Single-Family homes along Blanken Ave (ST-2)	Local Road	63.7	65.0			
	Freeway	<u>54.0</u>	<u>54.2</u>			
	Total	64.2	65.4	1.2	1.5	No

Source: RGD/L

IMPACT EVALUATION

Impact NO-1: Project traffic would increase ambient noise levels along project access routes. (*Less than Significant*)

Table V.F-2 indicates that project-generated traffic will increase noise levels between 0.3 dBA and 1.2 dBA at the existing residential land uses in the study area. Since these amounts are less than the increase thresholds that correspond to the baseline noise exposure, the impact of the Yerby and UPC development projects is less than significant. No mitigation is required. This impact would be the same for the variants which would generate the same amount of traffic as the proposed Yerby and UPC development projects.

Impact NO-2: Project-related traffic, in combination with that from other development projects proposed in nearby areas, would contribute to cumulative traffic noise impacts on ambient noise levels along project access routes. (*Significant and Unavoidable*)

Table V.F-3 summarizes the calculated traffic noise increases for the cumulative condition which includes the project, other planned projects and regional growth. The cumulative increase is determined by subtracting the L_{dn} for the “cumulative” condition from the L_{dn} of the “baseline” conditions. The cumulative increases, which range from 1.4 dBA to 5.4 dBA, exceed the threshold for significant increase at the residential receivers and, therefore, are significant cumulative impacts. This impact would be the same for the variants which would generate the same amount of traffic as the proposed Yerby and UPC Development Projects.

The last column in Table V.F-3 shows the project’s contribution to the significant cumulative noise increases. At all locations except the multi-family residences along Harney, the project’s contribution is a reasonably large percentage of the overall noise increase, and therefore, the project is cumulatively considerable. At the multi-family residential buildings along Harney, the project’s contribution to the noise level increase is very small, 0.1 dBA. Likewise, the project-related traffic volume is 2 percent of the overall cumulative increase in traffic volume. Therefore, at the existing residential use along Harney Way the project’s contribution is not cumulatively considerable.

Noise effects on residential land use are commonly addressed through a combination of noise barriers to reduce noise levels in outdoor use areas and building sound insulation (i.e., special windows and doors) to reduce noise indoors.

The multi-family residential buildings that have recently been constructed along Harney Way and Executive Park North within the Executive Park Subarea Plan Area were subject to the State of California’s Noise Insulation Standards (CBC Section 1207) that require noise insulation features be included in the project to reduce indoor noise levels to L_{dn} 45 dBA. The standards require the

Table V.F-3: Cumulative Traffic Noise Increase

Location	Noise Source	Day/Night Average Sound Level (L _{dn}), dBA		Increase in L _{dn} dBA	Threshold for Increase in L _{dn} , dBA	Significant Increase	Project Contribution to Cumulative Increase in L _{dn} , dBA
		Baseline	Cumulative				
Multi-Family along Harney east of project (ST-4)	Local Road	59.1	68.0				
	Freeway	<u>62.0</u>	<u>63.1</u>				
	Total	63.8	69.2	5.4	1.6	Yes	0.1
Multi-Family along Executive Park North west of Thomas Mellon Drive (ST-6)	Local Road	60.0	62.2				
	Freeway	<u>65.0</u>	<u>66.1</u>				
	Total	66.2	67.6	1.4	1.3	Yes	0.3
Multi-Family along Executive Park North east of Thomas Mellon Drive (ST-7)	Local Road	60.6	63.7				
	Freeway	<u>64.0</u>	<u>65.1</u>				
	Total	65.6	67.4	1.8	1.4	Yes	0.3
Single-Family homes along Blanken Ave (ST-2)	Local Road	63.7	66.4				
	Freeway	<u>54.0</u>	<u>55.1</u>				
	Total	64.2	66.7	2.5	1.5	Yes	0.8

Source: RGDL

consideration of anticipated future noise increases. Therefore, these residences should have been designed with appropriate sound-rated construction adequate to address the future traffic noise levels projected in this EIR.

The existing homes along Blanken Avenue likely predate the State's Noise Standards and, therefore, are more affected by the predicted noise increases. Providing noise barriers for these homes is impractical because the numerous residential driveways would require gaps in the noise barrier. Such gaps would render the noise barrier essentially ineffective for reducing traffic noise.

In theory, a noise barrier and sound insulation program could be developed to provide traffic noise reduction where possible. However the implementation of such a program for retrofitting off-site buildings would be extremely complex and impractical because of the wide variety of stakeholders and property owners. In addition, such barriers would be contrary to the urban design objectives of the Executive Park Subarea Plan which emphasize connectivity with nearby existing development. Therefore, because effective mitigation measures would be impractical, the cumulative impact of traffic noise resulting from the proposed Yerby and UPC development projects and variants is considered significant and unavoidable.

G. AIR QUALITY

This section of the EIR evaluates the potential impacts on air quality resulting from implementation of the proposed Yerby and UPC development projects under the proposed amended Executive Park Subarea Plan. This section identifies both project-level and cumulative environmental impacts, as well as feasible mitigation measures that could reduce or avoid the identified impacts.

Section V.H, Greenhouse Gas Emissions, of this EIR evaluates greenhouse gas (GHG) including carbon dioxide (CO₂) emissions and their potential contribution to climate change.

SETTING

CRITERIA AIR POLLUTANTS

As required by the 1970 Federal Clean Air Act, the United States Environmental Protection Agency (USEPA) initially identified six criteria air pollutants that are pervasive in urban environments and for which state and federal health-based ambient air quality standards have been established. USEPA calls these pollutants criteria air pollutants because the agency has regulated them by developing specific public health- and welfare-based criteria as the basis for setting permissible levels. Ozone, carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead are the six criteria air pollutants originally identified by USEPA. Since that time, subsets of particulate matter have been identified for which permissible levels have been established. These include particulate matter of 10 microns in diameter or less (PM₁₀) and particulate matter of 2.5 microns in diameter or less (PM_{2.5}).

The region's air quality monitoring network provides information on ambient concentrations of criteria air pollutants at various locations in the San Francisco Bay Area. Table V.G.1, on p. V.G.2, is a five-year summary of highest annual criteria air pollutant concentrations (2005 to 2009), collected at the air quality monitoring station maintained and operated by the Bay Area Air Quality Management District (BAAQMD) at 16th and Arkansas Streets, in San Francisco's lower Potrero Hill area, which is the closest monitoring station.¹

Table V.G.1 compares measured pollutant concentrations with the most stringent applicable ambient air quality standards (state or federal).

¹ Data from this single location does not describe pollutant levels throughout San Francisco, as these levels may vary depending on distance from key emissions sources and local meteorology. However, the BAAQMD monitoring network does provide a reliable picture of pollutant levels over time.

Table V.G.1: Summary of San Francisco Air Quality Monitoring Data (2005–2009)

Pollutant	Most Stringent Applicable Standard	Number of Days Standards Were Exceeded and Maximum Concentrations Measured				
		2005	2006	2007	2008	2009
Ozone						
- Days 1-hour Std. Exceeded	>9 pphm ^a	0	0	0	0	0
- Max. 1-hour Conc. (pphm)		6	5	6	8	7
- Days 8-hour Std. Exceeded	>7 pphm ^a	0	0	0	0	0
- Max. 8-hour Conc. (pphm)		5	5	5	7	6
Carbon Monoxide (CO)						
- Days 1-hour Std. Exceeded	>20 ppm ^a	0	0	0	0	0
- Max. 1-hour Conc. (ppm)		2.9	2.9	2.7	5.7	N/A
- Days 8-hour Std. Exceeded	>9 ppm ^a	0	0	0	0	0
- Max. 8-hour Conc. (ppm)		2.1	2.1	1.6	2.3	2.9
Suspended Particulates (PM ₁₀)						
- Days 24-hour Std. Exceeded ^c	>50 µg/m ³ ^a	0	3	2	0	0
- Max. 24-hour Conc. (µg/m ³)		46	61	70	41	36
Suspended Particulates (PM _{2.5})						
- Days 24-hour Std. Exceeded ^d	>35 µg/m ³	0	3	5	0	0
- Max. 24-hour Conc. (µg/m ³)		44	54	45	29	36
- Annual Average (µg/m ³)	>12 µg/m ³ ^a	9.5	9.7	8.9	11.7	N/A
Nitrogen Dioxide (NO ₂)						
- Days 1-hour Std. Exceeded	>100 ppb ^e	0	0	0	0	0
- Max. 1-hour Conc. (ppb)		66	107	69	62	59
Sulfur Dioxide (SO ₂)						
- Days 24-hour Std. Exceeded	>40 ppb ^a	0	0	0	0	N/A
- Max. 24-hour Conc. (ppb)		7	6	6	4	N/A

Notes:

Bold values are in excess of applicable standard. “NA” indicates that data is not available. An exceedance is not necessarily a violation of the standard and only persistent exceedances lead to designation of an area as nonattainment.

conc. = concentration; ppm = parts per million; pphm = parts per hundred million; ppb=parts per billion;

µg/m³ = micrograms per cubic meter

^a State standard, not to be exceeded.

^b Federal standard, not to be exceeded.

^c Based on a sampling schedule of one out of every six days, for a total of approximately 60 samples per year.

^d Federal standard was reduced from 65 µg/m³ to 35 µg/m³ in 2006.

^e Federal standard introduced in 2010, based on a 3-year average of the 98th percentile of daily highest samples.

Source: BAAQMD, Bay Area Air Pollution Summary, 2005-2009. Available online at: <http://www.baaqmd.gov/Divisions/Communications-and-Outreach/Air-Quality-in-the-Bay-Area/Air-Quality-Summaries.aspx> and <http://www.arb.ca.gov/adam/cgi-bin/db2www/adamtop4b.d2w/start>.

Ozone

Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides (NOx). The main sources of ROG and NOx, often referred to as ozone precursors, are combustion processes (including motor vehicle engines) and the evaporation of solvents, paints, and fuels. In the Bay Area, automobiles are the single largest source of ozone precursors. Ozone is referred to as a regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process. Ozone causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.² Table V.G.1 shows that, according to published data, the most stringent applicable standards (the state 1-hour standard of 9 parts per hundred million [pphm] and the federal 8-hour standard of 7.5 pphm) were not exceeded in San Francisco between 2005 and 2009.

Carbon Monoxide

CO is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles; the highest emissions occur during low travel speeds, stop-and-go driving, cold starts, and hard acceleration. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, and fatigue; impair central nervous system function; and induce angina (chest pain) in persons with serious heart disease. Very high levels of CO can be fatal. As shown in Table V.G.1, the more stringent state CO standards were not exceeded between 2005 and 2009. Measurements of CO indicate hourly maximums ranging between 15 to 25 percent of the state standard, and maximum 8-hour CO levels that are approximately 30 percent of the allowable 8-hour standard.

Particulate Matter

Particulate matter is a class of air pollutants that consists of heterogeneous solid and liquid airborne particles from manmade and natural sources. Particulate matter is measured in two size ranges: PM₁₀ for particles less than 10 microns in diameter, and PM_{2.5} for particles less than 2.5 microns in diameter. In the Bay Area, motor vehicles generate about one-half of the air basin's particulates, through tailpipe emissions as well as brake pad and tire wear. Wood burning in fireplaces and stoves, industrial facilities, and ground-disturbing activities such as construction are other sources of such fine particulates. These fine particulates are small enough to be inhaled

² BAAQMD, *CEQA Air Quality Guidelines*, June 2010 (hereinafter cited as "BAAQMD CEQA Guidelines, 2010"). Available online at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES.aspx>.

into the deepest parts of the human lung and can cause adverse health effects. According to the California Air Resources Board (ARB), studies in the United States and elsewhere “have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks,” and studies of children’s health in California have demonstrated that particle pollution “may significantly reduce lung function growth in children.” The ARB also reports that statewide attainment of particulate matter standards could prevent thousands of premature deaths, lower hospital admissions for cardiovascular and respiratory disease and asthma-related emergency room visits, and avoid hundreds of thousands of episodes of respiratory illness in California.³ Among the criteria pollutants that are regulated, particulates are a serious ongoing health hazard, contributing to the death of approximately 200 to 500 people per year in the Bay Area. High levels of particulate matter can exacerbate chronic respiratory ailments, such as bronchitis and asthma, and have been associated with increased emergency room visits and hospital admissions.⁴

Table V.G.1 shows that exceedances of the state PM_{10} standard have routinely occurred in San Francisco. It is estimated that the state 24-hour PM_{10} standard was exceeded on up to 36 days per year between 2005 and 2009.⁵ The BAAQMD began monitoring $PM_{2.5}$ concentrations in San Francisco in 2002. The federal 24-hour $PM_{2.5}$ standard was not exceeded until 2006, when the standard was lowered from 65 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to $35 \mu\text{g}/\text{m}^3$. The state annual average standard ($12 \mu\text{g}/\text{m}^3$) was not exceeded between 2005 and 2009.

$PM_{2.5}$ is of particular concern because epidemiologic studies have demonstrated that people who live near freeways and high-traffic roadways have poorer health outcomes, including increased asthma symptoms and respiratory infections and decreased pulmonary function and lung development in children. As a result, the San Francisco Department of Public Health (DPH) has sponsored legislation now codified in the San Francisco *Health Code*, Article 38, to require that residential projects located near high-volume roadways be subject to air quality modeling conducted to determine if annual average concentrations of $PM_{2.5}$ from roadway sources within

³ California Air Resources Board, “Recent Research Findings: Health Effects of Particulate Matter and Ozone Air Pollution,” November 2007. Available online at: http://www.arb.ca.gov/research/health/fs/pm_ozone-fs.pdf. Accessed February 1, 2010.

⁴ BAAQMD *CEQA Guidelines*, 2010.

⁵ PM_{10} is sampled every sixth day; therefore, actual days over the standard can be estimated to be six times the numbers listed in the table.

500 feet of a proposed residential area would exceed a concentration of $0.2 \mu\text{g}/\text{m}^3$ (annual average).⁶ According to DPH, this threshold or action level of $0.2 \mu\text{g}/\text{m}^3$ represents about 8 to 10 percent of the range of ambient $\text{PM}_{2.5}$ concentrations in San Francisco based on monitoring data, and is based on epidemiological research that indicates that such a concentration can result in an approximately 0.28 percent increase in non-injury mortality, or an increased mortality at a rate of approximately 20 “excess deaths” per year per one million population in San Francisco.^{7,8} If the new residences occur in an area exceeding the $0.2 \mu\text{g}/\text{m}^3$ standard, the development project sponsors must install a filtered air supply system, with high-efficiency filters, to maintain all residential units under positive pressure when windows are closed.

The proposed amended Executive Park Subarea Plan would allow construction of an additional 1,600 net new residential units that would be subject to the $\text{PM}_{2.5}$ concentration modeling requirement specified by DPH. (Residences are considered more sensitive than commercial uses because people generally spend longer periods of time at their residences, with associated greater exposure to ambient air quality.)

Nitrogen Dioxide

NO_2 is a reddish brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO_2 . Aside from a contribution to ozone formation, nitrogen oxides including NO_2 can increase the risk of acute and chronic respiratory disease and reduce visibility. NO_2 may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. The federal 1-hour standard was recently made more stringent by the USEPA with a statistical form that allows some hours to exceed the standard before triggering a nonattainment designation. Vehicle exhaust is a dominate urban source of NO_2 , and concentrations of NO_2 near major roads can be appreciably higher than those measured at monitors in the current regional monitoring network. Table V.G.1 shows that the standard for

⁶ For purposes of evaluation of potential effects of $\text{PM}_{2.5}$ exposure, DPH also recommends analysis where there are more than 50,000 daily vehicles within 330 feet (100 meters) of the site, or more than 10,000 daily vehicles within 165 feet (50 meters). These latter two conditions are included to capture equivalent impacts from lesser concentrations of traffic in smaller areas than the ARB-recommended standard of 100,000 daily vehicles within 500 feet (150 meters) (CARB, *Air Quality and Land Use Handbook: A Community Health Perspective*, 2005).

⁷ “Excess deaths” (also referred to as premature mortality) refers to deaths that occur sooner than otherwise expected, absent the specific condition under evaluation, in this case, exposure to $\text{PM}_{2.5}$.

⁸ San Francisco Department of Public Health, Occupational and Environmental Health Section, Program on Health, Equity, and Sustainability, “Assessment and Mitigation of Air Pollutant Health Effects from Intra-urban Roadways: Guidance for Land Use Planning and Environmental Review,” May 6, 2008. Twenty excess deaths per million based on non-injury, non-homicide, non-suicide mortality rate of approximately 714 per 100,000. Although San Francisco’s population is less than one million, the presentation of excess deaths is commonly given as a rate per million population.

NO₂ is being met in the Bay Area. However, existing monitoring methods must be revised by 2013 to determine compliance with the new federal standards.

Sulfur Dioxide

SO₂ is a colorless acidic gas with a strong odor. It is produced by the combustion of sulfur-containing fuels such as oil, coal, and diesel. SO₂ has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of acute and chronic respiratory disease. Table V.G.1 shows that the standard for SO₂ is being met in the Bay Area, and pollutant trends suggest that the air basin will continue to meet these standards for the foreseeable future.

Lead

Leaded gasoline (phased out in the United States beginning in 1973), paint (on older houses, cars), smelters (metal refineries), and manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere. Lead has a range of adverse neurotoxic health effects, and children are at special risk. Some lead-containing chemicals cause cancer in animals. Lead levels in the air have decreased substantially since leaded gasoline was eliminated.

TOXIC AIR CONTAMINANTS

Toxic air contaminants (TACs) are air pollutants that may lead to serious illness or increased mortality, even when present in relatively low concentrations. Potential human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another's.

TACs do not have ambient air quality standards, but are regulated by the BAAQMD using a risk-based approach. This approach uses a health risk assessment to determine what sources and pollutants to control as well as the degree of control. A health risk assessment is an analysis of exposure to toxic substances, and human health risks from exposure to toxic substances is estimated based on the potency of the toxic substances.⁹ Using standard factors, the BAAQMD

⁹ In general, a health risk assessment is required if the BAAQMD concludes that projected emissions of a specific air toxic compound from a proposed new or stationary modified source suggest a potential public health risk, then the applicant is subject to a health risk assessment for the source in question. Such an assessment evaluates the chronic and acute health effects and the potential increased risk of cancer stemming from exposure to a change in airborne TACs.

reports that the estimated lifetime cancer risk (70-year lifespan) from all air toxics combined declined from 1,330 cases per million in 1990 to 405 cases per million people in 2008.¹⁰

In addition to monitoring criteria pollutants, both BAAQMD and ARB operate TAC monitoring networks in the San Francisco Bay Area. These stations measure 10 to 15 TACs, depending on the specific station. The TACs selected for monitoring are those that have traditionally been found in the highest concentrations in ambient air, and therefore tend to produce the most significant risk. The nearest BAAQMD ambient TAC monitoring station to the Executive Park Subarea Plan Area is the station at 16th and Arkansas Streets in San Francisco. Table V.G.2 shows ambient concentrations of carcinogenic TACs measured at the Arkansas Street station, and the estimated cancer risks from lifetime (70 years) exposure to these substances is also reported in the table. When TAC measurements at this station are compared to ambient concentrations of various TACs for the Bay Area as a whole, the cancer risks associated with mean TAC concentrations in San Francisco are similar to those for the Bay Area as a whole. Therefore, the estimated average lifetime cancer risk resulting from exposure to TAC concentrations monitored at the San Francisco station do not appear to be any greater than that for the Bay Area as a region.

Diesel Particulate Matter

Diesel exhaust is a concern throughout California. The ARB identified diesel particulate matter (DPM) as a toxic air contaminant in 1998, primarily based on evidence demonstrating cancer effects in humans.¹¹ The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Many of these toxic compounds adhere to diesel particles, which are very small and can penetrate deeply into the lungs. The toxic substances represented by diesel particulate matter are not included in the concentrations reported in Table V.G.2, but would be in addition to those when determining total cancer risk from TACs. Mobile sources such as trucks, buses, and, to a much lesser extent, automobiles are some of the primary sources of diesel emissions. Studies show that the estimated cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other toxic air pollutant routinely measured in the region. ARB estimated the average Bay Area cancer risk from DPM, based on a population-weighted average ambient diesel particulate concentration, at about 480 in one million as of 2000. The risk from DPM has declined from 750 in one million in 1990 and

¹⁰ BAAQMD. Draft 2010 Clean Air Plan.

¹¹ California Air Resources Board, Fact Sheet, "The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines," October 1998. Available online at: <http://www.arb.ca.gov/toxics/dieseltac/factsht1.pdf>. Accessed on March 29, 2010.

Table V.G.2: Annual Average Ambient Concentrations of Carcinogenic TACs Measured at BAAQMD Monitoring Station, 10 Arkansas Street, San Francisco^a

Substance	Conc. (ppb) ^b	Cancer Risk per Million ^c
Gaseous TACs		
Acetaldehyde	0.39	2
Benzene	0.18	17
1,3-Butadiene	0.036	14
<i>para</i> -Dichlorobenzene	0.15	10
Carbon Tetrachloride	0.094	25
Ethylene Dibromide	0.01	6
Formaldehyde	2.69	20
Perchloroethylene	0.02	0.8
Methylene Chloride	0.12	0.4
MTBE	0.61	0.6
Chloroform	0.015	0.4
Trichloroethylene	0.01	0.1
Particulate TACs	(ng/m³)^b	
Chromium (Hexavalent)	0.059	9
Total Risk for All TACs		96.3

Notes:

^a All values are from BAAQMD 2008 monitoring data for the Arkansas Street station, except for Formaldehyde and Hexavalent Chromium, which are statewide averages for the year 2008.

^b ppb is parts per billion, and ng/m³ is nanograms per cubic meter.

^c Cancer risks were estimated by applying published unit risk values to the measured concentrations.

Source: California Air Resources Board, *Ambient Air Toxics Summary-2008*. Available online at: <http://www.arb.ca.gov/adam/toxics/sitesubstance.html>

570 in one million in 1995. ARB estimated the average statewide cancer risk from DPM at 540 in one million in 2000.^{12,13} Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the cumulative cancer risk from airborne toxics in California. Diesel exhaust also contains pulmonary irritants and hazardous compounds that cause non-cancer health effects in sensitive receptors such as young

¹² ARB, *California Almanac of Emissions and Air Quality - 2009 Edition*, Table 5-44 and Figure 5-12. Available on the internet at: <http://www.arb.ca.gov/aqd/almanac/almanac09/chap509.htm>. Accessed February 1, 2010.

¹³ The calculated cancer risk values from ambient air exposure in the Bay Area can be compared against the lifetime probability of being diagnosed with cancer in the United States, from all causes, which is more than 40 percent (based on a sampling of 17 regions nationwide), or greater than 400,000 in one million, according to the National Cancer Institute.

children, senior citizens, or those susceptible to chronic respiratory disease such as asthma, bronchitis, and emphysema. Recent air pollution studies have shown an association between respiratory and other non-cancer health effects and proximity to high traffic roadways. The ARB community health risk assessments and regulatory programs have produced air quality information about certain types of facilities for consideration by local authorities when siting new residences, schools and educational facilities, day care centers, parks and playgrounds, and medical facilities (i.e., sensitive land uses). Sensitive land uses deserve special attention because children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the non-cancer effects of air pollution. There is also substantial evidence that children are more sensitive to cancer-causing chemicals.¹⁴

In 2000, the ARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines. The Plan aims to develop and implement specific statewide regulations designed to reduce DPM emissions and the associated health risk 75 percent by 2010 and 85 percent by 2020. In addition to implementing more stringent engine controls (diesel engines produced today have one-eighth the tailpipe exhausts of a truck or bus built in 1990), diesel fuel is required to have lower sulfur levels. As of June 1, 2006, at least 80 percent of on-road diesel fuel refined in the United States was required to be ultra-low sulfur diesel, which resulted in a reduction in sulfur emissions by 97 percent. All of the diesel fuel sold in California for use with on-road trucks is now ultra-low sulfur diesel. With new controls and fuel requirements, 60 trucks built in 2007 would have the same soot exhaust emissions as one truck built in 1988.¹⁵

Despite these dramatic reductions in emission rates, reducing DPM emissions will take time, since older trucks will need to be retrofitted or phased out as part of fleet turnover. While these efforts are reducing diesel particulate emissions on a statewide basis, they do not yet capture every site on which diesel vehicles and engines operate. As a result, the ARB recommends that proximity to sources of DPM emissions be considered in the siting of new developments. For example, ARB's guidance recommends that new sensitive land uses (e.g., residences, schools and educational facilities, day care centers, playgrounds, or medical facilities) not be located within 500 feet of a freeway or urban road carrying at least 100,000 vehicles per day.

The ARB notes that these recommendations are advisory and should not be interpreted as defined "buffer zones." ARB acknowledges that land use agencies must balance other considerations,

¹⁴ California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005 (hereinafter referred to as "*Air Quality and Land Use Handbook*"). Available online at: <http://www.arb.ca.gov/ch/handbook.pdf>. Accessed April 21, 2010.

¹⁵ Pollution Engineering, *New Diesel Fuel Rules Start*. July 2, 2006. Available online at: http://www.pollutionengineering.com/Articles/Industry_News/00e6c4c1be03c010VgnVCM100000f932a8c0____. Accessed March 29, 2010.

including housing and transportation needs, the benefits of urban infill, community economic development priorities, and other quality-of-life issues. With careful evaluation of exposure, health risks, and affirmative steps to reduce risk where necessary, ARB's position is that infill development, mixed use, higher density, transit-oriented development, and other concepts that benefit regional air quality can be compatible with protecting the health of individuals at the neighborhood level.¹⁶

ODOR EMISSIONS

There are no significant odor sources within the Executive Park Subarea Plan Area. A waste transfer station, recycling operations, facilities with painting and coating operations, and petroleum storage facilities are each within one mile of Executive Park. According to BAAQMD records, the only nearby sources of odor complaints within the last five years have been garbage, paint, or chemical odors reported as emanating from the recycling and municipal solid waste disposal services facilities across U.S. Highway 101, over 1,000 feet from the Executive Park Subarea Plan Area.¹⁷ Roughly two garbage odor complaints per year were found for the last five years. None of the odor complaints filed for these facilities indicated a violation of BAAQMD rules or regulations.

REGIONAL AIR QUALITY

The Executive Park Subarea Plan Area is within the jurisdiction of the Bay Area Air Quality Management District, which oversees the region's efforts to achieve and maintain the ambient air quality standards. The BAAQMD maintains the regional emission inventory of sources, including stationary, mobile, and area-wide sources. The BAAQMD is also responsible for issuing permits to construct and operate stationary sources, and for implementing the programs to review the air quality impacts of new stationary sources. The regional prevailing winds, topography, and weather, including sunlight and high temperatures, also play a role in regional air quality problems. Warmer temperatures create the conditions that can increase ozone formation. In addition, higher temperatures would likely result in increased electricity use to power air conditioners and refrigerators, which can cause increased operation of the region's fossil-fuel-fired power plants to meet the demand.

Climate, Topography, and Meteorology

The San Francisco Bay Area is semi-arid and characterized by mild, dry summers and mild, moderately wet winters (about 90 percent of the annual total rainfall occurs during the November to April period), moderate daytime onshore breezes, and moderate humidity. The climate is

¹⁶ *Air Quality and Land Use Handbook*, p. 7.

¹⁷ BAAQMD, Response to Public Records Request received via e-mail June 29, 2010.

dominated by a strong, semi-permanent, subtropical high-pressure cell over the northeastern Pacific Ocean. Weather is moderated by the adjacent oceanic heat reservoir that leads to fog. In summer, the northwest winds to the west of the coastline are drawn into the interior valleys through the Golden Gate and over the lower topography of the San Francisco Peninsula. This channels wind so that it sweeps eastward and widens downstream across the region. In winter, periods of storminess tend to alternate with periods of stagnation and light winds. Onshore winds from the west dominate the Executive Park vicinity such that emissions from the area tend to be carried eastward over the San Francisco Bay.

Existing Stationary Sources of Air Pollution

Existing local air quality is affected by permitted stationary sources that routinely emit TACs and criteria pollutants at levels less than those considered major under BAAQMD rules. The Community Health Air Pollution Information System (CHAPIS) database of the ARB maps facilities and stationary sources that emit inventoried criteria air pollutants and toxic air contaminants throughout California.¹⁸ The CHAPIS database does not indicate any major stationary air toxic or criteria pollutant emitting facilities within a one-mile radius of the center of the Executive Park Subarea Plan Area.

Stationary sources permitted by the BAAQMD are nearby but greater than 1,000 feet away from the boundary of the Executive Park Subarea Plan Area. The nearest sources are related to San Francisco Recycling and Disposal, Inc. (Facility #4173) and San Francisco Household Hazardous Waste Collection (Facility #5386) on Beatty Road near Tunnel Avenue, and the facilities operate an engine-generator used for emergency standby power. Other stationary sources of emissions beyond the zone of greatest influence but within one mile include the following: waste handling and a landfill (Brisbane Recycling Co., Facility #1108 and Sunquest Properties Inc., Facility #5691); painting and coating (Sunset Scavenger Company, Facility #6140); petroleum products storage (SFPP, LP, Facility #4021); and light industry along Bayshore Boulevard. Each of these facilities is more than 1,000 feet from the Subarea Plan Area, and none substantially affects pollutant levels within the zone of influence that is identified by BAAQMD for assessing local community risk and hazards.¹⁹

¹⁸ California Air Resources Board (ARB). Community Health Air Pollution System (CHAPIS) website. Available online at: <http://www.arb.ca.gov/ch/chapis1/chapis1.htm>. Accessed June 22, 2010.

¹⁹ BAAQMD CEQA Guidelines, 2010. Facility numbers refer to BAAQMD permit facility identification numbers as available at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>. Accessed June 22, 2010.

SENSITIVE RECEPTORS

Air quality does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. As noted above, population subgroups sensitive to the health effects of air pollutants include the elderly and the young, population subgroups with higher rates of respiratory disease such as asthma and chronic obstructive pulmonary disease, and populations with other environmental or occupational health exposures (e.g., indoor air quality) that affect cardiovascular or respiratory diseases. Land uses such as schools and educational facilities, children's day care centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are also considered sensitive. Compared to commercial and industrial areas, people generally spend longer periods of time at their residences, with associated greater exposure to ambient air quality conditions.²⁰

The proximity of sensitive receptors to motor vehicles is an air pollution concern, especially in San Francisco. Epidemiologic studies have consistently demonstrated that children and adults living in proximity to freeways or busy roadways have poorer health outcomes, including increased asthma symptoms and respiratory infections, and decreased pulmonary function and lung development in children. Vehicles also contribute to particulates by generating road dust and through tire wear.

The nearest sensitive receptors are residences within Executive Park who occupy the buildings along Executive Park Boulevard, at about 50 feet from the centerline of this internal roadway. The Executive Park Subarea Plan Area encompasses 71 acres, with 304 residential units (Top Vision Phases I and II) and two presently-approved developments of 465 units (Top Vision Phase III) and 499 units (Signature Properties). The Subarea Plan Area is bounded on the west by U.S. Highway 101, where traffic is a substantial source of air pollution. The proposed amended Subarea Plan would introduce sensitive receptors to this setting by adding 1,600 net new residential units; the nearest would be about 150 feet from the nearest travel lane of U.S. 101. The Subarea Plan area is bounded by Bayview Hill Park and the Candlestick Point State Recreation Area. The users of these parks and recreation facilities are also considered to be sensitive receptors of the area. Other nearby residential areas exist across U.S. 101 from the Subarea Plan Area, in the Visitacion Valley neighborhood about 400 feet away. There are no hospitals found in the vicinity of the Executive Park Subarea Plan Area.

²⁰ The factors responsible for variation in exposure are also often similar to factors associated with greater susceptibility to air quality health effects. For example, poorer residents may be more likely to live in crowded substandard housing and be more likely to live near industrial or roadway sources of air pollution.

REGULATORY FRAMEWORK

Air Quality Regulations and Plans

National Ambient Air Quality Standards

The 1970 Clean Air Act (as amended in 1990) required that regional planning and air pollution control agencies prepare a regional air quality plan to outline the measures by which both stationary and mobile sources of pollutants will be controlled in order to achieve all standards by the deadlines specified in the Clean Air Act. These ambient air quality standards are intended to protect the public health and welfare, and they specify the concentration of pollutants (with an adequate margin of safety) to which the public can be exposed without adverse health effects. They are designed to protect those segments of the public most susceptible to respiratory distress, including asthmatics, the very young, the elderly, people weak from other illness or disease, or persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollution levels that are somewhat above ambient air quality standards before adverse health effects are observed.

The current attainment status for the San Francisco Bay Area Air Basin, with respect to federal standards, is summarized in Table V.G.3. In general, the Bay Area Air Basin experiences low concentrations of most pollutants when compared to federal standards, except for ozone and particulate matter (PM₁₀ and PM_{2.5}), for which standards are exceeded periodically.

In June 2004, the Bay Area was designated as a marginal nonattainment area of the national 8-hour ozone standard. USEPA lowered the national 8-hour ozone standard from 0.80 to 0.75 parts per million (ppm) effective May 27, 2008, and on January 6, 2010, the USEPA proposed to reduce the federal 8-hour ozone standard to 0.06 to 0.07 ppm. In December 2009, the Bay Area became designated as a nonattainment area for the national 24-hour PM_{2.5} standard, and this triggered the beginning of a multi-year planning process to develop strategies and regulations to ensure PM_{2.5} reductions. The Bay Area Air Basin is in attainment for other criteria pollutants.

State Ambient Air Quality Standards

Although the federal Clean Air Act established national ambient air quality standards, individual states retained the option to adopt more stringent standards and to include other pollution sources. California had already established its own air quality standards when federal standards were established, and because of differing approaches in developing standards, there is considerable diversity between the state and national ambient air quality standards, as shown in Table V.G.3. California ambient standards tend to be at least as protective as national ambient air quality standards and are generally more stringent.

Table V.G.3: State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	(State) SAAQS ^a		(Federal) NAAQS ^b	
		Standard	Attainment Status	Standard	Attainment Status
Ozone	1 hour	0.09 ppm	N	NA	See Note c
	8 hour	0.07 ppm	U ^d	0.075 ppm	N/Marginal
Carbon Monoxide (CO)	1 hour	20 ppm	A	35 ppm	A
	8 hour	9 ppm	A	9 ppm	A
Nitrogen Dioxide (NO ₂)	1 hour	0.18 ppm	A	0.100 ppm	U
	Annual	NA	NA	0.053 ppm	A
Sulfur Dioxide (SO ₂)	1 hour	0.25 ppm	A	NA	NA
	24 hour	0.04 ppm	A	0.14 ppm	A
	Annual	NA	NA	0.03 ppm	A
Particulate Matter (PM ₁₀)	24 hour	50 µg/m ³	N	150 µg/m ³	U
	Annual ^e	20 µg/m ³ ^f	N	50 µg/m ³	A
Fine Particulate Matter (PM _{2.5})	24 hour	NA	NA	35 µg/m ³	N
	Annual	12 µg/m ³	N	15 µg/m ³	A
Sulfates	24 hour	25 µg/m ³	A	NA	NA
Lead	30 day	1.5 µg/m ³	A	NA	NA
	Cal. Quarter	NA	NA	1.5 µg/m ³	A
Hydrogen Sulfide	1 hour	0.03 ppm	U	NA	NA
Visibility-Reducing Particles	8 hour	See Note g	A	NA	NA

Notes:

A = Attainment; N = Nonattainment; U = Unclassified; NA = Not Applicable, no applicable standard; ppm = parts per million; µg/m³ = micrograms per cubic meter.

^a SAAQS = state ambient air quality standards (California). SAAQS for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All other state standards shown are values not to be equaled or exceeded.

^b NAAQS = national ambient air quality standards. NAAQS, other than ozone and particulates, and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The 8-hour ozone standard is attained when the three-year average of the fourth highest daily concentration is 0.08 ppm or less. The 24-hour PM₁₀ standard is attained when the three-year average of the 99th percentile of monitored concentrations is less than the standard. The 24-hour PM_{2.5} standard is attained when the three-year average of the 98th percentile is less than the standard.

^c The USEPA revoked the national 1-hour ozone standard on June 15, 2005.

^d This state 8-hour ozone standard was approved in April 2005 and became effective in May 2006.

^e State standard = annual geometric mean; national standard = annual arithmetic mean.

^f In June 2002, the California Air Resources Board (ARB) established new annual standards for PM_{2.5} and PM₁₀.

^g Statewide visibility-reducing particle standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Source: Bay Area Air Quality Management District (BAAQMD), *Standards and Attainment Status*, May 2009. Available online at: http://hank.baaqmd.gov/pln/air_quality/ambient_air_quality.htm.

In 1988, California passed the California Clean Air Act (California Health and Safety Code Sections 39600 et seq.), which, like its federal counterpart, called for the designation of areas as attainment or nonattainment, but based on state ambient air quality standards rather than the federal standards. As indicated in Table V.G.3, the Bay Area Air Basin is designated as “nonattainment” for state ozone, PM₁₀, and PM_{2.5} standards. The Bay Area Air Basin is designated as “attainment” at the state level for other pollutants.

Air Quality Planning Relative to State and Federal Standards

The Bay Area *2010 Clean Air Plan* was adopted on September 15, 2010, by the BAAQMD, in cooperation with the Bay Area Metropolitan Transportation Commission (MTC), the Bay Conservation and Development Commission (BCDC), and the Association of Bay Area Governments (ABAG). The *Clean Air Plan* outlines a multi-pollutant approach for addressing ozone, particulate matter, air toxics, and greenhouse gas emission reductions in a single, integrated strategy. The primary objectives of the plan are to improve local and regional air quality, protect public health, and minimize climate change impacts. The *2010 Clean Air Plan* is a voluntary initiative by the BAAQMD, and it does not respond to federal requirements for attainment planning. However, it lays the groundwork for future PM_{2.5} attainment planning and the continuing effort to attain the ozone standards. The plan is a roadmap showing how the San Francisco Bay Area will achieve compliance with ozone standards as expeditiously as practicable, and how the region will reduce the transport of ozone and ozone precursors to neighboring air basins. The *2010 Clean Air Plan* represents the Bay Area’s most recent triennial assessment of the region’s strategy to attain the state ozone standards. The *2010 Clean Air Plan* includes transportation control measures to improve transit services, encourage sustainable travel behavior, support focused growth, and implement pricing strategies.²¹

San Francisco General Plan Air Quality Element

The *San Francisco General Plan (General Plan)* includes the 1997 Air Quality Element.²² The objectives specified by the City include the following:

- Objective 1: Adhere to state and federal air quality standards and regional programs.
- Objective 2: Reduce mobile sources of air pollution through implementation of the Transportation Element of the *General Plan*.
- Objective 3: Decrease the air quality impacts of development by coordination of land use and transportation decisions.

²¹ BAAQMD. *2010 Clean Air Plan* website. Available online at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans/Clean-Air-Plans.aspx>. Accessed September 17, 2010.

²² City and County of San Francisco, Planning Department, Air Quality, An Element of the *General Plan* of the City and County of San Francisco, July 1997, updated in 2000.

- Objective 5: Minimize particulate matter emissions from road and construction sites.
- Objective 6: Link the positive effects of energy conservation and waste management to emission reductions.

San Francisco Construction Dust Control Ordinance

The San Francisco *Health Code* (Article 22b) Dust Control Ordinance was adopted in July 2008 and requires that all site preparation work, demolition, or other construction activities within the City and County of San Francisco comply with specific dust control measures.²³ For projects over one-half acre, the Dust Control Ordinance requires that the project sponsor submit a Dust Control Plan for approval by the San Francisco Health Department prior to issuance of a building permit by the Department of Building Inspection (DBI). Building permits will not be issued without written notification from the Director of Public Health that the applicant has a site-specific Dust Control Plan, unless the Director waives the requirement. The Construction Dust Control Ordinance requires project sponsors and contractors responsible for construction activities to control construction dust on the site or implement other practices that result in equivalent dust control that are acceptable to the Director. Dust suppression activities may include watering all active construction areas sufficiently to prevent dust from becoming airborne; increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water must be used if required by Article 21, Section 1100 et seq. of the *San Francisco Public Works Code*.

San Francisco Health Code (Article 38)

San Francisco adopted Article 38 of the San Francisco *Health Code*, approved November 25, 2008, requiring that new residential projects of 10 or more units located in proximity to high-traffic roadways, as mapped by DPH, be subject to an Air Quality Assessment to determine whether new residential units would be exposed to potentially unhealthful levels of traffic related pollutants. For assessment purposes, DPH uses vehicle emissions of PM_{2.5} as a surrogate measure for traffic related pollutants. The air quality assessment evaluates the concentration of PM_{2.5} from local roadway traffic that may impact a proposed residential development site. If the DPH air quality assessment indicates that the annual average concentration of PM_{2.5} at the site would be greater than 0.2 µg/m³, *Health Code* Section 3807 requires development on the site to be designed or relocated to avoid exposure greater than 0.2 µg/m³, or a ventilation system to be installed that would be capable of removing 80 percent of ambient PM_{2.5} from habitable areas of the residential units.

²³ City and County of San Francisco Municipal Code, *Health Code* Article 22b.

Consistency with San Francisco Health Code Article 38

Using the methodologies described in DPH's Assessment and Mitigation of Health Effects from Intra-urban Roadways, an assessment of traffic-related pollutants was conducted. Existing and proposed uses in the Executive Park Subarea Plan Area are exposed to PM_{2.5} emissions from all motor vehicles. Annual average PM_{2.5} concentrations from roadway traffic were modeled by DPH using the EPA-approved dispersion model CAL3QHCR.²⁴ One year of meteorological data from a station at the San Francisco Southeast Treatment Plant was used, since it presents the general wind pattern expected of the area.

The existing average annual PM_{2.5} concentrations for locations within the Subarea Plan Area between U.S. 101 and Thomas Mellon Circle are estimated to be approximately 0.2 µg/m³ or greater. The modeled PM_{2.5} concentrations are highest along U.S. 101 at the western edge of the Subarea Plan Area, where modeled average annual concentrations approach 0.6 µg/m³. For areas between U.S. 101 and Thomas Mellon Drive, modeled concentrations exceed the Article 38 PM_{2.5} action level of 0.2 µg/m³, resulting in exposure of proposed land uses to elevated pollutant concentrations. DPH accordingly specifies air filtration requirements for new residential development in the Subarea Plan Area between U.S. 101 and Thomas Mellon Circle. Therefore, in these areas identified in the analysis by DPH, proposed residential uses are required to incorporate mechanical ventilation systems with ambient air filtration capable of removing 80 percent of ambient PM_{2.5} to reduce exposure to particulates and other traffic-related pollutants of concern. This ensures that the new residential units would comply with Article 38 requirements.

Toxic Air Contaminants

In 2005, the ARB approved a regulatory measure to reduce emissions of toxic and criteria pollutants by limiting the idling of new heavy-duty diesel vehicles. The regulations generally limit idling of commercial motor vehicles (including buses and trucks) within 100 feet of a school or residential area for more than five consecutive minutes or periods aggregating more than five minutes in any one hour.²⁵ Buses or vehicles also must turn off their engines upon stopping at a school and must not turn their engines on more than 30 seconds before beginning to depart from a school.

²⁴ City and County of San Francisco Department of Public Health (DPH), Program on Health Equity and Sustainability, *Executive Park Results*. April 13, 2009. This report is on file and available for public review at the San Francisco Planning Department, in Case File Number 2006.0422E.

²⁵ There are 12 exceptions to this requirement (e.g., emergency situations, military, adverse weather conditions, etc.), including when a vehicle's power takeoff is being used to run pumps, blowers, or other equipment; when a vehicle is stuck in traffic, stopped at a light, or under direction of a police officer; when a vehicle is queuing beyond 100 feet from any restricted area; or when an engine is being tested, serviced, or repaired.

IMPACTS

EFFECTS ADDRESSED IN PRIOR ENVIRONMENTAL REVIEW

The 1985 EIR found that the major contributor of pollutant emissions of the then-proposed project would be project-generated traffic, which would generate 0.2 percent of total regional air pollutant emissions. The highest predicted carbon monoxide increase due to the proposed project would be 41 percent along Alanna Way.

The 1999 SEIR found that air quality impacts from construction and operation would continue to exceed the BAAQMD significance thresholds for ROG, NO_x, and PM₁₀, resulting in a significant and unavoidable impact on regional air quality. Local CO concentrations (which were subjected to a micro-scale analysis) were found to be less than significant.

The 2005 Addendum for the Signature Properties project, and the 2007 Addendum for the Top Vision project presented updated assessments of the existing conditions and the air quality impacts to reflect then-current conditions. These addenda concluded that construction air quality impacts of those projects would be similar to those of the development plan covered under the 1999 SEIR, and predicted the operational traffic emissions would not cause any new significant air quality impacts compared to those determined for the development plan studied in the 1999 SEIR.

SIGNIFICANCE CRITERIA

The City and County of San Francisco has not formally adopted significance standards for impacts related to air quality. The Planning Department's Initial Study Checklist provides a framework of topics to be considered in evaluating potential impacts under the California Environmental Quality Act (CEQA). Implementation of a project could have significant impacts related to air quality, if it were to:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria air pollutant for which the project region is in 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 pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

1999 BAAQMD Significance Thresholds

The purpose of the *BAAQMD CEQA Guidelines* is to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the San Francisco Bay Area Air Basin. The guidelines provide procedures for evaluating potential air quality impacts during the environmental review process consistent with CEQA requirements. The BAAQMD recently issued revised guidelines that supersede the 1999 *BAAQMD CEQA Guidelines*.

The 1999 *BAAQMD CEQA Guidelines*²⁶ recommend various thresholds and tests of significance (hereinafter the “1999 BAAQMD thresholds”). Implementation of these guidelines and their associated thresholds is at the discretion of the lead agency. These thresholds are presented below and used in this impact analysis as a basis for determining whether the proposed Yerby and UPC development projects under the proposed amended Subarea Plan would result in significant air quality impacts.

2010 BAAQMD Significance Thresholds

The BAAQMD recently-adopted new CEQA guidelines. The *BAAQMD CEQA Guidelines, 2010* thresholds of significance for criteria air pollutants, greenhouse gas emissions (see Section V.H, Greenhouse Gas Emissions), and health risks from new sources are intended to apply to projects beginning environmental analysis after June 2010. The BAAQMD’s policy is that the 2010 BAAQMD thresholds and guidelines would not apply to this project because the Notice of Preparation for this EIR was published in October 2006, before the new guidelines were adopted. However, for a comprehensive analysis of air quality impacts for the project, this document provides an explanation of and an analysis of impacts under the BAAQMD’s recently adopted thresholds at the end of this section. Initially, the 1999 BAAQMD CEQA Guidelines are explained in detail, followed by an impact assessment based on the 1999 guidelines. An impact assessment under the 2010 guidelines follows.

Criteria for Construction Impacts

The 1999 *BAAQMD CEQA Guidelines* do not recommend any significance thresholds for the emissions of fugitive dust during construction. Instead, the significance criterion is a consideration of the control measures to be implemented. If all appropriate emissions control measures recommended by the 1999 *BAAQMD CEQA Guidelines* are implemented for a project, construction emissions are not considered significant.

²⁶ BAAQMD, *BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans*, December 1999.

The guidelines recommend a series of control measures to reduce particulate matter as fugitive dust and for limiting combustion-related emissions of TACs from construction equipment, including DPM.

Criteria for Project-Level Operational Impacts

The 1999 *BAAQMD CEQA Guidelines* recommend various thresholds and tests of significance for assessing project-level or plan-level impacts. For ROG, NO_x, and PM₁₀, a net increase of 80 pounds per day is considered significant, while for CO, an increase would be considered significant if it leads to or contributes to CO concentrations exceeding the ambient air quality standards. Generally, if a project results in an increase in ROG, NO_x, or PM₁₀ of more than 80 pounds per day or CO exceeding the ambient air quality standards, then it would also be considered to contribute considerably to a significant cumulative effect.

Criteria for Health Risks

Under the 1999 guidelines, a plan or project would also have a significant air quality impact if it would expose persons to substantial levels of TACs, such that the probability of contracting cancer for the Maximally Exposed Individual exceeds 10 in one million or if it would expose persons to TACs such that a non-cancer Hazard Index of 1.0 would be exceeded. The 1999 guidelines do not provide recommendations for analyzing the effects of health risks from mobile sources and traffic, rather they focus on stationary sources of TACs.

Criteria for Cumulative Impacts

Under the 1999 guidelines, cumulative impacts are based on the a project's emissions and the potential for the project to expose sensitive receptors to health risks. Individual project-related emission increases of ROG, NO_x, PM₁₀, or CO found to be significant at the project level would also be considered to contribute considerably to a significant cumulative effect.

For evaluating the consistency of the project's emissions with air quality management plans, the cumulative effect is evaluated based on a test of growth in forecasted vehicle-miles traveled and a determination of the consistency of the project with the current regional air quality management plan, the 2010 Clean Air Plan.

METHODOLOGY

Project-related air quality impacts fall into two categories: short-term impacts due to construction, and long-term impacts due to project operation. First, during project construction, the proposed Yerby and UPC development projects would affect local concentrations primarily due to fugitive dust sources, namely PM₁₀ and PM_{2.5}, and construction equipment exhaust, which includes toxic air contaminants such as DPM. Over the long term, the proposed development projects would

result in an increase in emissions primarily due to increased motor vehicle trips. On-site stationary sources (such as using natural gas for water and space heating) and other “area” sources (such as landscaping and use of consumer products) would result in lesser quantities of pollutant emissions. No fireplaces would be included in the proposed Yerby and UPC development project residences, and no other stationary sources would be included, including diesel backup generators.

Construction and operational emissions of criteria air pollutants were estimated using the URBEMIS2007 model (version 9.2.4) and compared to applicable BAAQMD significance thresholds. The model combines information on construction phasing and equipment (including default assumptions if detail is unavailable) and traffic-related data on trip generation with vehicular and equipment emissions data specific to different vehicle types and activity assumptions (including trips from home-to-work, work-other, etc.). The URBEMIS2007 model incorporates emission factors from the ARB’s OFFROAD2007 model for construction equipment emissions and from the EMFAC2007 model to create an estimated daily emissions rate for project-related travel within the San Francisco Bay Area Air Basin. These models do not provide forecasts of toxic air contaminant emission rates.

Localized concentrations of air contaminants due to motor vehicle operations are assessed for CO near the most congested and poorly performing intersections and for exposure to diesel particulate matter and other TACs. The analysis under the 1999 guidelines is qualitative, but under the 2010 guidelines at the end of this section, an updated approach with screening tables for assessment of exposure to concentrations of traffic-related pollutants is used. In this section, impacts due to exposure of proposed residences to existing concentrations of fine particulate matter (PM_{2.5}) resulting from mobile sources are subject to a separate analysis performed by the DPH (as discussed previously for the San Francisco *Health Code* Article 38).

The methodology for assessing cumulative impacts involves a comparison of growth in forecasted vehicle-miles traveled under the proposed development projects and a review of the consistency of the project with the current regional air quality management plan.

IMPACT EVALUATION BASED ON 1999 BAAQMD CEQA GUIDELINES

Construction Impacts

Impact AQ-1: The proposed Yerby and UPC development projects would result in localized construction dust-related air quality impacts. (*Less than Significant*)

Demolition, excavation, grading, foundation work, and new construction activities would temporarily affect local air quality during approximately 10 years of construction, causing temporary increases in particulate dust and other pollutants. Emissions generated from

construction activities include dust (including PM₁₀ and PM_{2.5}), primarily from “fugitive” sources; combustion emissions of criteria air pollutants (ROG, NOx, CO, SOx, and PM₁₀ and PM_{2.5}), primarily from operation of construction equipment and worker vehicles; and evaporative emissions (ROG) from architectural coating applications. (Impacts of pollutants other than dust are addressed under Impact AQ-2.)

Project-related demolition, excavation, grading, and other construction activities may cause wind-blown dust that would disperse particulate matter into the local atmosphere. The health burden caused by particulate matter demands that, where possible, public agencies take feasible available actions to reduce sources of particulate matter exposure. The 1999 *BAAQMD CEQA Guidelines* use the implementation of standard and feasible control measures as a threshold of significance for fugitive dust.

Dust can be an irritant causing watering eyes or irritation to the lungs, nose, and throat. Depending on exposure, adverse health effects can occur due to this particulate matter in general and also due to trace constituents of demolition debris or naturally occurring asbestos, which is a constituent of soil in some parts of San Francisco but not at the Executive Park Subarea Plan Area.

In response to concerns about particulate matter, the San Francisco Board of Supervisors approved a series of amendments to the San Francisco Building and Health Codes, generally referred hereto as the Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008). Its intent is to reduce the quantity of dust generated during site preparation, demolition, and construction work in order to protect the health of the general public and of on-site workers, minimize public nuisance complaints, and to avoid orders to stop work by the San Francisco DBI.

The Ordinance requires that all site preparation work, demolition, or other construction activities within San Francisco that have the potential to create dust or to expose or disturb more than 10 cubic yards or 500 square feet of soil comply with specified dust control measures whether or not the activity requires a permit from DBI. The Director of DBI may waive this requirement for activities on sites less than one-half acre that are unlikely to result in any visible wind-blown dust.

The Yerby Company and UPC project sponsors and the contractors responsible for construction activities within the development site shall use practices to control construction dust or other practices that result in equivalent dust control that are acceptable to the Director of DBI. Dust suppression measures may include watering all active construction areas sufficiently to prevent dust from becoming airborne; increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour.

Reclaimed water must be used for soil compaction or dust control activities if required by Article 21, Section 1100 et seq. of the *San Francisco Public Works Code*. This Article requires the use of

reclaimed water for soil compaction or dust control activities unless the General Manager of Public Works determines in writing that either (1) reclaimed water is not available in sufficient quality and quantity from wastewater treatment facilities located within 10 miles of the construction site, or (2) well water or ground water is not available in sufficient quality and quantity from wells and groundwater sources located within 10 miles of the construction site.

If not required, reclaimed water should be used whenever possible. Contractors are required to provide as much water as necessary to control dust (without creating runoff in any area of land clearing and/or earth movement). During excavation and dirt-moving activities, contractors are required to wet sweep or vacuum the streets, sidewalks, paths, and intersections where work is in progress at the end of the workday. Inactive stockpiles (where no disturbance occurs for more than seven days) greater than 10 cubic yards or 500 square feet of excavated materials, backfill material, import material, gravel, sand, road base, and soil are required to be covered with a 10-mil (0.01 inch) polyethylene plastic (or equivalent) tarp, braced down, or use other equivalent soil stabilization techniques.

The Ordinance requires that the development project sponsors submit a Dust Control Plan for approval by the San Francisco Health Department. DBI will not issue a building permit without written notification from the Director of Public Health that the applicant has a site-specific Dust Control Plan, unless the Director waives the requirement. Site-specific Dust Control Plans require the project sponsor to submit a map to the Director of Public Health showing all sensitive receptors within 1,000 feet of the site; wet down areas of soil at least three times per day; provide an analysis of wind direction and install upwind and downwind particulate dust monitors; record particulate monitoring results; hire an independent third party to conduct inspections and keep a record of those inspections; establish shut-down conditions based on wind, soil migration, etc.; establish a hotline for surrounding community members who may be potentially affected by project-related dust; limit the area subject to construction activities at any one time; install dust curtains and windbreaks on the property lines, as necessary; limit the amount of soil in hauling trucks to the size of the truck bed and secure loads with a tarpaulin; enforce a 15-mph speed limit for vehicles entering and exiting construction areas; sweep affected streets with water sweepers at the end of the day; install and utilize wheel washers to clean truck tires; terminate construction activities when winds exceed 25 miles per hour; apply soil stabilizers to inactive areas; and sweep off adjacent streets to reduce particulate emissions. The Yerby Company and UPC project sponsors would be required to designate an individual to monitor compliance with dust control requirements.

BAAQMD guidance for assessing construction dust impacts states that implementation of feasible control measures for fugitive dust would reduce the impact of construction dust to a less-than-significant level, as required by the San Francisco Construction Dust Control Ordinance. These BAAQMD-recommended measures include the following elements:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day;
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered;
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited;
- All vehicle speeds on unpaved roads shall be limited to 15 mph;
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible;
- Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used;
- Non-toxic soil stabilizers shall be applied to inactive construction areas (previously graded areas inactive for ten days or more and to exposed stockpiles);
- Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways;
- Wheel-washers shall be installed for all exiting trucks and equipment leaving the site;
- Wind breaks or vegetation suitable for use as a wind break shall be installed along windward sides of construction areas;
- Excavation and grading shall be suspended when winds (instantaneous gusts) exceed 25 miles per hour;
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points;
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation;
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The regulations and procedures set forth in the Construction Dust Control Ordinance of the *San Francisco Health Code* contain the dust control measures of the BAAQMD recommendations and would be a City-mandated requirement for the proposed development projects.

Consequently, the potential for dust-related air quality impacts would be reduced to a level of insignificance, and no mitigation measures are required.

**Impact AQ-2: Construction equipment exhaust emissions could expose sensitive receptors to substantial concentrations of pollutants or affect regional air quality.
(Less than Significant with Mitigation)**

Construction of the proposed development projects within the amended Subarea Plan would occur over approximately 10 years. Construction activities would include building demolition, excavation, grading, foundation work, and new construction activities for fabrication of structures. Each of these demolition and construction activities would require the use of heavy-duty trucks, off-road equipment, such as excavators and graders, material loaders, cranes, and other mobile and portable construction equipment, like generators and welders. Emissions during construction would be caused by materials handling, traffic on unpaved or unimproved surfaces, demolition of structures, use of paving materials and architectural coatings, exhaust from construction worker vehicle trips, truck trips, and exhaust from the off-road construction equipment. The project's construction emissions were quantified in this impact analysis to the degree feasible given the preliminary construction details, and results are shown in Table V.G.4.

Table V.G.4: Average Estimated Daily Construction Emissions of Criteria Air Pollutants

	Average Estimated Daily Emissions (pounds per day)					
	ROG	NOx	CO	SOx	PM ₁₀	PM _{2.5}
Proposed Development Projects						
2011 Phased Activity	8.13	57.02	68.11	0.07	30.68	8.51
2012 Phased Activity	102.96	43.56	109.24	0.13	18.33	5.45
2013 Phased Activity	202.33	37.61	140.05	0.19	2.78	2.01
2014 Phased Activity	2.37	17.22	11.77	0.01	11.39	2.99
2015 Phased Activity	4.22	19.34	70.09	0.11	3.26	1.44
2016 Phased Activity	98.92	10.89	18.76	0.02	4.17	1.28
2017 Phased Activity	2.09	15.54	10.96	0.01	21.45	5.00
2018 Phased Activity	3.24	14.75	57.00	0.11	3.12	1.25
2019 Phased Activity	98.68	10.52	16.93	0.02	14.53	3.40
2020 Phased Activity	2.35	11.97	35.85	0.07	9.53	2.45
2021 Phased Activity	98.12	5.07	20.44	0.06	0.59	0.37
Highest Average Daily	202.33	57.02	140.05	0.19	30.68	8.51

Note: The 1999 BAAQMD CEQA Guidelines favor a qualitative approach to characterizing significance of construction impacts. Recently adopted guidelines establish thresholds based on average daily emissions.

Source: Aspen Environmental Group, 2010.

Criteria pollutant emissions of ROG and NO_x from construction equipment would incrementally add to the regional atmospheric loading of ozone precursors and particulate matter during project construction. The 1999 *BAAQMD CEQA Guidelines* recognize that construction equipment emits ozone precursors, but for the purposes of CEQA analyses, the guidelines indicate that such emissions are included in the emissions inventory that is the basis for regional air quality management plans. Therefore, there are no 1999 BAAQMD thresholds applicable to the construction equipment emissions, and construction emissions would not be expected to impede attainment or maintenance of ozone standards in the Bay Area.

Construction equipment exhaust emissions could also result in adverse health effects at nearby sensitive receptors. Construction of the proposed development projects could increase cancer risk from exposure to emissions of DPM and other TACs associated with off-road construction equipment and on-road haul trucks needed for construction of the development projects. These emissions would occur as close as 50 feet from existing residential units within the Executive Park Subarea Plan Area.

Concentrations of DPM and TAC emissions from individual construction equipment exhaust typically disperse quickly over distance. Dispersion models and methodologies for estimating TAC concentrations and conducting health risk assessments are generally associated with long-term or lifetime exposure periods that do not correlate well with the relatively short-term and highly variable nature of construction activities. This results in difficulties with producing accurate estimates of health risks due to the variable construction emissions and exposures.

Risks would be limited in nature because the exposure duration for any individual at a single location would vary as the phases of construction move within the Subarea Plan Area. All construction activities must implement any applicable state-wide air toxics control measures (ATCM) that address and require DPM controls. Despite the regulatory programs in place to reduce toxic air contaminants from construction equipment, and despite the limited exposure of most persons to the construction-phase emissions, both of which would limit potential health effects, construction equipment exhaust emissions could result in substantial pollutant concentrations closest to construction activities. The worst-case health effects would be experienced by any residents in the Subarea Plan Area who reside as close as 50 feet from the nearest construction.

The 1999 *BAAQMD CEQA Guidelines* do not specifically address construction-related concentrations of toxic air contaminants. However, feasible measures are identified for avoiding adverse effects of construction equipment exhaust. Implementation of Mitigation Measure M-AQ-1 would reduce the impacts of construction-related exhaust emissions for both criteria pollutants and TACs, including DPM. Although the 1999 guidelines do not provide quantitative thresholds for construction-related exhaust emissions, the size and duration of construction

activities, and the proximity to sensitive receptors, warrant implementation of feasible control measures to avoid a significant impact. Therefore, this impact is less than significant with mitigation in relation to the 1999 BAAQMD thresholds.

Operational Impacts

Impact AQ-3: Operation of the proposed Yerby and UPC development projects could affect regional air quality. (*Significant and Unavoidable*)

The proposed development projects consist of high-density, compact, infill mixed-use developments. The projects would be consistent with the Streets and Transportation Element of the proposed amended Subarea Plan, which specifies an internal street configuration supportive of an urban residential neighborhood and features to encourage walking, bicycling, and less dependency on the automobile. The proposed amended Subarea Plan also calls for the provision of carshare spaces and unbundling parking costs from the housing costs. The Yerby and UPC Project Objectives are to produce a community with “green” buildings and to reduce use of private vehicles by providing shuttle services and facilities that support mass transit. All development projects within the Executive Park Subarea Plan Area must implement a transportation management plan (TMP) including updates and enhancements triggered by the proposed development projects. With these features the proposed amended Subarea Plan would reduce motor vehicle trips and energy use, and the associated emissions, when compared to a similar development in a non-urban or suburban setting.

Operational emissions due to vehicle trips and area sources were calculated using the URBEMIS2007 (version 9.2.4) computer model using project-specific vehicle trip generation rates. The model default vehicle trip lengths specific to the San Francisco Bay Area Air Basin were used. The proposed development projects would result in a net increase of approximately 7,800 vehicle trips per day over existing conditions. Approximately 1,300 daily vehicle trips would be removed with demolition of the existing office buildings. These would be replaced with uses generating 1,527 net new daily vehicle trips attributable to the Yerby development project and 6,272 net new daily vehicle trips for the UPC development project.

Area sources that consist of landscape maintenance equipment exhaust, use of consumer products that emit ROGs, maintenance application of architectural coatings, and on-site natural gas combustion were calculated using URBEMIS default values for each land use type. These account for small space heaters and water heaters within individual residential units. No notable

or non-exempt²⁷ stationary sources are proposed. The proposed development projects would not include stationary diesel-fueled sources, such as backup generators for emergency electricity production.

As shown in Table V.G.5, the proposed amended Subarea Plan would result in an increase in criteria pollutant emissions that would be considered significant according to the 1999 BAAQMD thresholds for ROG and PM₁₀ greater than 80 pounds per day. This impact would occur with each development project incorporating TMP measures that provide feasible emission reductions. See Section V.E, Transportation and Circulation, for additional information on transportation demand measures considered and rejected as infeasible. Because the proposed development projects would incorporate all applicable design features and standards consistent with the updated Executive Park TMP, no additional mitigation would be feasible, and the impacts of emissions to regional air quality would remain significant and unavoidable.

Impact AQ-4: Operation of the proposed development projects under the proposed amended Subarea Plan would not result in a substantial amount of vehicle trips that could cause or contribute to an exceedance of the CO ambient air quality standards. (*Less than Significant*)

Emissions from traffic at congested intersections can, under certain circumstances, cause a localized build-up of CO concentrations. Regional ambient air quality monitoring data (in Table V.G.1, p. V.G.2) demonstrate that CO concentrations are well below the applicable ambient air quality standards, despite long-term upward trends in vehicle miles traveled (VMT). This confirms that the potential for localized increases in CO concentrations from increased traffic has been greatly reduced in recent years. Improvements in motor vehicle exhaust controls since the early 1990s and the use of oxygenated fuels have drastically reduced vehicle CO emissions. Concentrations exceeding the CO ambient air quality standards are not expected, primarily due to two state-wide programs: 1) the 1992 wintertime oxygenated gasoline program, and 2) Phase I and II of the reformulated gasoline program. As such, concentrations of CO are therefore addressed qualitatively.

Applicable guidelines provide steps, including dispersion modeling, for determining whether the most congested locations would create excessive CO concentrations. The transportation impact analysis for the Proposed Project indicates that the study intersections with the highest volumes

²⁷ An Authority to Construct (ATC) is required by BAAQMD Regulation 2, Rule 1 for any non-exempt source. Natural gas-fired heaters with a heat input rate of less than 10 million British thermal units (Btu) per hour are exempt, and stationary internal combustion engines and gas-fired combustion turbines with an output rating of less than 50 horsepower (hp) are exempt.

Table V.G.5: Estimated Daily Emissions for the Proposed Development Projects

Emission Source	Average Daily Emissions (pounds per day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Yerby Development Project (2020)						
Natural Gas Use (on-site)	0.27	3.78	1.64	0.00	0.00	0.00
Landscaping Equipment	0.11	0.00	1.53	0.00	0.00	0.00
Consumer Products	24.44	0.00	0.00	0.00	0.00	0.00
Architectural Coatings	3.40	0.00	0.00	0.00	0.00	0.00
Operational Motor Vehicles	9.48	8.88	86.36	0.11	24.22	4.60
UPC Development Project (2020)						
Natural Gas Use (on-site)	0.71	8.99	4.11	0.00	0.00	0.00
Landscaping Equipment	0.11	0.00	1.53	0.00	0.00	0.00
Consumer Products	53.81	0.00	0.00	0.00	0.00	0.00
Architectural Coatings	7.78	0.00	0.00	0.00	0.00	0.00
Operational Motor Vehicles	36.88	39.12	379.23	0.55	106.85	20.16
Existing Uses Removed	-8.11	-8.22	-59.01	-0.11	-18.03	-3.40
Total Proposed Development Projects (2020)	128.88	52.55	415.40	0.55	113.04	21.37
<i>1999 BAAQMD Threshold</i>	80	80	550	<i>None</i>	80	<i>None</i>
<i>2010 BAAQMD Threshold</i>	54	54	<i>None</i>	<i>None</i>	82	54
Significant?	Yes	No	---	---	Yes	No

Source: Aspen Environmental Group, 2010.

would experience approximately 10,000 vehicles per peak hour with the project and cumulative scenarios, which is a level of traffic that is not anticipated to result in localized CO concentrations in excess of the ambient air quality standards. This is consistent with findings made during prior environmental review for Executive Park (summarized on p. V.G.18). Therefore, the proposed development projects would have a less than significant impact on local CO concentrations.

Impact AQ-5: Operation of the proposed development projects could expose sensitive receptors to substantial pollutant concentrations of toxic air contaminants. (Less than Significant)

Existing local air quality is affected by numerous sources of diesel particulate matter (DPM), other TACs, and criteria pollutants, including traffic on roadways and some stationary sources. The primary source of air pollution within 1,000 feet of the Executive Park Subarea Plan Area is traffic on U.S. 101. Operation of the proposed development projects would incrementally add to

this traffic, leading to a marginal change in local concentrations of TACs. Aside from mobile source emissions caused by the land uses, no notable sources of DPM or TACs exist in the Subarea Plan Area or within the immediate vicinity, and the proposed development projects do not include any new notable stationary sources of DPM or TACs. Existing stationary sources of TACs are more than 1,000 feet from the Subarea Plan Area, and they are permitted but not considered major under BAAQMD rules (see Setting). Motor vehicle emissions, including DPM, have generally been substantially reduced in recent years due to increasingly stringent emissions standards and improvements in fuels, and an array of programs in California and San Francisco that specifically target DPM reductions from on-road vehicles. Health risks continue to persist despite these improvements.

Operation of the proposed development projects would not cause increases in traffic that would substantially increase emissions of DPM or other TACs affecting existing receptors, but it would increase the density of residential uses in an area exposed to these emissions, which could expose new receptors to substantial pollutant concentrations from traffic on U.S. 101.

Requirements established by San Francisco *Health Code*, Article 38 specify air filtration for the impacted new residential development between U.S. 101 and Tomas Mellon Circle, due to traffic causing elevated DPM and PM_{2.5}.²⁸ Compliance with Article 38 ensures that the ventilation systems for these residences would be capable of removing 80 percent of ambient PM_{2.5}, including ambient DPM. This minimizes the adverse health effects of DPM and PM_{2.5} for new residences in the Subarea Plan Area.

The 1999 *BAAQMD CEQA Guidelines* do not provide recommendations for analyzing the potential effects of existing receptors exposed to traffic-related TACs or placing new residences near mobile sources or traffic. Motor vehicle emissions including DPM have generally been substantially reduced in recent years due to increasingly stringent emissions standards and improvements in fuels, and an array of programs in California and San Francisco that specifically target DPM reductions from high-emitting vehicles. As with other similar non-industrial development within San Francisco lacking notable stationary sources of DPM or other TACs, no further analysis would be necessary under the 1999 *BAAQMD CEQA Guidelines* to conclude that the project-related exposure to ambient DPM and TACs would be considered less than significant in relation to the 1999 BAAQMD thresholds.

²⁸ City and County of San Francisco Department of Public Health (DPH), Program on Health Equity and Sustainability, *Executive Park Results*. April 13, 2009.

**Impact AQ-6: The proposed development projects would not generate significant odors.
(Less than Significant)**

There are no significant odor sources identified as part of the proposed development projects. The surroundings include a waste transfer station, recycling operations, facilities with painting and coating operations, and petroleum storage facilities that are each within one mile of Executive Park, across U.S. 101. Roughly two garbage odor complaints per year were found for the last five years. For new receptors within the Subarea Plan Area, there may be some potential for small-scale, localized odor issues to emerge around sources common to residential and commercial use, such as solid waste collection and food preparation. However, based on the absence of confirmed significant odor problems found in BAAQMD records and the nature of expected new sources having minimal potential to create new odors, substantial odor sources and consequent effects to on-site and off-site sensitive receptors would be unlikely, and resolution options would occur through nuisance prevention interventions as part of BAAQMD receipt of any complaints. With no notable odor sources existing or no new odor sources planned, odor impacts would be less than significant.

Impact AQ-7: The proposed amended Subarea Plan would not conflict with adopted plans related to air quality. (Less than Significant)

A determination of consistency with the *2010 Clean Air Plan* must show that a plan or project does not exceed the population or VMT assumptions contained in the CAP and that the project or plan implements transportation control measures (TCMs) as applicable.

Criterion 1: Population Growth and VMT Consistency

The projected increase in VMT associated with the proposed development projects would be less than the projected population increase. As discussed in Section V.C, Population and Housing, the full buildout of the proposed development projects under the proposed amended Subarea Plan would provide housing for a residential population of approximately 6,520 persons. This represents a project population of 0.084 percent of the Bay Area Air Basin's total approximately 7,753,235 persons planned for 2020. The region's population in 2020 is forecast to travel approximately 194,476,000 vehicle-miles daily (*ARB Almanac* – 2009 Edition). Although approximately 7,800 net new vehicle trips per day would be generated, resulting in 91,400 VMT per day for the development projects, the transportation demand management strategies of the Subarea Plan would encourage walking, bicycling, and ride-sharing. As a result, no substantial growth in average trip lengths is anticipated. The proposed development projects under the amended Subarea Plan would make up 0.047 percent of the region's VMT, which is less than the project's rate of increase in population.

Criterion 2: Plan consistency with TCMs contained in the CAP

The 1988 California Clean Air Act, Section 40919(d) requires regions to implement “transportation control measures to substantially reduce the rate of increase in passenger vehicle trips and miles traveled.” Consistent with this requirement, the goals of the *2010 Clean Air Plan* would be furthered with the continuing efforts to reduce the number of automobile trips and vehicle miles traveled through the implementation of various TCMs. The *2010 Clean Air Plan* also includes Land Use and Local Impacts Measures (LUMs) to address localized impacts of air pollution and help local jurisdictions to pursue transit-oriented infill development. The LUMs are not discussed further because they draw upon the ability of the BAAQMD to provide guidance to local jurisdictions rather than providing specific policies for local jurisdictions to implement.

Table V.G.6 shows the TCMs that local governments should implement through local plans to be considered in conformance with the *2010 Clean Air Plan*. The proposed amended Subarea Plan would contain elements consistent with the applicable TCMs in the *2010 Clean Air Plan*. This table identifies each TCM applicable to the proposed development projects and correlates each TCM to a specific element or elements of the proposed amended Subarea Plan that address the TCM. Although the proposed development projects are not subject to plan level analysis, the proposed amended Subarea Plan would be consistent with the *Clean Air Plan* for the San Francisco Bay Area Air Basin.

CUMULATIVE IMPACTS

The 1999 *BAAQMD CEQA Guidelines* indicate that if an individual project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region’s existing air quality conditions. As a result, additional analysis to assess cumulative impacts is deemed unnecessary by BAAQMD.

Impact AQ-8: The Yerby and UPC development projects could result in cumulative air quality impacts. (*Significant and Unavoidable*)

Impact AQ-2 identifies the emission increases attributable to construction of the proposed development projects. There are no 1999 BAAQMD thresholds applicable to the construction equipment emissions, and because such emissions are included in the emissions inventory that is the basis for regional air quality management plans, construction emissions would not be expected to impede attainment or maintenance of ozone standards. This allows the analysis to conclude that construction-phase emissions would not be cumulatively considerable based on the 1999 BAAQMD thresholds.

Table V.G.6: Clean Air Plan TCMs to be Implemented by Local Governments

<i>TCM in the 2010 Clean Air Plan</i>	<i>Elements of the proposed amended Subarea Plan consistent with the TCM</i>
Improve Local and Area-wide Bus Service (TCM A-1)	The proposed amended Subarea Plan would provide an expansion to the Executive Park shuttle to Muni, Caltrain and the Balboa Park and Glen Park BART stations.
Improve Local and Regional Rail Service (TCM A-2)	The proposed amended Subarea Plan would provide an expansion to the Executive Park shuttle to Muni, Caltrain and the Balboa Park and Glen Park BART stations.
Implement Freeway Performance Initiative (TCM B-1)	Roadway and freeway access improvements, such as a reconfigured Harney Way and a new Harney Way/U.S. 101 interchange, are included to meet the proposed amended Subarea Plan's increase in travel demand.
Improve Transit Efficiency and Use (TCM B-2)	The proposed amended Subarea Plan would include the provision of carshare spaces throughout the Subarea Plan Area, the provision of transit passes to Subarea Plan Area residents, and the unbundling of parking cost from the purchase price or rental cost of a condominium unit.
Support Voluntary Employer-Based Trip Reduction Programs (TCM C-1)	The proposed development projects would not include major employers. Note that all employers with more than twenty workers must offer a transit benefit according to the Commuter Benefit Ordinance.
Improve Bicycle Access and Facilities (TCM D-1)	The proposed amended Subarea Plan would encourage the use of walking and bicycling within the Subarea Plan Area by creating a Town Center; providing bike lanes on area streets, establishing a bike path along Harney Way, and providing garaged dedicated bicycle parking stalls.
Improve Pedestrian Access and Facilities (TCM D-2)	The proposed amended Subarea Plan would encourage the use of walking and bicycling within the Subarea Plan Area by creating a Town Center and providing sidewalks and landscaped open areas.
Support Local Land Use Strategies (TCM D-3)	The proposed amended Subarea Plan would include a mix of land uses, local serving retail uses, shuttle services for transit access, bike and pedestrian-oriented features, and affordable housing, consistent with City and County of San Francisco requirements. The Design Guidelines call for the use of traffic-calming devices along Subarea Plan Area streets and alleys and the connection of streets and alleys to publicly accessible rights-of-way at both ends.
Parking Pricing and Management Strategies (TCM E-2)	The proposed amended Subarea Plan would unbundle parking costs from the purchase price or rental cost of a condominium unit. The proposed amended Subarea Plan would include the provision of carshare spaces throughout the Subarea Plan Area.

Impact AQ-3 and Table V.G.5, p. V.G.29, indicate that the proposed development projects would exceed the significance thresholds for ROG and PM₁₀, resulting in a significant and unavoidable cumulative impact regarding regional air quality.

Because no nearby foreseeable major stationary sources of TACs and PM_{2.5} are identified for the future cumulative conditions, the cumulative impact regarding increased health risks from exposure to sources of TACs and PM_{2.5} would be similar to the project-level analysis, and cumulative health risk impacts would be less than significant.

IMPACT EVALUATION BASED ON RECENTLY ADOPTED BAAQMD THRESHOLDS

The BAAQMD recently updated its *CEQA Air Quality Guidelines*, and on June 2, 2010, formally adopted revised thresholds of significance. According to BAAQMD, the recently adopted thresholds of significance are intended to apply to environmental analyses that have begun on or after adoption of the revised CEQA thresholds, except that thresholds pertaining to the health risk and hazards of air quality on new sensitive receptors are intended to apply to environmental analyses begun on or after January 1, 2011. Nevertheless, to assure a comprehensive analysis of air quality impacts, this document provides an explanation of the 2010 guidelines and analysis of the effects of the proposed project considering the 2010 thresholds as set forth below.

2010 BAAQMD Significance Thresholds

Criteria for Construction Impacts

The *BAAQMD CEQA Guidelines, 2010* establish quantitative thresholds for construction exhaust emissions. A project would have a significant air quality impact if it would result in average daily construction-related emissions of ROG, NO_x, or PM_{2.5} (non-inclusive of fugitive dust) of 54 pounds per day or greater. The recent guidelines have a separate emission threshold for average daily PM₁₀ (non-inclusive of fugitive dust) of 82 pounds per day. For fugitive dust, the 2010 guidelines are similar to the 1999 guidelines, which indicate that application of feasible dust control measures would be sufficient to reduce the impact to a less than significant level.

Regarding community risk and hazards, construction would also cause a significant air quality impact if construction activities would result in an incremental increase in localized annual average concentrations of PM_{2.5} exceeding 0.3 micrograms per cubic meter or if it would expose persons to substantial levels of TACs, such that the probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds 10 in one million or if it would expose persons to TAC's such that a non-cancer Hazard Index of 1.0 would be exceeded.

Criteria for Project-Level Operational Impacts

Under the *BAAQMD CEQA Guidelines, 2010*, project-related emissions of ROG, NO_x, or PM_{2.5} exceeding a net increase of 54 pounds per day are considered significant, while for PM₁₀ a net increase of 82 pounds per day is considered significant. Exposure to odors would be significant if likely to occur at a location with more than five confirmed complaints per year averaged over three years.

Criteria for Health Risks for Operational Impacts

The *BAAQMD CEQA Guidelines, 2010* categorize some air quality effects as “community risk and hazards.” For these, a plan or project would have a significant air quality impact if it would expose persons to substantial levels of TACs, such that the probability of contracting cancer for the MEI exceeds 10 in one million or if it would expose persons to TACs such that a non-cancer Hazard Index of 1.0 would be exceeded. A project would also have a significant air quality impact if it would result in an incremental increase in or exposure of receptors to localized annual average concentrations of PM_{2.5} exceeding 0.3 µg/m³ from project operations.

Criteria for Cumulative Impacts

As with the 1999 BAAQMD guidance, if a project results in an increase in ROG, NO_x, PM₁₀, or PM_{2.5} of more than their respective daily mass thresholds, then it would also be considered to contribute considerably to a significant cumulative impact with respect to criteria pollutants.

The *BAAQMD CEQA Guidelines, 2010* recommends separate thresholds for TACs and PM_{2.5} cumulative impacts. With regard to cumulative impacts from PM_{2.5}, the *BAAQMD CEQA Guidelines, 2010* indicate that a significant cumulative impact would occur if receptors would be exposed to localized annual average concentrations of PM_{2.5} exceeding 0.8 µg/m³ from local existing emission sources or new sources. For cumulative impacts from TACs, a significant cumulative air quality impact would occur if the probability of contracting cancer for the MEI defined above, would exceed 100 in one million or if would expose persons to TACs such that a non-cancer Hazard Index of 10.0 would be exceeded as a result of project operations including development of new residences in a 1,000-foot radius of TAC sources.

Construction Impacts

Impact AQ-9: The proposed development projects could result in localized construction dust-related air quality impacts under recently adopted guidelines. (*Less than Significant*)

The recently adopted 2010 BAAQMD thresholds, similar to the 1999 *BAAQMD CEQA Guidelines*, consider the implementation of standard and feasible control measures as a threshold

of significance for fugitive dust. The Construction Dust Control Ordinance of the *San Francisco Health Code* contains BAAQMD's fugitive dust control measures and would be a City-mandated requirement for the proposed development projects, and compliance with the ordinance would reduce the potential for dust-related air quality impacts to a level of insignificance.

Impact AQ-10: Construction equipment exhaust emissions could affect regional air quality under recently adopted guidelines. (Significant and Unavoidable)

The *BAAQMD CEQA Guidelines, 2010* specify that average daily construction equipment emissions greater than 54 pounds per day of ROG, NO_x, and PM_{2.5}, or 82 pounds per day of PM₁₀, would be a significant increase. This analysis shows the average estimated daily construction-phase emissions from the proposed development projects in Table V.G.4. Because of the considerable range of levels of possible activities and the limited detail currently available regarding activities, the construction emissions are conservatively assumed to exceed the 2010 BAAQMD thresholds for ROG and NO_x (Table V.G.4). Emissions of ROG from coatings would be minimized to the extent feasible through the proposed use of low-VOC architectural coatings, consistent with the Design Guidelines and San Francisco Green Building Ordinance. Additional feasible measures can establish performance requirements for equipment engines to address this potentially significant impact. Mitigation Measure M-AQ-1 would require the proposed development projects to reduce construction exhaust emissions. Given current technologies, Mitigation Measure M-AQ-1 would achieve a feasible level of ROG and NO_x reductions, but this measure is unlikely to achieve a sufficient reduction in emissions to bring construction activities to a level below the 2010 BAAQMD thresholds for ROG and NO_x.

Construction-phase criteria pollutant emissions, with all feasible mitigation incorporated, would exceed the thresholds established under the *BAAQMD CEQA Guidelines, 2010*. Therefore, the impact of the construction activities on regional air quality would be considered significant and unavoidable under the recently adopted thresholds.

Impact AQ-11: Construction equipment exhaust emissions could expose sensitive receptors to substantial concentrations of pollutants under recently adopted guidelines. (Significant and Unavoidable)

Assessment of health effects due to construction equipment exhaust emission is part of the BAAQMD's recently adopted guidelines. The *BAAQMD CEQA Guidelines, 2010* include a "Draft Construction Health Risk Screening Table" that provides an approximate minimum offset distance for typical construction projects of various sizes.²⁹ Screening tables reflect a conservative, generalized portrayal of risk around the site, suitable for an initial-level estimate; additional, more refined dispersion modeling with site-specific meteorology and source-receptor

²⁹ BAAQMD, *Screening Tables for Air Toxics Evaluation During Construction, Version 1.0*, May 2010.

configurations would more precisely characterize the air quality impacts near construction activities. For the phased and high-density development within the Executive Park Subarea Plan Area, the 4.8-acre Yerby development site and the 9.73-acre UPC development site would occur within the 71 acre Subarea Plan Area. Simultaneous construction of the two development projects could occur at any one time. According to the BAAQMD screening tables for cancer risk due to DPM, the minimum offset distance (buffer distance) to ensure that a sensitive receptor would have a less than significant impact would be 150 meters (approximately 500 feet). Existing and approved residential units within the Subarea Plan Area (the nearest being about 50 feet from the proposed development projects) and other residences and sensitive receptors within 500 feet of the construction activities would experience increased concentrations of construction-related TAC and PM_{2.5} that exceed the 2010 thresholds for construction-related health risk.

Implementation of Mitigation Measure M-AQ-1 would reduce TAC, including DPM, exhaust emissions by implementing feasible controls and requiring up-to-date equipment in a manner consistent with other similar projects under review by the Planning Department. However, even with mitigation, the impact of construction activities at the closest sensitive receptors would exceed BAAQMD's health risk thresholds. Construction health risk impacts are considered significant and unavoidable under the 2010 BAAQMD thresholds for existing residential units within the Executive Park Subarea Plan Area and within 500 feet of the proposed construction.

The 2010 BAAQMD thresholds also recommend separately considering the local impacts of construction-phase PM_{2.5}. Emissions of PM_{2.5} from construction activities would occur at regionally significant levels, as described above (Impact AQ-10). Additionally, based on the BAAQMD screening tables, health risks due to PM_{2.5} emissions would be considered significant under *BAAQMD CEQA Guidelines, 2010* for construction activities causing concentrations of PM_{2.5} to exceed an annualized threshold of 0.3 µg/m³. This annualized threshold is applicable during any single year of construction activity, as opposed to the cancer risk threshold, which is based on lifetime exposure. Construction-related exhaust emissions and fugitive dust emissions would contribute to total PM_{2.5} concentrations at nearby receptors. With construction-related PM_{2.5} emissions exceeding the threshold and potentially occurring over a 10-year schedule, local PM_{2.5} concentrations would likely exceed the 2010 BAAQMD threshold of 0.3 µg/m³ on an annualized basis during some years of construction, depending on the intensity of activity and proximity of receptors. Although Mitigation Measure M-AQ-1 would reduce TAC emissions, including DPM and PM_{2.5}, existing residential units in the Subarea Plan Area and within 500 feet of construction activities would be most likely to experience this impact. All feasible mitigation for equipment exhaust emissions would be incorporated into construction. As such, the increased cancer risk due to DPM is considered significant and unavoidable.

Operational Impacts

Impact AQ-12: The proposed development projects could result in operation-related impacts to regional air quality under recently adopted guidelines. (*Significant and Unavoidable*)

The estimated increase in criteria pollutant emissions that would be associated with the proposed amended Subarea Plan is shown in Table V.G.5. The criteria pollutant emissions would be considered significant according to the 2010 BAAQMD thresholds for ROG and PM₁₀ emissions (greater than 54 pounds per day). This impact would occur with each development project incorporating TMP measures that provide feasible emission reductions. See Section V.E, Transportation and Circulation, for additional information on transportation demand measures considered and rejected as infeasible. As such, the impacts of emissions to regional air quality would remain significant and unavoidable.

Impact AQ-13: The proposed development projects could result in operation-related impacts to CO ambient air quality standards under recently adopted guidelines. (*Less than Significant*)

The significance threshold for local CO concentrations is the same under the 2010 guidelines as it is under the 1999 guidelines, but characterization of the impact is determined via a new screening methodology in the *BAAQMD CEQA Guidelines, 2010*. A project would result in a less-than-significant impact to localized CO concentrations if the following three criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans. All development projects within the Executive Park Subarea Plan Area must implement a transportation management plan (TMP) including updates and enhancements triggered by the proposed development projects. The Transportation Study for the Subarea Plan Amendment specifies how the project would be consistent with City and County of San Francisco agency policies (AECOM, May 2010).
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour. The Transportation Study indicates that the intersections with the highest volumes would experience no more than roughly 10,000 vehicles per peak hour under 2030 cumulative conditions (AECOM, May 2010).
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway). The proposed amended Subarea Plan would not introduce or increase traffic to these levels for any of the parking garages or U.S. 101 underpasses.

The transportation impact analysis for the proposed project indicates that each affected intersection would experience no more than roughly 10,000 vehicles per peak hour under the project and cumulative scenarios. The screening criteria demonstrate that violations of the state

and federal one-hour and eight-hour standards for CO would not be expected at any study intersections during worst-case atmospheric conditions (wintertime conditions when CO concentrations are typically greatest). Therefore, the proposed development projects would have a less than significant impact on local CO concentrations.

Impact AQ-14: The proposed development projects could expose sensitive receptors to substantial pollutant concentrations of toxic air contaminants and PM_{2.5} under recently adopted guidelines. (*Less than Significant with Mitigation*)

Traffic on U.S. 101 is the dominant source of TACs and PM_{2.5} in the area. As identified under Impact AQ-5, operation of the proposed development projects would incrementally add traffic, leading to a marginal change in local concentrations of TACs experienced by existing and new receptors, but no notable new stationary sources of TACs would occur as a result of the projects.

Minimizing local community health risks and hazard impacts due to air quality is a focus of the *BAAQMD CEQA Guidelines, 2010*. The new guidelines emphasize a focus on “impacted communities” including Eastern San Francisco (east of Highway I-280), which includes the Executive Park Subarea Plan Area. The *BAAQMD CEQA Guidelines, 2010* include screening tables identifying existing potential cancer risk and non-cancer health hazards experienced by sensitive receptors along U.S. 101.³⁰ According to the BAAQMD screening tables, which are based on a 2007 level of about 245,000 vehicles passing daily, any sensitive receptor within 600 feet east or west of the nearest travel lane on U.S. 101 is exposed to potentially significant concentrations of PM_{2.5} (exceeding 0.3 µg/m³). Future growth of traffic on U.S. 101 could range up to about 324,000 vehicles passing daily by 2030, which would expand this zone of impact to any sensitive receptor within 800 feet east or west of the nearest travel lane. Residences at the western edge of the Subarea Plan Area, about 170 feet from the nearest lane, would experience the highest concentrations of about 1.0 µg/m³ PM_{2.5} due to these future levels of traffic. In addition to potentially significant non-cancer hazards from the traffic related pollutants, the new BAAQMD screening tables also indicate that the estimated incremental lifetime cancer risk (70-year lifespan) due to traffic on U.S. 101 is greater than 10 cases per million people for locations within 500 feet east or west of the roadway. Health risks from all roadways are dominated by the effects of DPM, a TAC, and PM_{2.5}. Neither the acute nor the chronic non-cancer Hazard Index would exceed 1.0.

The *BAAQMD CEQA Guidelines, 2010* identify certain site design practices that can reduce this impact. Compliance with Article 38 ensures that the ventilation systems for new residential uses between the highway and Thomas Mellon Drive would be capable of removing 80 percent of ambient PM_{2.5}, including ambient DPM. This minimizes the adverse health effects of DPM and PM_{2.5} for new residences. For those new residences at the western edge of the Subarea Plan Area

³⁰ BAAQMD, *San Francisco County Screening Tables for Roadways*, May 2010.

experiencing the highest concentrations of traffic related pollutants (of about $1.0 \mu\text{g}/\text{m}^3$ $\text{PM}_{2.5}$), compliance with Article 38 would result in indoor concentrations of about $0.2 \mu\text{g}/\text{m}^3$ $\text{PM}_{2.5}$, which would be below the threshold of significance. Expanding the Article 38 standards to all new residences within 800 feet of the traffic ensures that no new residences would be exposed to substantial levels of traffic related pollutants. To achieve this, Mitigation Measure M-AQ-2 would require compliance with the ventilation system specifications outlined in Article 38 for all new residential uses within 800 feet of the nearest U.S. 101 travel lane. This would reduce the impact of placing new sensitive receptors in close proximity to the highway to a less-than-significant level.

Impact AQ-15: The proposed development projects could result in impacts related to odors under recently adopted guidelines. (*Less than Significant*)

Significant odor-related impacts would not be expected, as identified under the 1999 guidelines in Impact AQ-6, above. The recently adopted BAAQMD thresholds for odor impacts would not change the discussion or the conclusion illustrated above that the proposed development projects would result in a less-than-significant impact related to odors.

Impact AQ-16: The proposed amended Subarea Plan could result in conflicts with adopted plans related to air quality under recently adopted guidelines. (*Less than Significant*)

A potential conflict with air quality management plans would not be expected, as identified under the 1999 guidelines in Impact AQ-7, above. The recently adopted BAAQMD thresholds of analysis for determining consistency with the most recently adopted Clean Air Plan would not change this discussion or the conclusion illustrated above that the proposed amended Subarea Plan would result in a less-than-significant impact related potential conflicts with regional air quality management plans.

Cumulative Air Quality Impacts under Recently Adopted 2010 BAAQMD Guidelines

Impact AQ-17: The proposed development projects could result in cumulative construction impacts under recently adopted guidelines. (*Significant and Unavoidable*)

Table V.G.4, p. V.G.25 shows that construction of the proposed development projects would be expected to exceed the 2010 BAAQMD thresholds for construction-related ROG and NO_x . To minimize the impact, Mitigation Measure M-AQ-1 would establish performance standards for construction equipment, but with this measure, emissions would still likely exceed the thresholds. Consequently, under the *BAAQMD CEQA Guidelines, 2010*, the construction emissions would result in a significant and unavoidable cumulative impact. Construction impacts of the proposed project may potentially contribute to those of the Signature Properties project, immediately to the north, where construction is ongoing. Project construction may also contribute to construction

impacts of the approved Top Vision Phase 3 project, immediately to the northeast of the project site.

Impact AQ-18: The proposed development projects could result in cumulative criteria pollutant impacts under recently adopted guidelines. (*Significant and Unavoidable*)

Impact AQ-3 and Table V.G.5, p. V.G.29, identify the increase in regional emissions of the proposed development projects, with levels exceeding the recently adopted BAAQMD significance thresholds for ROG and PM₁₀. Additional analysis to assess cumulative impacts is deemed unnecessary by BAAQMD, and the operational emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

Impact AQ-19: The proposed development projects could expose sensitive receptors to substantial cumulative concentrations of TACs and PM_{2.5} under recently adopted guidelines. (*Less than Significant*)

The health risks caused by U.S. 101 within the Subarea Plan Area exceed the recently adopted BAAQMD thresholds for community risk and hazards for new receptors related to individual projects (e.g., 10 incremental cancer cases per million, in Impact AQ-14). However, the 2010 BAAQMD thresholds for a cumulative impact (e.g., 100 incremental cancer cases per million from sources within 1,000 feet) would not be exceeded by TACs for any location within the Subarea Plan Area. Similarly, neither the acute nor the chronic non-cancer Hazard Index would exceed 1.0. Concentrations could exceed 1.0 µg/m³ PM_{2.5} due to future levels of traffic at the western edge of the Subarea Plan Area for new receptors nearest U.S. 101. However, compliance with M-AQ-2 would provide an 80 percent reduction for interior spaces, to ensure that no new receptor is exposed to a substantial cumulative concentration of PM_{2.5}. As such, no additional TAC or PM_{2.5} impacts are identified for the cumulative conditions. Because new receptors associated with the proposed amended Subarea Plan would not be exposed to concentrations exceeding the 2010 BAAQMD thresholds for significant cumulative community risks or hazards, the cumulative impact would be less-than-significant.

MITIGATION MEASURES

Mitigation Measure M-AQ-1: Construction Exhaust Emissions. The development project sponsors shall include in contract specifications a requirement for the following BAAQMD-recommended measures:

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 2 minutes and as required by the California airborne toxics control measures, Title 13, Section 2485 of California Code of Regulations. Clear signage shall be provided for construction workers at all access points.

- All construction equipment, diesel trucks, and generators shall be equipped with best available control technology for emission reductions of particulate matter and NOx.
- Develop and adhere to a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent PM reduction compared to the most recent California Air Resources Board fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.
- All contractors shall use equipment that meets the California Air Resources Board's most recent certification standard for off-road heavy duty diesel engines.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

Mitigation Measure M-AQ-2: Air Pollution from U.S. 101 Traffic. The development project sponsors shall ensure that all new residential units within 800 feet of a U.S. 101 traveled lane are equipped with a ventilation system that achieves performance compliant with the requirements in San Francisco *Health Code* Article 38.

H. GREENHOUSE GAS EMISSIONS

This section discloses the effects related to global climate change and greenhouse gas emissions that would be caused by implementation of the proposed Yerby and UPC development projects under the proposed amended Executive Park Subarea Plan. The State CEQA Guidelines require lead agencies to address greenhouse gas (GHG) emissions caused by a project and the effects of these emissions on climate change. The guidelines became effective on March 18, 2010, and these recent amendments are incorporated into this analysis accordingly.

The study area for global climate change and the analysis of GHG emissions is broad because climate change is influenced by world-wide emissions. However the study area is also limited by the CEQA Guidelines [Section 15064(d)], which directs lead agencies to consider an “indirect physical change” only if that change is a reasonably foreseeable impact which may be caused by the project. This analysis limits discussion to those physical changes to the environment that are not speculative and are reasonably foreseeable.

The baseline against which to compare potential impacts of the proposed development projects includes the natural and anthropogenic drivers of global climate change, including world-wide GHG emissions from human activities that have grown more than 70 percent between 1970 and 2004.¹ The State of California leads the nation in managing GHG emissions. Accordingly, the impact analysis for the proposed project relies on laws and guidelines, analyses, policies, and plans for reducing GHG emissions established by state agencies, namely the California Air Resources Board (ARB), as well as those of the City and County of San Francisco.

SETTING

BACKGROUND

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. The accumulation of GHGs has been implicated as the driving force for global climate change. The primary GHGs are carbon dioxide, methane, nitrous oxide, ozone, and water vapor.

While the presence of the primary GHGs in the atmosphere are naturally occurring, carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) are largely emitted from human activities, accelerating the rate at which these compounds occur within earth’s atmosphere. Emissions of carbon dioxide are largely by-products of fossil fuel combustion, whereas methane

¹ IPCC (Intergovernmental Panel on Climate Change). 2007. Climate Change 2007: Synthesis Report, the Fourth IPCC Assessment Report. May 2007.

results from off-gassing associated with agricultural practices and landfills. Methane occurs at lower emission rates than CO₂, but the heat absorption or “global warming potential” of CH₄ is about 21 times that of CO₂. High global warming potential GHGs include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, that are emitted due to certain industrial or manufacturing processes. When quantifying GHG emissions, the different global warming potentials of GHG pollutants are usually taken into account by normalizing their rates to a “CO₂ equivalent” emission rate (CO₂E).

OVERVIEW OF GLOBAL CLIMATE CHANGE

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.²

The 2006 California Climate Action Team (CAT) Report describes how temperature increases arising from increased GHG emissions could potentially result in a variety of impacts to the people, economy, and environment of California.³ Projected impacts are associated with a projected increase in extreme conditions, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. If emissions from GHGs are not reduced significantly, climate change could have the following consequences in California:

- Diminished Air Quality: Attainment of air quality standards would be impeded by increases in the frequency, duration, and intensity of conditions conducive to air pollution formation, oppressive heat, and wildfires combined with less water being available for hydroelectric power and increased electricity demand;
- Decreased Snowpack and Water Supply: The Sierra snowpack would decline by as much as and 90 percent by the end of the century, threatening California’s water supply;
- Stressed Agricultural Resources and Ecosystems: Diminishing crop yields, increased pest infestation and increased vulnerability to fires of the State’s crops and forests would occur with increased temperatures and reduced water supply; and
- Accelerated Sea Rise and Flooding: Erosion of California’s coastlines would increase as well as increased sea water intrusion reducing freshwater supplies.

² California Climate Change Portal. Frequently Asked Questions About Global Climate Change. Available online at: <http://www.climatechange.ca.gov/publications/faqs.html>. Accessed March 2, 2010.

³ California Environmental Protection Agency (CalEPA). Climate Action Team Report to Governor Schwarzenegger and the Legislature. Available online at: http://www.climatechange.ca.gov/climate_action_team/reports/index.html. April 3, 2006.

GREENHOUSE GAS EMISSION INVENTORIES

The California Air Resources Board (ARB) estimated that in 2006 California produced about 484 million gross metric tonnes of CO₂E (MMTCO₂E) or about 535 million tons.⁴ The ARB found that transportation is the source of 38 percent of the State's GHG emissions, followed by electricity generation (both in-state and out-of-state) at 22 percent and industrial sources at 20 percent. Commercial and residential fuel use (primarily for heating) accounted for 9 percent of GHG emissions.⁵ In the Bay Area, fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) and the industrial and commercial sectors are the two largest sources of GHG emissions, each accounting for approximately 36 percent of the Bay Area's 95.8 MMTCO₂E emitted in 2007.⁶ Electricity generation accounts for approximately 16 percent of the Bay Area's GHG emissions followed by residential fuel usage at 7 percent, off-road equipment at 3 percent and agriculture at 1 percent.⁷

The most common GHGs resulting from human activity are CO₂, CH₄, and N₂O.⁸ State law defines GHGs to also include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. These latter GHG compounds are usually emitted in industrial processes, and therefore not applicable to this analysis of the proposed project. The GHG emission inventory presented in this analysis includes an estimate of emissions from CO₂, CH₄, and N₂O. Individual development projects contribute to the cumulative effects of climate change by emitting GHGs during construction and operational phases. Project construction and operations generate both direct and indirect types of GHG emissions. Operational emissions include GHG emissions from new vehicle trips and area sources (on-site natural gas combustion). Indirect emissions include emissions from electricity providers, emissions associated with electricity consumed by utilities to pump and convey water and to treat wastewater, and emissions associated with solid waste removal and landfill operations.

⁴ California Air Resources Board (ARB), "California Greenhouse Gas Inventory for 2000-2006— by Category as Defined in the Scoping Plan." http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_2009-03-13.pdf. Accessed March 2, 2010.

⁵ Ibid.

⁶ Bay Area Air Quality Management District, *Source Inventory of Bay Area Greenhouse Gas Emissions: Base Year 2007*, Updated: February 2010. Available online at: http://www.baaqmd.gov/~media/Files/Planning_and_Research/Emission_Inventory/regionalinventory2007_2_10.ashx. Accessed March 2, 2010.

⁷ Ibid.

⁸ Governor's Office of Planning and Research. Technical Advisory- CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review. June 19, 2008. Available at the Office of Planning and Research's website at: <http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf>. Accessed March 3, 2010.

REGULATORY FRAMEWORK

Federal

Currently, there is no federal legislation that requires reduced GHG emissions. Rather, the United States Environmental Protection Agency (USEPA) administers programs and voluntary partnerships with GHG emitters, especially in industries producing and utilizing synthetic GHGs to reduce emissions of high global warming potential GHGs. Federal actions currently focus on reducing energy use, for example by increasing motor vehicle efficiency, and requiring large sources of GHG emissions to report their emissions to the USEPA. Large new and modified industrial sources of GHG become subject to USEPA permitting requirements under the federal Clean Air Act in 2011.

USEPA Mandatory Reporting Rule

This rule requires mandatory reporting of GHG emissions for industrial facilities and power plants that emit more than 25,000 MTCO₂E emissions per year. No sources associated with the proposed project would cause emissions approaching or exceeding this threshold, and no aspect of the proposed development projects would be subject to the federal reporting requirements.

State

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

The *California Global Warming Solutions Act of 2006* (California Health and Safety Code Division 25.5, Sections 38500, et seq., or AB 32) requires ARB to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020.

Pursuant to AB 32, ARB adopted a Scoping Plan in December 2008, outlining measures to meet the 2020 GHG target. In order to meet these goals, California must reduce its GHG emissions by 30 percent below projected 2020 business as usual emissions levels, or about 15 percent from today's levels.⁹ The AB 32 Scoping Plan estimates a reduction of 174 million metric tons of CO₂E (MMTCO₂E) (about 191 million tons) from the transportation, energy, agriculture, forestry, and high global warming potential sectors, see Table V.H.1, below.¹⁰ ARB has identified

⁹ California Air Resources Board, California's Climate Plan: Fact Sheet. Available online at: http://www.arb.ca.gov/cc/facts/scoping_plan_fs.pdf. Accessed March 4, 2010.

¹⁰ California Air Resources Board, California's Climate Plan: Fact Sheet. Op cit.

Table V.H.1: GHG Reductions Recommended by the AB 32 Scoping Plan

GHG Reduction Measures By Sector	Estimated Annual GHG Reductions (MMTCO₂E)
Transportation Sector	62.3
Electricity and Natural Gas	49.7
Industry	1.4
Landfill Methane Control Measure (Discrete Early Action)	1
Forestry	5
High Global Warming Potential GHGs	20.2
Additional Reductions Needed to Achieve the GHG Cap	34.4
Total Reductions Counted Towards 2020 Target	174
Other Recommended Measures	
Government Operations	1-2
Agriculture- Methane Capture at Large Dairies	1
Methane Capture at Large Dairies	1
Additional GHG Reduction Measures	
Water Supply and Recycling Systems	4.8
Green Buildings	26
High Recycling/ Zero Waste	
Commercial Recycling	
Composting	9
Anaerobic Digestion	
Extended Producer Responsibility	
Environmentally Preferable Purchasing	
Total Reductions from Other Measures	42.8-43.8

Source: California Air Resources Board, California's Climate Plan: Fact Sheet. Available online at: http://www.arb.ca.gov/cc/facts/scoping_plan_fs.pdf. Accessed April 22, 2010.

an implementation timeline for the GHG reduction strategies in the AB 32 Scoping Plan.¹¹ Some measures may require new legislation to implement, some will require subsidies, some have already been developed, and some will require additional effort to evaluate and quantify. Additionally, some emissions reductions strategies may require agencies to implement individual projects that trigger separate environmental review under CEQA or the National Environmental Policy Act (NEPA).

AB 32 also anticipates that local government actions will result in reduced GHG emissions. ARB has identified a GHG reduction target of 15 percent from current levels for local governments themselves and notes that successful implementation of the plan relies on local governments' land

¹¹ California Air Resources Board. *AB 32 Scoping Plan*. Available Online at: http://www.arb.ca.gov/cc/scopingplan/sp_measures_implementation_timeline.pdf. Accessed March 2, 2010.

use planning and urban growth decisions because local governments have primary authority to plan, zone, approve, and permit land development to accommodate population growth and the changing needs of their jurisdictions.

The AB 32 Scoping Plan relies on the requirements of Senate Bill 375 of 2008 (SB 375) to implement the carbon emission reductions anticipated from land use decisions. SB 375 was enacted to align local land use and transportation planning to further achieve the State's GHG reduction goals. SB 375 requires regional transportation plans, developed by Metropolitan

Planning Organizations (MPOs), to incorporate a "sustainable communities strategy" in their regional transportation plans (RTPs) that would achieve GHG emission reduction targets set by ARB. SB 375 also includes provisions for streamlined CEQA review for some infill projects such as transit-oriented development. SB 375 would be implemented over the next several years and the Metropolitan Transportation Commission's 2013 RTP would be its first plan subject to SB 375.

Energy Conservation Standards

Energy Conservation Standards for new residential and non-residential buildings were first adopted by California Energy Resources Conservation and Development Commission (Energy Commission) in June 1977 and most recently revised in 2008 (Title 24, Part 6 of the California Code of Regulations [CCR]). In general, Title 24 standards require the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. Although California Building Standards and other standards for appliances and other consumer products apply throughout California, they exceed the standards imposed by any other state, and these standards limit GHG emissions in California by reducing energy demand.

Regional

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for comprehensive management of air resources in the San Francisco Bay Area. The BAAQMD implements the federal Clean Air Act in the region, and USEPA has indicated that certain large stationary sources may be required to obtain permits for GHG emissions under the federal Clean Air Act after 2010. However, there are no BAAQMD regulations for GHG emissions applicable to any aspect of the proposed project.

The BAAQMD maintains a host of recommendations for lead agencies to follow in protecting air quality through implementing the CEQA process. BAAQMD recently established updated CEQA

Guidelines and adopted GHG thresholds of significance in three options: 1) quantitative limits based on an individual project's direct emissions; 2) a threshold of GHG emissions efficiency per population served; or 3) an approach that determines significance based on compliance with a "qualified GHG reduction strategy" as defined by BAAQMD.¹²

The BAAQMD standards for a local jurisdiction to have a "qualified GHG reduction strategy" include: a GHG inventory for existing years and 2020; an adopted GHG reduction goal that is consistent with AB 32 and/or climate stabilization goals of Executive Order S-3-05; a GHG emission level below which activities would not be considered cumulatively considerable; identification of feasible reduction measures to meet the identified target; provisions to monitor the plan's progress; and adoption of the GHG reduction strategy in a public process following environmental review. Given the City's adopted ordinances, policies, and programs described below, and the fact that the City's Climate Action Plan calls for a reduction in GHG emissions to 20 percent below 1990 levels by the year 2012, the Climate Action Plan in combination with other City GHG reduction programs in San Francisco is likely to be considered a qualified GHG reduction strategy.

Local, City and County of San Francisco GHG Reduction Strategy

The City and County of San Francisco has developed its own strategy to address greenhouse gas emissions on a local level, which is implemented alongside of the State's GHG reduction strategy guided by AB 32. The vision of the strategy is expressed in the City's Climate Action Plan, however implementation of the strategy is appropriately articulated within other citywide plans (*General Plan, Sustainability Plan*, etc.), policies (Transit-First Policy, Precautionary Principle Policy, etc.), and regulations (Green Building Ordinance, etc.). The following plans, policies and regulations highlight some of the main components of San Francisco's GHG reduction strategy.

Overall GHG Reductions

San Francisco Sustainability Plan

In July 1997 the Board of Supervisors endorsed the Sustainability Plan for the City of San Francisco establishing sustainable development as a fundamental goal of municipal public policy.

The Climate Action Plan for San Francisco

In February 2002, the San Francisco Board of Supervisors passed the Greenhouse Gas Emissions Reduction Resolution (Number 158-02) setting a goal for the City and County of San Francisco

¹² BAAQMD, *CEQA Air Quality Guidelines*, June 2010, Available on the internet at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES.aspx>.

to reduce GHG emissions to 20 percent below 1990 levels by the year 2012. In September 2004, the San Francisco Department of the Environment and the Public Utilities Commission published the Climate Action Plan for San Francisco: Local Actions to Reduce Greenhouse Emissions.¹³ The Climate Action Plan provides the context of climate change in San Francisco and examines strategies to meet the 20 percent GHG reduction target. Although the Board of Supervisors has not formally committed the City to perform the actions addressed in the Plan, and many of the actions require further development and commitment of resources, the Plan serves as a blueprint for GHG emission reductions, and several actions have been implemented or are now in progress.

Greenhouse Gas Reduction Ordinance

In May 2008, the City of San Francisco adopted an ordinance amending the San Francisco Environment Code to establish City GHG emission targets and departmental action plans, to authorize the Department of the Environment to coordinate efforts to meet these targets, and to make environmental findings. The ordinance establishes the following GHG emission reduction milestones for San Francisco and the target dates to achieve them:

- Determine 1990 City GHG emissions by 2008, the baseline level with reference to which target reductions are set;
- Reduce GHG emissions by 25 percent below 1990 levels by 2017;
- Reduce GHG emissions by 40 percent below 1990 levels by 2025; and
- Reduce GHG emissions by 80 percent below 1990 levels by 2050.

The ordinance also specifies requirements for City departments to prepare departmental Climate Action Plans that assess, and report to the Department of the Environment, GHG emissions associated with their department's activities and activities regulated by them, and prepare recommendations to reduce emissions. As part of this, the San Francisco Planning Department is required to: (1) update and amend the City's applicable *General Plan* elements to include the emissions reduction limits set forth in this ordinance and policies to achieve those targets; (2) consider a project's impact on the City's GHG reduction limits specified in this ordinance as part of its review under CEQA; and (3) work with other City departments to enhance the "transit first" policy to encourage a shift to sustainable modes of transportation thereby reducing emissions and helping to achieve the targets set forth by this ordinance.

¹³ San Francisco Department of the Environment and San Francisco Public Utilities Commission, Climate Action Plan for San Francisco, Local Actions to Reduce Greenhouse Emissions, September 2004.

Transportation Sector GHG Reductions

Transit First Policy

In 1973 San Francisco instituted the Transit First Policy (Article 8A, Section 8A.115. of the City Charter) with the goal of reducing the City's reliance on freeways and meeting transportation needs by emphasizing mass transportation. The Transit First Policy gives priority to public transit investments; adopts street capacity and parking policies to discourage increased automobile traffic; and encourages the use of transit, bicycling and walking rather than use of single-occupant vehicles.

San Francisco Municipal Transportation Agency's Zero Emissions 2020 Plan

The SFMTA's Zero Emissions 2020 plan focuses on the purchase of cleaner transit buses including hybrid diesel-electric buses. Under this plan hybrid buses will replace the oldest diesel buses, some dating back to 1988. The hybrid buses emit 95 percent less particulate matter (PM, or soot) than the buses they replace, they produce 40 percent less oxides of nitrogen (NOx), and they reduce GHGs by 30 percent.

San Francisco Municipal Transportation Agency's Climate Action Plan

In November 2007 voters passed Proposition A, requiring the SFMTA to develop a plan to reach a 20 percent GHG reduction below 1990 levels by 2012 for the City's entire transportation sector, not merely in the SFMTA's internal operations. SFMTA has prepared a Draft Climate Action Plan outlining measures needed to achieve these targets.

Commuter Benefit Ordinance

The Commuter Benefit Ordinance (Environment Code, Section 421), effective January 19, 2009, requires all employers in San Francisco that have 20 or more employees to offer one of the following benefits: (1) A Pre-tax Transit Benefit, (2) Employer Paid Transit Benefits, or (3) Employer Provided Transit.

The City's *Planning Code* reflects the latest smart growth policies and includes: electric vehicle refueling stations in city parking garages, bicycle storage facilities for commercial and office buildings, and zoning that is supportive of high density mixed-use infill development. The City's more recent area plans, such as Rincon Hill and the Market and Octavia Area Plan, provide transit-oriented development policies that allow for neighborhood-oriented retail and services and where off-street parking is limited to accessory parking spaces.¹⁴ At the same time there is also a

¹⁴ See *Planning Code* Sections 206.4 and 155.1.

community-wide focus on ensuring San Francisco's neighborhoods as "livable" neighborhoods, including the Better Streets Plan that would improve San Francisco's streetscape, the Transit Effectiveness Plan, that aims to improve transit service, and the Bicycle Plan, all of which promote alternative transportation options.

Renewable Energy

The Electricity Resource Plan

San Francisco adopted the Electricity Resource Plan (Revised December 2002) to help address growing environmental health concerns in San Francisco's southeast community, home of two power plants. The plan presents a framework for assuring a reliable, affordable, and renewable source of energy for the future of San Francisco.

Go Solar SF

On July 1, 2008, the San Francisco Public Utilities Commission (SFPUC) launched their "GoSolarSF" program to San Francisco's businesses and residents, offering incentives in the form of a rebate program that could pay for approximately half the cost of installation of a solar power system, and more to those qualifying as low-income residents. The San Francisco Planning Department and Department of Building Inspection have also developed a streamlining process for Solar Photovoltaic (PV) Permits and priority permitting mechanisms for projects pursuing Gold Certification, as defined by the standard for Leadership in Energy and Environmental Design, New Construction (LEED®).

Green Building

LEED® Silver for Municipal Buildings

In 2004, the City amended Chapter 7 of the Environment code, requiring all new municipal construction and major renovation projects to achieve LEED® Silver Certification from the US Green Building Council.

City of San Francisco's Green Building Ordinance

On August 4, 2008, Mayor Gavin Newsom signed into law San Francisco's Green Building Ordinance for newly constructed residential and commercial buildings and renovations to existing buildings. The ordinance specifically requires newly constructed commercial buildings over 5,000 square feet (sq. ft.), residential buildings over 75 feet in height, and renovations on buildings over 25,000 sq. ft. to be subject to an unprecedented level of LEED® and green building certifications, which makes San Francisco the city with the most stringent green building requirements in the nation. Cumulative benefits of this ordinance includes reducing CO₂

emissions by 60,000 tons, saving 220,000 megawatt hours of power, saving 100 million gallons of drinking water, reducing waste and stormwater by 90 million gallons of water, reducing construction and demolition waste by 700 million pounds, increasing the valuations of recycled materials by \$200 million, reducing automobile trips by 540,000, and increasing green power generation by 37,000 megawatt hours.¹⁵

Waste Reduction

Zero Waste

In 2004, the City of San Francisco committed to a goal of diverting 75 percent of its' waste from landfills by 2010, with the ultimate goal of zero waste by 2020. San Francisco currently recovers 72 percent of discarded material.

Construction and Demolition Debris Recovery Ordinance

In 2006 the City of San Francisco adopted Ordinance No. 27-06, requiring all construction and demolition debris to be transported to a registered facility that can divert a minimum of 65 percent of the material from landfills. This ordinance applies to all construction, demolition and remodeling projects within the City.

Universal Recycling and Composting Ordinance

Signed into law on June 23, 2009, this ordinance requires all residential and commercial building owners to sign up for recycling and composting services. Any property owner or manager who fails to maintain and pay for adequate trash, recycling, and composting service is subject to liens, fines, and other fees.

The City has also passed ordinances to reduce waste from retail and commercial operations. Ordinance 295-06, the Food Waste Reduction Ordinance, prohibits the use of polystyrene foam disposable food service ware and requires biodegradable/compostable or recyclable food service ware by restaurants, retail food vendors, City Departments and City contractors. Ordinance 81-07, the Plastic Bag Reduction Ordinance, requires many stores located within the City and County of San Francisco to use compostable plastic, recyclable paper and/or reusable checkout bags.

¹⁵ These findings are contained within the final Green Building Ordinance, signed by the Mayor August 4, 2008.

PROJECT GHG EMISSIONS INVENTORY

Methodology of Inventory

The Bay Area Air Quality Management District developed the BAAQMD GHG Model (BGM), and recommends using the BGM for GHG emission inventories in CEQA analyses. The BGM imports data related to development projects to calculate GHG emissions from activities supporting the project. Development project data, such as proposed land uses and vehicle trip generation rates are initially used as inputs to the URBEMIS2007 model (version 9.2.4) software, originally developed by ARB, which provides results from direct types of emissions, mainly motor vehicle trips and on-site natural gas consumption (an area source). The BGM uses this data with standard emission factors to provide GHG emissions associated with electricity consumption, water supply, wastewater treatment, and solid waste disposal.

Construction Phase (Short-Term) Emissions

Short-term or one-time emissions from the development of the proposed project are associated with vegetation removal and re-vegetation of the site and construction-related activities. While construction activities also result in life-cycle emissions of GHGs associated with the manufacture and transport of building materials and infrastructure, life-cycle emissions are not included in the inventory for the CEQA process as these emissions are anticipated to be managed under AB 32 programs in California.

Life-Cycle Analysis

Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development and infrastructure) depends on emission factors or econometric factors that are not well established for all of the manufacturing and transportation processes needed to enable the proposed development projects. Current CEQA Guidelines reveal a lack of consensus guidance on conducting life-cycle analysis. The California Natural Resources Agency established that: (1) There exists no standard regulatory definition for lifecycle emissions, and (2) Even if a standard definition for ‘lifecycle’ existed, the term might be interpreted to refer to emissions “beyond those that could be considered ‘indirect effects’” as defined by CEQA Guidelines, and therefore, beyond what a lead agency is required to consider or able to mitigate.¹⁶ Conducting life-cycle analysis involves some speculation on how manufacturing and transportation could occur, and what effects those activities may have, typically far removed in time and place from the site

¹⁶ California Natural Resources Agency, *Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97*. pp. 71–72. http://ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf. December 2009.

development. Instead, the analysis here is conducted in manner consistent with CEQA to identify the physical changes to the environment that are not speculative and are reasonably foreseeable.

Construction-Related Activities

Construction emissions and annual operational emissions are not intended to be additive as they occur at different points in the project's lifecycle. Construction emissions are one-time emissions that occur prior to building occupancy. Annual operational emissions occur only after construction of the proposed development projects and are expected to repeat annually for the life of the development.

The inventory for construction activities quantifies the GHG emissions based on the most recent ARB-approved version of the Mobile Vehicle Emission Inventory model incorporated in the URBEMIS2007 model (version 9.2.4), which is based on the ARB's OFFROAD2007 and EMFAC2007 models. The URBEMIS model is populated with assumptions regarding construction timing and the number, type, and operating hours of equipment are based on default URBEMIS settings for phased construction of the proposed development projects between 2011 and 2021. The model returns the CO₂ emission rates for all equipment, deliveries, and worker activity involving on-road and off-road gasoline and diesel fuel use. For other GHGs such as CH₄ and N₂O, the CO₂ rates are assumed to comprise of 95 percent of total CO₂E emissions based on USEPA findings.¹⁷ URBEMIS does not forecast emissions from construction-related electricity or natural gas consumption. Construction-related electricity and natural gas emissions vary based on the amount of electric power used during construction and other unknown factors that make them too speculative to quantify. In addition, this analysis assumes that all heavy duty construction equipment is diesel or gasoline powered and no substantial electrically-powered pieces of construction equipment are envisioned.

The results indicate that construction-related activity would emit about 18,255 MTCO₂E over the course of the expected construction period of approximately 10 years. If these one-time emissions are annualized by dividing over a 40-year development life, these one-time emissions are equivalent to a rate of approximately 456 MTCO₂E per year.

Vegetation Sequestration of Carbon

The proposed project includes landscaping trees adjacent to the existing buildings, within parking lots, and along the edges of the sites. Trees would be removed but replaced as part of the proposed open space and landscaping. Because the development projects would replace the office buildings and parking with mainly residential uses, they would not result in substantial

¹⁷ USEPA, Emission Facts: Greenhouse Gas Emissions from a Typical Passenger Vehicle. Office of Transportation and Air Quality. 2005.

conversion of land use type involving vegetation. No notable change in vegetation sequestration of carbon would be expected for either of the proposed development projects.

Operational (Long-Term) Emissions

Long-term operational or annual emissions from the development of the proposed Yerby and UPC development projects under the proposed amended Executive Park Subarea Plan include the following source categories of direct and indirect GHG emissions: motor vehicle trips generated by the proposed development projects; on-site natural gas combustion for hot water and heating; other on-site area sources including landscaping activities; electricity use; electricity consumed by utilities to supply water and to treat wastewater; and solid waste disposal.

Direct Emissions due to Motor Vehicle Trips

Estimated CO₂ emissions from motor vehicle trips are based on trip generation rates developed as part of the Executive Park Transportation Study (AECOM, March 2010) and modeled through use of URBEMIS2007. Trip generation rates are from vehicular emissions data specific to different vehicle types and activity assumptions (including trips from home-to-work, work-other, etc.). The URBEMIS2007 model incorporates emission factors from the ARB's EMFAC2007 model for project-related travel within the San Francisco Bay Area Air Basin. For other GHGs such as CH₄ and N₂O, the CO₂ rates are assumed to comprise of 95 percent of total CO₂E emissions based on USEPA findings.¹⁸ The results indicate that the proposed development projects would lead to approximately 10,494 MTCO₂E per year of net new motor vehicle emissions due to the proposed changes in land use.

Direct Emissions due to Area Sources, including Natural Gas Use

Area sources cause emissions from landscaping activity and natural gas use by the proposed development projects. Emissions for proposed landscaping activity are from URBEMIS, converted to CO₂E terms by the BGM. This is a minor activity resulting in about 3 MTCO₂E per year. The BGM provides results for on-site natural gas use that are used instead of URBEMIS estimates because the BGM reflects current energy-efficiency standards and observations. On-site natural gas combustion rates for hot water and space heating in the proposed land uses are from BGM with standard factors. The results indicate that approximately 1,550 MTCO₂E per year would be emitted due to these on-site area sources.

¹⁸ USEPA, Emission Facts: Greenhouse Gas Emissions from a Typical Passenger Vehicle. Office of Transportation and Air Quality. 2005.

Indirect Emissions for Electricity Generation

The proposed land uses require electricity for lighting, appliances, electronics, space and water heating, air conditioning, and other purposes. GHGs are indirectly emitted as a result of the production of electricity because GHGs are emitted by fossil fuel combustion commonly used for electricity generation. For the project-related increase in electricity use at the site of approximately 2.1 gigawatt-hours (GWh) annually, the retailer of the electricity (Pacific Gas and Electric Company, PG&E) would provide power from a mix of renewable energy, nuclear, hydro-electric, and fossil fuel-fired resources. For this analysis, the GHG emission factors for electricity delivered to the project are assumed to be 804.54 pounds CO₂ per megawatt-hour, 0.0067 pounds CH₄ per megawatt-hour, and 0.0037 pounds N₂O per megawatt-hour, as specified in the BGM. The CO₂ factor used by BGM is conservatively high when compared to public reports filed by PG&E to the California Climate Action Registry. This analysis conservatively uses the BGM factor, because it is embedded in BAAQMD guidance for the region, although BGM probably overstates the GHG emissions of electricity delivered in San Francisco. The results indicate that the proposed development projects would increase emissions by approximately 768 MTCO₂E per year through increased electricity use. This rate should decline over time as PG&E must deliver electricity from more renewable resources to meet Renewable Portfolio Standard (RPS) and AB 32 requirements.

Water Supply and Wastewater Treatment

Municipal utilities would create GHG emissions for providing water supply and wastewater treatment. In general, the majority of municipal sector GHG emissions are related to the energy used to convey, treat, and distribute water and to process wastewater. The amount of electricity required to treat and supply water depends on the volume of water involved and the location and nature of the water source. Indirect emissions from utilities providing water supply and wastewater treatment services are estimated using the BGM and electricity-use factors specific to water delivery in northern California. The BGM predicts 86.45 million gallons per year of incremental water use for indoor and outdoor purposes due to the proposed development projects compared to existing conditions, requiring approximately 0.4 GWh annually of electricity, which results in incremental annual GHG emissions of 148 MTCO₂E per year.

Solid Waste Disposal

Indirect emissions created by companies providing solid waste transport and disposal services are estimated by the BGM. The BGM uses a factor of 0.0108 tons of solid waste generated per square-foot of office space, per year for existing office buildings. For residential units, the model uses a factor of 1.2 ton of solid waste generated per residential unit per year, which would be under 0.001 ton per square-foot per year for the proposed development projects. Since the waste generation rate for office space is much higher than that for residential, the BGM forecasts a net

reduction in solid waste generation, because the proposed development projects would eliminate the existing office buildings. The proposed development projects would reduce solid waste generation rates by 1,280 tons per year, which would reduce GHG emissions by 826 MTCO₂E per year compared to existing conditions.

Executive Park Subarea Plan Design Features

The proposed amended Executive Park Subarea Plan would include features to reduce GHGs from sources, primarily by reducing or avoiding motor vehicle trips. Including retail land uses, transit features, pedestrian- and bicycle-oriented features, and buildings with resource efficient features minimizes the GHG emissions of the proposed development projects. Additionally, the development projects each expect to feature shade trees, cool-roof materials, smart-metering and programmable thermostats, and interior day-lighting to reduce energy use and the attributable GHG emissions. Compliance with the local GHG reduction strategies would be required by the ordinances and building design standards described above. The effects of these features are generally included in the GHG emission inventory described above.

IMPACTS

EFFECTS ADDRESSED IN PRIOR ENVIRONMENTAL REVIEW

Previous environmental review of Executive Park development plans did not address greenhouse gas emissions or global climate change. Prior to 2006 and the implementation of the California Global Warming Solutions Act (AB 32), only certain actions by decision-makers considered the potential effects of GHG emissions or the potential effects of climate change on individual projects. In 2007, the California Legislature's directive in Public Resources Code section 21083.05 (enacted as part of SB 97 (Chapter 185, Statutes 2007)) established a need for uniform guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions (Pub. Resources Code, § 21083.05(a)-(b)). The guidelines were established by the California Natural Resources Agency in December 2009 and adopted in 2010. The following analysis is based on the current guidelines.

SIGNIFICANCE CRITERIA

The City and County of San Francisco has not formally adopted significance standards for impacts related to greenhouse gas emissions or climate change. The Planning Department follows the recommendations under the 2010 revisions to the California Environmental Quality Act (CEQA) that implementation of a project could have significant impacts related to greenhouse gas emissions, if it were to:

- Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment; or

- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

METHODOLOGY

The emission inventory for the proposed development projects includes greenhouse gases that were estimated using BAAQMD-recommended factors found in the URBEMIS2007 model and the BAAQMD GHG Model. The GHG emissions inventory quantifies emissions from operation of the proposed development projects including project-related transportation, natural gas use, electricity use, water use, and solid waste disposal. Operational emissions from existing uses to be removed were similarly estimated. Impacts were characterized based on the ability of the proposed development projects to comply with enforceable programs to reduce GHG emissions and avoid conflicts with San Francisco's Climate Action Plans.

IMPACT EVALUATION

Impact GHG-1: The Project would not result in a substantial contribution to global climate change by increasing GHG emissions in a manner that conflicts with the state goal of reducing GHG emissions in California to 1990 levels by 2020 (e.g., a substantial contribution to global climate change). (*Less than Significant*)

The proposed development projects would increase the activity onsite with construction activities spanning approximately 10 years and by replacing office use with increased residential density and retail. An additional 1,600 net new residential units would be added to the Executive Park Subarea Plan Area, increasing the existing on-site residential population by 3,630 residents, with about 200 net new employees for the proposed retail uses. This would occur by replacing and demolishing existing office uses that serve approximately 830 employees today,¹⁹ resulting in a project-related net increase in service population of 3,000. With the increased activity and population, the proposed development projects would contribute to annual long-term increases in GHG emissions.

Increased GHG emissions occur as a result of increased vehicle trips (mobile sources) and increased energy use, water use, and wastewater treatment, with a reduction in solid waste disposal due to proposed residential and retail operations. Construction of the proposed development projects would emit about 18,255 MTCO₂E over approximately 10 years.²⁰ Direct annual operational emissions of include about 10,490 MTCO₂E/yr from motor vehicle trips with

¹⁹ Baseline employment assuming an occupancy of existing uses on the site at 40 percent for the Yerby portion and 90 percent for the UPC portion, as in AECOM Transportation Study, May 21, 2010.

²⁰ Construction emissions and annual operational emissions are not intended to be additive as they occur at different points in the project's lifecycle. Construction emissions are one-time emissions that occur prior to building occupancy. Annual operational emissions occur only after construction of the proposed project and are expected to repeat annually for the life of the project.

an additional 1,650 MTCO₂E/yr from other direct and indirect activity and energy use, for a total of 12,141 MTCO₂E/yr of net project-emitted GHGs. The indirect GHG emissions would be those from utilities including off-site electricity generation at power plants, energy required to supply water and provide wastewater treatment, and for solid waste disposal at landfills, which results in the release of methane. The recurring annual operational emissions of the proposed development projects would represent approximately 0.013 percent of total Bay Area GHG emitted in 2007.²¹ These emissions are summarized in Table V.H.2: Estimated GHG Emissions for the Proposed Development Projects.

Table V.H.2: Estimated GHG Emissions for the Proposed Development Projects

Greenhouse Gas Emissions Inventory	
Emission Source	Net Change GHG Emissions (MTCO₂E/yr)
Proposed Yerby and UPC Projects (2020)	
Operational Motor Vehicles	10,494
Area Sources (Natural Gas Combustion)	1,552
Area Sources (Landscaping Equipment)	3
Electricity Use	768
Water Supply and Wastewater Treatment	148
Solid Waste Generation and Disposal	(825)
Total Proposed Development Projects (2020)	12,141

Source: Aspen Environmental Group, 2010.

The GHG estimate for this analysis reflects the quantifiable effects of reduced motor vehicle trips due to the mixed-use and pedestrian-oriented features of the proposed amended Executive Park Subarea Plan. The GHG emissions inventory does not quantify all emission reductions that may result from compliance with State regulations or the City's regulations that aim to further reduce GHG. Specifically, the proposed development projects would be required to incorporate various project design features as required by city regulations, identified in Table V.H.3: City Regulations Applicable to the Proposed Development Projects.

²¹ Bay Area Air Quality Management District. Source Inventory of Bay Area Greenhouse Gas Emissions. Updated: February 2010. 939 Ellis Street, San Francisco, CA 94109. The Bay Area Air Quality Management District reported regional Bay Area GHGs emissions in 2007 at approximately 95.8 MMTCO₂E. A comparison with Bay Area 2007 GHG emissions is included as this is the most recent emissions inventory for the region.

Table V.H.3: City Regulations Applicable to the Proposed Development Projects

City Regulation	Project Requirement
Commuter Benefits Ordinance (Environment Code, Section 421)	The proposed amended Subarea Plan would include new employment, and all employers with 20 or more employees must provide at least one of the following benefit programs: 1. A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or (2) Employer Paid Benefit whereby the employer supplies a transit pass for the public transit system requested by each Covered Employee or reimbursement for equivalent vanpool charges at least equal in value to the purchase price of the appropriate benefit, or (3) Employer Provided Transit furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.
Transit Impact Development Fee (Administrative Code, Chapter 38)	Establishes the fee requirements for all commercial developments. Fees are paid to the San Francisco Municipal Transportation Agency (SFMTA) to improve local transit services.
Bicycle Parking (Planning Code, Sections 155.2, 155.4, and 155.5)	The proposed development projects would include dedicated bicycle parking within each residential garage. On-street bicycle parking racks would also be provided consistent with the City's Bike Plan.
Car Sharing Requirements (Planning Code, Section 166)	The proposed amended Subarea Plan would include provision of carshare parking.
San Francisco Green Building Requirements for Energy Efficiency (SF Building Code, Chapter 13C)	The proposed amended Subarea Plan Design Guidelines call for the use of a "green building" approach to development involving "best practices for sustainable design and resource conservation" with recommendations that each development project seek "green" certification, such as obtaining LEED® "gold" certification or an equivalent standard. The development projects would also be required to comply with the Green Building Ordinance. Under the Green Point Rated system, all new residential buildings will be required to be at a minimum 15 percent more energy efficient than Title 24 energy efficiency requirements.
San Francisco Green Building Requirements for Stormwater Management (SF Building Code, Chapter 13C)	Projects in San Francisco are required to comply with the SFPUC's stormwater design guidelines, which emphasize low impact development using a variety of Best Management Practices for managing stormwater runoff and reducing impervious surfaces, thereby reducing the volume of combined stormwater and sanitary sewage requiring treatment.
San Francisco Green Building Requirements for water reduction (SF Building Code, Chapter 13C)	The proposed amended Subarea Plan would include new residential and commercial buildings greater than 5,000 sf that are required to reduce the amount of potable water used for landscaping by 50 percent and reduce the amount of potable water used for the building by 20 percent.

Table V.H.3 (continued)

City Regulation	Project Requirement
Commercial and Residential Water Conservation Ordinances (SF Building Code, Chapters 13A and Housing Code, Chapter 12A)	The proposed development projects would be required to meet the following minimum standards: 1. All showerheads have a maximum flow of 2.5 gallons per minute (gpm); 2. All showers have no more than one showerhead per valve; 3. All faucets and faucet aerators have a maximum flow rate of 2.2 gpm; 4. All Water Closets (toilets) have a maximum rated water consumption of 1.6 gallons per flush (gpf); 5. All urinals have a maximum flow rate of 1.0 gpf; and 6. All water leaks have been repaired.
San Francisco Green Building Requirements for solid waste (SF Building Code, Chapter 13C)	Pursuant to Section 1304C.0.4 of the Green Building Ordinance, all new construction, renovation and alterations subject to the ordinance are required to provide recycling, composting and trash storage, collection, and loading that is convenient for all users of the building.
San Francisco Green Building Requirements for construction and demolition debris recycling (SF Building Code, Chapter 13C)	Portions of the proposed amended Subarea Plan involving demolition would be required to divert at least 75 percent of the project's construction and demolition debris to recycling.
Street Tree Planting Requirements for New Construction (Planning Code Section 143)	The proposed amended Subarea Plan would provide a landscape design plan.

In addition to complying with the above City regulations, the proposed development projects would also include electricity, natural gas, and water conservation features to avoid GHG emissions that would otherwise be created by motor vehicle use, electricity consumption, and use of other resources including water.

San Francisco has been actively pursuing cleaner energy, alternative transportation, and solid waste policies, many of which have been codified into regulations, as described in Setting. In an independent review of San Francisco's communitywide emissions it was reported that San Francisco has achieved a five percent reduction in communitywide GHG emissions below the Kyoto Protocol 1990 baseline levels. The 1997 Kyoto Protocol sets a greenhouse gas reduction target of seven percent below 1990 levels by 2012. The "community-wide inventory" includes greenhouse gas emissions generated by San Francisco by residents, businesses, and commuters,

as well as municipal operations. The inventory also includes emissions from both transportation and building energy sources.²²

As infill development, the proposed development projects would be constructed in an urban area with high levels of transit access, which reduces regional vehicle trips and vehicle miles traveled. Additionally, compliance with the City's regulations, as discussed above, would reduce the project's overall GHG emissions. Given that San Francisco has implemented binding and enforceable programs to reduce GHG emissions applicable to the proposed development projects and that San Francisco's sustainable policies have resulted in the measured success of reduced GHG emissions levels, the proposed development project's GHG emissions would result in a less than significant impact. No mitigation measures are necessary.

Impact GHG-2: The Project would not conflict with San Francisco's Climate Action Plan or impede implementation of the local GHG reduction goals established by the San Francisco 2008 Greenhouse Gas Reduction Ordinance. (*Less than Significant*)

The state-wide approach for GHG reductions outlined in the AB 32 Scoping Plan requires local governments to play the role of an "essential partner" and to use local planning and permitting processes to achieve GHG reductions. San Francisco's Climate Action Plan and the 2008 Greenhouse Gas Reduction Ordinance, among other requirements identified above, seek and achieve reductions where the City has authority to act on activities that cause GHG emissions. The proposed development projects under the amended Subarea Plan would be required to comply with all San Francisco regulations and ordinances that drive local GHG reductions (see Table V.H.3).

AB 32 contains a comprehensive approach for developing regulations to reduce statewide GHG emissions. ARB acknowledges that decisions on how land is used will have large effects on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas sectors. Many of the measures in the AB 32 Scoping Plan—such as implementation of increased fuel efficiency for motor vehicles, increased efficiency in utility operations, and development of more renewable energy sources—require statewide action by government, industry, or both.

Some of the AB 32 Scoping Plan measures are at least partially applicable to the proposed development projects, such as increasing energy efficiency in new construction, installation of solar panels on individual building roofs, and a "green building" strategy. As evidenced above, the City has already implemented several of these measures that require local government action,

²² *City and County of San Francisco: Community GHG Inventory Review*. August 1, 2008. IFC International, 394 Pacific Avenue, 2nd Floor, San Francisco, CA 94111. Prepared for City and County of San Francisco, Department of the Environment.

such as a Green Building Ordinance, a Zero Waste strategy, a Construction and Demolition Debris Recovery Ordinance, and a solar energy generation subsidy program, to realize meaningful reductions in GHG emissions. These programs (and including others not listed) collectively comprise San Francisco's GHG reduction strategy and continue San Francisco's efforts to reduce the City's greenhouse gas emissions to 20 percent below 1990 levels by the year 2012, a goal outlined in the City's 2004 Climate Action Plan. The City's GHG reduction strategy also furthers the State's efforts to reduce statewide GHG emissions as mandated by AB 32.

The proposed development projects would be required to comply with GHG reduction regulations as discussed above, as well as applicable AB 32 Scoping Plan measures that are ultimately adopted and become effective during the life of the development. Given that the City has adopted numerous GHG reduction strategies recommended in the AB 32 Scoping Plan, that the City's GHG reduction strategy includes binding, enforceable measures to be applied to development projects and that the City's GHG reduction strategy has produced measurable reductions in GHG emissions, the proposed development projects would not conflict with either the state or local GHG reduction strategies. In addition the proposed project would not conflict with any plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Therefore, the proposed development projects would have a less than significant impact with respect to GHG emissions. No mitigation measures are necessary.

IMPACT EVALUATION BASED ON RECENTLY ADOPTED BAAQMD THRESHOLDS

BAAQMD recently adopted quantitative CEQA thresholds of significance for operational-related GHG emission impacts (*BAAQMD CEQA Guidelines, 2010*).²³ The guidelines became available for lead agencies to follow for projects beginning environmental analysis after June 2010.

There are three options for operational GHG emission thresholds: Option 1 is based on an individual land use development project having total operational GHG emissions less than 1,100 MTCO₂E per year; Option 2, which would apply to mixed-use projects, like the proposed development projects, is based on the relative efficiency of a project to serve a given population housed or employed by the project, set at 4.6 MTCO₂E per service population per year; and Option 3 is a qualitative threshold for plan-level analysis that requires determining compliance with a qualified GHG reduction strategy (or similar criteria included in a community General Plan). This EIR provides a discussion of the proposed development projects' operational GHG emissions under the proposed efficiency-based threshold of significance identified above.

The GHG emission inventory presented in this EIR for operational emissions of the proposed development projects is from data sources that are consistent with the BAAQMD CEQA

²³ BAAQMD, *CEQA Air Quality Guidelines*, June 2010, Available on the internet at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES.aspx>.

Guidelines, 2010, including the new BGM tool. Therefore, this analysis provides a project-specific result for comparison with BAAQMD thresholds.

The proposed development projects operational emissions would be a net increase of GHG emissions of 12,141 MTCO₂E/yr. Adding construction-phase emissions (amortized over a 40-year life) results in GHG emissions of about 12,600 MTCO₂E/yr, or 4.2 MTCO₂E per service population per year based on the net increase in service population of 3,630 residents and a net reduction of 630 employees (project-related net increase service population of 3,000). Because the total operational emissions of the proposed development projects upon build-out would be less than BAAQMD guideline level of 4.6 MTCO₂E per service population per year, project-related GHG emissions would result in a less-than-significant impact on climate change under the 2010 BAAQMD thresholds. No mitigation measures are necessary.

I. WIND

This section describes the impacts of the proposed Yerby and UPC development projects on ground-level wind currents at various locations on the development project sites and vicinity. Windsurfing activities on San Francisco Bay are described in Section V.J, Recreation.

SETTING

EXISTING CLIMATE AND WIND CONDITIONS

U.S. Weather Bureau and Bay Area Air Quality Management District data show that westerly (from the west) to northwesterly winds, reflecting the persistence of sea breezes, are the most frequent wind directions in San Francisco. Wind direction is most variable in the winter, when strong southerly winds, which are frequent during the approach of a winter storm, occur. Predictions of wind speed are based on historic wind records from the U.S. Weather Bureau weather station atop the old Federal Building at 50 United Nations Plaza. The records span a six-year period from 1945 to 1950.

Of the 16 primary wind directions measured at the Federal Building, four have the greatest frequency of occurrence and subsequently make up most of the strong winds that occur. These winds include the northwest, west-northwest, west, and west-southwest winds. Average wind speeds in San Francisco are the highest in the summer and the lowest in the winter. However, the strongest peak winds occur in the winter. Typically, the highest average wind speeds occur in the mid-afternoon and the lowest in the early morning.

WIND SPEED AND PEDESTRIAN COMFORT

The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed. Winds up to 4 miles per hour (mph) have no noticeable effect on pedestrian comfort. With winds from 4 to 8 mph, wind is felt on the face. Winds from 8 to 13 mph will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. Winds from 13 to 19 mph will raise loose paper, dust, and dry soil, and will disarrange hair. With winds from 19 to 26 mph, the force of the wind will be felt on the body. With 26- to 34-mph winds, umbrellas are used with difficulty, hair is blown straight, walking steadily is difficult, and wind noise is unpleasant. Winds over 34 mph increase difficulty with balance, and gusts can blow people over.

REGULATORY FRAMEWORK

San Francisco Planning Code

Section 148 of the Planning Code establishes wind comfort and wind hazard criteria for certain zoning districts: the Downtown (C-3) Districts, the Downtown Residential (DTR) Districts, the Folsom and Main Residential/Commercial Special Use District, the Van Ness Special Use District, and certain zoning districts in the South of Market neighborhood.¹ While the wind comfort and wind hazard criteria do not formally apply to the Subarea Plan Area, which is outside the zoning districts noted above, the criteria are used to evaluate wind impacts in the vicinity of the project site.

Pedestrian Comfort Criterion

For the zoning districts noted above, the Planning Code establishes comfort criteria equivalent wind speeds of 7 mph in public seating areas and 11 mph in areas of substantial pedestrian use. New buildings and additions to buildings may not cause ground-level winds to exceed these levels more than ten percent of the time year round between 7:00 a.m. and 6:00 p.m. According to the Planning Code, if existing wind speeds exceed the comfort level or when a proposed building or addition may cause ambient speed to exceed the criteria, new buildings and additions must be designed to reduce ambient wind speeds to meet these requirements, unless the requirements for an allowable exception as described in the Code are met.

Wind Hazard Criterion

For the zoning districts noted above, the Planning Code also establishes a hazard criterion of an equivalent wind speed of 26 mph for a single full hour per year. No building or addition would be permitted that would cause wind speeds to exceed the hazard level of more than one hour of any year.

IMPACTS

EFFECTS ADDRESSED IN PRIOR ENVIRONMENTAL REVIEW

Previous environmental analyses of Executive Park development include an EIR in 1976 (“1976 EIR”), a Subsequent EIR in 1985 (“1985 FSEIR”), a Supplemental EIR in 1999 (“1999 FSEIR”), and EIR Addenda in 2005 and 2007.

¹ Section 148 of the Planning Code, which was adopted by the San Francisco Board of Supervisors in 1985, established the wind comfort and wind hazard criteria for the C-3 Districts. The wind comfort and wind hazard criteria for the other zoning districts are the same as those established for the C-3 Districts by Section 148.

The 1976 EIR analyzed a development project that included office space, a tourist hotel, convention/restaurant/retail space, and parking. The 1976 EIR concluded that the areas around the proposed low-rise buildings would experience low wind speeds, while the areas around the proposed high-rise buildings would experience the highest wind speeds and greatest frequency of pedestrian discomfort. Several mitigation measures to reduce the potential wind impacts, including landscaping and minor design modifications, were adopted as part of the 1976 EIR.

The 1985 FSEIR analyzed a revised development project that included office space, a tourist hotel, restaurant/retail space, residential uses, and parking. The 1985 FSEIR determined that the revised development project would substantially decrease wind speeds in the northern and eastern portions of the site, while wind conditions elsewhere on the site would remain relatively unchanged. Several mitigation measures to reduce the potential wind impacts, including landscaping and minor design modifications, were adopted as part of the 1985 FSEIR.

The 1999 FSEIR analyzed a proposal to modify certain aspects of the development project that was analyzed in the 1985 FSEIR. Since the revised development project did not propose to increase the building heights that were analyzed in the 1985 FSEIR, the 1999 FSEIR concluded that there would be no new wind impacts and that additional analysis was not necessary. Wind-related mitigation measures adopted as part of the 1985 FSEIR were adopted as part of the 1999 FSEIR.

The 2005 Addendum for the Signature Properties development project analyzed a proposal to modify certain aspects of the development program that was analyzed in the 1999 FSEIR. Since the project did not propose to increase the building heights that were analyzed in the 1999 FSEIR, the 2005 Addendum concluded that there would be no new wind impacts and that additional analysis was not necessary. No mitigation measures related to wind impacts were adopted as part of the 2005 Addendum.

The 2007 Addendum for the Top Vision development project analyzed a proposal to modify certain aspects of the development program that was analyzed in the 1999 FSEIR. Higher building heights and densities were proposed, including a 17-story tower, and the Top Vision development project was analyzed in a wind tunnel. The 2007 Addendum concluded that the Top Vision development project would not create any significant wind impacts. No mitigation measures related to wind impacts were adopted as part of the 2007 Addendum.

SIGNIFICANCE THRESHOLDS

The City has not formally adopted significance standards for impacts related to wind, but generally considers that implementation of a project would have a significant impact if it caused equivalent wind speeds to reach or exceed 26 mph for a single full hour of the year.

METHODOLOGY

A scale model of the project site and vicinity was constructed and placed inside an atmospheric boundary layer wind tunnel.² In accordance with Section 148 of the Planning Code, the model was tested for four wind directions: northwest, west-northwest, west, and southwest. Wind tunnel tests were then conducted for the development project sites and vicinity using two different scenarios: (1) the existing conditions and (2) the proposed conditions with the Yerby and UPC development projects.³ A cumulative development scenario, which would have included the proposed Yerby and UPC development projects and other proposed development projects in the area, was not tested in the wind tunnel. The proposed Yerby and UPC development projects are too far from or geographically isolated from the other proposed development projects to contribute to measurable cumulative impacts on ground-level wind currents.

Wind speed measurements were taken at 29 locations for the existing conditions and at 31 locations for the proposed conditions (see Figure V.I-1: Wind Tunnel Test Point Locations).⁴ The proposed conditions scenario accounts for proposed changes to existing grade at various locations on the development project sites.

Under the existing conditions scenario as tested in the wind tunnel, the average wind speed measured at the 29 test points is approximately 14 mph, with wind speeds ranging from 9 to 18 mph (see Table V.I-1: Wind Comfort Analysis for Existing and Project Conditions). The highest wind speed (18 mph) occurs near the intersection of Thomas Mellon Circle and Harney Way (Test Point 25).

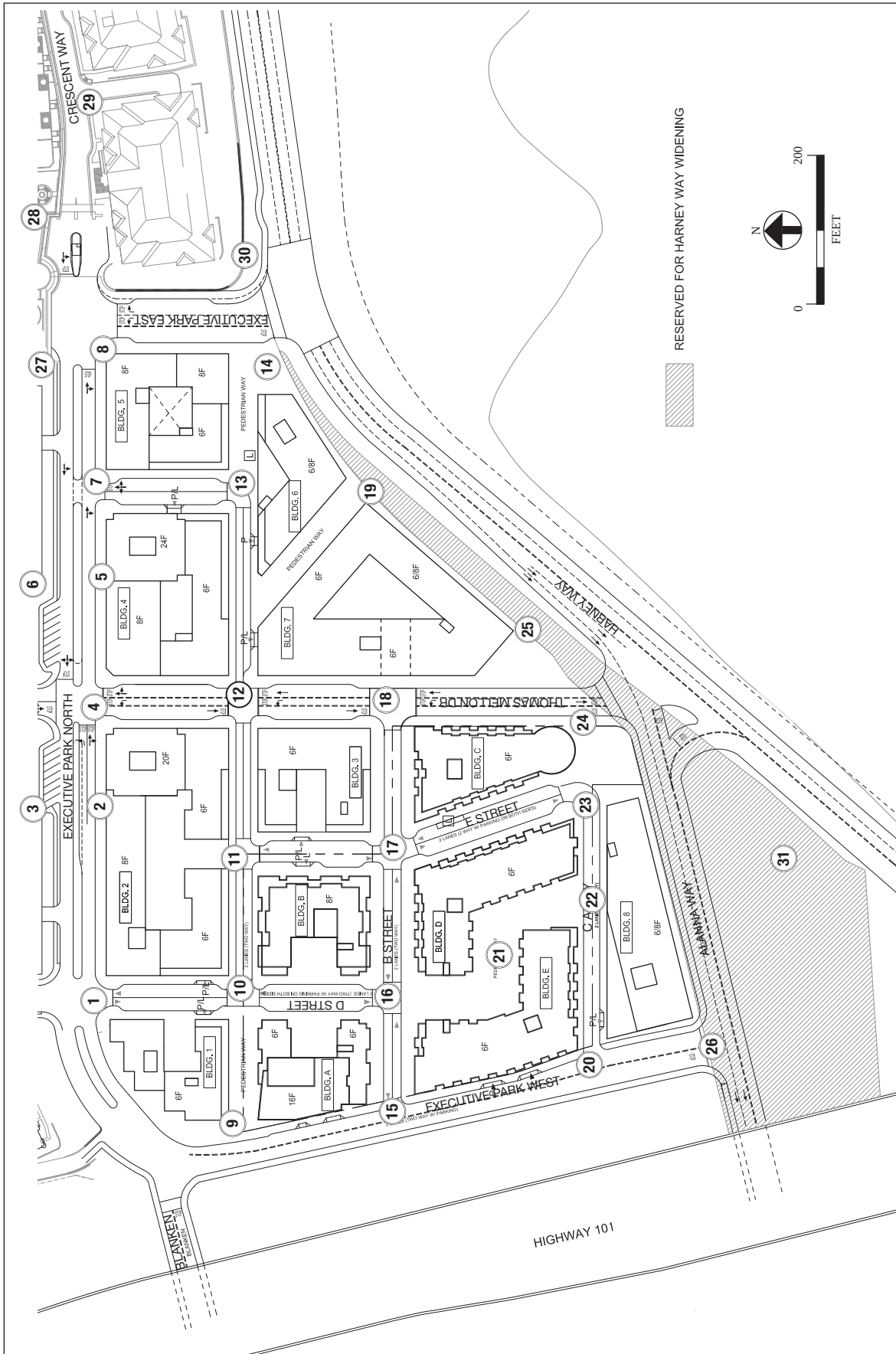
Six of the 29 test points meet the pedestrian comfort criterion of 11 mph. Of these six test points, four (Test Points 9, 15, 20, and 26) are on the project site, and two (Test Points 28 and 29) are on the adjacent Top Vision development site to the east.

Wind speeds do not exceed the hazard criterion of 26 mph at any of the 29 test points.

² Charles Bennett and Cory Barringhaus, Environmental Science Associates, Technical Memorandum, "Potential Wind Conditions at Executive Park Development: Pedestrian Area Testing," May 1, 2009. A copy is available for review at the Planning Department, 1650 Mission, Suite 400, in the files for Case No. 2006.0422E.

³ A third scenario (proposed conditions with Alternative C, as described in Chapter VII, Alternatives) was also tested in the wind tunnel.

⁴ Under the existing conditions scenario, two locations (Test Points 16 and 17) are occupied by existing buildings, so only 29 locations were tested.



SOURCE: Heller-Manus; C.Y. Lee Architects, Turnstone Consulting

EXECUTIVE PARK

2006.0422E

FIGURE V.I-1: WIND TUNNEL TEST POINT LOCATIONS

Table V.I-1: Wind Comfort Analysis Existing and Project Conditions

References		Existing Setting			Project			
Location Number	Comfort Criterion Speed (mph)	Measured Equivalent Wind Speed (mph)	Percent of Time Wind Speed Exceeds Criterion	e x c e e d s	Measured Equivalent Wind Speed (mph)	Percent of Time Wind Speed Exceeds Criterion	Speed Change Relative to Existing (mph)	e x c e e d s
1	11	14	25	e	13	20	-1	e
2	11	15	26	e	14	21	-1	e
3	11	12	14	e	11	11		-
4	11	16	27	e	16	28		e
5	11	16	27	e	16	27	-1	e
6	11	15	25	e	15	24		e
7	11	16	26	e	17	35	1	e
8	11	15	25	e	16	29	2	e
9	11	9	6		10	7	1	
10	11	14	22	e	12	15	-2	e
11	11	16	28	e	8	2	-7	-
12	11	15	26	e	9	3	-6	-
13	11	17	34	e	10	7	-6	-
14	11	16	32	e	10	7	-6	-
15	11	9	4		14	22	5	s
16	11				18	37		n
17	11				16	28		n
18	11	14	24	e	13	16	-1	e
19	11	17	37	e	10	6	-7	-
20	11	11	7		13	18	2	s
21	11	15	27	e	7	1	-8	-
22	11	16	32	e	16	30		e
23	11	17	36	e	11	9	-6	-
24	11	17	37	e	8	2	-9	-
25	11	18	41	e	13	18	-5	e
26	11	10	5		11	10	1	
27	11	16	28	e	15	26		e
28	11	10	8		9	2	-2	
29	11	9	3		11	9	2	
30	11	14	25	e	9	3	-6	-
31	11	14	23	e	16	26	2	e
Average mph and %		14.2 mph	23%		12.5 mph	16%	-2.4 mph	
Exceedances		Total	23		Total	17		
Counts		Existing	23	e	Existing Exceedance	13		e
					New, due to scenario	2		s
					New, at new location	2		n
					Eliminated	10		-

Notes: e = Existing exceedance; s = Exceedance due to Scenario; n = Exceedance at New location
Wind speeds and durations are rounded, so column totals and row differences may not add.
Project plus Cumulative development would result in wind conditions that could not be distinguished from those wind conditions under the Project scenario.

Source: ESA

IMPACT EVALUATION

Described below are the impacts from the proposed Yerby and UPC development projects on ground-level wind currents on the development project sites and vicinity. In addition, this section describes the cumulative impacts on ground-level wind currents from the proposed Yerby and UPC development projects in combination with other proposed development projects in the area.

Impact WI-1: With implementation of the proposed project, wind speeds at the Yerby and UPC development sites would not exceed the wind hazard criterion. (*Less than Significant*)

Under the proposed conditions as tested in the wind tunnel, the average wind speed measured at the 31 test points would be approximately 12.5 mph, with wind speeds ranging from 7 to 18 mph. The highest wind speed (18 mph) would occur near the southwest corner of Building B on the Yerby development site (Test Point 16). Of the 29 previously measured test points, wind speeds would decrease at 17 locations, remain unchanged at four locations, and increase at eight locations.

Overall, 14 of the 31 test points would meet the pedestrian comfort criterion. The remaining 17 test points, including the two additional test points that were not analyzed under the existing conditions scenario, would exceed the pedestrian comfort criterion of 11 mph.

The proposed Yerby and UPC development projects would include two parks, and wind speeds at these locations (Test Points 14 and 24) would not exceed the pedestrian comfort criterion.

Test Points 3, 6, and 27 are on the Signature Properties development site to the north of the Yerby and UPC development sites. When compared to the existing conditions scenario, wind speeds would decrease at Test Points 3 and 27 and remain unchanged at Test Point 6. The wind speeds at Test Point 3 would meet the pedestrian comfort criterion, but the wind speeds at Test Points 6 and 27 would still exceed the pedestrian comfort criterion.

Test Points 28, 29, and 30 are on the Top Vision development site to the northeast and east of the Yerby and UPC development sites. When compared to the existing conditions scenario, wind speeds would decrease at Test Points 28 and 30 and increase at Test Point 29. The wind speeds at all three of these test points would meet the pedestrian comfort criterion.

Wind speeds would not exceed the hazard criterion of 26 mph at any of the 31 test points. For this reason, the wind impacts of the proposed Yerby and UPC development projects would be less than significant. No mitigation is necessary.

Under Design Variant A (which calls for changes in building setbacks and façade articulation along certain internal streets and alleys) widened streets and alleys would be expected to increase

wind speeds and could cause new exceedences of the pedestrian comfort criterion. However, these increases would not be likely to create any new wind hazards, in alleys or in streets. Road width increases could be fully offset by substantial bay windows, porches and stoops with the largest possible projections into the setback, effectively maintaining the current street width and averting the potential wind speed increases and increases in the number of pedestrian comfort criterion exceedences.⁵ For these reasons, the wind impacts of Variant A would be less than significant. No mitigation is necessary.

Under Design Variant B (which would reconfigure Buildings 6 and 7 by reorienting the pedestrian way separating Buildings 6 and 7 from perpendicular to Harney Way under the proposed Yerby and UPC development projects, to parallel to Harney Way), no changes in wind speed at adjacent locations (#12, 13, 14, 18, 19, 24 and 25) would be expected to result, with the possible exception of a small increase at Location #18, at the intersection of B Street and the new street-level access through the variant. Since both existing and project wind speeds exceed the comfort criterion at Location #18, a small increase would not cause a new comfort criterion exceedance there and would not result in a new wind hazard.⁶ For these reasons, the wind impacts of Variant B would be less than significant. No mitigation is necessary.

Impact WI-2: The proposed Yerby and UPC development projects and variants would not contribute to cumulatively significant impacts on ground-level wind currents in the vicinity of the Subarea Plan Area. (*Less than Significant*)

As described in Section V.A, Land Use (pp. V.A.5-V.A.7), there are several proposed development projects in the vicinity of the Subarea Plan Area, including the Brisbane Baylands, the Visitacion Valley Redevelopment Plan Project, and the Candlestick Point-Hunters Point Shipyard Phase II (CPHPSII) Project. For the reasons set forth below, these other proposed development projects would not combine with the proposed Yerby and UPC development projects to produce cumulatively significant wind impacts in the vicinity of the Subarea Plan Area.

The Brisbane Baylands, on the west side of U.S. 101, could include some buildings as high as 90 feet at the northern end of the Phase I Specific Plan area.⁷ These buildings, if constructed, would be approximately 0.3 mile southwest of the Subarea Plan Area. Given this distance and the

⁵ Charles Bennett, Environmental Science Associates, Technical Memorandum, "Evaluation of Potential Changes in Wind Conditions at Executive Park, San Francisco, By Variant A Design of UPC Buildings 6 and 7 and Setback and Façade Articulation Changes;" February 1, 2010. A copy is available for review at the Planning Department, 1650 Mission, Suite 400, in the files for Case No. 2006.0422E.

⁶ Ibid.

⁷ *Brisbane Baylands Phase I Specific Plan*, City of Brisbane website, http://www.ci.brisbane.ca.us/Content.asp?Cat_Id=240000724&C_ID=240000625. Accessed June 30, 2009.

physical barrier provided by U.S. 101, proposed buildings in the Brisbane Baylands would not have an impact on ground-level wind currents in the Subarea Plan Area.

The Visitacion Valley Redevelopment Project Area is west of U.S. 101 and approximately 0.5 mile from the western boundary of the Subarea Plan Area. Given this distance and the physical barrier provided by U.S. 101, proposed buildings in the Visitacion Valley Redevelopment Project Area would not have an impact on ground-level wind currents in the Subarea Plan Area.

The CPHPSII Project is northeast of Bayview Hill and approximately 0.3 mile from the eastern boundary of the Subarea Plan Area. Given this distance and the physical barrier provided by Bayview Hill, proposed buildings in the CPHPSII Project would not have an impact on ground-level wind currents in the Subarea Plan Area.

The proposed Yerby and UPC development projects and variants are too far from or geographically isolated from the other proposed development projects to create measurable cumulative effects on ground-level wind currents. Therefore, the proposed Yerby and UPC development projects and variants would not combine with the other proposed development projects to create cumulatively significant impacts on ground-level wind currents in the vicinity of the Subarea Plan Area. No mitigation is necessary.

J. SHADOW

This section describes the proposed project's shadow impacts on public open spaces in the vicinity of the project site, including properties under the jurisdiction of or to be acquired by the Recreation and Park Department (Recreation and Park property) and other publicly accessible open space.

SETTING

PARK AND RECREATION FACILITIES

There are four Recreation and Park properties in the vicinity of the Subarea Plan Area (see Figure V.A-1, p. V.A.2). Little Hollywood Park is approximately 0.15 mile west of the Subarea Plan Area across U.S. 101, and Bayview Hill Park is approximately 0.2 mile north and northeast of the Subarea Plan Area. Candlestick Park is immediately east of Bayview Hill Park, and Gilman Playground is immediately northwest of Candlestick Park. These properties and the existing shadows on these properties are described in more detail as part of the Impacts discussion later in this chapter.

There is one public open space in the vicinity of the project site that is not a Recreation and Park property. The southern portion of Candlestick Point State Recreation Area is south and east of the project site across Harney Way. This open space and the existing shadows on this open space are discussed in more detail as part of the Impacts discussion later in this chapter.

REGULATORY FRAMEWORK

San Francisco Planning Code

Section 295

In 1984, San Francisco voters approved an initiative known as "Proposition K, The Sunlight Ordinance," which was codified in 1985 as Planning Code Section 295. Planning Code Section 295 prohibits the approval of structures that would cast any shadow on Recreation and Park property unless the Planning Commission (with review and comment by the Recreation and Park Commission) has found that the shadows cast by the proposed project would not have a significant impact on the use of the Recreation and Park property. Section 295 does not apply to structures that do not exceed 40 feet in height. The period analyzed is from the first hour after sunrise until the last hour before sunset (the Proposition K hours).

The Sunlight Ordinance further required that the Planning Commission and the Recreation and Park Commission jointly adopt criteria to be used by the Planning Commission in implementing the Sunlight Ordinance (discussed further under “Significance Thresholds,” below).

IMPACTS

EFFECTS ADDRESSED IN PRIOR ENVIRONMENTAL REVIEW

Previous environmental analyses of Executive Park development include an EIR in 1976 (“1976 EIR”), a Subsequent EIR in 1985 (“1985 FSEIR”), a Supplemental EIR in 1999 (“1999 FSEIR”), and EIR Addenda in 2005 and 2007.

The 1976 EIR analyzed a development project that included office space, a tourist hotel, convention/restaurant/retail space, and parking. Since the 1976 EIR predated the adoption of Section 295, it did not analyze potential shadow impacts or include any mitigation measures related to shadow impacts.

The 1985 FSEIR analyzed a revised development project that included office space, a tourist hotel, restaurant/retail space, residential uses, and parking. The 1985 FSEIR determined that the revised development project would cast net new shadow on Candlestick Point State Recreation Area approximately one hour before sunset from March through September. Given the duration and location of the shadow, the 1985 FSEIR concluded that the shadow would not adversely impact the park or the public’s ability to use and enjoy the park. The 1985 FSEIR also concluded that the proposed buildings exceeding 40 feet in height would not cast net new shadow on Bayview Hill Park at any time during the year. No mitigation measures related to shadow impacts were adopted as part of the 1985 FSEIR.

The 1999 FSEIR analyzed a proposal to modify certain aspects of the development project that was analyzed in the 1985 FSEIR. Since the revised development project did not propose to increase the building heights that were analyzed in the 1985 FSEIR, the 1999 FSEIR concluded that there would be no new shadow impacts and that additional analysis was not necessary. No mitigation measures related to shadow impacts were adopted as part of the 1999 FSEIR.

The 2005 Addendum for the Signature Properties development project analyzed a proposal to modify certain aspects of the development program that was analyzed in the 1999 FSEIR. Since the project did not propose to increase the building heights that were analyzed in the 1999 FSEIR, the 2005 Addendum concluded that there would be no new shadow impacts and that additional analysis was not necessary. No mitigation measures related to shadow impacts were adopted as part of the 2005 Addendum.

The 2007 Addendum for the Top Vision development project analyzed a proposal to modify certain aspects of the development program that was analyzed in the 1999 FSEIR. Higher building heights and densities were proposed, and the 2007 Addendum determined that the Top Vision development project would cast net new shadow on Bayview Hill Park and Candlestick Park. Net new shadow would fall on Bayview Hill Park in the late afternoon and early evening from September through March, with the shadow lasting between 15 minutes and 45 minutes per day. The 2007 addendum also concluded that the Top Vision development project would cast net new shadow on Candlestick Park in the early evening from February through May and from July through October with the shadow lasting between 4 minutes and 20 minutes per day. Given the duration and location of the shadow, the 2007 Addendum concluded that the shadow would not adversely impact the parks or the public's ability to use and enjoy the parks. No mitigation measures related to shadow impacts were adopted as part of the 2007 Addendum.

SIGNIFICANCE THRESHOLDS

The City has not formally adopted significance standards for impacts related to shadows, but generally considers that implementation of the project or either of its variants would have a significant environmental impact if it were to create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas.

San Francisco adopted Section 295 of the *Planning Code* in response to *Proposition K* (passed November 1984) in order to protect public open spaces under the jurisdiction of the Recreation and Park Department from shadowing by new structures during the period between one hour after sunrise and one hour before sunset, year round. *Planning Code* Section 295 restricts net new shadow that adversely impacts the use of public open spaces under the jurisdiction of, or to be acquired by, the Recreation and Park Commission, by any structure exceeding 40 feet in height unless the Planning Commission, in consultation with the Recreation and Park Commission, finds the impact to be less than significant.

The Planning Commission and Recreation and Park Commission have adopted criteria for determining the significance of shadow impacts under Section 295 for 14 parks in the general downtown area, setting absolute cumulative limits for those properties.¹ Absolute cumulative limits for the parks in the vicinity of Executive Park have not been established.

However as noted above, Section 295 is not the only consideration used by the Planning Department to determine if shadow from a proposed project would be a significant impact.

¹ City and County of San Francisco, Planning Commission Resolution 11595, adopted February 7, 1989.

METHODOLOGY

Shadow Fan

In order to determine whether any Recreation and Park properties could be potentially affected by project shadow, the Planning Department has prepared a “shadow fan” diagram.² The shadow fan diagram plots the maximum potential reach of project shadow over the course of a year (during the Proposition K hours), and plots the location of nearby Recreation and Park properties. The shadow fan does not account for grade conditions, nor does it account for shadows already cast on Recreation and Park properties by existing buildings. The shadow fan diagram is used by the Planning Department as the basis for initially identifying which Recreation and Park properties merit further study. Those that are outside the maximum potential reach of project shadow do not require further study.

Based on the shadow fan diagram, potential shadow from the proposed Yerby and UPC development projects could reach three Recreation and Park properties: Bayview Hill Park, Candlestick Park, and Little Hollywood Park. The shadow fan diagram indicates that potential shadow from the proposed Yerby and UPC development projects could not reach Gilman Playground, and on this basis, further discussion of Gilman Playground in this EIR is not necessary.

The shadow fan diagram prepared under Section 295 is also useful for identifying publicly accessible open spaces that are not subject to Section 295 but could be within the potential reach of project shadow. The shadow fan diagram indicates that potential project shadow could reach Candlestick Point State Recreation Area.

Shadow Model

A computer shadow model was developed by an independent consultant with proprietary Solar Toolbox software using site survey and project data. Unlike the shadow fan diagram, the shadow model takes into account grade conditions and shadow cast by existing structures (but does not account for shade from existing trees). The shadow model produces a spreadsheet quantifying, in square-foot-hours, the amount of shadow cast by existing buildings, net new shadow cast by the proposed project, and remaining sunlight on the space.³ These data are sampled at 15-minute

² San Francisco Planning Department, letter from Edgar Oropeza dated December 18, 2008. A copy is available for review at the Planning Department, 1650 Mission, Suite 400, in the files for Case No. 2006.0422K.

³ The complete spreadsheet data by CADP, Inc. are available for public review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in the files for Case No. 2006.0422K.

intervals beginning on the summer solstice, then once a week for half a year until the winter solstice.⁴

Three Recreation and Park properties (Bayview Hill Park, Candlestick Park, and Little Hollywood Park) were analyzed using the shadow model. The shadow model demonstrated that the proposed Yerby and UPC development projects would cast net new shadow on Bayview Hill Park, and further discussion of this Recreation and Park property is presented below under “Impacts.” The shadow model indicated that the proposed project would not cast net new shadow on Candlestick Park or Little Hollywood Park; therefore, further discussion of these two parks in this SEIR is not necessary.

Shadow Diagrams

Shadow diagrams have been prepared for the two public open spaces that have been found to merit further study in this SEIR: Bayview Hill Park (a Recreation and Park Department property that is subject to Section 295) and Candlestick Point State Recreation Area (a property that is not subject to Section 295). Shadow diagrams are “snapshots” taken at a particular representative time of day and day of year. They illustrate the extent and location of shadow cast by existing buildings, net new shadow from the proposed project, and remaining sunlight on the park or open space. A series of shadow diagrams from the same day demonstrates how the shadow moves across the space over a specific period of time. Shadow diagrams are presented in this SEIR and serve as the basis for the qualitative discussion of shadow impacts.

IMPACT EVALUATION

Described below are shadow impacts from the proposed Yerby and UPC development projects and variants on the following existing public open spaces in the vicinity of the proposed project: Bayview Hill Park and Candlestick Point State Recreation Area. In addition, this section describes, for informational purposes, the shadow impacts of the proposed buildings on the proposed on-site open spaces.

Bayview Hill Park is subject to Section 295, which calls for a detailed quantification and analysis of shadow impacts on Recreation and Park property. Candlestick Point State Recreation Area is not under the jurisdiction of the Recreation and Park Commission and is therefore not subject to Section 295.

⁴ It is not necessary to sample the other half of the year (from the winter solstice back to the summer solstice) since shadow behaves symmetrically about the solstices, yielding the same values in reverse order.

Impact SH-1: The proposed Yerby and UPC development projects and variants would create new shadow on Bayview Hill Park. (*Less than Significant*)

Existing Conditions

Bayview Hill Park is an approximately 0.5-mile-long, 36-acre open space oriented along an east-west axis with the eastern end of the park following a northwest-southeast axis. The park consists of open space with informal trails and steep topography. There are no active or developed uses such as playgrounds or recreation facilities. Access to the park is from a gated road on the north side of Bayview Hill. The park sits atop Bayview Hill and encompasses Areas A and B (see Figure V.J-1: Maximum Extent of Net New Project Shadow on Bayview Hill Park Area A on October 4 (5:47 PM PDT)) showing Area A). Due to the park's higher elevation, only the southern tip of Area A is shaded by existing buildings in the area (Phase II of the Top Vision development project).⁵ This portion of Area A consists of a steeply sloping hillside covered by grass and small shrubs. The existing shadow occurs in the late afternoon and early evening during the spring and autumn.

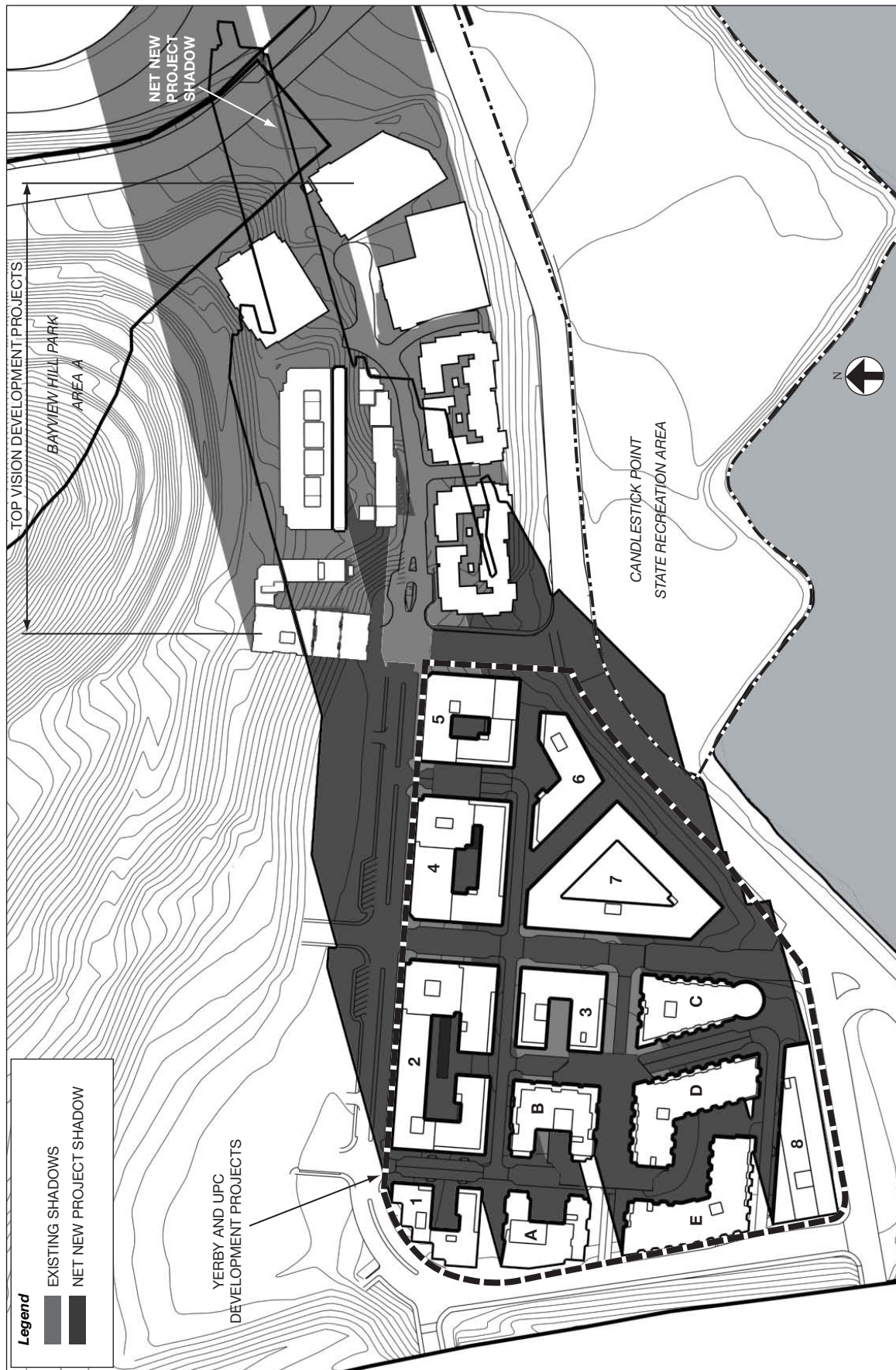
Net New Shadow

The Planning Department has established a threshold for numerically significant shadow (0.00004 percent of the annual available sunlight on a given park). Net new shadow that does not exceed this threshold is considered *de minimis* or numerically insignificant, because the amount of net new shadow is smaller than the statistical margin of error (April 19, 1999, and October 23, 2002, memoranda to the Planning Commission). Such shadow, while theoretically able to be calculated, may or may not actually occur.

According to the calculations made with the shadow model, on an annual basis, Building 4 of the proposed UPC development project could cast approximately 768.85 square-foot-hours of net new shadow on Area A (shown on Figure V.J-1 as a fine gray line, labeled "Net New Shadow").⁶ The net new shadow would consume approximately 0.000019 percent of the annual available

⁵ In 2007, Phase III of the Top Vision development project was evaluated for its potential shadow impact on Bayview Hill Park Area A. The Recreation and Park Commission made the determination that the shadow impact on the park would not be adverse. The future shadow from Phase III of the Top Vision development project is shown as existing shadow on Figure V.I-1.

⁶ The proposed Yerby and UPC development projects would not cast net new shadow on Area B at any time during the year. Building 4 of the proposed UPC development project would cast net new shadow on the southern tip of Area A for one week in the spring (during the second week of March) and one week in the autumn (late September through early October). The net new shadow would occur shortly before 6:00 PM and last between six and nine minutes per day. At 5:47 PM on October 4, the net new shadow would reach its maximum extent and cover an area of approximately 293 square feet (see Figure V.J-1).



SOURCE: CADP and Turnstone Consulting

EXECUTIVE PARK

2006.0422E

FIGURE V.J-1: MAXIMUM EXTENT OF NET NEW PROJECT SHADOW ON BAYVIEW HILL PARK AREA A ON OCTOBER 4 (5:47 PM PDT)

sunlight on Area A. Since this number is below the threshold of numerically significant shadow, the net new shadow on Area A can be considered *de minimis*. In addition, this net new shadow would not adversely affect an active recreational use or substantially reduce the use or enjoyment of this area. Therefore, the shadow from Building 4 of the proposed UPC development project would have no adverse impact on the use of Bayview Hill Park and would be considered less than significant. No mitigation is necessary.

Under Design Variant A (which calls for changes in building setbacks and façade articulation at the podium levels along certain internal streets and alleys) and Design Variant B (which would reconfigure Buildings 6 and 7 creating a single continuous streetwall along Harney Way), impacts related to shadow on Bayview Hill Park would be substantially the same as described for the proposed Yerby and UPC development projects. These variants would not increase the height and scale of development over that of the proposed Yerby and UPC development projects.

Impact SH-2: The proposed Yerby and UPC development projects and variants would create new shadow on Candlestick Point State Recreation Area. (*Less than Significant*)

Existing Conditions

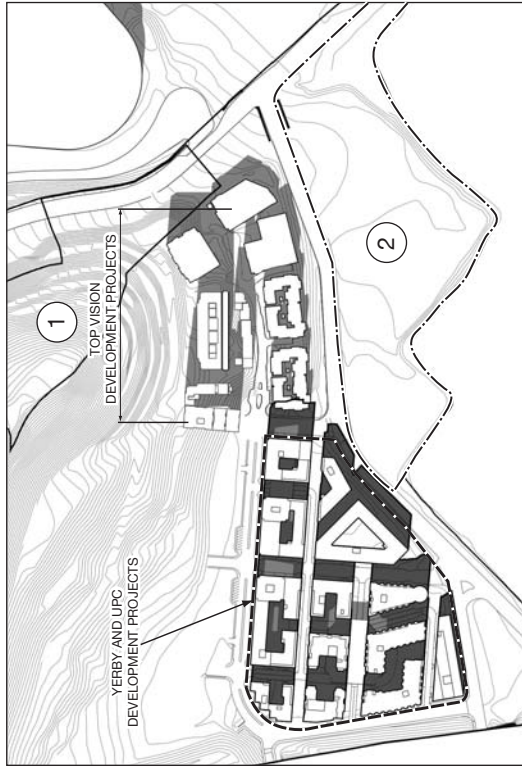
Candlestick Point State Recreation Area is an approximately 252-acre regional open space that runs along San Francisco Bay. Roughly shaped like the letter “S,” the park extends south from Yosemite Slough, along the east side of Candlestick Park, and along the south side of Harney Way. The park includes fishing piers, picnic areas, a windsurfing launch area, and trails for cycling, hiking, and running. Most of the park is unshaded during the day throughout the year.

Net New Shadow

Net new shadow from the proposed Yerby and UPC development projects would reach the portion of the park that is south of Harney Way in the early evening during the summer. Shortly after 5:30 PM, the shadow would extend across Harney Way and reach the park. The shadow would lengthen and increase in area over the next two hours until the end of the day (see Figure V.J-2: Shadow Impact on Candlestick Point State Recreation Area on June 21 (5:30 PM, 6:30 PM, 7:35 PM PDT)). The impacted portion of the park includes hiking trails, public restrooms, a parking lot, and a picnic area. Further to the east, there is a fishing pier and a windsurfing launch area, but net new shadow from the project would not reach these areas at any time during the year. Net new shadow from the proposed Yerby and UPC development projects is not expected to substantially interfere with the public’s use or enjoyment of the park. As shown in Figure V.I-2, those users of the park who seek sunlight in the early evening could use other portions of the park along the shoreline that would continue to remain in sunlight at that time. The shadow impacts of the proposed project would be less than significant.



6:30 PM PDT



5:30 PM PDT



7:35 PM PDT

SOURCE: CADD and Turnstone Consulting

EXECUTIVE PARK

2006.0422E

FIGURE V.J-2: SHADOW IMPACT ON CANDLESTICK POINT STATE RECREATION AREA ON JUNE 21 (5:30 PM, 6:30 PM, 7:35 PM PDT)

Under Design Variant A (which calls for changes in building setbacks and façade articulation at the podium levels along certain internal streets and alleys), impacts related to shadow on Candlestick Point State Recreation Area would be substantially similar as described for the proposed Yerby and UPC development projects. This variant would not increase the height and scale of development over that of the proposed Yerby and UPC development projects.

Under Design Variant B (which would reconfigure Buildings 6 and 7 by reorienting the pedestrian way separating Buildings 6 and 7 from perpendicular to Harney Way under the proposed Yerby and UPC development projects, to parallel to Harney Way), impacts related to shadow on Candlestick Point State Recreation Area would be similar to those described for the proposed Yerby and UPC development projects. Building 7 would form a continuous streetwall along Harney Way under Variant B. As such, the shadows created by Buildings 6 and 7 would be continuous under Variant B, filling the “notch” of sunlight between the shadows created by Buildings 6 and 7 under the proposed Yerby and UPC development projects (see Figure V.I-2). Like the proposed development projects, shadow under Variant B is not expected to substantially interfere with the public’s use or enjoyment of the park. No mitigation is necessary.

Impact SH-3: The proposed development projects would create shadow on proposed new publicly accessible open space. (*Less than Significant*)

The proposed Yerby and UPC development projects and variants would create new common open space for residents, and a new network of publicly accessible open spaces and pedestrian corridors. Project shadow on publicly accessible open space is discussed here for informational purposes.

Under Design Variant A (which calls for changes in building setbacks and façade articulation along certain internal streets and alleys) and Design Variant B (which would reconfigure Buildings 6 and 7 creating a single continuous streetwall along Harney Way), impacts related to shadow on new common open space would be substantially similar to those described for the proposed Yerby and UPC development projects.

Yerby Project

Buildings A and B of the Yerby project would include ground-level courtyards, and there would be an approximately 40-foot-wide pedestrian corridor between Buildings D and E. The Yerby project would also provide approximately 5,470 square feet of an 18,200-square-foot park immediately south of Building C at the intersection of Thomas Mellon Drive and Harney Way. Given the heights and orientations of the proposed buildings, the courtyards and pedestrian corridor would be relatively sunny for several hours during the middle of the day, but these open spaces would be shadowed from early morning until mid-morning and again from mid-afternoon until early evening throughout the year.

The publicly accessible open space at the intersection of Thomas Mellon Drive and Harney Way would be sunny for most of the day throughout the year. It would be shadowed by the proposed buildings or existing buildings to the east during the following periods: early morning during the summer and from late afternoon until early evening during the spring, summer, and autumn.

UPC Project

Of the eight proposed buildings comprising the UPC project, Buildings 1 through 7 would include exterior or interior courtyards. There would also be three pedestrian corridors (south of Building 1, south of Building 5, and between Buildings 6 and 7) as well as two publicly accessible open spaces (at the intersection of Executive Park East Boulevard and Harney Way and at the intersection of Thomas Mellon Drive and Harney Way).

Given the heights, layouts, and orientations of the proposed buildings, the courtyards would be relatively sunny from late morning until mid-afternoon during the summer. The courtyards would be shadowed at all other times of the day throughout the year. Since the interior courtyard of Building 7 would be enclosed on all sides by 90-foot-high walls, it would be shadowed all day throughout the year.

The pedestrian corridors south of Building 1 and between Buildings 6 and 7 would be sunny from late morning until early afternoon during the summer, but they would be shadowed at all other times of the day throughout the year. The pedestrian corridor south of Building 5 would be sunny from late morning until late afternoon during the summer, but it would be shadowed at all other times of the day throughout the year.

The publicly accessible park at the intersection of Executive Park Boulevard East and Harney Way would be sunny from mid-morning until early afternoon during the spring, summer, and autumn, but it would be shadowed at all other times of the day throughout the year.

The publicly accessible park at the intersection of Thomas Mellon Drive and Harney Way would be sunny for most of the day throughout the year, but it would be shadowed during the following periods: early morning during the summer and from late afternoon until early evening during the spring, summer, and autumn.

Project shadow would not interfere with the public's use or enjoyment of the proposed publicly accessible open space. The interior courtyards would only be accessible to residents and would meet City standards for usable open space. The proposed publicly accessible pedestrian corridors and parks would receive ample sunlight throughout those times of day and year when public

activity is expected to be at or near its peak. As newly developed, publicly accessible open space, project shadow would not interfere with any preexisting recreational activity or preexisting public expectation of sunlight on these areas. Therefore, the shadow impacts of the proposed project would be less than significant. No mitigation is necessary.

Impact SH-4: The proposed Yerby and UPC development projects and variants would not contribute to cumulatively significant shadow impacts on parks and open spaces in the vicinity of the Subarea Plan Area. (*Less than Significant*)

As described in Section V.A, Land Use (pp. V.A.5-V.A.7), there are several proposed development projects in the vicinity of the Subarea Plan Area, including the Brisbane Baylands, the *Visitacion Valley Redevelopment Plan*, and the Candlestick Point-Hunters Point Shipyard Phase II (CPHPSII) Project. Some of these other proposed development projects have the potential to cast new shadow on Bayview Hill Park Area A, Candlestick Park, Candlestick Point State Recreation Area, Gilman Playground, Little Hollywood Park, or Visitacion Valley Playground. These other proposed development projects also have the potential to combine with the proposed Yerby and UPC development projects to produce cumulatively significant shadow impacts on parks and open spaces in the vicinity of the Subarea Plan Area.

The Brisbane Baylands could include some buildings as high as 90 feet at the northern end of the Phase I Specific Plan area.⁷ These buildings, if constructed, would be approximately 0.5 mile southeast of Visitacion Valley Playground, approximately 0.25 mile south of Little Hollywood Park, and approximately 0.3 mile southwest of Candlestick Point State Recreation Area. Given these distances, it would be unlikely that any buildings in the Baylands would cast new shadow on Visitacion Valley Playground, Little Hollywood Park, or Candlestick Point State Recreation Area. Little Hollywood Park is also at a higher elevation than the Baylands, and this difference in elevation would likely prevent any shadow cast by buildings in the Baylands from reaching Little Hollywood Park.

The Visitacion Valley Redevelopment Project Area is west of U.S. 101 and approximately 0.5 mile from Candlestick Point State Recreation Area. Given the physical barrier provided by U.S. 101, it would be unlikely that any buildings in the Visitacion Valley Redevelopment Project Area would cast new shadow on Candlestick Point State Recreation Area. Depending on their heights and locations, some proposed buildings in the Visitacion Valley Redevelopment Project Area could cast new shadow on Little Hollywood Park and Visitacion Valley Playground.

⁷ *Brisbane Baylands Phase I Specific Plan*, City of Brisbane website, http://www.ci.brisbane.ca.us/Content.asp?Cat_Id=240000724&C_ID=240000625. Accessed March 25, 2009.

The CPHPSII Project has the potential to cast new shadow on Bayview Hill Park Area A, Candlestick Park, Candlestick Point State Recreation Area, and Gilman Playground. Due to its location with respect to these parks and open spaces, the potential shadow cast by the CPHPSII Project on these parks and open spaces would not occur in the same locations, during the same times of the day, or during the same times of the year as shadow cast by the proposed Yerby and UPC development projects.

For these reasons, it is unlikely that the proposed Yerby and UPC development projects and variants would combine with the other proposed development projects to create cumulatively significant shadow impacts on parks and open spaces in the vicinity of the Subarea Plan Area. No mitigation is necessary.

K. RECREATION

This section examines the effects of the proposed amended Subarea Plan and the proposed Yerby and UPC development projects related to Recreation. The Setting subsection describes the existing recreational resources within the vicinity of the Subarea Plan Area and Yerby and UPC development projects, while the Impacts subsection identifies significance criteria for impacts related to Recreation, and discusses the changes in demand for recreational facilities that would occur if the proposed amended Subarea Plan were implemented. Finally, cumulative effects of the proposed amended Subarea Plan and development projects with reasonably foreseeable development in the vicinity are discussed.

SETTING

EXISTING RECREATIONAL FACILITIES AND RESOURCES

Recreational facilities within, adjacent to, and in the vicinity of, the Executive Park Subarea Plan Area are described below.

Subarea Plan Area Recreational Facilities

Recently approved Executive Park projects by Signature Properties (Candlestick Cove) and Top Vision (St. Francis Bay) include internal open space systems. Top Vision's development features a closed gate at its entry and is not readily available to the general public. Open space improvements are generally in the form of right-of-way improvements along Crescent Way, setbacks along Harney Way, and unbuilt portions of Bayview Hill along the northern portion the site. These areas in general, however, are not programmed open space.

Candlestick Cove features a publicly accessible street grid including pedestrian paths, and a small neighborhood park at the northwest portion of its site. The northernmost parcel (Lots 668 and 669) is an approximately 20-acre open space that is currently being restored to a more sustainable and natural setting. This hillside open space features a trail accessed through the Signature development that leads to a hilltop overlook. This open space has been a long envisioned feature of Executive Park since its original inception in the 1970s.

Adjacent Recreational Facilities

The San Francisco Recreation and Park Department administers more than 200 parks, playgrounds, and open spaces throughout the City. System recreation facilities also include 15 recreation centers, 9 swimming pools, 5 golf courses, and more than 300 athletic fields, tennis

courts, and basketball courts.¹ The Subarea Plan Area is within Recreation and Park Neighborhood Service Area 7, which encompasses Bayview Hunters Point and areas west of U.S. 101 and includes about 26 parks, playgrounds, and recreation centers.

Immediately to the north of the Subarea Plan Area is Bayview Hill Park,² a 36-acre natural open space area under the jurisdiction of the San Francisco Recreation and Park Department. Primary public access is via Key Avenue on the north side of the park; there is currently no direct access from the Subarea Plan Area. The park includes a network of paved roads and trails. A radio tower within the park is operated through an easement with the City. A draft *Significant Natural Resource Area Management Plan* has been prepared for Bayview Hill Park, and it includes recommendations for vegetation management, recommendations for improvements to wildlife habitat, measures to encourage use of established trails, and measures to control erosion.³

South of the Subarea Plan Area is Candlestick Point State Recreation Area (CPSRA), a 120-acre regional open space (including Yosemite Slough) with active and passive nature-oriented recreational opportunities.⁴ The park extends south from Yosemite Slough, along the east side of Candlestick Park, and along the south side of Harney Way. The park includes hiking and cycling trails, a community garden, fishing piers, picnic areas, and a windsurfing launch area (the windsurfing recreational resource is discussed separately below). A segment of the Bay Trail, a regional multi-use trail, traverses the park.

Nearby Recreational Facilities

Other recreational facilities in the vicinity of the Subarea Plan Area include Gilman Playground at Two Giants Drive, about 1.5 mile northeast of the Subarea Plan Area; Bayview Playground and Martin Luther King Pool at 5601 Third Street, about 2 miles north of the Subarea Plan Area; Little Hollywood Community Park at Lathrop and Tocoloma Avenues, about 0.5 mile west of the Subarea Plan Area; Louis Sutter Playground at the intersection of University and Wayland Streets, about 2.5 miles northwest of the Subarea Plan Area; Visitacion Valley Playground at the intersection of Cora Street and Leland Avenue, about 1 mile west of the Subarea Plan Area; Herz Playground at the intersection of Hahn Street and Visitacion Avenue, about 1.5 miles west of the

¹ San Francisco Recreation and Park Department, Recreation Assessment Report, August 2004, at <http://sfrecpark.org/RecreationAssessment.aspx>, accessed September 22, 2020.

² This park is also referred to as Bayview Hill Natural Area in the facility listings on the San Francisco Recreation and Park Department website, http://www.parks.sfgov.org/site/recpark_index.asp?id=1503#b, accessed March 25, 2009.

³ Section 6.17, Final Draft of *Significant Natural Resource Area Management Plan*, February 2006, http://www.parks.sfgov.org/site/recpark_index.asp?id=32662, accessed March 25, 2009.

⁴ Candlestick Point State Recreation Area park brochure, <http://www.parks.ca.gov/pages/519/files/CandlestickPt.pdf>, accessed March 25, 2009.

Subarea Plan Area; and John McLaren Park at the intersection of Mansell Street and Visitacion Avenue, about 1.5 mile west of the Subarea Plan Area. Combined, these locations offer one ball field, one multi-use field, a swimming pool, two recreation centers, two outdoor basketball courts, and nine tennis courts.⁵

Windsurfing Recreational Resource

CPSRA is considered one of the premier windsurfing sites in the San Francisco Bay Area.⁶ The windsurfing launch site is located on the shoreline of Candlestick Cove near the southern end of the CPSRA parking lot, a turnaround known as “Windsurf Circle.”⁷ Here, there is a narrow sandy beach that is used for sailboard launching. There is also a nearby restroom/shower facility in the parking lot.⁸

According to the San Francisco Boardsailing Association (SFBA), CPSRA is an ideal location for beginning- and intermediate-level windsurfers, because there is very little swell (wave action). These flat-water conditions allow windsurfers to develop skills that are more difficult to master in choppy water. Westerly wind conditions are generally good for windsurfing at CPSRA, with the best conditions during west-northwest winds.⁹ Alternate windsurfing sites such as Crissy Field (San Francisco), Ocean Beach (San Francisco), and Oyster Point (South San Francisco) feature heavy surf, offshore winds, or strong currents – wind and water conditions that are not appropriate for beginners and intermediates.¹⁰ SFBA lists various windsurfing sites around the San Francisco Bay Area and includes ratings for some of the sites. Those that have been rated as

⁵ San Francisco Recreation and Park Department, Recreation Assessment 2004, Maps, at <http://sfrecpark.org/RecreationAssessment.aspx>, accessed September 22, 2010. The Gilman Clubhouse and Visitacion Valley Center are Level 3 recreation facilities. Level 3 facilities offer clubhouses, fields, and after-school programs.

⁶ Peter Thorner, San Francisco Boardsailing Association, letter dated November 14, 2006.

⁷ California State Parks, *Candlestick Point State Recreation Area*, brochure, 2003. Windsurfers may also park along Jamestown Avenue which runs alongside the shoreline at this location.

⁸ The CSPRA site is also one of the “Backbone” and “High Opportunity” launching/landing sites (site SF1) identified in the Draft EIR for the San Francisco Bay Area Water Trail, established by the Water Trail Act, (Assembly Bill 1296) in 2005. The Water Trail project seeks to create a network of launch and landing sites, or “trailheads,” to allow people in human-powered boats and beachable sail craft to enjoy the Bay through single and multiple-day trips on the Bay. Targeted Water Trail users identified in the Draft Plan include people in kayaks, canoes, dragon boats, outrigger canoes, sculls, whaleboats, rowboats/dinghies, and sailboards (windsurfers and kiteboarders). Trailhead owners and managers would join the Water Trail network on a voluntary basis, as the Water Trail project has no regulatory powers (*Draft EIR, San Francisco Bay Area Water Trail Plan*, SCH# 2007112080, June 2008).

⁹ Peter Thorner, San Francisco Boardsailing Association, letter dated November 14, 2006.

¹⁰ *Ibid.*

suitable for beginners are Carlsbad State Beach in Alameda, the Berkeley Marina, and Mariner's Point in Foster City.¹¹

Both the speed and turbulence of the winds that reach the CPSRA windsurfing area are affected by the topography and features of the lands that lie upwind. Winds that move over San Francisco encounter differing levels of surface roughness and take on differing wind speed profiles due to differing topography, vegetation, and structures that all act to slow the wind near the ground and create turbulence. However, when those winds reach large areas of smooth, flat surfaces, such as open land or the Bay, wind speeds near the surface of the ground or water will increase and the level of turbulence will decrease. Of particular importance to the CPSRA wind conditions is the topography of the vicinity, which includes the 525-foot high Visitacion Knob in McLaren Park to the west-northwest and the ridge that extends from McLaren Park eastward to the 250-foot high Bayview Hill several hundred feet north of the project site. In addition to the topography, the extensive low-rise development and the US 101 Freeway that lie to the west and northwest, as well as other approved buildings of similar size that will lie immediately north of the project site will strongly affect the prevailing winds that reach the CPSRA windsurfing area. Most of the project structures would be built on currently vacant land containing parking lots, and some of the proposed buildings would be larger than the three existing on-site buildings that would be demolished. The overall size of the development and masses of the proposed structures could be large enough to have some effect on wind conditions downwind in the CPSRA windsurfing area.

REGULATORY FRAMEWORK

General Plan Open Space Element

The Recreation and Open Space Element ("Open Space Element") in the *General Plan* notes that "While the number of neighborhood parks and facilities is impressive, they are not well distributed throughout the City...The [unequal distribution] merits correction where neighborhoods lacking parks and recreation facilities also have relatively high needs for such facilities." The Open Space Element defines "high need areas" as areas with high population density or high percentages of children, seniors, or low-income households relative to the City as a whole. The Open Space Element defines "deficient" areas as areas that are not served by public open space, areas with population that exceeds the capacity of the open spaces that serve it, or areas with facilities that do not correspond well to neighborhood needs.

The high need areas and deficient areas are shown on Figures 3 through 8 and Map 9 of the Open Space Element, and are based on information from the 1980 U.S. Census. The figures show that

¹¹ San Francisco Boardsailing Association website, <http://www.sfba.org/sites/sites.php>, accessed on May 19, 2009.

the Subarea Plan Area is not within a “high need” area for any of the demographic categories studied. The *General Plan* figures also show the Subarea Plan Area to be served by public open space. Draft updated versions of the maps reflecting 2000 U.S. Census data show that the Subarea Plan Area is not within an area considered “high need” according to any of the Open Space Element criteria, and that the Subarea Plan Area is not considered a high priority for recreation and open space improvements.

However, since the 2000 U.S. Census, the population capacity of the Subarea Plan Area has increased with the completion of residential development and the approval of additional units in the Executive Park Subarea Plan Area (totaling 1,268 constructed and approved residential units).

The Planning Department has published a draft revision to the Recreation and Open Space Element. The revision, which is still in draft form, is undergoing environmental review and is not yet official City policy. Similar to the current Recreation and Open Space Element, this proposed revision shows Executive Park outside of a high need area.¹²

The Open Space Element contains several policies pertaining to the development of parks and recreational facilities. The following policies are relevant to the proposed project:

- Objective 2: Develop and maintain a diversified and balanced citywide system of high-quality open space.
 - Policy 2.1: Provide an adequate total quantity and equitable distribution of public open spaces throughout the City.
 - Policy 2.2: Preserve existing public open space.
 - Policy 2.7: Acquire additional open space for public use.
 - Policy 2.8: Develop a recreational trail system that links city parks and public open space, ridgelines and hilltops, the Bay and ocean, and neighborhoods, and ties into the regional hiking trail system.
- Objective 3: Provide continuous public open space along the shoreline unless public access clearly conflicts with maritime uses or other uses requiring a waterfront location.
 - Policy 3.1: Assure that new development adjacent to the shoreline capitalizes on its unique waterfront location, considers shoreline land use provisions, improves visual and physical access to the water, and conforms to urban design policies.
 - Policy 3.2: Maintain and improve the quality of existing shoreline open space.

¹² Figure 2: High Needs Areas of the *Draft Recreation and Open Space Element*, published May 2009, available on the San Francisco Planning Department website, http://openspace.sfplanning.org/docs/Recreation_and_Open_Space_Element.pdf, accessed September 30, 2009.

- Policy 3.5: Provide new public open spaces along the shoreline.
- Objective 4: Provide opportunities for recreation and the enjoyment of open space in every San Francisco neighborhood.
- Policy 4.6: Assure the provision of adequate public open space to serve new residential development.
- Policy 4.7: Provide open space to serve neighborhood commercial districts.

Recreation and Park Department Recreation Assessment

In August 2004, the San Francisco Recreation and Park Department published a Recreation Assessment Report that evaluates the recreation needs of San Francisco residents. Nine service area maps were developed for the Recreation Assessment Report. The service area maps were intended to help the Recreation and Park Department assess where services are offered, how equitable the service delivery is across the City, and how effective the service is as it applies to the demographics of the service area. The maps define service areas by the capacity of the facility as designed and, in some cases, as actually being used, not by distance. Maps are provided for ball fields, pools, outdoor basketball courts, multi-use / soccer fields, recreation centers and tennis courts. The maps show that the Executive Park Subarea Plan Area is within or partially within the service area of the Gilman Ball Fields; the Martin Luther King Pool; the Little Hollywood Basketball Courts; and the Visitacion Valley Recreation Center. The maps also show that the Subarea Plan Area is not within the service area of any multi-use/soccer field or any tennis court.

Visitacion Valley Community Facilities and Infrastructure Fee and Fund

The Visitacion Valley Community Facilities and Infrastructure Fee and Fund was established in November 2005.¹³ The ordinance recognized that new residential development then planned for sites in Executive Park and the Schlage Lock site would “impact Visitacion Valley’s community facilities and infrastructure and will generate a substantial need for community improvements as the neighborhood’s population grows as a result of new residential development. Substantial new investments in community infrastructure, including active recreational spaces, community facilities, and other services are necessary to mitigate the impacts of new development at these sites.”¹⁴

This ordinance imposed a \$4.58-per-square-foot fee on new residential development in the Visitacion Valley area to mitigate impacts from new residential development in Executive Park and the vicinity on public infrastructure in Visitacion Valley. Among other purposes, the fee

¹³ Ordinance 264-05, adopted November 18, 2005.

¹⁴ Planning Code Section 318.11(b).

revenues are to be used for active recreational spaces in Visitacion Valley. Approximately 28 percent of the improvements budgeted for the Visitacion Valley fee revenue would be dedicated to open space uses. The specific infrastructure improvements that the fee would fund are identified in Planning Code Section 318.11(c) and include active recreational facilities (the Kellogg-Velasco Playground, the Coffman Pool, and the Visitacion Valley Greenway – Education Center for the Sciences and Arts). The Board of Supervisors, in adopting the ordinance in 2005, found that the fees imposed to fund the specific improvements identified are proportionate to the need generated by residential development projects in Visitacion Valley (Planning Code Section 318.11(d)).

At that time, the ordinance projected 1,339 new residential units within the Executive Park Subarea Plan Area and 496 units within the Yerby development site. However, no residential development was projected for the UPC development site at that time. Therefore, the Project will generate more population than what is contemplated by the ordinance. Specific improvements that can be made with the fee's proceeds are limited to those called out in the ordinance. The ordinance would need to be amended to include other open space and recreational facilities.

IMPACTS

EFFECTS ADDRESSED IN PRIOR ENVIRONMENTAL REVIEW

Previous environmental analyses of Executive Park development include an EIR in 1976 ("1976 EIR"), a Subsequent EIR in 1985 ("1985 FSEIR"), a Supplemental EIR in 1999 ("1999 FSEIR"), and EIR Addenda in 2005 and 2007. Except for the 2007 Addendum, these documents did not explicitly address the issue of increased demand for recreational facilities. The 2007 Addendum concluded that the Top Vision Phase III project would not have a significant adverse impact on the availability of open space because open space would continue to be preserved, and because buildout of that project was anticipated in the 1999 FSEIR.

The impacts of new development within the Executive Park Subarea Plan Area on the windsurfing recreational resource at CPSRA have not been studied in prior environmental review.

SIGNIFICANCE THRESHOLDS

The City has not formally adopted significance standards for impacts related to recreation, but generally considers that implementation of a project could have a potentially significant impact if the project were to:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated;

- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment;
- Physically degrade existing recreational resources.

The Initial Study (Appendix A to this SEIR) concluded that discussion of the second bulleted item, above, was not required in the SEIR as the impacts related to construction of recreational facilities are addressed as part of the analysis of construction impacts for the project as a whole.

As discussed below, the proposed project would result in changes in wind conditions on the Bay at the nearby Candlestick Point State Recreation Area windsurfing launch site, and could therefore potentially affect that recreational resource. There are no specific criteria for necessary or optimal wind conditions to support windsurfing, and preferences for wind conditions may vary according to the skill level and objectives of the individual windsurfer. However, for the purposes of this analysis, the third bulleted item above is applied to the CPSRA windsurfing recreational resource as follows: A project could physically degrade a windsurfing recreational resource if it were to reduce wind speeds to the point where the reductions would substantially impair windsurfing in prime windsurfing areas or substantially impair access to or from those areas from existing launch sites.

METHODOLOGY

In determining whether the subject project would have a significant adverse impact to recreational facilities, this report considers the surrounding recreational facilities, the existing capacity of those facilities, and the expected recreational improvements that will be included as part of the project directly and in association with the required Visitacion Valley Impact Fee (Planning Code Section 318.6). This report assumes that if there are a variety of recreational facilities within a service distance with sufficient capacity, there would not be a significant adverse effect. However, this report does not assume that a lack of prescribed capacity for each type of recreational activity in itself means that there would be significant adverse impact. This report also considers the cumulative benefit of improvements associated with the project to the City's overall open space and recreational network.

To determine the effects of the project on windsurfing, wind tunnel tests were performed to study the wind conditions at the windsurfing launch site in the CPSRA and in the sailing area in the Bay to the southwest of the launch site.¹⁵ The test area included a portion of the Bay, extending southward from the project site to approximately 1,000 feet east of the CSPRA launch area. The

¹⁵ Environmental Science Associates, *Technical Memorandum: Potential Wind Conditions at Executive Park Development, Windsurfing Area Testing, June 29, 2009*. This report is on file and available for public review at the San Francisco Planning Department, in Case File Number 2006.0422E.

identified windsurfing sailing area was enclosed within a 1,750-foot by 2,500-foot downwind model grid, anchored at the CPSRA launch area and reaching generally toward the south-southwest. The grid was comprised of 250-foot squares, arranged in a 7-by-10 array that covered approximately 100 acres of water surface area. The study considered three test scenarios: winds under the existing development conditions; winds that would occur under the proposed project; and winds under the proposed project under cumulative conditions (discussed below). The wind tunnel measured wind speed and wind turbulence conditions for each scenario and therefore was able to determine the changes in wind speed and turbulence that would result if the proposed project were to be constructed. Considering the relationship of the proposed development to the windsurfing launch and sailing areas, the wind tests focused on the effects of west (W), west-northwest (WNW), and northwest (NW) winds, the three major wind directions for which the windsurfing area could be most affected by the proposed project. The analysis presents the conditions that would occur when the wind blows from each of the three major wind directions, informing windsurfers of conditions they would experience while sailing under each wind.

Resulting changes in wind conditions were then assessed to determine whether these changes could reduce wind speeds to the point where the reductions would substantially impair windsurfing in prime windsurfing areas or substantially impair access to or from those areas from existing launch sites.

IMPACT EVALUATION

Impact RE-1: Construction of the Yerby and UPC development projects would not adversely affect recreational facilities due to the variety and quantity of open space and recreational opportunities available nearby. (*Less than Significant*)

The Project would not have a significant adverse effect on recreational facilities. There is a wide variety and quantity of nearby open space and recreational opportunities; because of this, it is not expected that any single facility would experience a substantial physical deterioration with the new development.

With construction of the approximately 1,600 residential units in the proposed Yerby and UPC development projects and variants, residential population within the Subarea Plan Area would increase from about 2,890 (in existing and approved units) to about 6,520 residents at full buildout. The increased resident population within the Executive Park Subarea Plan Area would result in an increase in the demand for recreational facilities in the vicinity of the Subarea Plan Area. The increase in the residential demand for recreational facilities would be partially offset by a net decrease in the demand from employment-generating non-residential uses. About 310,000 gsf of existing office and retail space would be demolished under the proposed project (estimated capacity of 1,130 office employees), and about 73,000 gsf of new retail space would be

constructed (estimated capacity of about 210 retail employees).¹⁶ This would result in a net decrease of about 920 employees within Executive Park. Project demand for recreational facilities expected to occur over time throughout the project development period as the Yerby and UPC development projects are constructed and occupied.

The Executive Park Subarea Plan Area is located in between two large-scale regional open spaces. Bayview Hill Park is located immediately north, and CPSRA is located immediately south across Harney Way. These two parks are 36 acres and 120 acres, respectively and together provide a wide range of nature-based active and passive recreational opportunities. Another neighborhood park, Little Hollywood Playground, is also within 0.5 mile of the site.

According to the 2004 Recreational Assessment Report, Executive Park is within the service areas (as defined by capacity) for the nearest Recreation and Park ball fields, pools, and outdoor basketball courts in the City, but is not within the service areas for the nearest multi-use/soccer fields, recreation centers, or tennis courts. It should be noted that it is not expected that every location within the City will be within a service area for each type of recreational facility. As noted above, the subject site is not within an area described by the General Plan as being underserved for any open space or recreational use type, where such additional population could otherwise strain limited recreational resources.

Within Executive Park, open space improvements have recently been made or are currently under way as part of the Signature development. One of the key features of the Signature development is to improve a 20-acre restorative open space that had been set aside since Executive Park's original inception. Signature Properties has recently completed its replanting phase of its improvement plan and is beginning its maintenance phase. As part of the improvements, a trail with a hilltop overlook has been installed.

In addition to being proposed within close proximity to existing recreational and open space facilities, the Project will also include its own public open space improvements.

The proposed Executive Park Subarea Plan and Design Guidelines require the creation of a Streetscape Master Plan before any development can occur. Because of the limited size of the subject project site, the open space and public realm strategy for Executive Park is to create an urban network of streets, alleys, pedestrian paths, and small parks or plazas. Roughly 26,170 square feet of the site north of Alanna (exclusive of Harney) would be dedicated to publicly accessible right of way and small open spaces. The plazas are envisioned as public gathering spaces that will feature street furniture to enable people to enjoy the outdoors in close proximity

¹⁶ See Section V.C, Population and Housing, in this EIR.

to their homes. Plazas are expected to feature seating for nearby restaurants or other commercial establishments or feature small tot lots and other active small-scale uses.

Pursuant to the Sub-Area Plan and Design Guidelines, this public realm network is not only meant to serve the new residents of Executive Park, but to provide more fluid connectivity between the neighborhoods west of Highway 101, the Bay and Bayview Hill to the north. The Subarea Plan envisions the ability of residents of Visitacion Valley and Little Hollywood to travel down Blanken Street and seamlessly continue through one of the many streets or alleys toward the Bay and CPSRA or northward up the new Executive Park hillside open space trail.

Finally, as set forth in Planning Code Sections 318.12 through 318.17, the project sponsors will be required to pay into the Visitacion Valley Community Facilities and Infrastructure Fee and Fund. With the proposed 1,600 units, as noted above, revenues expected to pay for the fee will go toward the Kellogg-Velasco Playground, the Coffman Pool, and the Visitacion Valley Greenway – Education Center for the Sciences and Arts. Also as noted above, Section 319.1(d) states that the improvements outlined therein were proportionate to the need generated by the residential development projects in Visitacion Valley (including Executive Park). Because there are now more residential dwelling units in the approval pipeline than originally anticipated by the fee ordinance, additional revenues could be collected for open space improvements than originally anticipated. However, amendments to the Ordinance would need to be made to expand the itemized list of improvements that could be made through the fee. Therefore, for the purposes of this evaluation, no additional facilities besides those listed in the ordinance at this time are assumed.

There are other proposed large-scale development proposals in the immediate area. The Board of Supervisors recently adopted the *Visitacion Valley Redevelopment Plan* and associated documents. The Visitacion Valley project would accommodate approximately 1,600 new units (both on the Schlage Lock site and elsewhere in the project area). The *Visitacion Valley EIR* concluded that the project would not have a significant adverse impact on recreational resources, because the open space included in the project and the payment the project would make toward the Visitacion Valley Community Facilities and Infrastructure Fee and Fund would sufficiently offset any impacts due to lack of capacity in the existing surrounding recreational facilities.

Immediately to the east, the proposed Candlestick Point-Hunters Point Shipyard Phase II Project would include approximately 10,500 new units. Like Visitacion Valley, the proposal includes an extensive network of new open space and recreational opportunities, including the expansion, reconfiguration and improvement of CPSRA. The Candlestick Point and Hunters Point Shipyard Phase II components of the project together propose an open space and recreational network upwards of 335 acres (including the proposed dual use stadium parking lot). This network will include a variety of active and passive recreational opportunities. It is expected that the new park

and open space network would serve as a citywide and regional resource for recreational opportunities.

As noted above, there is a wide range of existing open space and recreational opportunities in the vicinity of Executive Park. The project site is immediately adjacent to the CPSRA, which provides expansive recreational opportunities that are currently underutilized. Executive Park is not within an underserved area described by the General Plan as being “high need.” According to the 2004 Recreational Assessment Report, the Executive Park Subarea Plan Area is within the service areas of nearby Recreation and Park ball fields, pools, and outdoor basketball courts and recreation centers. In addition, the Visitacion Valley Community Facilities and Infrastructure Fee and Fund, into which the project sponsors will be required to pay, would help assure that improvements can be made to the recreational network in the vicinity of the proposed project to offset the new demand. The recently approved Candlestick Point-Hunters Point Shipyard Phase II Project immediately east would include extensive and varied new public open space and recreational opportunities in a recreational network upwards of 335 acres. Finally, the project itself would create a network of public rights of way and small open spaces that would not only serve its residents, but would link nearby residents with the Bay, CPSRA, and Bayview Hill.

In light of existing open space and recreational facilities serving Executive Park, anticipated new or improved open space and recreational facilities in the vicinity of Executive Park, and new open space included as part of the proposed project, it is not anticipated that the increased use of any one recreational facility would cause substantial physical deterioration or accelerate deterioration. For these reasons the proposed project and variants would not cause physical deterioration or physically degrade any recreational resource, and would therefore not have a significant impact related to Recreation. No mitigation would be necessary.

Impact RE-2: Wind effects of the proposed Yerby and UPC development projects would not result in a substantial degradation of the recreational value of the nearby windsurfing recreational resource at Candlestick Point State Recreation Area. (*Less than Significant*).

Background and Analysis

Wind speed effects on water-related recreational uses of the CPSRA shoreline and Bay areas vary with the specific use. Sailing requires wind, but there appear to be no specific criteria for minimum wind speeds to support “good” sailing. However, wind speeds of 13 mph or more are usually considered desirable for wind-powered activities, such as paragliding and hang-gliding, and seem to apply to windsurfing as well; for highly skilled windsurfers, it appears to be the case that the more wind in the sailing area, the better. Wind is necessary to launch and land, but if winds at the launch site are too strong, beginning- and intermediate-level windsurfers could find it difficult to do either. Wind direction is also important to windsurfing, in that an adverse wind

direction can make it more difficult to launch the board, to reach a desirable sailing area, or to return safely to the launch site.

From the perspective of windsurfers, the presence of existing landforms, vegetation, and buildings that already lie upwind of windsurfing area represent “surface roughness” that reduces the speed and increases the turbulence of the winds that reach the CPSRA launch site and windsurfing area. The proposed project would add additional building masses to the relatively vacant project site, near the shore of the Bay, thereby increasing the effective roughness of the site and decreasing the speed of the wind that reaches the windsurfing area.

Existing Wind Conditions

Wind Speed

Typically, the lowest wind speeds occur closer to the shore, while the highest wind speeds occur farther from the shore over open water.

- Northwest wind speeds near the surface of the Bay range from approximately 39 percent to 58 percent of overhead wind speeds.
- West-Northwest wind speeds near the surface of the Bay range from approximately 47 percent to 60 percent of overhead wind speeds.
- West wind speeds near the surface of the Bay range from approximately 51 percent to 61 percent of overhead wind speeds.

Wind Turbulence

Typically, winds are more turbulent closer to major obstructions and the shore, and winds are less turbulent farther from the shore over open water.

- Northwest wind turbulence intensity (TI) values currently range from 16 percent to 27 percent. The highest TI values, between 22 percent and 27 percent, occur closer to the shore. TI values from 18 percent to 22 percent occur over about half of the test grid. The lowest TI values, between 14 percent and 18 percent, occur in the southern portion of the test grid and an area in the northeast portion of the test grid.
- West-Northwest wind TI values currently range from 16 percent to 25 percent. The highest TI values, between 22 percent and 25 percent, occur in a ± 0.5 -acre area near the shore in the northwest corner of the test grid. TI values from 18 percent to 22 percent cover about one-quarter of the test grid, while TI values from 14 percent to 18 percent cover about three-quarters of the test grid.
- West wind TI values currently range from 15 percent to 21 percent. The highest TI values, between 18 percent and 21 percent, occur in a ± 1.5 -acre area near the shore in the northwest corner of the test grid, while TI values from 14 percent to 18 percent cover most of the test grid.

Effects of the Project in the Existing Setting

Wind Speed

For WNW winds, less than 3 acres of the 100-acre test grid would experience a decrease in wind speed of as much as 10 percent to 20 percent, while wind speed decreases of less than 10 percent would occur throughout the remainder of the test grid. The proposed project would result in changes of less than 10 percent over the entire study area for NW and W winds. Although the proposed project would result in small increases in wind speeds at some locations, the general result would be to decrease wind speeds compared to wind speeds that now occur under existing conditions.

Typically, the speed of the wind would be lowest close to major obstructions on the shore and would increase as the wind travels away from the shore and over open water.

Details of these project wind speed changes by wind direction are as follows:

- Northwest wind speeds would decrease by 5 percent to 10 percent, compared to existing wind speeds, in two areas of the grid well south of the CPSRA windsurfing launching and landing area. These two areas are two bands that extend partially across the grid, one more than 600 feet south and one more than 1,200 feet south-southwest of the CPSRA windsurfing launching and landing area. Northwest wind speeds in other areas of the grid would either decrease less than 5 percent, not change, or increase slightly.
- West-Northwest wind speeds would decrease by 10 percent or more in an area that includes the present CPSRA windsurfing launching and landing area. This less-than-3-acre area would extend as far as approximately 125 feet from the shoreline. West-Northwest wind speed decreases of 5 percent to 10 percent would occur over nearly one-third of the grid, while wind speed decreases of 0 percent to 5 percent would occur over approximately half of the grid.
- West wind speeds over the entire grid, except at the northwest tip of the grid, would not decrease by more than 5 percent from existing wind speeds.

Wind Turbulence

Constructing the proposed project in the existing setting would result in relatively small changes in TI values over most of the study area for NW, WNW and W winds. Typically, the turbulence in the wind would be highest close to major obstructions and the shore and would decrease as the wind travels away from the shore and over open water.

Project wind turbulence changes, by wind direction, are as follows:

- Northwest wind TI values would range from 16 percent to 28 percent, with individual locations changing by -2 percent to 4 percent, compared to existing TI values that range from 16 percent to 27 percent. The highest TI values, between 26 percent and 30 percent, would occur at three spots in the northwest portion of the grid. TI values would range from 22 percent to 26 percent over nearly one-quarter of the grid and from 18 percent to

22 percent over about three-quarters of the grid. The lowest TI values would occur at two locations near the south edge of the grid and one area at the northeast corner of the grid.

- West-Northwest wind TI values would range from 16 percent to 31 percent, with individual locations changing by -2 percent to 6 percent, compared to the existing TI values that range from 16 percent to 25 percent. TI values below 18 percent would occur over a ± 40 -acre area at the south end of the grid, with TI values between 18 percent and 22 percent occurring over a ± 37 -acre area to the north. TI values of 22 percent to 26 percent would occur in a ± 10 -acre area along the shoreline, including the present CPSRA windsurfing launching and landing area. TI values above 26% would occur in a ± 1 -acre area at the northwest corner of the grid.
- West wind TI values would range from 15 percent to 21 percent, with individual locations changing by -1 percent to 2 percent, compared to existing TI values that range from 15 percent to 21 percent. TI values above 18 percent would occur in a ± 17 -acre area along the shoreline, between the CPSRA windsurfing launching and landing area and the northwest corner of the grid. TI values lower than 18 percent would cover the rest of the grid.

These changes in wind speed and turbulence in the launch and sailing areas are expected to be undetectable to most of the beginning- and intermediate-level windsurfers that typically use CPSRA. These changes are not expected to impair a windsurfer's ability to launch, reach a desirable sailing area, or return safely to the launch site. Regardless of whether these wind speed reductions and turbulence increases are detectable, these changes would affect some parts of the area more than others, but would not physically degrade the use of this area for windsurfing. As such, the proposed project would not reduce wind speeds to the point where the reductions would substantially impair windsurfing in prime windsurfing areas on the Bay or substantially impair access to or from those areas from the CPSRA launch site. For these reasons, the proposed project would not result in a significant impact on the CPSRA windsurfing recreational resource. No mitigation measures are necessary.

The proposed building changes under Design Variant A (which calls for changes in building setbacks and façade articulation along certain internal streets and alleys) and Design Variant B (which would reconfigure Buildings 6 and 7 by reorienting the pedestrian way separating Buildings 6 and 7 from perpendicular to Harney Way under the proposed Yerby and UPC development projects, to parallel to Harney Way), would not result in changes in the wind conditions that would propagate much beyond the boundaries of the project site.¹⁷ As a result, none of the changes would have any discernible effect on wind speeds or wind turbulence at the

¹⁷ Charles Bennett, Environmental Science Associates, Technical Memorandum, "Evaluation of Potential Changes in Wind Conditions at Executive Park, San Francisco, By Variant A Design of UPC Buildings 6 and 7 and Setback and Façade Articulation Changes;" February 1, 2010. A copy is available for review at the Planning Department, 1650 Mission, Suite 400, in the files for Case No. 2006.0422E.

windsurfing launch site at CPSRA or in the sailing area that lies to the southeast of the project site. For these reasons, the wind impacts on the windsurfing recreational resource would be substantially the same as those described for the proposed Yerby and UPC development projects.

Impact RE-3: Wind effects of the proposed Yerby and UPC development projects would not contribute to a substantial cumulative degradation of the recreational value of the nearby windsurfing recreational resource at Candlestick Point State Recreation Area when considered with nearby anticipated development. (*Less than Significant*).

With the proposed project under cumulative conditions, wind speed reductions of 10 percent to 20 percent would occur over 7 percent and 10 percent of the study area during NW and WNW winds, respectively. The Project plus Cumulative development would result in wind speed changes of less than 10 percent over the remainder of the study area for NW and WNW winds. For West winds, there would be no contribution to changes in wind speed from cumulative development.

The effects of proposed project under cumulative conditions on wind speed and turbulence are similar to those of the proposed project for WNW and W winds; however, differences occur for NW winds, where the project under cumulative conditions results in further reductions in wind speed and additional increases in turbulence that occur primarily along the shoreline and in the northeast quadrant of the test grid.

Details of the wind speed and turbulence changes for the proposed project under cumulative conditions by wind direction, are as follows:

Wind Speed

- Northwest wind speeds would decrease by 10 percent to 20 percent, compared to existing wind speeds, along a 7-acre shoreline area that includes the present CPSRA windsurfing launching and landing area and extends more than 300 feet into the Bay. Wind speed decreases of 5 percent to 10 percent would occur over a nearly 36-acre area of the grid. Northwest wind speeds in other areas of the grid would decrease by less than 5 percent; in a 12-acre area near the center of the grid, Northwest wind speeds would either not change or would increase slightly.
- West-Northwest wind speeds would decrease by 10 percent to 20 percent, compared to existing wind speeds, along a 10-acre shoreline area that includes the present CPSRA windsurfing launching and landing area and extends from approximately 125 feet to 500 feet into the Bay. West-Northwest wind speed decreases of 5 percent to 10 percent would occur over a nearly 27-acre area of the grid, while wind speed decreases of 0 percent to 5 percent would occur over a 40-acre area of the grid. Wind speed increases of 0 percent to 5 percent would occur in a nearly 6-acre area at the south end of the grid.
- West wind speeds would decrease by 5 percent to 10 percent, compared to existing wind speeds, at one spot on the shoreline at the northwest corner of the grid. West wind speeds

over the rest of the grid would not change by more than 5 percent from existing wind conditions.

Wind Turbulence

The proposed project under cumulative conditions would result in relatively small changes in wind turbulence intensity (TI) over most of the study area for NW, WNW and W winds. Typically, the turbulence in the wind would be largest close to major obstructions and the shore and would decrease as the wind travels away from the shore and over open water.

The proposed project under cumulative conditions would result in wind turbulence changes, by wind direction, as follows:

- Northwest wind TI values would range from 18 percent to 31 percent, with individual locations changing by -1 percent to 6 percent, compared to existing TI values that range from 16 percent to 27 percent. TI values would be greater than 26 percent in a 2-acre area at the northwest corner of the grid. TI values would range from 22 percent to 26 percent over a 27-acre area covering the northwest portion of the grid and from 18 percent to 22 percent over most of the rest of the grid. The lowest TI values, between 14 percent and 18 percent, would occur at two locations near the south end of the grid.
- West-Northwest wind TI values would range from 16 percent to 30 percent, with individual locations changing by -2 percent to 8 percent, compared to existing TI values that range from 16 percent to 25 percent. TI values would be less than 18 percent over a 47-acre area at the south end of the grid, with higher TI values, between 18 percent and 22 percent, over a 30-acre area to the north. TI values from 22 percent to 26 percent would occur in a 20-acre area along the shoreline, including the CPSRA windsurfing launching and landing area. TI values would be higher than 26 percent in a 1-acre area at the shoreline at the northwest corner of the grid.
- West wind TI values would range from 15 percent to 23 percent, with individual locations changing by -1.6 percent to 1.7 percent, compared to existing TI values that range from 15 percent to 21 percent. TI values higher than 18 percent would occur in a 17-acre area that would extend along the shoreline from the CPSRA windsurfing launching and landing area to the northwest corner of the grid. TI values would be lower than 18 percent over the rest of the grid.

These changes in wind speed and turbulence in the sailing area are expected to be undetectable to most of the beginning- and intermediate-level windsurfers that typically use CPSRA. These changes are not expected to impair a windsurfer's ability to launch, reach a desirable sailing area, or return safely to the launch site. Regardless of whether these wind speed reductions and turbulence increases are detectable, these changes would affect some parts of the area more than others, but would not physically degrade the use of this area for windsurfing. As such, the proposed project under cumulative conditions would not reduce wind speeds to the point where the reductions would substantially impair windsurfing in prime windsurfing areas on the Bay or substantially impair access to or from those areas from the CPSRA launch site. For these reasons,

the proposed project would not contribute to a significant cumulative impact on the CPSRA windsurfing recreational resource. No mitigation measures are necessary.

The proposed building changes under Design Variant A (which calls for changes in building setbacks and façade articulation along certain internal streets and alleys) and Design Variant B (which would reconfigure Buildings 6 and 7 by reorienting the pedestrian way separating Buildings 6 and 7 from perpendicular to Harney Way under the proposed Yerby and UPC development projects, to parallel to Harney Way), would not result in changes in the wind conditions that would propagate much beyond the boundaries of the project site.¹⁸ As a result, none of the changes would have any discernible cumulative effect on wind speeds or wind turbulence at the windsurfing launch site at CPSRA or in the sailing area that lies to the southeast of the project site. For these reasons, the cumulative wind impacts on the windsurfing recreational resource would be substantially the same as that described for the proposed Yerby and UPC development projects.

¹⁸ Ibid.

L. WATER SUPPLY

This section examines the effects of the proposed amended Subarea Plan and the proposed Yerby and UPC development projects related to water supply. The Setting subsection describes the existing water supply service to the Subarea Plan Area. The Impacts subsection identifies significance criteria for water supply impacts, and identifies the water supply impacts that would occur if the proposed amended Subarea Plan and Yerby and UPC development projects were implemented. This section also considers the contribution of the proposed amended Subarea Plan and development projects to cumulative environmental impacts related to water supply from anticipated future development Citywide.

SETTING

EXISTING WATER SUPPLY

The San Francisco Public Utilities Commission (SFPUC) through its Regional Water System (RWS) delivers an annual average of about 265 million gallons per day (mgd) of water to 2.4 million total users. About one-third of this water is supplied directly to retail customers in San Francisco (including the Executive Park Subarea Plan Area) and about two-thirds is supplied to wholesale customers by contractual agreement (including cities, water districts, schools and private water companies) in Alameda, San Mateo, and Santa Clara Counties.¹

Most of the water delivered by the RWS (about 85 percent on average) is comprised of diversions from the Tuolumne River through the Hetch Hetchy Water and Power Project. The rest consists of runoff into local Bay Area reservoirs.

Within San Francisco, the RWS supplies are distributed through the SFPUC's in-City distribution system. A small portion of San Francisco's water demand (about 4 percent) is met through locally produced groundwater and secondary-treated recycled water.

WATER DEMAND

The *2005 Urban Water Management Plan* (2005 UWMP) reports current water use in the City and estimates projected water use through 2030 using economic and forecast data including projections of population, housing stock, and employment. The population projections are based on the Association of Bay Area Government (ABAG) report titled *Projections 2002*. ABAG

¹ San Francisco Public Utilities Commission, *2005 Urban Water Management Plan for the City and County of San Francisco*, December 2005, pp. 9-11. Available online at http://sfwater.org/detail.cfm/MC_ID/13/MSC_ID/165/MTO_ID/286/C_ID/2776.

projections were further reviewed and refined by the San Francisco Planning Department based on anticipated future development.²

The 2005 UWMP reports that San Francisco's water use is about 82.8 mgd total, of which about 46.1 mgd (or 55.7 percent) is delivered to residential customers, and about 29.2 mgd (or 35.2 percent) is delivered to non-residential users.³ In the 2005 UWMP, Citywide water demand in 2030 is projected to be 83.8 mgd total, of which about 42.9 mgd (or 52.2 percent) will be from residential customers, and about 33.5 mgd (or 40 percent) will be from non-residential users. Total system-wide demand (which includes San Francisco plus other cities and counties, water districts, and institutional users) is projected to be 300 mgd by 2030.⁴

Residential water use is expected to decrease by 2030 due to an anticipated decrease in the number of people in each housing unit and the increased use of water-efficient plumbing fixtures.⁵ The decrease in residential water use is expected to offset increases in non-residential water use. The 2005 UWMP thus projects that San Francisco's water demand will remain almost flat (constant) from 2000 to 2030 despite an expected growth in population during the same period.

MEETING WATER DEMAND

The City's 2005 UWMP projects that, during years of normal precipitation, the SFPUC will have adequate supplies to meet the projected demand.⁶ However, the RWS is projected to experience shortages during single and multiple dry-year drought sequences.⁷

The SFPUC has developed a long-term strategy to address the potential of future water supply deficiencies.⁸ The SFPUC has adopted the Water System Improvement Program (WSIP) to meet its goals for water quality, seismic reliability, delivery reliability, and sustainability. The WSIP includes a water supply strategy, modifications to system operations, and construction of a series

² 2005 UWMP, p. 42.

³ 2005 UWMP, Table 8B, p. 43. The rest is "Unaccounted" water which accounts for approximately 8.8 percent (including necessary, but unmetered uses such as fire fighting, main flushing, and storage facility cleaning, as well as losses due to leaking pipes).

⁴ 2005 UWMP, Table 7.1, p. 47.

⁵ 2005 UWMP, pp. 42-43.

⁶ 2005 UWMP, Table 10, p. 47.

⁷ 2005 UWMP, Section 7: Supply and Demand Comparison Provisions, pp. 47-60.

⁸ 2005 UWMP, Section 5.2 SFPUC RWS Plans to Assure a Reliable Water Supply, p. 22.

of facility improvement projects. A Program EIR for the WSIP has been certified,⁹ and project-level environmental review of specific WSIP projects is currently underway.

The 2005 UWMP identifies other programs to ensure adequate water supply, including a program to increase the amount of groundwater in storage available for dry years, water transfers, groundwater use, water recycling, and desalination.¹⁰

The 2005 UWMP identifies water demand management programs including minimization of water losses, financial incentives for installation of efficient plumbing devices, water audits for customers, educational programs, and conservation pricing.¹¹

REGULATORY FRAMEWORK

Urban Water Management Planning Act

The Urban Water Management Planning Act (Water Code, Section 10631) requires a water supplier to prepare an Urban Water Management Plan to document water supplies available during normal, single dry, and multiple dry water years during a 20-year projection and the existing and projected future water demand during a 20-year projection. The water supplier must update the Urban Water Management Plan every 5 years. San Francisco's UWMP will be updated in 2010.

Senate Bill 610 and Senate Bill 221

SB 610 and SB 221, which were signed into law by former California Governor Gray Davis on October 9, 2001, are companion measures that seek to promote collaborative planning and coordination between local water suppliers and cities and counties.

Under SB 610, a water supplier must furnish a water supply assessment to local governments for inclusion in environmental documents for certain projects (as defined in Water Code 10912 [a]) subject to the Environmental Quality Act. Under SB 221, City and County approval of certain development projects requires an affirmative written verification of sufficient water supply.

The UWMP is a planning document that may be used by the water supplier to fulfill the requirements of SB 610 and SB 221.¹²

⁹ San Francisco Planning Department, Program Environmental Impact Report on the San Francisco Public Utilities Commission's Water System Improvement Program, October 30, 2008, certified in SFPUC Motion 17734.

¹⁰ 2005 UWMP, Section 5, Reliability Planning, pp. 21-38.

¹¹ 2005 UWMP, Section 8, Water Demand Management Measures, pp. 61-77.

IMPACTS

EFFECTS ADDRESSED IN PRIOR ENVIRONMENTAL REVIEW

Previous environmental analyses of Executive Park development include an EIR in 1976 (“1976 EIR”), a Subsequent EIR in 1985 (“1985 FSEIR”), a Supplemental EIR in 1999 (“1999 FSEIR”), and EIR Addenda in 2005 and 2007.

The 1976 EIR projected the water consumption of the then-proposed project, and indicated that adequate water supply would exist based on discussions with the water supplier. It determined that the project, together with other projects, could increase the cumulative need for expanded storage and distribution facilities.

The 1985 FSEIR noted that the then-proposed project would incorporate low-flow plumbing fixtures to reduce water consumption.

The 1999 FSEIR concluded that the then-proposed development would not result in a substantial increase in water use and that existing water resources were sufficient to serve the site. In addition, the project analyzed in the 1999 FSEIR included the same water conservation measures as those identified in the 1985 FSEIR. For those reasons, the 1999 FSEIR concluded that impacts related to water supply would be less than significant.

The EIR Addenda in 2005 and 2007 relied on the 1999 SEIR to conclude that the Signature Properties and Top Vision Phase III development projects would not have a significant impact related to water supply.

SIGNIFICANCE THRESHOLDS

The City has not formally adopted significance standards for impacts related to water supply, but generally considers that implementation of a project could have a potentially significant impact related to water supply if the project were to:

- Require or result in the construction of new water ... facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- Require new or expanded water supply resources or entitlements.

The Initial Study for the proposed project (Appendix A to this SEIR) concludes that discussion of other topics under Section 10, Utilities and Service Systems (i.e., Wastewater, Stormwater, and

¹² California Department of Water Resources, *Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001*. October 8, 2003, p. iii. Available online at <http://www.owue.water.ca.gov/Guidebook.pdf>.

Solid Waste) is not required in the SEIR because these existing utilities and services had adequate capacity to serve the proposed Yerby and UPC development projects.^{13, 14}

METHODOLOGY

Pursuant to SB 610 and SB 221, the SFPUC issued a letter confirming that the water demand for the Executive Park development projects is included in the water use projections of the 2005 UWMP through 2030 (included as EIR Appendix C).¹⁵ As the proposed project is covered under the 2005 UWMP, the SFPUC may rely on the 2005 UWMP for its assessment of adequate water supply for the Executive Park development projects. The letter states:

The SFPUC Urban Water Management Plan Update 2005 (UWMP) projects water use in the City and County of San Francisco through year 2030. The water use projections are related to population and business trends forecast by the association of Bay Area Governments (ABAG) Projections 2002 as well as San Francisco Planning Department's Land Use Allocation 2002 (LUA 2002) projections. As such, the SFPUC has included the water demands associated with the proposed project in future water demands for the City and County of San Francisco.

The UWMP 2005 provides plans to meet the City and County of San Francisco's future water demands through 2030. The proposed project will not result in major expansion of the water utility system.

IMPACT EVALUATION

Impact WA-1: The proposed development projects would not result in the need for new or expanded water supply entitlements and would not require new or expanded water facilities. (*Less than Significant*)

Buildout under the proposed amended Executive Park Subarea Plan under the proposed development projects or variants would add approximately 1,600 residential units to San Francisco's housing stock, increasing the population on the site by about 3,630 additional residents.¹⁶ The existing 307,600 gsf of office space on the site would be demolished, and 73,200

¹³ San Francisco Public Utilities Commission, *Sewer Availability for Executive Park - Harney Way Development*, May 24, 2007.

¹⁴ California Integrated Waste Management Board, Active Landfill Profiles, Altamont Landfill, <http://www.ciwmb.ca.gov/Profiles/Facility/Landfill/LFProfile1.asp?COID=3&FACID=01-AA-0009>, accessed October 28, 2008.

¹⁵ San Francisco Public Utilities Commission, *Letter RE: Executive Park Project Water Supply Assessment*, May 6, 2009.

¹⁶ Based on a factor of 2.30 persons per household forecast for 2025. See Section V.C. Population and Housing in this EIR.

gsf of proposed retail use would be constructed, resulting in a 234,400-gsf net decrease in non-residential use in the Plan Area.

According to the 2005 UWMP, residential uses have a current per capita consumption of 62 gallons per capita per day (gpcd).¹⁷ Applying this factor to the projected 3,630 additional residents of the Yerby and UPC development projects results in a residential water use increase of approximately 225,060 gpd. Offset by an estimated net decrease of about 35,160 gpd from the proposed demolition of the existing non-residential use in the Plan Area,¹⁸ implementation of the proposed Yerby and UPC development projects and variants is estimated to increase water demand by about 189,900 gpd.

On May 6, 2009, pursuant to SB 610 and SB 221, the SFPUC issued a letter confirming that the water demand for the Executive Park development projects is included in the water use projections of the 2005 UWMP through 2030. As the proposed project is covered under the 2005 UWMP, the SFPUC may rely on the 2005 UWMP for its assessment of adequate water supply for the Executive Park development projects. As concluded in that letter, buildout under the Executive Park Subarea Plan would not result in the need for new or expanded water supply entitlements and would not require new or expanded water facilities that could cause significant environmental impact. Therefore, the impact related to water supply is considered less than significant, and no mitigation is necessary.

Impact WA-2: The proposed development projects, when considered with anticipated development projects in the City, would not contribute considerably to cumulative water supply impacts. (*Less than Significant*)

Implementation of the proposed development projects and variants would contribute to future cumulative water demand Citywide. The 2005 UWMP projects that the number of households Citywide will grow by 36,508 households between 2005 and 2030.¹⁹ As discussed above, the SFPUC has verified that the amount of development in the proposed Executive Park development projects is included within the 2005 UWMP's future growth projections through 2030. The 2005 UWMP identifies implementation of the WSIP as a necessary measure to meet cumulative future water demand in the event of future drought conditions. The environmental impacts that would

¹⁷ 2005 UWMP, p. 40. Note that this factor combines single-family and multi-family residences. The Yerby and UPC development projects would be entirely multi-unit residential buildings, and are therefore expected to use less water per unit.

¹⁸ The UWMP does not present a demand factors for non-residential use. A non-residential water demand factor of 150 gpd per 1,000 square feet is taken from the *Bayview Hunters Point Redevelopment Projects and Rezoning Draft EIR*, San Francisco Redevelopment Agency and San Francisco Planning Department, October 19, 2004, p. III.O-25. Applying this factor to the 234,400-gsf net reduction of non-residential use, results in a net decrease in non-residential water use of approximately 35,160 gpd.

¹⁹ 2005 UWMP, Table 2, p. 7.

result from implementation of the WSIP are identified in the WSIP Program EIR. The environmental impacts of implementing the constituent WSIP projects are identified in the Project EIRs for the separate WSIP projects.

Implementation of the proposed development projects and variants may also contribute to cumulative future demand that was not projected in the 2005 UWMP. To update the water supply and demand estimates provided in the 2005 UWMP, the SFPUC has developed a Water Supply Availability Study.²⁰ That study incorporates new water supply information and generates new estimates of future water demand for San Francisco based on the most current population and employment estimates which include major development proposals not anticipated by the 2005 UWMP, including a number of more recent applications for large-scale, long-term development projects (e.g., Candlestick Point-Hunters Point Shipyard Phase II Project, Treasure Island, and Parkmerced). The Water Supply Availability Study finds that updated development projections result in a retail demand in 2030 which is only slightly greater than the 2030 demand estimates projected in the 2005 UWMP, and that the increase does not change the results of the 2005 UWMP. The SFPUC can still meet the current and future demand of its retail customers in years of average or above average precipitation. During a multiple dry year event, however, it is possible that the SFPUC will not be able to meet 100 percent of the retail demand. It would therefore have to implement a Water Supply Allocation Plan to balance supply and demand. With such a plan in place, together with the addition of local WSIP supplies, the Water Supply Availability Study concludes that there would be sufficient water available to serve the demand from existing and projected future development.

For these reasons, the contribution of the proposed Yerby and UPC development projects to cumulative future water demand would not result in a significant cumulative impact related to water supply, and no mitigation is necessary.

²⁰ San Francisco Public Utilities Commission, *Final Water Supply Availability Study for City and County of San Francisco*, October 2009.

M. POLICE AND FIRE PROTECTION SERVICES

This section examines the effects of the proposed amended Subarea Plan and the proposed Yerby and UPC development projects and variants related to police and fire protection services. The Setting subsection describes the existing police and fire protection facilities serving the Subarea Plan Area. The Impacts subsection identifies significance criteria for impacts related to police and fire protection services, and discusses the changes in demand for police and fire service that would occur if the proposed amended Subarea Plan and Yerby and UPC development projects and variants were implemented. This section also considers the contribution of the proposed amended Subarea Plan, development projects, and variants to cumulative environmental impacts related to police and fire protection services from anticipated future development in the vicinity.

SETTING

EXISTING POLICE PROTECTION SERVICE

The San Francisco Police Department (SFPD), headquartered at 850 Bryant Street, provides police protection for the City and County of San Francisco, including the project site. The SFPD consists of 4 Bureaus and 10 Districts located throughout the City, and the Department employs approximately 2,370 sworn officers.

Bayview Police District

The Executive Park Subarea Plan Area lies within the Bayview Police District of the San Francisco Police Department. Bayview Station is located at 201 Williams Avenue, about 1.3 miles north of the Executive Park Subarea Plan Area. The district extends from Channel Street in the north to the San Mateo County line in the south, and from the eastern edge of McClaren Park (Cambridge Street) in the west to San Francisco Bay in the east.

The Bayview District has a population of about 60,300 people based on the 2000 U.S. Census (about 7.8 percent of the City total) and covers about 8 square miles (about 18 percent of the City's total land area).¹ It contains residential neighborhoods (e.g. Executive Park, Bayview, Hunters Point, Silver Terrace, Potrero Hill, Mission Bay, and Portola); retail areas; and employment uses (office wholesale, warehousing and distribution, assembly, and technical activities, among others), some of which are located on Port of San Francisco lands. The district

¹ The Public Safety Strategies Group, *San Francisco Police Department District Station Boundaries Analysis—Final Report*, May 13, 2008. p. 28. Available online at http://www.sfgov.org/site/uploadedfiles/controller/reports/SFPD_DSBAfinal_trnsmntl.pdf.

also contains about 30 public and private schools, 2 acute-care hospitals (San Francisco General and St. Luke's), and other public and private community facilities.

Police Operations

Four basic activities account for police officers' on-the-job time: responding to calls for service; performing activities designed to promote order and detect or deter criminal behavior; conducting administrative tasks; and engaging in community policing (e.g., working and meeting with community groups, businesses, schools, and other government agencies).

A 2008 report on the City's police district station boundaries, *San Francisco Police Department District Station Boundaries Analysis* (Boundaries Analysis report), was prepared for the City and County of San Francisco by the Public Safety Strategy Group (PSSG).² That report recommended that the existing district boundaries be realigned to create 5 districts from the existing 10 Citywide, and specifically that the existing Bayview District be consolidated with the neighboring Ingleside District to the west to reduce redundancies in administrative functions. More officers could thereby be redeployed to patrol functions, increasing police presence and visibility in the communities. That report considered the projected 2025 population Citywide, including an increase in the population in southeast San Francisco of about 15,300 people from 2000-2025.³ The boundaries of the proposed Southeast District are as follows: San Francisco Bay on the east; the county line on the south; Mission Street on the west; and Interstate 280 and the Islais Creek Channel on the north.⁴

Response Time

The type of police response required varies according to the nature and urgency of the call. Calls for services are categorized as Priority A, B, and C. Priority A calls are of the highest priority, Priority B calls are second in priority, and Priority C calls are the third level of priority. There are no adopted response time requirements for Priority A, B, or C calls. Incident response times can vary depending on the physical location of patrol vehicles and officers in the district and the proximity to reported incidents. Incidents in progress and violent incidents require more immediate response than break-ins, acts of vandalism, or check scams that are discovered sometime after they have occurred. From 2008 to 2009, the overall average response time in the Bayview District has improved and is better than the citywide averages identified in 2007.⁵

² Public Safety Strategies Group, pp. 53-63.

³ Public Safety Strategies Group, pp. 30-31.

⁴ Public Safety Strategies Group, pp. 56-57.

⁵ Public Safety Strategies Group, p. 44.

Staffing

In 2007, the Police Department employed approximately 2,650 people. Approximately 2,300 of these employees were uniformed officers.⁶ Citywide, the Police Department has about 2,500 budgeted positions for uniformed officers, of which about 2,370 are currently filled. The SFPD does not have an adopted standard for the ratio of officers to population or developed acreage and bases its staffing levels on the number of service calls and crime incidents.⁷

Bayview Station personnel include command staff, administrative officers, and patrol officers. In total, there were 138-148 total sworn officers in 2009.⁸ Officers are assigned by sector, and there are five sectors in the Bayview District. The number of officers on patrol varies by shift, and the shifts are staggered throughout the day. The Police Department also operates several community-center-based programs oriented toward youth. Additional officers are stationed in and around Candlestick Park on football game days (the cost of these officers is borne by the San Francisco 49ers football organization).

From 2002 through 2007, there were approximately 424,000 calls for service in the Bayview District (about 10 percent of the Citywide total). Citywide, crime rates have not changed substantially over the past five years for which data are available.⁹

Facilities

Bayview Station opened in February, 1997. Several police functions which are independent of those located at Bayview Station were previously located in the Hunters Point Shipyard, including the tactical (SWAT) unit, the bomb squad, the canine unit, and some equipment storage. Due to site remediation at the Hunters Point Shipyard, these functions have been relocated to the Potrero Center at 16th Street and Potrero Avenue.

The Boundaries Analysis report reviewed district police stations as part of an evaluation of the SFPD district stations' boundaries. The report identifies improvement needs at most existing stations:

The stations are either at capacity or too small for the number of personnel assigned, storage is lacking, locker rooms are inadequate, and technology is

⁶ Public Safety Strategies Group, p. 44.

⁷ San Francisco Police Department, http://www.sfgov.org/site/police_index.asp?id=19971, accessed July 10, 2009; Lazar, Lieutenant David, SFPD Field Operations Bureau, written communication, July 13, 2007; meeting with SFPD staff regarding Candlestick Point/Hunters Point Shipyard Redevelopment Plan, April 22, 2008.

⁸ City and County of San Francisco, *Candlestick Point – Hunters Point Shipyard Phase II EIR*, p. III.O-5.

⁹ Public Safety Strategies Group, p. 46, D4.

outdated and/or non-existent. ... [Most of the] stations, despite being fairly new or updated, do not fully meet the needs of the SFPD. Station facilities are small, locker rooms do not provide adequate space, juvenile facilities are lacking, interview and report-writing rooms compromise productivity, and facilities present safety and security concerns.¹⁰

At two stations (Central and Southern), particularly pressing shortcomings were found, and an immediate need for replacement of those two stations was identified. With regard to the Bayview Station specifically, the *Boundaries Analysis* report notes:

Bayview is a newer station. The physical set up of the facility would need improvement if additional officers were assigned to the facility. Parking is limited for both police and private vehicles.¹¹

The report does not call for replacement of Bayview Station.

EXISTING FIRE PROTECTION SERVICE

The San Francisco Fire Department (SFFD) is responsible for protecting life and property throughout San Francisco from fires, natural disasters, and hazardous materials incidents.¹² The SFFD also provides unified emergency medical services (EMS) in the City, including basic life support (BLS) and ALS services. In addition, several privately operated ambulance companies are authorized to provide BLS and ALS services.

The SFFD includes approximately 1,700 firefighting and emergency personnel. The SFFD consists of three divisions, which are further divided into 10 battalions and 42 active stations located strategically throughout the City. The SFFD does not have adopted standards or performance objectives for response times or service ratios. However, review against National Fire Protection Agency standards indicates that the SFFD meets national standards for response times and staffing.¹³

The Subarea Plan Area is located within the southeastern part of San Francisco, and is served by Division Three of the SFFD. The first responder to the Subarea Plan Area is Station 17, at 1295 Shafter Avenue (about 1.9 miles northeast of Executive Park). Other fire stations in the vicinity include Station 44, at 1298 Girard Street (about 1.3 miles away); Station 42, at 2430 San

¹⁰ Public Safety Strategies Group, pp. 20 and 27.

¹¹ Public Safety Strategies Group, Table 2, p. 20

¹² The mission of the Fire Department is stated on website of the City and County of San Francisco at www.sfgov.org/site/sffd_index.asp, accessed July 10, 2009. The mission statement also includes fire prevention education and goals for the work environment.

¹³ Office of the Controller, City and County of San Francisco, *A Review of the San Francisco Fire-EMS System*, April 2004, Appendix B. Available online at http://www.sfgov.org/site/controller_page.asp?id=24430.

Bruno Avenue (about 2.3 miles away); and Station 25, at 3305 Third Street (about 4.4 miles away).¹⁴ Three of the stations have advanced life support (ALS) engine companies; Station 17 also has a medic unit and a truck company. A future fire station is contemplated within the Mission Bay Redevelopment Area at Third Street and Mission Rock (about 6 miles away).

IMPACTS

EFFECTS ADDRESSED IN PRIOR ENVIRONMENTAL REVIEW

Previous environmental analyses of Executive Park development include an EIR in 1976 (“1976 EIR”), a Subsequent EIR in 1985 (“1985 FSEIR”), a Supplemental EIR in 1999 (“1999 FSEIR”), and EIR Addenda in 2005 and 2007.

The 1976 EIR predicted the number and cost of incidents requiring police response. It indicated that fire protection service could be available to meet the needs of the then-proposed project

The 1985 FSEIR noted that internal security measures as part of the then-proposed project (such as security guards, lighting, and alarm systems) would minimize the need for police and fire services.

The 1999 FSEIR concluded that Executive Park development would create little additional demand for police services in the area. In addition, the project analyzed in the 1999 FSEIR included the same security measures as those referenced in the 1985 FSEIR. The 1999 FSEIR also determined that the increase in demand would not require the construction of any new police facilities. For those reasons, the 1999 FSEIR concluded that impacts to police protection services would be less than significant.

The EIR Addenda in 2005 and 2007 relied on the 1999 SEIR to conclude that the Signature Properties and Top Vision Phase III development projects would not have a significant impact related to police and fire protection services.

The City has not formally adopted significance standards for impacts related to police and fire services, but generally considers that implementation of a project could have a potentially significant impact if the project were to:

- Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which

¹⁴ *A Review of the San Francisco Fire-EMS System*, Appendix C.; San Francisco Fire Department website, http://www.sfgov.org/site/sffd_page.asp?id=57819, accessed July 10, 2009; distances calculated with www.mapquest.com.

could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any public services such as fire protection, police protection...

The Initial Study (Appendix A to this EIR) concluded that discussion of schools and other public facilities was not required in the SEIR. Recreational facilities are discussed in Section V.K, Recreation, in this EIR.

METHODOLOGY

Impacts on police protection services are considered significant if an increase in population or development levels would result in inadequate staffing levels, response times, and/or increased demand for services that would require the construction or expansion of new or altered facilities that might have an adverse physical effect on the environment. A significant impact would occur if a project generated the need for additional officers that could not be accommodated at the existing Bayview Station and would require the construction or expansion of a new facility in the Bayview District. This methodology for assessing impacts on police services was determined through interviews with SFPD staff, as well as communications with PSSG, a consulting firm hired by the SFPD to assess facilities needs. Additionally, the Project's potential contribution to cumulative land use impacts is evaluated in the context of existing, proposed, and reasonably foreseeable future development expected in the project vicinity.

IMPACT EVALUATION

Impact PS-1: The proposed development projects would create additional demand for police protection service. (*Less than Significant*)

The buildout of Executive Park under the proposed amended Subarea Plan Area would not increase police response times by placing new development in areas that are inaccessible or distant from an existing police station or existing neighborhood patrols. Rather, the proposed development projects would be infill development within an accessible area that is already served by existing police protection service.

With construction of the approximately 1,600 residential units in the proposed Yerby and UPC development projects and variants, residential population within the Subarea Plan Area would increase from about 2,890 (in existing and approved units) to about 6,520 residents at full buildout. The increase of 3,630 in Subarea Plan Area residential population would constitute an approximately 6 percent increase in the Bayview District population of 60,300 people. The increased resident population within the Executive Park Subarea Plan Area would result in an increase in the demand for service from Bayview Station.

The increase in the residential demand for police protection service within Executive Park would be partially offset by a net decrease in the demand from employment-generating non-residential uses. About 310,000 gsf of existing office and retail space would be demolished under the proposed project (estimated capacity of 1,130 office employees), and about 73,000 gsf of new retail space would be constructed (estimated capacity of about 210 retail employees).¹⁵ This would result in a net decrease of about 920 employees requiring police protection service within Executive Park.

Project demand for police protection service is expected to occur over time throughout the project development period as the Yerby and UPC development projects are constructed and occupied. The means to address the increase in calls would be to hire, train, and deploy more officers and add more vehicles to the district's fleet.¹⁶ Due to efficiencies in providing service to this urban infill site, the percentage increase in the police personnel needed to respond to the increased demand is likely to be less than the projected 6 percent residential population increase to the district associated with the project. Additionally, the number of police staff serving administrative roles generally does not increase proportionately to an increase in the field staff.¹⁷ As discussed above under the heading "Significance Thresholds," the need for additional staff would not, in itself, constitute a significant environmental impact related to police protection service unless it would "[r]esult in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts."

Currently, the SFPD has no plans for expansion of its Bayview Station. According to the *Boundaries Analysis*, Bayview Station is not among the priorities for replacement, expansion, or improvement. The need for a new or expanded police facility may be identified to house additional personnel, equipment, or programs serving the Executive Park Subarea Plan Area and other neighborhoods in southeast San Francisco, and/or to implement the recommendations of the *Boundaries Analysis* report.

The Candlestick-Hunters Point Shipyard Phase II Development Plan EIR identifies the potential need for a new police station to support the additional staffing (53 new police officers) needed to

¹⁵ See Section V.C, Population and Housing, in this EIR.

¹⁶ Lazar, Lieutenant David, SFPD Field Operations Bureau, written communication, July 13, 2007; meeting with SFPD staff regarding Candlestick Point/Hunters Point Shipyard Redevelopment Plan, April 22, 2008.

¹⁷ Future staffing needs at the Bayview station may also be affected by another factor independent of the Yerby and UPC development projects: the potential consolidation of police districts and the reorganization of police district boundaries as recommended by the *Boundaries Analysis* report.

serve to maintain acceptable police service.¹⁸ As part of that project, up to 100,000 gross square feet would be designated for community-serving uses (e.g., police, fire, healthcare, day-care, places of worship, senior centers, library, recreation center, community center, and/or performance center uses). These uses have been anticipated as part of that project, and the environmental impacts of their construction are evaluated in that EIR.

No significant environmental impact related to demand for a new or expanded police facility is identified for the proposed project and variants.

Impact PS-2: The proposed development projects, when considered with other anticipated projects in the vicinity, would not contribute considerably to cumulative environmental impacts related to police protection service. (*Less than Significant*)

The anticipated cumulative development that would be likely served by Bayview Station, or a consolidated Bayview/Ingleside “Southeast” district as recommended by the *Boundaries Analysis* report, includes the following: redevelopment in Visitacion Valley across U.S. 101 from Executive Park; continued redevelopment of the Hunters Point Shipyard/India Basin areas north of Bayview Hill; and redevelopment of the Candlestick stadium area directly to the east. These projects would include about 15,200 residential units, 1.1 million gsf of retail uses, 2.0 million gsf of R&D uses, 1.5 million square feet of office uses, 25,000 gsf of cultural, institutional, and educational uses, and about 800 hotel rooms. Cumulatively, buildout of the proposed Subarea Plan and Yerby and UPC development projects, in combination with these other residential development proposed in nearby areas within San Francisco, is estimated to increase the total population in the vicinity by about 41,600 people by 2025.¹⁹ This increase exceeds the projected population increase anticipated by 2025 for southeast San Francisco in the *Boundaries Analysis* report.

Cumulative demand for police protection service is expected to occur over several years throughout the development periods of these projects as these are constructed and occupied. As discussed above under the heading “Significance Thresholds,” the need for additional staff would not, in itself, constitute a significant environmental impact related to police protection service unless it would “[r]esult in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts.”

¹⁸ City and County of San Francisco Planning Department, *Candlestick Point-Hunters Point Shipyard Phase II Environmental Impact Report*, Section III.O, Public Services, pp. III.O-8 – III.O-12.

¹⁹ See Section V.C, Population and Housing, of this EIR.

Currently, the SFPD has no plans for expansion of its Bayview Station. According to the *Boundaries Analysis*, Bayview Station is not among the priorities for replacement, expansion, or improvement. The SFPD has not identified a need or a plan for new or expanded police facilities to serve anticipated future cumulative development within southeast San Francisco.

The Candlestick-Hunters Point Shipyard Phase II Development Plan EIR identifies the potential need for a new police station to support the additional staffing (53 new police officers) needed to serve to maintain acceptable police service. As part of that project, up to 100,000 gross square feet would be designated for community-serving uses (e.g., police, fire, healthcare, day-care, places of worship, senior centers, library, recreation center, community center, and/or performance center uses). These uses have been anticipated as part of that project, and the environmental impacts of their construction are evaluated in that EIR.

Implementation of the proposed amended Executive Park Subarea Plan would not make a considerable contribution to a cumulative demand for a new or expanded police facility generated by anticipated projects in the vicinity. No significant environmental impact related to cumulative demand for a new or expanded police facility is identified for the proposed project.

Impact PS-3: The proposed development projects would create additional demand for fire protection service. (*Less than Significant*)

The buildout of Executive Park under the proposed amended Subarea Plan Area would not increase fire and emergency medical response times by placing new development in areas that are inaccessible or distant from existing fire stations. Rather, the proposed development projects would be infill development within an accessible area that is already served by existing fire protection and emergency medical service.

With construction of the approximately 1,600 residential units in the proposed Yerby and UPC development projects and variants, residential population within the Subarea Plan Area would increase by about 3,630 people, from about 2,890 people (in existing and approved units) to about 6,520 people at full buildout. The increased resident population would result in an increase in the demand for fire protection and emergency medical service and could thereby increase response times.

The increase in the residential demand for fire protection service within Executive Park would be partially offset by a net decrease in the demand from employment-generating non-residential uses. About 310,000 gsf of existing office and retail space would be demolished under the proposed project and variants (estimated capacity of 1,130 office employees), and about 73,000 gsf of new retail space would be constructed (estimated capacity of about 210 retail employees).

²⁰ This would result in a net decrease of about 920 employees requiring fire protection service within Executive Park.

The upper floors of the proposed high-rise residential buildings would be out of the reach of fire suppression and rescue equipment. New development within the Executive Park Subarea Plan would be subject to current federal, state, and local regulations governing fire and life safety in high-rise construction. The SFFD would review building plans to ensure that adequate fire and life safety measures are provided (e.g., emergency access and egress; sprinkler systems; fire-rated design, construction and materials; restriction on occupant loads; emergency lighting, smoke alarms; mechanical smoke control, and emergency notification systems, hydrants, and roadway access for fire equipment).

Project demand for fire protection and emergency medical service is expected to occur over time throughout the project development period as the Yerby and UPC development projects are constructed and occupied. To maintain acceptable response times, the increased demand for fire protection and emergency medical service resulting from the proposed development projects and variants may require the hiring of additional SFFD personnel and/or redeployment of existing personnel, and acquisition and/or redeployment of equipment to serve the development site. As discussed above under the heading “Significance Thresholds,” the need for additional staff and/or equipment would not, in itself, constitute a significant environmental impact related to fire protection service unless it would “[r]esult in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts.”

The SFFD has not identified a need for new or expanded SFFD facilities to serve the proposed increased resident population and retail activity within the Executive Park Subarea Plan Area. *The Candlestick-Hunters Point Shipyard Phase II Development Plan EIR* identifies the potential need for a new fire station on that site to provide for acceptable response times for that project.²¹ As part of that project, up to 100,000 gross square feet would be designated for community-serving uses (e.g., police, fire, healthcare, day-care, places of worship, senior centers, library, recreation center, community center, and/or performance center uses). These uses have been anticipated as part of that project, and the environmental impacts of their construction are evaluated in that EIR.

No significant environmental impact related to demand for a new or expanded SFFD facility is identified for the proposed project and variants, and no mitigation measures would be necessary.

²⁰ See Section V.C, Population and Housing, in this EIR.

²¹ City and County of San Francisco Planning Department, *Candlestick Point-Hunters Point Shipyard Phase II Environmental Impact Report*, Section III.O, Public Services, pp. III.O-18 – III.O-23.

Impact PS-4: The proposed development projects, when considered with other anticipated development projects in the vicinity, would not contribute considerably to cumulative fire protection service impacts. (*Less than Significant*)

In addition to the proposed Yerby and UPC development projects, there are several other development projects currently proposed in the vicinity of the Subarea Plan Area within San Francisco: redevelopment in Visitacion Valley across U.S. 101; continued redevelopment of the Hunters Point Shipyard/India Basin areas north of Bayview Hill; and redevelopment of the Candlestick Point/Candlestick Park stadium area directly to the east. These projects would include about 15,200 residential units, 1.1 million gsf of retail uses, 2.0 million gsf of R&D uses, 1.5 million square feet of office uses, 25,000 gsf of cultural/institutional/educational uses, and about 800 hotel rooms. Cumulatively, buildout of the proposed Subarea Plan and Yerby and UPC development projects, in combination with these other residential development proposed in nearby areas within San Francisco, is estimated to increase the total population in the vicinity by about 41,600 people by 2025.²²

Cumulative demand for fire protection and emergency medical service is expected to occur over several years throughout the development periods of these projects as these projects are constructed and occupied. As discussed above under the heading “Significance Thresholds,” the need for additional staff would not, in itself, constitute a significant environmental impact related to fire protection service unless it would “[r]esult in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts.”

The Candlestick-Hunters Point Shipyard Phase II Development Plan EIR identifies the potential need for a new fire station on that site to provide for acceptable response times for that project.²³ As part of that project, up to 100,000 gross square feet would be designated for community-serving uses (e.g., police, fire, healthcare, day-care, places of worship, senior centers, library, recreation center, community center, and/or performance center uses). These uses have been anticipated as part of that project, and the environmental impacts of their construction are evaluated in that EIR.

Implementation of the proposed amended Executive Park Subarea Plan would not make a considerable contribution to a cumulative demand for a new or expanded SFFD facility generated by anticipated projects in the vicinity. No significant environmental impact related to cumulative

²² See Section V.C, Population and Housing, of this EIR.

²³ City and County of San Francisco Planning Department, *Candlestick Point-Hunters Point Shipyard Phase II Environmental Impact Report*, Section III.O, Public Services, pp. III.O-18 – III.O-23.

V. Environmental Setting and Impacts
M. Police and Fire Protection Services

demand for a new or expanded SFFD facility is identified for the proposed project and variants, and no mitigation measures would be necessary.

VI. OTHER CEQA ISSUES

A. GROWTH INDUCING IMPACTS

As required by Section 15126.4(d) of the CEQA Guidelines, an EIR must discuss the ways in which the proposed project could directly or indirectly cause population growth or the construction of additional housing. Growth-inducing impacts can result from the elimination of obstacles to growth through increased stimulation of economic activity that would, in turn, generate increased employment or demand for housing and public services, or from encouraging premature or unplanned growth.

Implementation of the proposed project and variants would require amendments to the *San Francisco General Plan* and *San Francisco Planning Code* Zoning and Height and Bulk District Maps. The existing zoning in the Executive Park Subarea Plan Area is C-2 (Community Business) District. The southwestern tip is within an M-1 (Light Industrial) District. The existing height and bulk districts in the Subarea Plan Area are 40-X, 60-X, 80-X, 100-G, 140-H, 165-I, and 200-I. The proposed project and variants would require amendments to the *San Francisco General Plan* to amend the Executive Park Subarea Plan, a Subarea Plan of the Bayview Hunters Point Area Plan to incorporate the land use designations and height limits of the proposed amended Executive Park Subarea Plan. The amendments would change the mix and types of land uses within the Subarea Plan Area, allowing for increased density and building heights. Improved and expanded infrastructure, public services, and transit improvements would be required to serve the Yerby UPC development projects and variants. However, they would not create additional capacity beyond what is required to serve the Subarea Plan Area.

While the proposed project in itself represents growth, the provision of new housing and employment opportunities would not encourage substantial new growth in the City that has not previously been projected. The proposed Yerby and UPC development projects and variants would provide up to 1,600 net new housing units. At full buildout of the project in 2014, implementation of the proposed Subarea Plan and construction of the approximately

1,600 residential units in the proposed Yerby and UPC development projects, residential population within the Subarea Plan Area would increase population on the site from about 2,890¹ people (in existing and approved units) to about 6,520 people.² The net increase of about 3,630 residents would constitute a 126 percent increase in Subarea Plan Area population and about 0.45 percent of the Citywide population at buildout. ABAG's *Projections 2009* estimates that San Francisco will gain about 104,700 residents between 2005 and 2025. Future population growth due to the implementation of the proposed Subarea Plan including development projects would comprise about 3.5 percent of Citywide population growth anticipated during this 20-year period.

The Subarea is one of a few urban infill sites in San Francisco with the potential to absorb large amounts of residential population growth to meet City and regional needs for housing production. The intended effect of the proposed Subarea Plan is to increase the residential population within the Subarea Plan Area by rezoning the Yerby and UPC sites for denser development. Although the increase in population anticipated with the proposed project would be substantial from a localized perspective (126 percent), and would also constitute a substantial portion of projected Citywide population growth between 2005 and 2025 (3.5 percent), the growth is accounted for in Citywide projections and is intended, and planned for, by the proposed Subarea Plan. As such, the proposed project and variants would not be expected to generate the need for substantial new housing within the City, and would not contribute to unplanned growth within the region.

Retail employment under the proposed Subarea Plan development is expected to number about 210 employees. Implementation of the Subarea Plan would therefore result in a net decrease in employment in the Subarea Plan Area.³ Based on assumptions about commute patterns and household size, retail employment under the proposed Subarea Plan and Yerby and UPC projects

¹ Combined, the existing residential development and approved and under-construction residential development projects in the Subarea Plan Area currently include about 1,268 residential units. A factor of 2.28 persons per household was used, based on Association of Bay Area Governments (ABAG) Citywide projections (*Projections 2009*). This factor was used instead of the 3.73-person average household size for Census Tract 610 (the tract in which Executive Park is located) because it was more representative of the existing and proposed unit and household sizes.

² Based on the 2.27 persons per household forecast for 2025, from ABAG *Projections 2009*.

³ As of March 2008, OB 2 and OB 3 were approximately 97 percent to 98 percent occupied; as of August 2008, OB 1 was approximately 40 percent occupied.

and variants could generate a demand for up to 82 new dwelling units in San Francisco (if the retail employees were newly attracted to the San Francisco Bay Area).⁴ These new households would represent less than 1 percent of the City's estimated household growth by the year 2025. This potential increase in housing demand would be negligible in the context of total households in San Francisco. Therefore, the proposed project and variants would not contribute to unplanned growth that has not already been accounted for in the City and Bay Area region.

Implementation of the proposed project would create a new street grid within the Yerby and UPC development sites to serve those development projects. However, the proposed project and variants would not create new transportation access to an area that was previously inaccessible by transit or automobile, and therefore would not create new access to an outlying area.

Proposed expansion, replacement and upgrade of the utility and infrastructure system, public roads, public services, and other community services and open space would not generate indirect population growth. The proposed project and variants would not extend water, sewer, or other public services to currently underserved areas. Therefore, the proposed project and variants would not eliminate obstacles to growth.

Based on this analysis, the proposed project and variants would not have a growth-inducing impact, and no mitigation is required.

B. SIGNIFICANT UNAVOIDABLE IMPACTS

In accordance with Section 21067 of CEQA and with Sections 15126(b) and 15126.2(b) of the *CEQA Guidelines*, the purpose of this section is to identify significant environmental impacts that could not be eliminated or reduced to less-than-significant levels by implementation of mitigation measures included in the proposed project or identified in Chapter V, Environmental Setting and Impacts.

The proposed project and variants would result in the following significant, unavoidable project-level and cumulative impacts.

⁴ This method multiplies the estimated project-related employment (approximately 209 employees) by the proportion of jobs in San Francisco held by people who live in the City (55 percent). This result, the approximate number of project-related employees who would live in the City (115), is divided by the projected number of workers per household in San Francisco (1.4). The estimated housing demand would be 82 units. Based on data from ABAG *Projections 2002* and the Metropolitan Transportation Commission.

TRANSPORTATION

The following transportation impacts would be significant and unavoidable even with implementation of mitigation measures identified in this EIR. In many cases, mitigation measures would reduce the significant impact, but not to less-than-significant levels.

- Deterioration in the Level of Service at U.S.101 mainline north of Alanna Way / Harney Way (southbound) under the proposed project.
- Cumulative impact of the proposed project at the Bayshore Boulevard / Tunnel Avenue intersection.
- Cumulative impact of the proposed project at the Bayshore Boulevard / Blanken Avenue intersection.
- Cumulative impact of the proposed project at the Alanna Way / Beatty Road intersection.
- Cumulative impact of the proposed project at the Harney Way / Alanna Way / Thomas Mellon Drive intersection.
- Cumulative impact of the proposed project at the U.S. 101 mainline north of Alanna Way / Harney Way (northbound) segment.
- Cumulative impact of the proposed project at the U.S. 101 mainline south of Alanna Way / Harney Way (northbound) segment.
- Cumulative impact of the proposed project at the U.S. 101 Northbound On-Ramp at Harney Way.
- Cumulative impact of the proposed project at the U.S. 101 Southbound On-Ramp at Alanna Way.
- Cumulative impact of the proposed project at the Bayshore Boulevard / Tunnel Avenue intersection.
- Cumulative impact of the proposed project at the Bayshore Boulevard / Blanken Avenue intersection.
- Cumulative impact of the proposed project at the Geneva Avenue / U.S. 101 SB Ramps intersection.
- Cumulative impact of the proposed project at the Geneva Avenue / U.S. 101 SB Ramps intersection.
- Cumulative impact of the proposed project at the U.S. 101 mainline north of Alanna Way / Harney Way (northbound) segment.
- Cumulative impact of the proposed project at the U.S. 101 Northbound On-Ramp at Harney Way.
- Cumulative impact of the proposed project at the U.S. 101 Southbound On-Ramp at Alanna Way.
- Cumulative impact of the proposed Yerby project at the U.S.101 mainline north of Alanna Way / Harney Way (southbound).
- UPC project impact on Level of Service at U.S.101 mainline north of Alanna Way / Harney Way (southbound).

NOISE

- Cumulative traffic noise impacts on ambient noise levels along project access routes.

AIR QUALITY

- Construction emissions of toxic air contaminants and PM_{2.5}.
- Project operational emissions of mass criteria pollutants.
- Exposure of sensitive receptors to toxic air contaminants.
- Cumulative air quality impacts.

C. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL IMPACTS

Significant irreversible environmental changes would not occur with implementation of the proposed project and variants. Development would involve irreversible use of resources to construct buildings and infrastructure, including lumber, concrete, sand, gravel, masonry, metals, and water. However, development would not be expected to involve an unusual commitment of these resources, nor would it be expected to consume any of these resources in a wasteful manner. Construction of buildings and infrastructure, and occupancy at buildout, would use energy resources in the form of fossil fuels. During construction, diesel and gasoline fuels would be consumed to operate construction equipment. During operation, diesel and gasoline fuels would be consumed to operate the buses that would provide transportation serving the Subarea Plan Area, and for the automobiles and trucks that would visit the Subarea Plan Area. Natural gas would be used for heating and cooling. Because individual buildings would be required to comply with the San Francisco Green Building Ordinance, which includes energy conservation requirements that exceed those in the California Building Code, energy would not be used in a wasteful, inefficient or unnecessary manner.

D. AREAS OF KNOWN CONTROVERSY AND ISSUES TO BE RESOLVED

An Initial Study (incorporated into this SEIR as Appendix A) was published on February 11, 2009, to focus the scope of the SEIR on potentially significant effects of the proposed amended Subarea Plan and Yerby and UPC development projects. Publication of the Initial Study initiated a 30-day public comment period. During the public comment period, seven comment letters were received.

The letters raised the following environmental issues:

- The need for a “Notice of Proposed Construction or Alteration” by the Federal Aviation Administration (FAA) in accordance with FAA Regulation, Part 77 “Objects Affecting Navigable Airspace.”
- The content of the EIR’s traffic impact study and Mitigation Monitoring and Reporting Program (MMRP) including the project’s fair share contribution to traffic improvements, scheduling and implementation responsibilities.
- Traffic congestion;
- Provision of public open space;
- Impacts of shadows;
- Impacts on views;
- Impacts on wind;
- Impacts on water supply;
- Plans for widening of Harney Way;
- Impacts on air quality;
- Impacts of noise;
- Impacts of new buildings on windsurfing at Candlestick Cove.

VII. ALTERNATIVES TO THE PROPOSED PROJECT

As stated in CEQA Guidelines Section 15126.6 (a), “an EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which 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, and evaluate the comparative merits of the alternatives.”

This chapter identifies potentially feasible alternatives to the proposed amended Executive Park Subarea Plan and the Yerby and UPC development projects and discusses the potential environmental impacts associated with these alternatives. Project decision-makers could adopt an alternative instead of the proposed project if that alternative would substantially lessen or avoid the significant environmental impacts of the proposed project, and if that alternative would feasibly meet most of the project objectives. City decision-makers will determine feasibility based on substantial evidence in the record.

Three alternatives are evaluated in this chapter: Alternative A - No Project Alternative; Alternative B - Development under Existing Zoning and Height and Bulk Controls; and Alternative C – Alanna Way Realignment.

A. ALTERNATIVE A: NO PROJECT

DESCRIPTION

CEQA requires that a “No-Project Alternative” be evaluated in an EIR. As noted in Section 15126.6 of the CEQA Guidelines, an EIR on projects other than a land use or regulatory plan (“for example a development project on identifiable property”) typically analyzes a No Project Alternative that is “the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this ‘no project’ consequence should be discussed.”

Under this alternative, the Executive Park Subarea Plan would not be amended; the zoning and height and bulk districts would not be amended; the office buildings on the Yerby and UPC sites would not be demolished; and the current office and retail uses there would continue. It also assumes that construction of the adjacent Signature Properties and Top Vision Phase III developments would be completed as approved.

The No Project Alternative would not further the Planning Department's urban design and land use objectives envisioned in its draft amended Subarea Plan for Executive Park (see Chapter III, Project Description, Section III.A, Project Objectives, p. III.1). It also would not further any of the project sponsors' objectives, as presented on p. III.2.

IMPACTS

If existing physical conditions in the Executive Park Subarea Plan Area were to continue for the foreseeable future, conditions described in detail for each environmental topic in the Initial Study and in Chapter V, Environmental Setting and Impacts, would remain. The impacts associated with the proposed project, as described in the Notice of Preparation/Initial Study and in Chapter V, Environmental Setting and Impacts (Section V.A, Land Use; Section V.B, Aesthetics; Section V.C, Population and Housing; Section V.D, Archaeological Resources; Section V.E, Transportation and Circulation; Section V.F, Noise; Section V.G, Air Quality; Section V.H, Greenhouse Gas; Section V.I, Wind; Section V.J, Shadow; Section V.K, Recreation; Section V.L, Water Supply; and Section V.M, Police and Fire Services) would not occur. The existing environmental conditions within the Executive Park Subarea Plan Area would continue, as described in the Setting subsection of each environmental topic section.

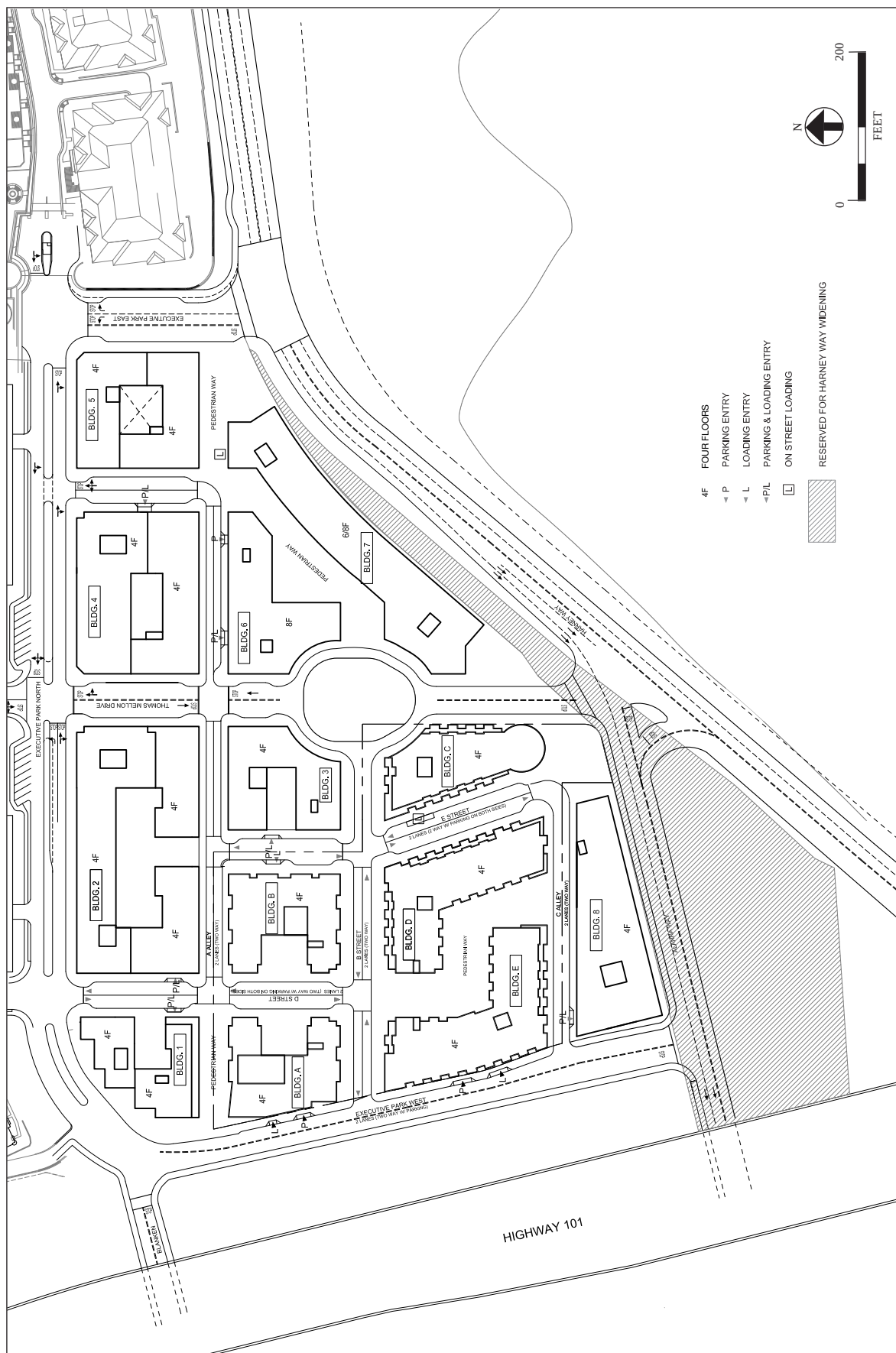
Development and growth would continue within the Subarea Plan Area as approved projects are completed and occupied. Development and growth would continue within the vicinity of the Subarea Plan Area as nearby projects are approved, constructed and occupied. These projects would contribute to cumulative impacts in the vicinity, but under the No Project Alternative, land use activity on the project site would not contribute to these cumulative impacts beyond existing contributions.

The No Project Alternative does not preclude future development of the Yerby and UPC development project sites with a range of land uses that are principally permitted or conditionally permitted under the existing zoning controls. Details regarding the characteristics of such a proposal would be speculative.

B. ALTERNATIVE B: DEVELOPMENT UNDER EXISTING ZONING AND HEIGHT AND BULK CONTROLS

DESCRIPTION

This alternative would call for buildout of the Executive Park Subarea Plan Area on the Yerby and UPC development sites under the existing C-2 (Community Business) District zoning and 40-X and 80-X Height and Bulk Districts. (See Figure VII-1: Alternative B - Development under Existing Zoning and Height and Bulk Controls) The Subarea Plan would not be amended and associated Design Guidelines would not be adopted.



SOURCE: Heller-Manus; C.Y. Lee Architects, Turnstone Consulting

EXECUTIVE PARK

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Under this alternative, the approximately 14.42-acre, 628,136-square-foot combined Yerby and UPC development sites would support about 785 residential units (roughly half of the 1,600 units proposed under the Yerby and UPC development projects).¹ This alternative would provide 1,190 off-street residential parking spaces, maintaining the same ratio of parking to residential units as provided under the proposed development projects. It would also provide about 31,815 gross square feet (gsf) of retail space, maintaining the same ratio of retail space to residential units as provided under the proposed development projects.

Development within the Yerby and UPC development sites under this alternative would be along a street network that would be similar to the one proposed under the Yerby and UPC development projects, except that the existing Thomas Mellon Circle would remain. (See Figure III-5, p. III.17.) Within the 80-X Height and Bulk District would be constructed two mid-rise, 80-foot-tall, 7-story buildings totaling about 226 residential units. These would occupy a roughly similar location as the proposed UPC Buildings 6 and 7. The remainder of the combined Yerby and UPC development site is within the 40-X Height and Bulk District and would be developed with low-rise residential buildings (up to four stories). These may take the form of any combination of multi-unit buildings or townhouses, similar to those approved and under construction within the Signature Properties site. Ground-floor retail would front along Executive Park North, Harney Way, and Thomas Mellon Drive.

This alternative could further some of the land use and urban design objectives of the Planning Department envisioned in its proposed amended Executive Park Subarea Plan. Although the proposed amended Subarea Plan would not be adopted, it is assumed that the Planning Department would still require high-quality design in any new construction and improvements to the public realm (like public open space and streetscape improvements) within development sites under this alternative. This alternative could further some of the objectives of the project sponsors, presented in Section III.A, Yerby and UPC Project Objectives (p. III.2). However, fewer residential units under this alternative (roughly half that of the proposed project) could reduce some of the economic advantages and efficiencies that higher density residential development would provide in order to achieve key project objectives (e.g., providing public amenities, infrastructure; providing new and enhanced parks and open space; and creating a community of sufficient size to support neighborhood-serving retail, community facilities, and transit).

¹ The maximum residential density under the existing C-2 zoning applicable to the Yerby and UPC development sites is one unit for every 800 square feet of lot area. Pursuant to Section 215(a) of the Planning Code, the maximum residential density in a C-2 District is based on the maximum residential density of the nearest R District. However, that section provides that the maximum residential density in a C-2 District shall in no case be less than that of an RM-1 District, which is one unit for every 800 square feet of lot area.

IMPACTS

Land Use

This alternative would have the same mix of land uses as those of the proposed project. As the development would comply with current zoning and height and bulk controls, it would not conflict with existing plans and policies for the Subarea Plan Area. The potential land use related impacts of this alternative would be similar in character to those described for the proposed project, but would be lesser in degree as this alternative would include substantially fewer residential units, residential parking spaces, and retail space. As with the proposed project, impacts related to Land Use would be less than significant.

Aesthetics

Under this alternative, impacts related to Aesthetics would be similar in character to that described for the proposed project in Section V.B, Aesthetics, but lessened substantially in magnitude given the reduced building heights and scale of new construction overall under this alternative. As with the proposed project, the existing visual character of the Yerby and UPC development sites would be completely transformed from that of an office park to that of an urban residential community. The three high-rise towers (16-24 stories) that would be constructed on the Yerby and UPC development sites under the proposed project would not be constructed. Mid-rise buildings would be built in the 80-X Height and Bulk zone in the location of Buildings 6 and 7 comparable in height and scale with those buildings under the proposed project. North of the proposed A Alley would be low-rise, 4-story, multi-unit buildings. South of the proposed A Alley and west of Thomas Mellon Drive, two- and three-story townhouses, similar in scale and visual character to those approved and under construction within the Signature Properties site, would be distributed evenly across the southwest portion of the Yerby and UPC combined development site. Under this alternative, the buildings of the Yerby and UPC development sites would be a less prominent visual presence within scenic views of San Francisco Bay and Bayview Hill. It is assumed under this alternative that the quality of building design, materials, landscaping, and improvements in the public realm would be comparable to that of the proposed project, even though no Urban Design Guidelines would be adopted for the Subarea Plan Area. As with the proposed project, impacts related to Aesthetics under this alternative would be less than significant.

Population and Housing

Under this alternative, impacts related to Population and Housing would be similar to those described for the proposed project in Section V.C, Population and Housing, but would be reduced by roughly 50 percent commensurate with the reduced amount of residential units and

commercial space under this alternative. As with the proposed project, impacts related to Population and Housing under this alternative would be less than significant.

Archaeological Resources

Under this alternative, impacts related to Archaeological Resources would be similar in character to those described for the proposed project in Section V.D, Archaeological Resources. Roughly the same area of ground would be disturbed under this alternative, although the depth of ground disturbance would be reduced somewhat, given shallower foundations and a reduced number of off-street structured parking spaces required for this alternative. The same mitigation measures identified for the proposed project would apply to this alternative to reduce potential impacts of this alternative to Archaeological Resources to a less-than-significant level.

Transportation and Circulation

Under this alternative, impacts related to Transportation and Circulation would be generally similar to those described for the proposed project in Section V.E, Transportation and Circulation, but would be reduced given the reduced amount of residential units and commercial space under this alternative.

Under the Baseline plus Project Conditions scenario, this alternative would result in one fewer freeway mainline impact (at U.S. 101 Southbound, north of Alana Way / Harney Way). Alternative B would still result in an impact at the intersection of Executive Park Boulevard West / Alana Way, but this could be mitigated with signalization only (mitigation of the proposed project would require both signalization and restriping the southbound approach).

Under the 2030 Cumulative Conditions without Improvements scenario, this alternative would result in one fewer intersection impact (at the intersection of Alana Way / Beatty Road, assuming the adoption of previously-approved mitigation measures). This alternative would also result in one fewer freeway mainline impact and one fewer freeway on-ramp impact (at U.S. 101 Northbound, south of Alana Way / Harney Way and at U.S. 101 Southbound On-Ramp at Alana Way, respectively).

Under 2030 Cumulative Conditions with Improvements (Alternative A – Option 1), this alternative would not result in fewer intersection impacts, but would result in one less freeway on-ramp impact (at U.S. 101 Southbound On-Ramp at Alana Way).

Noise

Under this alternative, the impact related to traffic noise would be similar in character to those described for the proposed project in Section V.F, Noise, but would be reduced given the reduced amount of residential units and commercial space under this alternative and the commensurate reduction in project-generated traffic. However, as with the proposed project, this alternative would cause a cumulatively considerable contribution to traffic noise in the area and would not avoid a significant and unavoidable cumulative impact related to cumulative traffic noise.

Air Quality

Under this alternative, the construction air quality impacts of this alternative would be similar to those of the proposed project, although, depending on phasing, the duration of construction is likely to be somewhat less. Operational impacts of this alternative would be roughly 45 percent of those of the proposed project. After accounting for existing uses to be removed, the operational impacts of this alternative would be below the current BAAQMD thresholds of significance, so the impact of this alternative on regional air quality would be found to be less-than-significant. Impacts related to carbon monoxide would be roughly proportional to trip generation, so the impact of this alternative would be less than that of the proposed project and less-than-significant. Impacts related to proximity of residences to the U.S. 101 freeway would be less than those of the proposed project because development under this alternative would place fewer residents in proximity to the freeway compared to the proposed project.

Greenhouse Gases

The construction emissions of greenhouse gas under this alternative would be roughly 45 percent of those of the proposed project, as would operational emissions. Greenhouse gas emissions per service population would be very similar as that of the proposed project. As such, impacts under this alternative related to Greenhouse Gas would be reduced commensurate with the smaller anticipated project population under this alternative. As with the proposed project, impacts related to Greenhouse Gas under this alternative would be less than significant.

Wind

Under this alternative, impacts related to wind would be similar to or less than the wind impacts of the proposed development projects. The building heights under this alternative would be comparable to or lower than the building heights under the proposed development projects. In addition, this alternative would not include any highrise buildings. When a building is much taller than those around it rather than a similar height, the taller building can intercept and redirect winds downward that might otherwise flow overhead. The winds can be directed down the vertical face of the building to ground level, and these redirected winds can be relatively strong

and relatively turbulent. Since this alternative would not include any highrise buildings, there would be less of a chance that overhead winds would be intercepted and redirected down to ground level. For these reasons, the ground-level wind speeds under this alternative would be similar to or lower than the ground-level wind speeds under the proposed development projects. As with the proposed project, impacts related to Wind under this alternative would be less than significant.

Shadow

Under this alternative, impacts related to shadow would be similar to or less than the shadow impacts of the proposed development projects. The building heights under this alternative would be comparable to or lower than the building heights under the proposed development projects. In addition, this alternative would not include any highrise buildings. For these reasons, the lengths of the building shadows under this alternative would be similar to or shorter than the lengths of the building shadows under the proposed development projects. As with the proposed project, impacts related to Shadow under this alternative would be less than significant.

Recreation

Impacts under this alternative related to Recreation would be substantially the same in character as those described for the proposed project in Section V.K, Recreation, but demand for recreational facilities would be reduced commensurate with the smaller anticipated population under this alternative. As with the proposed project, impacts related to Recreation under this alternative would be less than significant.

The impacts of this alternative on the windsurfing recreational resource at Candlestick Point State Recreation Area would be similar to or less than the wind impacts of the proposed development projects because the building heights under this alternative would be comparable to or lower than the building heights under the proposed development projects. In addition, this alternative would not include any highrise buildings. Since this alternative would not include any highrise buildings, there would be less of a chance that overhead winds would be intercepted and redirected down to ground level. As with the proposed project, impacts related to the windsurfing recreational resource would be less than significant.

Water Supply

Under this alternative, impacts related to water supply would be substantially the same in character as those described for the proposed project in Section V.L, Water Supply, but demand for water would be proportionally reduced commensurate with the smaller anticipated population under this alternative. As with the proposed project, impacts related to Water Supply under this alternative would be less than significant.

Police and Fire Services

Impacts under this alternative related to Police and Fire services would be substantially the same in character as those described for the proposed project in Section V.M, Police and Fire Services, but demand for police and fire services would be reduced commensurate with the smaller anticipated population under this alternative. As with the proposed project, impacts related to Police and Fire Services under this alternative would be less than significant.

C. ALTERNATIVE C: REALIGNMENT OF ALANNA WAY

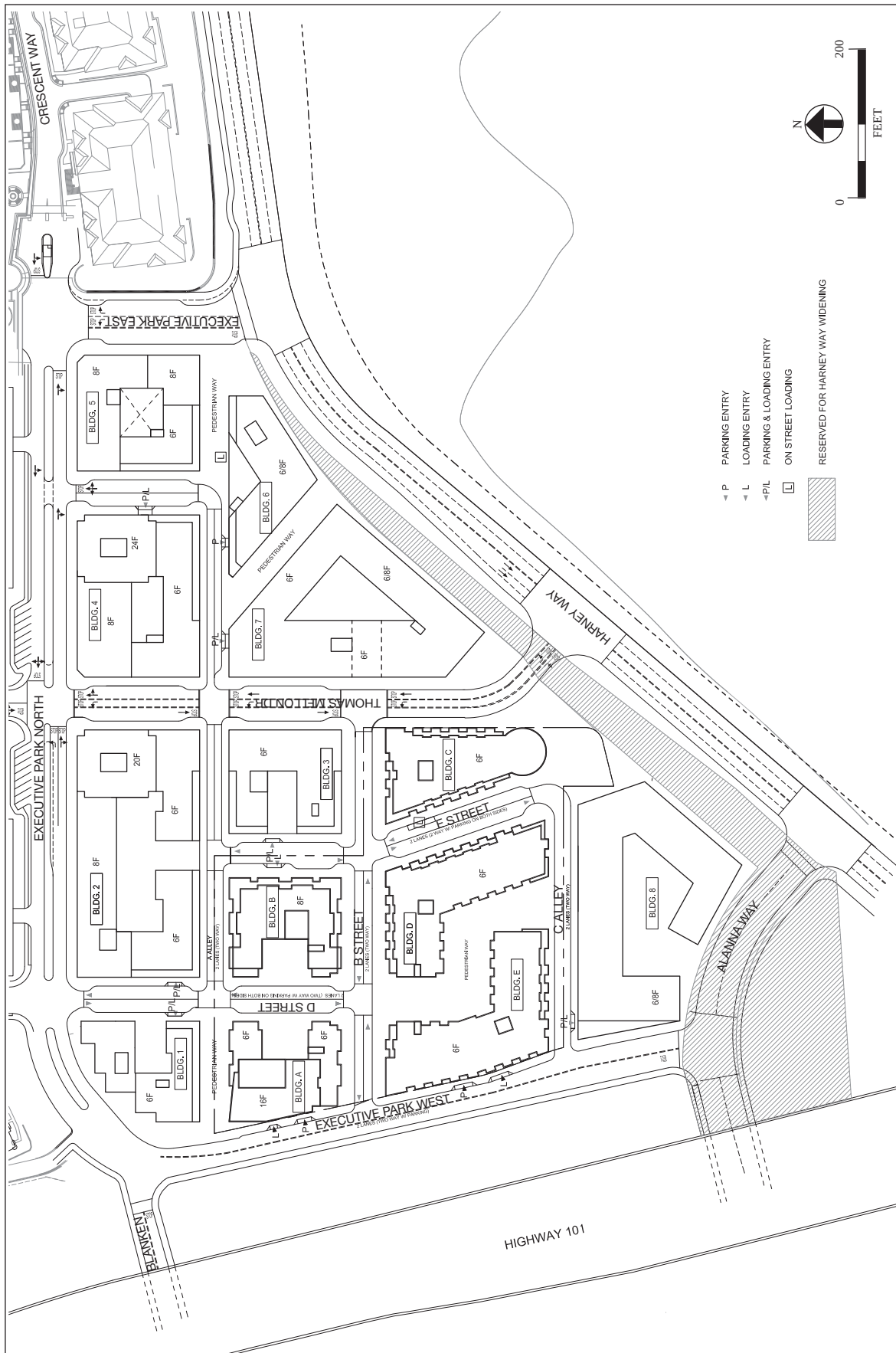
DESCRIPTION

The proposed amended Subarea Plan notes that the intersection of Harney Way, Thomas Mellon Drive, and Alanna Way, “is currently not conducive to a residential neighborhood.”² Here, three roads converge at irregular angles, creating conditions that can be confusing for motorists and uninviting and unsafe for pedestrians. As a means to “better accommodate pedestrians and better connect the Executive Park neighborhood (along with Little Hollywood and Visitacion Valley) to the Bay shore across Harney,” the proposed amended Subarea Plan identifies a possible solution that would separate the Alanna Way and Thomas Mellon Drive interfaces with Harney Way into two separate intersections. Alanna Way would be bent to the southeast to create a new intersection about 250 feet to the south of Thomas Mellon Drive, meeting Harney Way at a right angle, signalized, “T” intersection. Thomas Mellon Drive would likewise be bent to the southeast to meet Harney Way at a right angle, signalized, “T” intersection. However, the Subarea Plan further notes that

it is anticipated that Harney will be widened and reconfigured to handle heavier traffic volumes and to provide dedicated transit lanes to accommodate additional development at Candlestick Point and Hunters Point Shipyard. Also anticipated is a new Harney/Highway 101 Interchange. Studies are ongoing as to the best solution for Harney and the interchange and what their spatial needs will be. Therefore, it is not possible to pr[e]scribe any specific intersection solution for the Harney/Ala[n]na/Thomas Mellon intersection at this time...This solution should still be considered if future conditions allow but should not be depended upon.

This alternative assumes the realignment of Alanna Way would be implemented in the future (see Figure VII-2: Alternative C – Realignment of Harney Way). Under this alternative, the land use program and buildings would remain the same with respect to the proposed Yerby development

² City of San Francisco, Planning Department, *Executive Park Subarea Plan*, Revised Draft, March 19, 2009.



SOURCE: Heller-Manus; C.Y. Lee Architects, Turnstone Consulting

EXECUTIVE PARK

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FIGURE VII-2: ALTERNATIVE C REALIGNMENT OF ALANNA WAY

project. The land use program would differ slightly with respect to the proposed UPC development project. As this alternative would allow for a larger UPC Building 8, it would increase the total number of units within that building from 72 units to 124 units. However, the total unit count would remain the same as with the proposed development projects (1,100 units for UPC, and 1,600 units for the combined Yerby UPC development projects). The additional units in a larger UPC Building 8 under this alternative would be offset by decreased unit counts in the other UPC buildings, resulting in more spacious units. With the exception of UPC Building 8, building footprints and envelopes would remain the same as with the proposed development projects.

Retail space for the proposed UPC development project would increase slightly under this alternative by about 550 gsf (from 70,237gsf to 70,787). Parking spaces for the proposed UPC development project would also increase slightly under this alternative by about 81 spaces (from 1,677 spaces to 1,758 spaces).

This alternative would further all of the land use and urban design objectives of the Planning Department envisioned in its proposed amended Executive Park Subarea Plan (including that of resolving existing geometric conditions at the Alanna/Harney/Thomas Mellon intersection that can be confusing for motorists and uninviting and unsafe for pedestrians. Likewise, this alternative would further all of the objectives of the project sponsors, presented in Section III.A, Yerby and UPC Project Objectives (p. III.2).

IMPACTS

Land Use

Under this alternative, impacts related to land use would be substantially the same as those described for the proposed Yerby and UPC development projects. Except for UPC Building 8 this alternative would be identical in scale, density, and the mix and character of land uses from that of the proposed Yerby and UPC development projects. Building 8 would be larger under this alternative and would house more residential units, although the total units would remain the same as the proposed UPC development project. The number of parking spaces and retail would increase slightly under this alternative. As with the proposed project, impacts related to Land Use under this alternative would be less than significant.

Aesthetics

Under this alternative, impacts related to scenic resources would be substantially the same as described for the proposed Yerby and UPC development projects, as this alternative would not increase the height development over that of the proposed Yerby and UPC development projects. Impacts related to visual character/quality would be substantially the same as those described for

the proposed Yerby and UPC development projects, except that UPC Building 8 would appear somewhat bulkier. It is assumed that Building 8 would be carefully designed under the proposed Urban Design Guidelines to provide texture, depth and articulation on its facades to reduce the apparent scale of the building. As with the proposed project, impacts related to Aesthetics under this alternative would be less than significant.

Population and Housing

Under this alternative, impacts related Population and Housing would be substantially the same as that described for the proposed Yerby and UPC development projects, as this alternative would include the same number of residential units as the proposed project. Retail space would increase slightly under this alternative, but the effect on employment would be negligible. As with the proposed project, impacts related to Population and Housing under this alternative would be less than significant.

Archaeological Resources

Under this alternative, impacts related to Archaeological Resources would be similar in character as those described for the proposed project, but the potential for impacts on archaeological resources would be increase. The alternative would require more ground disturbance than the proposed project as the footprint of Building 8 would expand, and Alanna Way would be realigned at the southern end of the Subarea Plan Area. The same mitigation measures identified for the proposed project would apply to this alternative to reduce potential impacts of this alternative to Archaeological Resources to a less-than-significant level.

Transportation and Circulation

Under this alternative impacts related to Transportation and Circulation would be substantially the same in character as those described for the proposed project in EIR Section V.E, Transportation and Circulation. This alternative would involve the realignment of Alana Way and the split the current Harney Way / Alana Way / Thomas Mellon Drive intersection into two T-intersections (Harney Way / Alana Way to the west and Harney Way / Thomas Mellon Drive to the east). As a result, this alternative only affects the operations of these two intersections, and does not change the analysis or results at the other study intersections, on-ramps, or freeway mainlines.

Under the Baseline plus Project Conditions scenario, Alternative C would not result in fewer impacts, as the new intersection of Harney Way / Alana Way would still require signalization, as under the proposed project.

Similarly, under the 2030 Cumulative Conditions without Improvements scenario, Alternative C would not result in fewer impacts, as the new intersections of Harney Way / Alana Way and Harney Way / Thomas Mellon Drive would still need to be signalized, as under the Project alternative.

Noise

Under this alternative impacts related to traffic noise would be substantially the same as those described for the proposed project in EIR Section V.F, Noise. Since this alternative would generate similar traffic volume as the proposed project, the impact of project traffic from this alternative would be about the same as that of the proposed project. As with the proposed project, impact of project traffic resulting from this alternative would be less-than significant. However, as with the proposed project, this alternative would not avoid a significant cumulative impact related to traffic noise.

Air Quality

The construction impacts of this alternative would be slightly greater than those for the proposed project due to the added construction impacts of the realignment of Alanna Way. Operational impacts of this alternative would be identical to those of the proposed project which were found to be significant and unavoidable. This alternative would create a new intersection while improving level of service at adjacent intersections, which would in general result in slight improvements in levels of carbon monoxide, so the impact of this alternative would be less than that of the proposed project and less than significant. Impacts related to proximity of residences to the U.S. 101 freeway would be identical to those of the proposed project.

Greenhouse Gases

The construction emissions of GHG for this alternative would be slightly greater than those for the proposed project due to the added construction impacts of the realignment of Alanna Way. Operational GHG emissions of this alternative would be identical to those of the proposed project. As with the proposed project, the impact of this alternative related to greenhouse gas emissions would be less than significant.

Wind

Under this alternative, the impacts related to wind would be similar to the wind impacts of the proposed development projects. UPC Building 8 (at the south end of the Project Site) would be reconfigured and have a larger footprint under this alternative, but this design was tested in the wind tunnel. The results of the wind tunnel analysis show that the wind conditions under this

alternative would be very similar to the wind conditions under the proposed development projects.

Shadow

Under this alternative, impacts related to Shadow would be similar to those of the proposed development projects. Although UPC Building 8 (at the south end of the Project Site) would be reconfigured and have a larger footprint under this alternative, the shadows from this building would fall to the southwest of the Candlestick Point State Recreation Area in the early evening during the summer. This would be similar to the shadows that would be cast by UPC Building 8 as it is currently designed under the proposed development projects (see Figure V.J-2: Shadow Impact on Candlestick Point State Recreation Area on June 21 (5:30 PM, 6:30 PM, 7:35 PM), p. V.J.9). As with the proposed project, the impacts of this alternative related to shadow would be less than significant.

Recreation

Under this alternative, impacts on the Candlestick Point windsurfing recreational resource would be similar to those described for the proposed development projects. UPC Building 8 (at the south end of the Project Site) would be reconfigured and have a larger footprint under this alternative, but this design was tested in the wind tunnel. The results of the wind tunnel analysis show that the wind conditions under this alternative would be very similar to the wind conditions under the proposed development projects.

Water Supply

Under this alternative, impacts related to Water Supply would be substantially the same as that described for the proposed Yerby and UPC development projects, as this alternative would include the same number of residential units as the proposed project. Retail space would increase slightly under this alternative, but its effect on water demand would be negligible. As with the proposed project, impacts related to Water Supply under this alternative would be less than significant.

Police and Fire Services

Under this alternative, impacts related to Police and Fire Services would be substantially the same as that described for the proposed Yerby and UPC development projects, as this alternative would include the same number of residential units as the proposed project. Retail space would increase slightly under this alternative, but its effect on demand for police and fire services would be negligible. As with the proposed project, impacts related to Police and Fire Services would be less than significant.

D. ALTERNATIVES CONSIDERED BUT REJECTED

The proposed Yerby and UPC development projects would provide a total of 2,427 off-street parking spaces (consisting of 2,400 residential parking spaces plus 27 retail spaces). At 1:1.5 parking spaces per dwelling unit, the proposed project exceeds the *Planning Code* requirement for residential parking but would not meet *Planning Code* requirements for retail uses.³ As discussed in Section V.E, Transportation, the proposed project would generate a parking demand of approximately 1,935 spaces during the weekday midday period and approximately 2,354 spaces during the weekday evening period. As such, the proposed project would meet the estimated parking demand for both the weekday midday and weekday evening periods.

A 1:1 residential parking ratio scenario was considered,⁴ but rejected from full analysis as an EIR alternative. Such a scenario would provide the minimum required off-street parking spaces for residential use while providing the same amount of retail parking as that of the proposed project (1,600 residential spaces and 27 retail spaces, totaling 1,627 spaces). Under this scenario, the parking supply would not meet the estimated parking demand, with a shortfall of 308 spaces during the weekday midday and 727 spaces during the weekday evening.⁵ Given that on-street parking would be provided along some streets within the project site, some of the short-term parking shortfall could be alleviated, but the parking shortfall under such a scenario would cause spillover into adjacent neighborhoods with limited additional parking supply, such as Little Hollywood.

E. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Besides the No Project Alternative, Alternative B: Development Under Existing Zoning and Height and Bulk Controls would be the environmentally superior alternative due to its reduced development program and building heights.

³ The *San Francisco Planning Code* requires one off-street parking space per dwelling unit, and one space per 500 square feet of retail use up to 20,000 square feet, plus one space per each 250 square feet in excess of 20,000 square feet. The required off-street parking for the proposed project would total 1,773 spaces (1,600 spaces for the residential use, plus 173 spaces for retail uses).

⁴ AECOM, *Executive Park Subarea Plan Amendment Transportation Study*, May 21, 2010, pp. 57-58. This report is on file and available for public review at the San Francisco Planning Department, in Case File Number 2006.0422E.

⁵ *Transportation Study*, p.58.

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APPENDICES

APPENDIX A: NOTICE OF PREPARATION / INITIAL STUDY



SAN FRANCISCO PLANNING DEPARTMENT

To Responsible Agencies, Trustee Agencies, and Interested Parties:

**RE: NOTICE OF AVAILABILITY OF THE INITIAL STUDY FOR THE EXECUTIVE PARK
SUBAREA PLAN AND YERBY AND UPC DEVELOPMENT PROJECTS**

PLANNING DEPARTMENT CASE NO. 2006.0422E; STATE CLEARINGHOUSE NO. 200610212

This notice is to inform you of the availability of the Initial Study for the Executive Park Subarea Plan and Yerby and UPC Development Projects, described below. The Planning Department previously determined that this project could have a significant effect on the environment, and required that an Environmental Impact Report (EIR) be prepared. An Initial Study has now been prepared to provide more detailed information regarding the impacts of the proposed project and to identify the environmental issues to be considered in the Draft EIR. The Initial Study is either attached or is available upon request from **Joy Navarrete**, whom you may reach at **(415) 575-9040** or at the above address. The report may also be viewed on-line at www.sfplanning.org/mea, starting February 11, 2009. Referenced materials are available for review by appointment at the Planning Department's office at 1650 Mission Street, Suite 400. (Please contact Joy Navarrete at 575-9040 to schedule an appointment.)

Project Description: The proposed project consists of General Plan, Planning Code, and Zoning Map Amendments for the 71-acre Executive Park Subarea Plan Area of the Bayview Hunters Point Area Plan, and also includes two specific developments within the Subarea Plan Area that would allow up to 1,600 residential units on a 14.5-acre portion of the Subarea Plan Area. The Subarea Plan amendments would replace office with residential uses, allowing up to about 2,900 total residential units, and about 88,000 gsf of commercial space in the in the Executive Park Subarea Plan Area. The proposed Subarea Plan would establish an Executive Park Residential Special Use District, change zoning within the site from a C-2 to RM-3 district, and would change allowable heights within the site from 200 feet to 240 feet. The amended Subarea Plan would also address land use, streets and transportation, urban design, community facilities and services, and recreation and open space through implementing objectives and policies, and provide design guidance for buildings, streets, pathways, and parking, as well as "green building" approaches. The Subarea Plan would establish a hierarchy of streets, including a reconfigured boulevard along Harney Way, the existing Executive Park Boulevard and Thomas Mellon Drive; and new local streets and alleys to serve future residential and retail development.

Two specific development projects would implement the proposed Subarea Plan amendments: the Yerby Company development project and the Universal Paragon Corporation development project. At 5 Thomas Mellon Circle (Assessor's Block 4991, Lot 75), the Yerby Company proposes to demolish the existing office building and remove the existing surface parking spaces on the Yerby site, and redevelop the site with approximately five mixed-use buildings, below-ground parking, open space, new streets, alleyways, and pedestrian walkways. The buildings would have heights of up to 167.5 feet (16 stories) and would contain approximately 500 residential units; the underground garage would provide up to 751 parking spaces. With the proposed Yerby project, there would be a total of about 1,042,000 gsf of developed space on the Yerby site, including about 596,000 gsf of residential uses; about 3,000 gsf of neighborhood commercial uses; about 142,000 gsf of other (common residential, community, and service and core) space; and about 301,000 gsf of below-grade parking. The Yerby project would also include residential private and common open space and a publicly accessible park.

At 150 and 250 Executive Park Boulevard (Assessor's Block 4991, Lots 24, 61, 65, 74, 85, and 86), Universal Paragon Corporation proposes to demolish the two existing office buildings and remove the existing surface parking spaces, and redevelop the site with approximately eight mixed-use buildings, below-ground parking, open space, and pedestrian walkways. The buildings would be up to 240 feet (24 stories) tall and would contain approximately 1,100 residential units; the underground garages would provide up to about 1,677 parking spaces. With the proposed UPC project, there would be a total of about 2,311,000 gsf of

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developed space on the UPC site, including about 1,350,000 gsf of residential uses; about 70,000 gsf of neighborhood commercial uses; about 275,000 gsf of other (common residential and service and circulation) space; and about 616,000 gsf of below-grade parking. The UPC project would also include residential private and common open space and several areas of publicly accessible open space, along with new streets, alleyways, and pedestrian walkways.

A Notice of Preparation of an EIR and Public Scoping Meetings was issued on October 27, 2006, and one public scoping meeting was held on November 8, 2006. Based on the comments received, the Planning Department has determined that preparation of an Initial Study would be appropriate to focus the scope of the EIR. Preparation of an Initial Study or EIR does not indicate a decision by the City to approve or to disapprove the project.

Further comments concerning the scope of the EIR are welcomed, based on the content of the Initial Study. In order for your concerns to be considered fully, we would appreciate receiving them by March 13, 2009. Please send **written comments** to Bill Wycko, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103.

If you work for an agency that is a Responsible or a Trustee Agency, we need to know the views of your agency as to the scope and content of the environmental information that is relevant to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering a permit or other approval for this project. We will also need the name of the contact person for your agency.

If you have questions concerning environmental review of the proposed project, please contact **Joy Navarrete** at (415) 575-9040.

Initial Study

Planning Department Case No. 2006.0422E

Executive Park Subarea Plan and Yerby and UPC Development Projects

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INITIAL STUDY
EXECUTIVE PARK SUBAREA PLAN AND YERBY AND UPC
DEVELOPMENT PROJECTS
Case No. 2006.0422E

A. BACKGROUND AND PROJECT SETTING

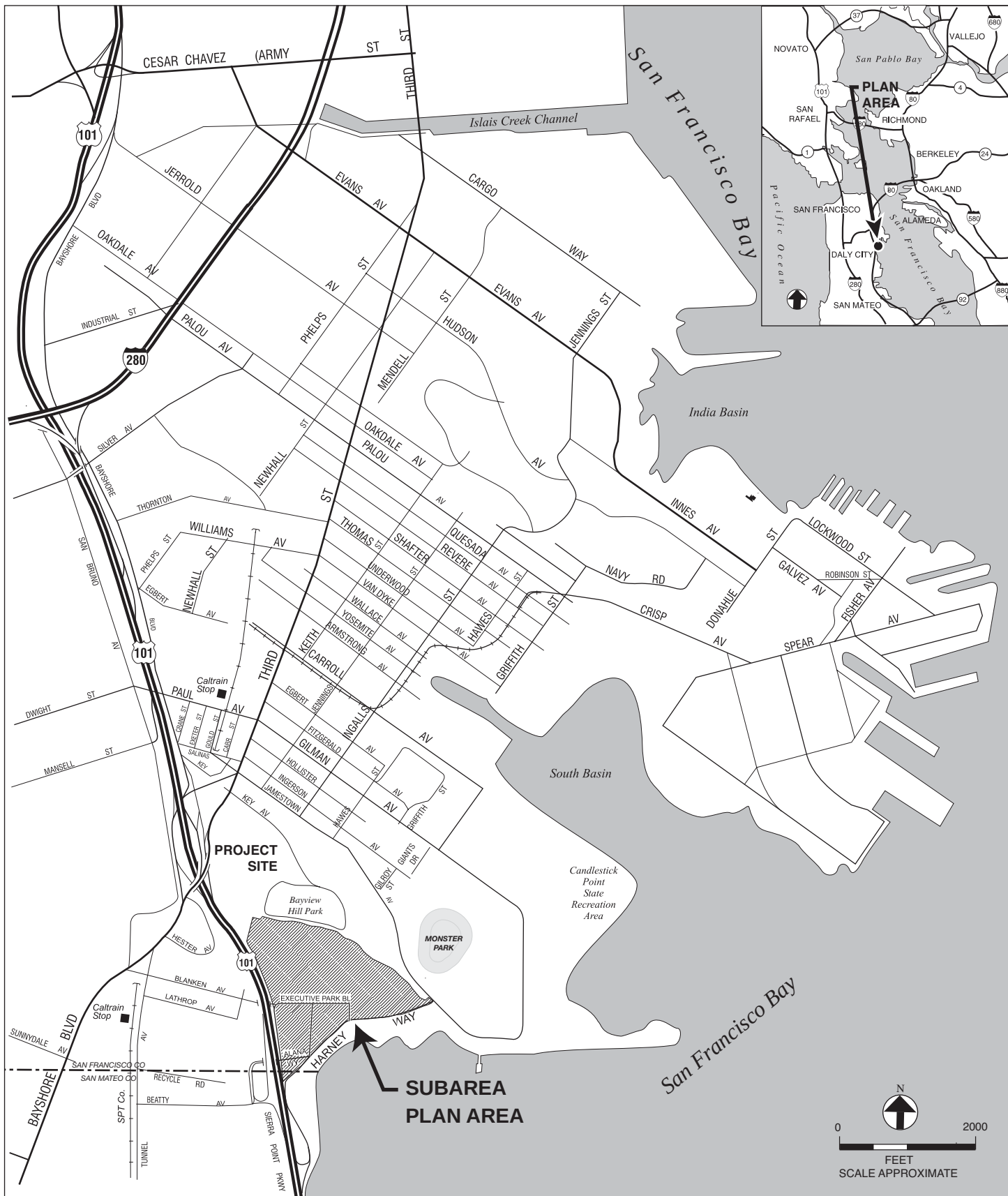
Background

The 71-acre area known as “Executive Park” is in the southern part of San Francisco, just east of U.S. 101 and along the San Francisco/San Mateo County boundary. (See Figure 1, Regional Location.) Executive Park is a Subarea in the *Bayview Hunters Point Area Plan*, a component of the *San Francisco General Plan*. Since 1976, Executive Park (also referred to as the “Subarea Plan Area”) has been the subject of numerous development plans, environmental analyses, and City actions. Development plans for the area were prepared or amended in 1978, 1980, 1981, 1984, 1992, 2000, 2005, and 2007. Environmental analyses of Executive Park development included an EIR in 1976 (“1976 EIR”), a Subsequent EIR in 1985 (“1985 FSEIR”), a Supplemental EIR in 1999 (“1999 FSEIR”), and EIR Addenda in 1992, 2005, and 2007. City actions have included the approval of the development plans and issuance of permits for the construction of office and residential buildings.

The original development concept analyzed in the 1976 EIR included about 833,000 square feet of office space, about 174,000 square feet of hotel/meeting space, about 73,000 square feet of retail space, and 3,900 parking spaces; this concept was reflected in the 1978 Development Plan (as amended in 1980/1981).¹ The 1985 FSEIR analyzed the 1984 Development Plan, which included about 1,644,000 square feet of office space, about 234,000 square feet of hotel space, about 50,000 square feet of retail/restaurant space, about 600 residential units, and about 5,300 parking spaces.² The 1999 FSEIR analyzed a project that was substantially the same as the project approved in 1985, and also reviewed a Residential Variant that substituted 258 residential

¹ San Francisco Planning Department, *Case No. EE 75.198: Final Environmental Impact Report, San Francisco Executive Park*, certified August 12, 1976. This report is on file with the Planning Department, 1650 Mission Street, Suite 400, San Francisco, and is available for public review, by appointment, as part of Case File No. 2006.0422E.

² These numbers include the office use and restaurant space previously approved under the 1978 Development Plan. San Francisco Planning Department, *Case No. 81.197E: Executive Park Development Plan Amendment, Subsequent Environmental Impact Report*, certified October 17, 1985. This report is on file with the Planning Department, 1650 Mission Street, Suite 400, San Francisco, and is available for public review, by appointment, as part of Case File No. 2006.0422E.



SOURCE: Turnstone Consulting

EXECUTIVE PARK

2006.0422E

FIGURE 1: REGIONAL LOCATION

units for the hotel (for a total of 808 permitted and proposed residential units).³ The development plan approved after certification of the 1999 FSEIR (“2000 Approved Development Plan”) incorporates the Residential Variant. The EIR Addenda approved in 2005 and 2007 analyzed (1) a 499-unit residential development to replace permitted but unbuilt office space in the northwest portion of Executive Park (approved as the Signature Properties/Candlestick Cove project), and (2) increases in height and density for a 465-unit residential development in the northeastern portion of Executive Park (approved as the Top Vision/St. Francis Bay Phase III project).^{4 5} Table 1: Executive Park Environmental Review History Since 1999, summarizes the projects that were analyzed under the 1999 FSEIR, the 2005 Addendum, and the 2007 Addendum.

Existing development within Executive Park includes about 307,600 gross square feet (gsf) of office space, 2,400 gsf of retail uses, 304 residential units (completed not yet fully occupied), and 1,347 parking spaces. Specific development projects in Executive Park that are already approved (with development permits) or under construction will add about 964 residential units, 15,000 gsf of retail and restaurant space, and 1,496 parking spaces. Combined, existing and approved (approved through specific Planning Commission entitlement) development includes about 1,268 residential units, 307,600 gsf of office space, 17,400 gsf of retail and restaurant space, and 2,843 parking spaces. As of 2007, existing, approved, and planned (including uses that have been studied under previous environmental work, but were not necessarily included in a specific entitlement) development in Executive Park (per the 2007 Revisions to the 2000 Approved Development Plan) includes about 320,000 square feet of office uses, 55,000 square feet of retail/restaurant uses, 1,307 residential units, and about 2,924 parking spaces.

³ San Francisco Planning Department, Case No. 1999.442E: Executive Park Development Plan, Final Supplemental Environmental Impact Report, certified December 2, 1999. This report is on file with the Planning Department, 1650 Mission Street, Suite 400, San Francisco, and is available for public review, by appointment, as part of Case File No. 2006.0422E.

⁴ The 465 units were within the number of units analyzed in the 2000 Approved Development Plan.

⁵ San Francisco Planning Department, Case No. 1990.299E: Executive Park Development Plan Addendum to 1999 Final Supplemental EIR, approved June 8, 2005; San Francisco Planning Department, Case No. 2004.1031E: Executive Park Development Plan Addendum to Executive Park Plan Development Final Supplemental EIR (Top Vision/St. Francis Bay Phase III Addendum), approved February 14, 2007. These reports are on file with the Planning Department, 1650 Mission Street, Suite 400, San Francisco, and are available for public review, by appointment, as part of Case File No. 2006.0422E.

Table 1: Executive Park Environmental Review History Since 1999

Land Use	Pre-2000 Existing or Entitled Development	Project Analyzed Under 1999 FSEIR	Project Analyzed Under 2005 Addendum	Project Analyzed Under 2007 Addendum	Yerby and UPC Proposal
Office (square feet)	320,000	1,324,000	(1,324,000)	0	(320,000)
Retail/Restaurant (square feet)	2,500	52,500	0	0	73,000
Health Club (square feet)	0	25,000	(25,000)	0	0
Childcare Facility (square feet)	0	13,240	(13,240)	0	0
Residential (units)	304 ^a	504 ^b	499 ^c	(39) ^d	1,600
Parking Spaces (commercial)	797	2,880	(2,880)	0	0
Parking Spaces (retail)	0	240	0	0	0
Parking Spaces (residential)	517	875	588	(99) ^e	2,428

Notes:

- a. St. Francis Bay Phases I and II
- b. St. Francis Bay Phase III
- c. Candlestick Cove
- d. St. Francis Bay Phase III was originally analyzed for 504 units under the 1999 FSEIR. The 2007 Addendum analyzed 465 units (a reduction of 39 units).
- e. St. Francis Bay Phase III was originally analyzed for 875 spaces under the 1999 FSEIR. The 2007 Addendum analyzed 776 spaces (a reduction of 99 spaces).

Source: The Yerby Company; Universal Paragon Corporation; 1999 FSEIR (Planning Department Case No. 1999.442E); 2005 Addendum to 1999 FSEIR (Case No. 1990.299E); 2007 Addendum to 1999 FSEIR (Case No. 2004.1031E)

Project Setting

Subarea Plan Area: Property Holdings

The Subarea Plan Area currently includes 194 lots within Assessor's Block 4991: Lots 24, 61, 65, 74, 75, 85, 86, 240, 278, 282 through 345, 346 through 409, 423 through 474, 475 through 598, and 599 through 634.⁶ Property holdings within the Subarea Plan Area include the Yerby Company, Universal Paragon Corporation ("UPC"), Top Vision Development, LLC ("St. Francis Bay"), and Signature Properties/Candlestick Cove, LLC development sites. (See Figure 2, Subarea Plan Area Property Ownership.)

Subarea Plan Area: Existing and Approved Uses

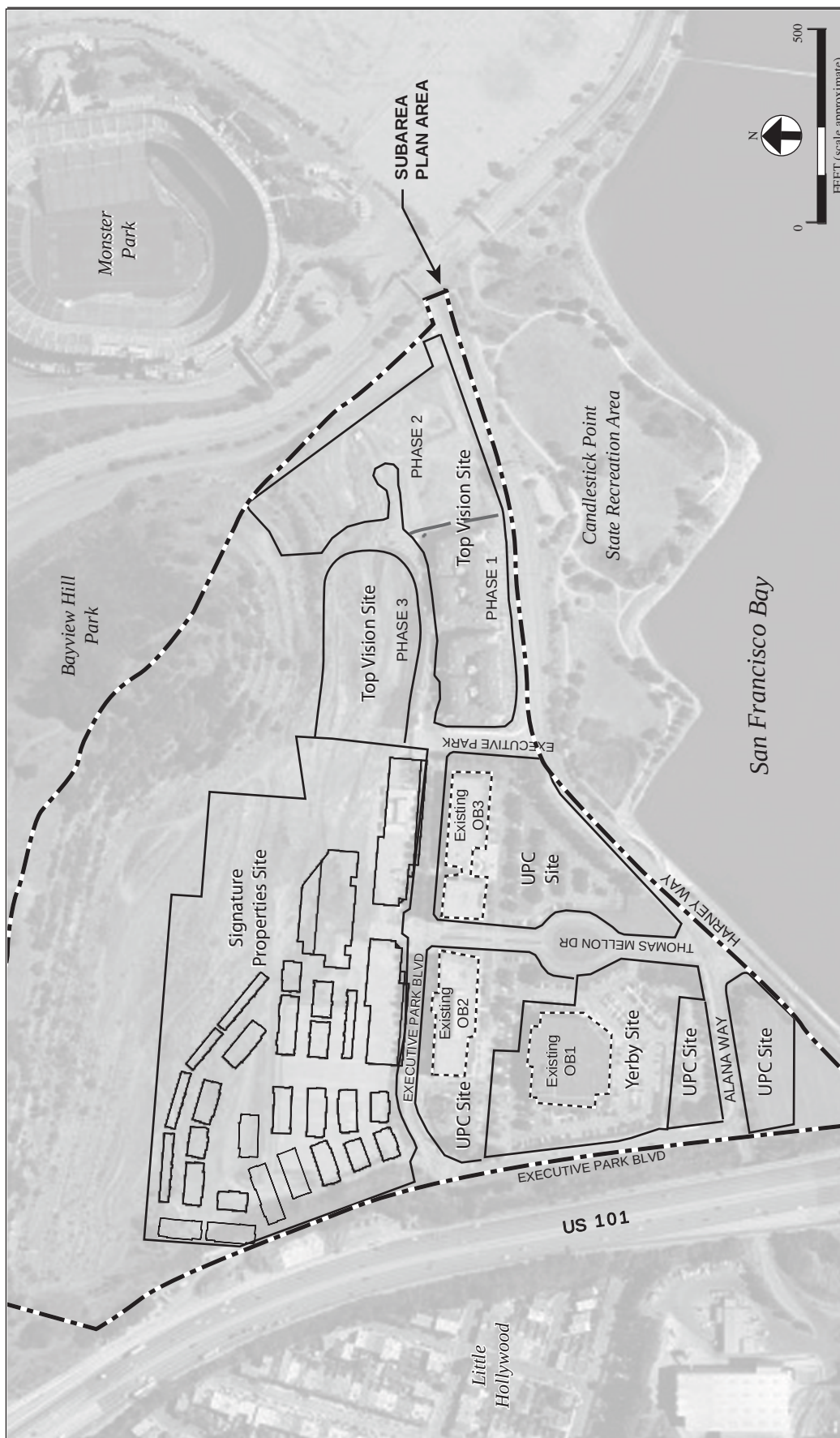
The Subarea Plan Area is partly developed with office, retail, and residential uses. Buildings OB 1, OB 2, and OB 3 in the southwest part of the Subarea Plan Area (on the Yerby and UPC development sites) include about 310,000 gsf, with about 307,600 gsf of office space and about 2,400 gsf of retail uses. Five residential buildings in the eastern part of the Subarea Plan Area (St. Francis Bay Phases I and II) contain 304 units. The existing office buildings are 40 feet to 48 feet tall; the Phase I residential buildings are four stories tall with one level of parking partially above grade; and the Phase II residential buildings are 40 feet tall. The Subarea Plan Area also includes about 830 surface parking spaces for the office uses and about 517 parking spaces for the residential uses.

The third phase of the St. Francis Bay development, approved by the Planning Commission in March 2007, will include construction of 465 units and about 776 parking spaces north of the existing residential buildings. The Phase III buildings will be 60 feet to 165 feet tall. In the northern part of the Subarea Plan Area, the approved Signature Properties/Candlestick Cove development will include up to 499 residential units, 12,500 gsf of retail space, 2,500 gsf of restaurant space, and 720 parking spaces. The 155 townhouses and three mid-rise buildings, which are under construction, will be 30 feet to 90 feet tall.

Subarea Plan Area: Zoning and Height and Bulk Districts

Most of the Subarea Plan Area is within the C-2 (Community Business) Use District. The southern end of the Subarea Plan Area (part of the UPC development site) is zoned M-1 (Light

⁶ From SF Parcel, June 10, 2008. The number of lots will increase because condominium maps are in the process of being filed for the St. Francis Bay development. The Subarea Plan Area also includes four open space lots (Lots OS 1, 2, 7, and 8); two lots (Lots PCLA and PCLB) associated with Crescent Way and Crescent Way West, private roads within the St. Francis Bay development; and two lots (ROWA and ROWB) associated with private roads within the Signature development.



SOURCE: Heller-Manus, Turnstone Consulting

EXECUTIVE PARK

2006.0422E

FIGURE 2: NEIGHBORHOOD PLAN AREA PROPERTY OWNERSHIP

Industrial). The height and bulk districts in the Subarea Plan Area are the 40-X, 60-X, 80-X, 100-G, 140-H, 165-I, and 200-I districts. The 40-X district covers the northern part and most of the southwestern part of the Subarea Plan Area; the districts allowing the tallest heights are just north of Executive Park Boulevard North.

Subarea Plan Vicinity

The Subarea Plan Area vicinity is characterized by public open space and recreation facilities; San Francisco Bay; major transportation corridors; and a mix of residential, commercial, and industrial uses. The Subarea Plan Area is bounded by Bayview Hill Park, which sits atop Bayview Hill to the north; Jamestown Avenue, the Monster Park stadium, and Candlestick Point State Recreation Area to the east; Candlestick Point State Recreation Area and San Francisco Bay to the south; and U.S. 101 to the west. The Bayview Hunters Point residential neighborhood is located north and east of the Subarea Plan Area beyond Bayview Hill. U.S. 101 separates the Subarea Plan Area from the Little Hollywood and Visitacion Valley neighborhoods to the west and northwest. Bayshore Boulevard, Third Street, and Leland Avenue in these neighborhoods are the main commercial corridors in the Subarea Plan Area vicinity. Industrial and public facility uses to the west and southwest of the Subarea Plan Area include the Sunset Scavenger/San Francisco Recycling & Disposal waste management facilities, both located south of Sunnydale Avenue. The Brisbane Baylands Planning Subarea, a 660-acre site planned for redevelopment, is to the southwest of the Subarea Plan Area across U.S. 101 in the city of Brisbane. The Sierra Point and Oyster Point office and light industrial facilities are in the city of Brisbane to the south. The Bay Trail, a multi-use pathway, extends along the San Francisco Bay shoreline east of the Subarea Plan Area.

The principal access to the Subarea Plan Area is provided via the U.S. 101 southbound ramps at Beatty Avenue and the U.S. 101 northbound ramps at Harney Way. The Plan Area is served directly by a San Francisco Municipal Railway (Muni) bus line and is accessible via several other Muni bus lines, a Muni light rail line, San Mateo County Transit (SamTrans) bus lines, Caltrain, and BART. The existing Executive Park shuttle connects the Plan Area with the Bayshore Caltrain station, Balboa Park BART station, and SamTrans bus stops.

B. PROJECT DESCRIPTION

Project Overview

The proposed *Executive Park Subarea Plan* (“Subarea Plan”) that is the subject of this Initial Study would amend the existing Subarea Plan for Executive Park to complete the transition of a primarily office-park development to a mixed-use, primarily residential neighborhood. The proposed Subarea Plan is a means for implementing land use controls, urban design guidelines, and open space and transportation improvements. The proposed Subarea Plan would revise

zoning; change height and bulk limits; establish a local street network and guidelines for the neighborhood streetscape; use design guidelines to establish an urban neighborhood scale and character; and designate public open space and pedestrian and bicycle connections.

A first draft of the Subarea Plan was published in June 2006, and is available on the Planning Department's web site.⁷ Planning Department staff have been working to fine tune the proposed Subarea Plan and will hold additional community workshops on urban design, transportation, and other key topics. The SEIR will analyze the refined version of the draft Subarea Plan.

The Yerby Company ("Yerby project sponsor") and Universal Paragon Corporation ("UPC project sponsor") have proposed specific development projects for about 14 acres of the 71-acre Subarea Plan Area that would partially implement the proposed Subarea Plan. The Yerby and UPC development sites currently support three office buildings and surface parking, and are the remaining developable parcels within the Subarea Plan Area; implementation of the Yerby and UPC projects would represent full buildout of the Subarea Plan. The Yerby and UPC projects would replace the existing office space, retail uses, and associated parking with residential and neighborhood-serving commercial space, parks and open space, and associated parking.

With existing and approved development in the Subarea Plan Area, implementation of the proposed Subarea Plan would result in approximately 2,900 residential units and approximately 88,000 gsf of commercial space in the Subarea Plan Area by about 2015. Implementation of the proposed Subarea Plan would also include infrastructure improvements to serve the Subarea Plan Area.

Subarea Plan Characteristics

The proposed Subarea Plan contains five elements that are based on the overall goals for the Subarea Plan Area: Land Use; Streets and Transportation; Urban Design; Community Facilities and Services; and Recreation and Open Space. This section describes the proposed Subarea Plan elements and the objectives of each element. This section also identifies the key parts of the Subarea Plan that would influence future development within the Subarea Plan Area.

Land Use Element of the Subarea Plan

The proposed Subarea Plan would establish an Executive Park Residential Special Use District (SUD), and would rezone most of the Subarea Plan Area from C-2 to RM-3 (Residential Mixed, Moderate Density) or similar zoning designation. In the Executive Park SUD, the requirements for the RM-3 zone would only apply where the SUD's land use and development controls are

⁷ Available at http://www.sfgov.org/site/planning_index.asp?id=42414; accessed September 16, 2008.

silent. The unit density permitted in the RM-3 Zoning District is 1 unit per 400 square feet of lot area.⁸

Streets and Transportation Element of the Subarea Plan

The proposed Subarea Plan includes proposed circulation patterns for vehicles, bicyclists, and pedestrians. For vehicles, the Plan establishes a hierarchy of streets, including a reconfigured boulevard along Harney Way to serve long-term development; the existing Executive Park Boulevard and Thomas Mellon Drive; and new local streets and alleys to serve future residential and retail development.

As the proposed Subarea Plan is implemented, changes to the local roadway network may be implemented to accommodate the future traffic generated by Subarea Plan development. These changes could include the realignment of Alana Way, changes to the configuration of Harney Way and Thomas Mellon Drive, and/or installation of traffic signals. These changes will be explored in the SEIR on the proposed Subarea Plan and Yerby and UPC projects.

As development occurs to the east of Executive Park, it is anticipated that Harney Way would be modified to accommodate transit service and capacity enhancements within an expanded roadway right-of-way. The provision of future transit service and expansion of the roadway right-of-way would be addressed as part of the proposals for the development to the east of Executive Park, and are not part of the project analyzed in this Initial Study. Similarly, the potential construction of an interchange at U.S. 101 and Harney Way to serve future development, as identified in the *Brisbane General Plan* and the *Bi-County Transportation Plan*, is not part of the proposed project. The proposed Yerby and UPC development projects described in this chapter have been designed to generally accommodate the currently anticipated right-of-way requirements (based on the locations and designs under consideration) for a widened Harney Way and a future interchange.

For bicyclists, the Subarea Plan includes designated bike paths and bike lanes. Bike lane facilities would be made to be consistent with the City's proposed Bicycle Plan and/or any official City policies regarding bicycle routing and improvements. For pedestrians, the Subarea Plan includes sidewalks along the existing roadways and proposed internal streets. Alternatively, alleyways could possibly be designed with a "share street" single-grade treatment where appropriate. The Subarea Plan also includes a trail from the northern part of the Subarea Plan Area up toward and possibly connecting to Bayview Hill Park.

⁸ San Francisco Planning Department, *Executive Park, a Subarea Plan of the Bayview Hunters Point Area Plan*.

Urban Design Element of the Subarea Plan

The proposed Subarea Plan provides general goals and objectives. The current version of the Plan also contains Urban Design Guidelines as an appendix; staff anticipates that these will be developed further into a stand-alone document that could be adopted by the Planning Commission by resolution. The Subarea Plan Urban Design Guidelines would be used by the Planning Department in evaluating projects within the Subarea Plan Area. The Design Guidelines include specific guidance for buildings, streets, stormwater runoff, alleys, pathways, public open space, and parking.

The proposed Subarea Plan would use height limits and the proposed Design Guidelines to implement Subarea Plan policies. The Subarea Plan would replace the 7 existing height and bulk districts with a range of districts, allowing heights of up to 240 feet.

The areas with the tallest buildings allowed would be in the north-central and northwestern parts of the Subarea Plan Area. Buildings with mid-range heights would be allowed in the southern and southeastern parts of the Subarea Plan Area. The proposed Design Guidelines would include limits for building floor plates and dimensions for the taller buildings.

The Urban Design Element calls for the use of a “green building” approach to development involving “best practices for sustainable design and resource conservation.” The Design Guidelines recommend that developments within the Subarea Plan Area seek “green” certifications such as Leadership in Energy and Environmental Design (LEED). (Development within the Subarea Plan Area would also be subject to all applicable requirements of the recently adopted San Francisco Green Building Ordinance.⁹) The major aspects of environmentally friendly building design, such as energy efficiency, stormwater management, water efficiency, building materials, and indoor air quality, are described. The guidelines also call for an analysis to determine the appropriateness of various techniques for slowing, maintaining, and treating stormwater on site.

Community Services and Facilities Element of the Subarea Plan

The proposed Subarea Plan calls for development within the Subarea Plan Area to include necessary community facilities as an integral component: “...additional investment in parks, streets, and community facilities and services – beyond what can be provided through property tax revenue – is essential to meeting the needs of new residents.” Currently, the UPC and Yerby development are subject to the Visitation Valley Community Facilities and Infrastructure Fee and Fund.¹⁰

⁹ Chapter 13C, *San Francisco Building Code*.

¹⁰ Ordinance 264-05, adopted November 18, 2005.

Recreation and Open Space Element of the Subarea Plan

The Open Space Element of the Subarea Plan includes proposed active and passive public open spaces and a network of pedestrian connections. The areas designated for open space include the lower slopes of Bayview Hill, the northeastern part of the Signature Properties/Candlestick Cove development area, the northern edge of the St. Francis Bay development area, areas within the Yerby and UPC development sites, and the land along selected pedestrian connections. The proposed pedestrian network, which includes trails, sidewalks, and walkways, is intended to provide connections to Candlestick Point State Recreation Area and Bayview Hill Park.

Subarea Plan Implementation

As noted earlier in this section, parts of the Subarea Plan Area are already developed, and development of other parts of the Subarea Plan Area is approved and under way. Therefore, this Initial Study focuses on the areas that would change as the result of the proposed Subarea Plan: the Yerby and UPC development sites (see Figure 2, p. 6).¹¹

The Yerby project sponsor and UPC project sponsor have proposed the removal of the three existing office buildings and construction of approximately 13 buildings with residential and commercial uses. The proposed Yerby and UPC projects are summarized in Table 2. With existing and approved development, these projects would realize the full buildout potential of the proposed Subarea Plan.

Implementation of the proposed Subarea Plan would require a lot line adjustment between Yerby and UPC, to implement an exchange of land (approximately 0.142 acre) within the Subarea Plan Area. The Yerby and UPC development site acreages and development plans described in this Initial Study reflect the proposed land exchange. Other lot line adjustments might be needed to accommodate the future roadway network within the Subarea Plan Area. This issue will be explored in the SEIR.

Yerby Development Project

Yerby Project Location

The approximately 4.8-acre Yerby development site is in the southwest part of the Subarea Plan Area. (See Figure 2, p. 6.) The Yerby development site occupies all of Assessor's Block 4991, Lot 75. Local access to the site is provided by driveways from Executive Park Boulevard West and North and Thomas Mellon Drive. The Yerby development site is occupied by Building

¹¹ The proposed Yerby and UPC projects would involve minor changes to the boundaries of the development sites. Figure 2 shows the existing development site boundaries; the proposed site boundaries are discussed later in this section.

Table 2: Summary, Yerby and UPC Development Projects

Category/Project	
<i>Proposed Demolition (gsf)</i>	
Office	307,600
Retail	<u>2,400</u>
Total	310,000
 <i>Proposed New Space (gsf)</i>	
Residential	1,946,000
Retail	73,000
Parking	916,000
Other	<u>417,000</u>
Total	3,352,000
 <i>Residential Units</i>	 1,600
<i>Parking Spaces</i>	2,428
<i>Maximum Height (feet)</i>	240

Note: GSF = gross square feet. Space totals have been rounded to nearest 1,000 gsf. "Other" building space includes lobbies and other common/residential amenity space, building core, and service and mechanical spaces.

Source: Heller-Manus Architects, C.Y. Lee & Partners/LTC Design Group, Turnstone Consulting

OB 1, which includes about 99,200 gsf of office uses and about 800 gsf of ground-floor retail uses. OB 1 is a three-story (40-foot-tall with no basement), pre-cast concrete and stucco building first occupied in 1981. Existing parking includes about 300 spaces in surface lots. The Yerby development site is in a C-2 Use District and a 40-X Height and Bulk District.

Yerby Project Overview

The Yerby project sponsor proposes to demolish the existing office building and remove the surface parking spaces on the Yerby site, and redevelop the site with approximately five mixed-use buildings, below-ground parking, open space, new streets, alleyways, and pedestrian walkways. The buildings would have heights of up to 167.5 feet (16 stories) and would contain approximately 500 residential units; the underground garage would provide up to 751 parking spaces. With the proposed Yerby project, there would be a total of about 1,042,000 gsf of developed space on the Yerby site, including about 596,000 gsf of residential uses; about 3,000 gsf of neighborhood commercial uses; about 142,000 gsf of other (common residential, community, and service and core) space; and about 301,000 gsf of below-grade parking. The

Yerby project would also include residential private and common open space and a publicly accessible park.

Proposed Residential, Retail, and Community Uses

The proposed residential units would include a mix of one-bedroom, two-bedroom, and three-bedroom units. As currently envisioned, the commercial uses could include ground-floor retail shops, services, and cafes/eateries. The Yerby project also includes a proposed community center, which would be open to the Yerby project residents, as well as residents from other Executive Park neighborhoods and the Little Hollywood and Bayview / Hunters Point communities.

Proposed Parking

A two-level, below-grade parking garage would be constructed below the proposed Yerby buildings A, B, and C, and a two-level garage would be constructed beneath Buildings D and E. The lowest garage floor (Level B2) would be up to 26 feet below the proposed ground surface level. The garage would provide about 751 residential parking spaces, as well as dedicated bicycle parking stalls. Additional parking for visitors and retail customers would be available on neighborhood streets.

Site Access, Circulation, and Loading

The primary vehicle access to the Yerby project site would be from Executive Park Boulevard West and Thomas Mellon Drive. Vehicles would travel to and within the Yerby site via a proposed street grid. The streets would be constructed to be consistent with the guidelines in the proposed Subarea Plan. Sidewalks would be provided along the frontage of all of the proposed buildings. Alternatively, alleyways could possibly be designed with a “share street” single-grade treatment where appropriate.

The proposed Yerby project would include no more than one loading dock in each of the five buildings. Proposed curb cuts, loading entries, and auto entries would be designed to be consistent with the proposed Subarea Plan (these Subarea Plan policies are being formulated).

Proposed Open Space and Landscaping

The *Planning Code* open space requirements for the proposed Yerby project would translate into 30,000 square feet of private open space, or 39,900 square feet if all open space were common for the use of all residents.¹² The Yerby project includes private open space for some of the proposed

¹² According to *Planning Code* Section 135, the open space requirements for the proposed project (which would be in an RM-3 district) would be about 60 square feet of private open space per residential unit; about 80 square feet of common open space per unit could be substituted for the private open space.

units and common open space in the form of landscaped courtyards and a proposed pedestrian corridor. In addition, the Yerby project would provide part of the land for a proposed publicly accessible park (the remainder of the park would be provided as part of the UPC project). The Yerby project would include landscaping throughout the Yerby site, along proposed roadways, within public access open space and residential common open space areas, and around individual buildings. The Yerby project sponsor intends the proposed landscaping to be consistent with the landscaping and design guidelines in the *Executive Park Subarea Plan* and/or a Streetscape Master Plan and/or a stand-alone Design Guidelines document.

Proposed Foundation and Grading

As currently envisioned, the Yerby project would use mat foundations where allowed by surface conditions; the potential for liquefaction could require that alternative foundation techniques be used beneath portions of the Yerby development site (see discussion of liquefaction issues, pp. 75-76). The average depth of excavation would be up to about 25 feet below the ground surface. Approximately 120,300 cubic yards of soil would be removed from the Yerby site.

Project Construction

Project construction, including demolition, site and foundation work, construction of the parking garage sections, and construction of the proposed buildings, would last approximately 46 months. Assuming that construction would begin in 2009, the last building constructed would be ready for occupancy in 2013. The actual timing of construction would depend on market conditions and other factors.

The Yerby project would have two development phases, with each phase involving construction of the proposed buildings and the corresponding garage section on a part of the development site. Each phase of construction would last approximately 23 months.

The first stage of construction would last about 10 months during the first development phase and about 8 months during the second phase, and would include demolition, excavation, and foundation work. Excavation would last about two months during those times.

UPC Development Project

UPC Project Location

The approximately 9.7-acre UPC development site is in the southwest part of the Subarea Plan Area. (See Figure 2, p. 6.) The UPC development site occupies three lots within Assessor's Block 4991: Lots 74, 85, and 86. (UPC also occupies land on Lots 24 and 61 south of Alana Way. This land is not part of the proposed project.) The parcels are not contiguous, and are separated from each other by Thomas Mellon Drive and the Yerby development site. Local

access to the UPC site is provided by driveways from Executive Park West, North, and East and Thomas Mellon Drive.

The UPC development site is occupied by Buildings OB 2 and OB 3, which include about 208,400 gsf of office uses and about 1,600 gsf of ground-floor retail uses. OB 2 and OB 3 are four-story (48-foot-tall, with no basements), blue tile/metal panel buildings constructed in the early 1980s. Existing parking includes about 530 spaces in surface lots (including the area south of Alana Way). The UPC development site is in a C-2 Use District. Most of the UPC site is in a 40-X Height and Bulk District; the part of the site south of OB 3 and extending just west of Thomas Mellon Drive is in an 80-X Height and Bulk District.

UPC Project Overview

UPC proposes to demolish the existing office buildings and remove the surface parking spaces on the UPC site, and redevelop the site with approximately eight mixed-use buildings, below-ground parking, open space, and pedestrian walkways. The buildings would be up to 240 feet (24 stories) tall and would contain approximately 1,100 residential units; the underground garages would provide up to about 1,677 parking spaces. With the proposed UPC project, there would be a total of about 2,311,000 gsf of developed space on the UPC site, including about 1,350,000 gsf of residential uses; about 70,000 gsf of neighborhood commercial uses; about 275,000 gsf of other (common residential and service and circulation) space; and about 616,000 gsf of below-grade parking. The UPC project would also include residential private and common open space and several areas of publicly accessible open space, along with new streets, alleyways, and pedestrian walkways.

Proposed Residential and Commercial Uses

The proposed residential units would include a mix of units with one to three bedrooms. As currently envisioned, the commercial uses would include retail shops, services, cafes/eateries, and a health club and spa.

Proposed Parking

Parking would be constructed below all of the proposed buildings on the UPC project site. The proposed parking would include separate garages beneath some buildings and combined garages beneath others. The garages would have two to three levels. The lowest garage floor would be approximately 13 feet above San Francisco Datum at Building 1, about 5 feet at Buildings 2 and 3, about 7 feet at Buildings 4 through 7, and about 4 feet at Building 8. The lowest garage levels would vary in depth from the proposed ground level (from about 2 feet above the proposed grade to 30 feet below the proposed grade), because the development site and individual building sites would be sloped. Combined, the garages would provide about 1,677 residential parking

spaces as well as dedicated bicycle parking stalls. Additional parking for visitors and retail customers would be available on neighborhood streets.

Site Access, Circulation, and Loading

The primary vehicle access to the UPC project site would be from Executive Park Boulevard North, Executive Park Boulevard West, and Thomas Mellon Drive. Vehicles would travel within the UPC site via a proposed street grid; Thomas Mellon Drive would also provide internal circulation. The streets would be constructed to be consistent with the guidelines in the proposed Subarea Plan. Sidewalks would be provided along the frontage of the proposed buildings. Alternatively, alleyways could possibly be designed with a “share street” single-grade treatment where appropriate.

The proposed UPC project would include no more than one loading dock in each building. Proposed curb cuts, loading entries, and auto entries would be designed to be consistent with the proposed Subarea Plan (these Subarea Plan policies are being formulated).

Proposed Open Space and Landscaping

The *Planning Code* open space requirements for the proposed UPC project would translate into 66,000 square feet of private open space, or about 87,780 square feet if all open space were common for the use of all residents. The UPC project includes private open space in each of the buildings, in the form of balconies for individual units. The project also includes common open space in the form of landscaped courtyards at each building. In addition, the UPC project would provide several areas of public access open space. The UPC project would include landscaping throughout the UPC site, along proposed roadways, within public access open space and residential common open space areas, and around individual buildings. The UPC project sponsor intends the proposed landscaping to be consistent with the landscaping and design guidelines in the *Executive Park Subarea Plan* and/or a Streetscape Master Plan and/or a stand-alone Design Guidelines document.

Proposed Foundation and Grading

As currently envisioned, the UPC project would use mat foundations where allowed by surface conditions; the potential for liquefaction could require that alternative foundation techniques be used beneath portions of the UPC development site (see discussion of liquefaction issues, pp. 75-76). The average depth of excavation would be approximately 8 feet to 23 feet below the ground surface. Approximately 174,400 cubic yards of soil would be removed from the UPC site.

Project Construction

Project construction, including demolition, site and foundation work, construction of the parking garages, and construction of the proposed buildings, would take up to about five years. Assuming that construction would begin in 2009, the last building constructed would be ready for occupancy in 2014.

Construction of the proposed buildings would be undertaken in four development phases, with each phase lasting approximately 15 months. The development phasing sequence would depend on market conditions and area-wide transportation improvements. Major excavation would take approximately three months during each development phase.

Required Approvals

The required approvals would include the following:

- Certification of the Final SEIR (Planning Commission, appealable to Board of Supervisors);
- Adoption of CEQA findings and mitigation monitoring program (Planning Commission, Board of Supervisors);
- Approval of an amendment to the *San Francisco General Plan* to amend the *Executive Park Subarea Plan*, a Subarea Plan of the *Bayview Hunters Point Area Plan*, and findings of consistency of the amendment with Priority Policies (Planning Commission, Board of Supervisors);
- Amendments to the Zoning Maps and *Planning Code* to establish the boundaries of and development standards for the Executive Park Residential SUD, along with the establishment of a new Design Review entitlement review process similar to what is used Downtown, and Downtown Residential Districts (Section 309 Review), pursuant to the *Executive Park Subarea Plan* (Planning Commission, Board of Supervisors);
- Determination of the Yerby and UPC development projects' consistency with the Executive Park Residential SUD regulations (Planning Commission, appealable to the Board of Appeals) (similar to Section 309 Review);
- Adoption of the Design Guidelines by the Planning Commission;
- Approval of traffic control and striping changes, changes to Muni routes and stops; and improvements in the public right-of-way related to Muni (Municipal Transportation Agency);
- Determination of shadow impact under *Planning Code* Section 295 for the Yerby and UPC development projects (Recreation and Park Commission, Planning Commission);

- Approval of Tentative and Final Subdivision Maps for the Yerby and UPC development projects (Department of Public Works);
- Approval of demolition and building permits for the Yerby and UPC development projects (Department of Building Inspection); and
- Approval of tree removal permits (Department of Public Works).

C. COMPATIBILITY WITH EXISTING ZONING AND PLANS

	<i>Applicable</i>	<i>Not Applicable</i>
Discuss any variances, special authorizations, or changes proposed to the Planning Code or Zoning Map, if applicable.	☒	☐
Discuss any conflicts with any adopted plans and goals of the City or Region, if applicable.	☒	☐
Discuss any approvals and/or permits from City departments other than the Planning Department or the Department of Building Inspection, or from Regional, State, or Federal Agencies.	☒	☐

San Francisco Planning Code and Zoning Map

The San Francisco *Planning Code* implements the *San Francisco General Plan*, and governs permitted uses, densities and configuration of buildings within San Francisco. The *Planning Code* incorporates by reference the City Zoning Maps. Permits to construct new buildings or to alter or demolish existing ones may not be issued unless the proposed project conforms to the *Planning Code* or an exception or variance is granted pursuant to provisions of the *Planning Code*.

As described in Section A, Background and Project Setting, the Subarea Plan Area is a Subarea in the *Bayview Hunters Point Area Plan*. Most of the Subarea Plan Area is within the C-2 Use District; part of the Subarea Plan Area is zoned M-1. The height and bulk districts in the Subarea Plan Area are the 40-X, 60-X, 80-X, 100-G, 140-H, 165-I, and 200-I districts. The proposed Subarea Plan would establish an Executive Park Residential SUD, and would rezone most of the Subarea Plan Area to RM-3 or similar zoning category. The proposed Subarea Plan would also replace the existing height and bulk districts with a range of districts, allowing heights of up to 240 feet. To achieve these changes, amendments to the *General Plan*, Zoning Maps, and *Planning Code* would be required. Approval of the proposed Yerby and UPC projects would require findings that the projects are consistent with the proposed Executive Park Residential SUD regulations (similar to Section 309 Review used Downtown and in Downtown Residential Districts). These approvals will be discussed in more detail in the SEIR.

Planning Code Section 315 sets forth the requirements and procedures for the Residential Inclusionary Affordable Housing Program. Under Section 315.3 this requirement applies to projects that consist of five or more units. Section 315.4(a)(1) establishes that 15 percent of all units constructed on the project site shall be affordable to qualifying households. Alternatively, the project sponsor could elect to satisfy the requirements by constructing off-site units pursuant to Section 315.5 at the higher rate of 20 percent of all new units, pay an in lieu fee in accordance with Section 315.6, or use a combination of the three alternatives. To comply with the requirements of the *Planning Code*, the Yerby and UPC project sponsors would construct affordable units on or off site.

Conflicts with Adopted Plans and Goals

The proposed Subarea Plan would amend the *General Plan* and the existing Subarea Plan for Executive Park, and would amend the Zoning Maps and *Planning Code* to establish a Residential SUD. The SEIR will discuss these proposed changes in the context of citywide *General Plan* policies and, as applicable, regional and other planning efforts in San Francisco and nearby communities. The SEIR will also discuss consistency of the proposed Yerby and UPC projects with the proposed Subarea Plan.

The *San Francisco General Plan* provides general policies and objectives to guide land use decisions. Any conflicts between the proposed Subarea Plan and Yerby and UPC projects and policies that relate to physical environmental issues are discussed in Section E, Evaluation of Environmental Effects. The compatibility of the proposed Subarea Plan and Yerby and UPC projects with *General Plan* policies that do not relate to physical environmental issues will be considered by decision-makers as part of their decision whether to approve or disapprove the proposed Subarea Plan and Yerby and UPC projects. Any potential conflicts identified as part of the process would not alter the physical environmental effects of the proposed Subarea Plan and Yerby and UPC projects.

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 to the City *Planning Code* to establish eight Priority Policies. These policies, and the sections of this Environmental Evaluation addressing the environmental issues associated with the policies, are: (1) preservation and enhancement of neighborhood-serving retail uses; (2) protection of neighborhood character (Question 1c, Land Use); (3) preservation and enhancement of affordable housing (Question 3b, Population and Housing, with regard to housing supply and displacement issues); (4) discouragement of commuter automobiles (Questions 5a, b, f, and g, Transportation and Circulation); (5) protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership (Question 1c, Land Use); (6) maximization of earthquake preparedness (Questions 13 a-d, Geology, Soils, and Seismicity); (7) landmark and historic building preservation (Question 4a, Cultural Resources); and (8) protection of open space (Questions 8 a and b, Wind and Shadow, and Questions 9a and c, Recreation and Public Space). Prior to issuing a permit for any project which requires an Initial Study under the California Environmental Quality Act (CEQA), and prior to issuing a permit for any demolition, conversion, or change of use, and prior to taking any action which requires a finding of consistency with the *General Plan*, the City is required to find that the proposed project or legislation is consistent with the Priority Policies. As noted above, the consistency of the proposed Subarea Plan and Yerby and UPC projects with the environmental topics associated with the Priority Policies is discussed in the Evaluation of Environmental Effects, providing information for use in the case report for the proposed Subarea Plan and Yerby and UPC projects. The case report and approval motions for the Subarea Plan and Yerby and UPC projects will contain the Department's

comprehensive project analysis and findings regarding consistency of the proposed Subarea Plan and Yerby and UPC projects with the Priority Policies.

Other Approvals and Permits

Required approvals and/or permits from City departments other than the Planning Department or the Department of Building Inspection include San Francisco Department of Public Works approval of the proposed projects under subdivision laws, including public improvement agreements, approval of tree removal permits, and approval of Tentative and Final Subdivision Maps for the Yerby and UPC development projects; Municipal Transportation Agency approval of traffic control and striping changes, changes to Muni routes and stops, and improvements in the public right-of-way related to Muni; and San Francisco Recreation and Park Commission determination of project shadow impact under *Planning Code* Section 295. No approvals from regional, state, or federal agencies are required.

D. SUMMARY OF ENVIRONMENTAL EFFECTS

The proposed project could potentially affect the environmental factor(s) checked below. (Each of the topics listed each includes several sub-topics that address specific types of environmental effects; the box has been checked if there could be effects for one or more of the sub-topics.) The following pages present a more detailed checklist and discussion of each environmental factor.

☒ Land Use	☒ Air Quality	☐ Geology and Soils
☒ Aesthetics	☒ Wind and Shadow	☐ Hydrology and Water Quality
☒ Population and Housing	☒ Recreation	☐ Hazards/Hazardous Materials
☒ Cultural/Paleontological Resources	☒ Utilities and Service Systems	☐ Mineral/Energy Resources
☒ Transportation and Circulation	☒ Public Services	☐ Agricultural Resources
☒ Noise	☐ Biological Resources	☒ Mandatory Findings of Signif.

1. Effects Found to Be Potentially Significant

This Initial Study evaluates the proposed Subarea Plan and Yerby and UPC projects to determine whether they would result in significant environmental impacts. The designation of topics as “Potentially Significant” in the Initial Study means that the topics will be studied further in the SEIR, to determine whether there would be a significant impact. The proposed Subarea Plan and Yerby and UPC projects could have significant effects on transportation, traffic noise levels, and traffic-related air quality due to the increase in traffic, transit use, and parking demand in the area. Due to the increase in population of the Subarea Plan site, there could be significant effects on recreation facilities, water supply and public services (police and fire). There could also be a significant air quality impact due to the proposed establishment of housing near U.S. 101 (which is a source of diesel particulate emissions). The proposed Subarea Plan and Yerby and UPC

projects could have significant effects on visual quality (views, scenic resources, and visual character), wind, and shadow, due to the proposed building design. Proposed excavation within the Subarea Plan Area could disturb prehistoric archaeological resources and could affect human remains, if present. In addition, the proposed establishment of new policies and zoning requirements and proposed change in character for the Subarea Plan Area could have potentially significant effects on land use and planning. These potential effects will be analyzed in the SEIR.

2. Effects Found Not to Be Significant

The following potential individual and cumulative environmental effects of the proposed Subarea Plan and Yerby and UPC projects were determined either to be less than significant or to be reduced to a less-than-significant level through recommended mitigation measures included in this Initial Study:

- Land Use (division of established community);
- Aesthetics (light and glare);
- Population and Housing (displacement of housing or people);
- Cultural and Paleontological Resources (historic architectural resources, unique paleontological or geologic resources);
- Transportation and Circulation (air traffic patterns);
- Noise (groundborne noise, construction noise, aircraft noise, interior noise);
- Air Quality (construction dust and construction exhaust emissions, odors, toxic air contaminants);
- Recreation (construction of new facilities and existing recreational sources);
- Utilities and Service Systems (wastewater and stormwater);
- Public Services (schools and community facilities);
- Biological Resources;
- Geology and Soils;
- Hydrology and Water Quality;
- Hazards and Hazardous Materials;
- Mineral and Energy Resources; and
- Agriculture Resources.

These items are discussed with recommended mitigation measures, where appropriate, in Sections E and F, and require no further environmental analysis in the SEIR. All mitigation measures identified, including those for interior noise, construction air quality, stormwater runoff, biological resources, geologic hazards, and hazards/hazardous materials, have been agreed to by the Yerby and UPC project sponsors and will be incorporated into the proposed Yerby and UPC projects. For items designated “Not Applicable,” the conclusions regarding potential significant

environmental effects are based upon field observations, staff and consultant experience and expertise on similar projects, and/or standard reference materials available within the Planning Department, such as the California Natural Diversity Database and maps published by the California Department of Fish and Game. For each checklist item, the evaluation has considered both individual and cumulative impacts of the proposed project.

E. EVALUATION OF ENVIRONMENTAL EFFECTS

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
1. LAND USE AND LAND USE 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) Have a substantial impact upon the existing character of the vicinity?	☒	☐	☐	☐	☐

Question 1a: The Subarea Plan Area is a partly developed, 71-acre site located in southeastern San Francisco. Existing uses within the Subarea Plan Area include the office buildings on the Yerby and UPC project sites and the residential development in St. Francis Bay Phases I and II. Additional residential development in the Subarea Plan Area is under construction or has been approved (Top Vision/St. Francis Bay Phase III in the northeast part of the Plan Area, and Signature Properties/Candlestick Cove in the northwest part of the Plan Area). The Subarea Plan Area is relatively isolated from communities in the vicinity due to physical barriers. Bayview Hunters Point is north and northeast of the Subarea Plan Area beyond and separated by Bayview Hill, and the Little Hollywood and Visitacion Valley neighborhoods are to the west and northwest of and separated by U.S.101.

Implementation of the proposed Subarea Plan and buildout of the proposed Yerby and UPC projects would involve the demolition of the existing office buildings and redevelopment of those sites with residential, retail, and open space uses. The office buildings are partly occupied: as of March 2008, OB 1 was occupied by approximately 27 tenants, OB 2 by 28 tenants, and OB 3 by 14 tenants. One of the leases in OB 1, eight of the leases in OB 2, and nine of the leases in OB 3 will expire after 2009;¹³ the Yerby and UPC project sponsors would work to resolve individual

¹³ Yerby, George, The Yerby Company, personal communication, February 22, 2007, confirmed August 14, 2008; Universal Paragon Corporation, March 2008 Rent Rolls.

tenant and leasing issues as required by the project construction and phasing schedule.¹⁴ The office buildings and their tenants would not be considered an established community.

The proposed Subarea Plan and Yerby and UPC projects would be incorporated into the established network of major streets in the area and would create no impediment to the passage of people or vehicles. The proposed Subarea Plan and Yerby and UPC projects would be implemented entirely within the boundaries of the Plan Area, and would not displace or directly alter off-site uses. For those reasons, the proposed Subarea Plan and Yerby and UPC projects would not physically divide an established community. This conclusion is consistent with the 1999 FSEIR and other prior environmental documents, which considered the land use impacts of buildout of the entire Executive Park area.

Anticipated cumulative development in the Subarea Plan region includes redevelopment in Visitation Valley and the Brisbane Baylands area across U.S. 101; continued redevelopment of the Hunters Point Shipyard and Hunters Point/India Basin areas north of Bayview Hill; and redevelopment of the Candlestick Point/Monster Park stadium area directly to the east. These projects and other anticipated major development in the area would include about 17,000 residential units, 2.9 million gsf of retail uses, 2.8 million gsf of light industrial uses, 6.1 million gsf of office uses, 225,000 gsf of cultural/institutional/educational uses, and about 3,800 hotel rooms.¹⁵

The Subarea Plan Area is physically separated from the cumulative development sites by roads and other physical barriers. Therefore, the proposed Subarea Plan and Yerby and UPC projects would not combine with cumulative development to physically divide an established community.

For these reasons, the proposed Subarea Plan and Yerby and UPC projects would not result in significant adverse effects, either individually or cumulatively, related to division of an established community. This topic will not be discussed further in the SEIR.

Question 1b: The proposed Subarea Plan would establish policies and zoning requirements for the Plan Area; the Yerby and UPC development projects would be required to conform to the Subarea Plan. The potential for conflicts between the Subarea Plan and other environmental plans and policies will be analyzed in the SEIR.

Question 1c: The existing character of the Subarea Plan Area is essentially similar to that described in the 1999 FSEIR. The Plan Area is mainly characterized by three low-rise office

¹⁴ Yerby, George, The Yerby Company, personal communication, March 12, 2008; Scharfman, Jonathan, UPC, personal communication, October 4, 2007.

¹⁵ The population data and projections are based on information provided by the SFCTA and DMJM+Harris. The spreadsheet with the land use assumptions is available for public review, by

buildings and the surrounding surface parking lots, with a gated multi-family residential development at the eastern end. The two residential projects that are approved or under construction will make the Subarea Plan Area more residential in character. The parklands and water that help to define the Plan Area's boundaries – Bayview Hill, Candlestick Point State Recreation Area, and San Francisco Bay – contrast with the busy U.S. 101 along the west boundary, and the large-scale Monster Park stadium to the east. These features isolate the Subarea Plan Area from existing development in the vicinity.

The existing character of the Plan Area vicinity is also similar to the setting description in the 1999 FSEIR. The residential communities of Visitacion Valley and Little Hollywood, commercial corridors along Bayshore Boulevard, Third Street, and Leland Avenue, and industrial uses such as the Sunset Scavenger/San Francisco Recycling & Disposal waste management facilities are west of U.S. 101. The stadium at Monster Park and surrounding surface parking lots are not used most of the year. Bayview Hill Park is an open natural area with passive recreational features, and Candlestick Point State Recreation Area has passive and active recreational facilities. The community of Bayview Hunters Point is physically separated from the Plan Area by Bayview Hill and Candlestick Point.

Implementation of the proposed Subarea Plan and the Yerby and UPC projects would result in the redevelopment of the Yerby and UPC development sites with residential and retail uses with open space features. This redevelopment, when combined with the residential projects in progress, would change the character of the Subarea Plan Area to that of a residential community. The use of the Plan Area would intensify compared to existing conditions, and building heights and density would increase. The use of the Subarea Plan Area would differ relative to the 2000 Approved Development Plan and project analyzed in the 1999 FSEIR. The potential residential population would be higher, and the potential employment would be lower.

The proposed residential and retail uses would be compatible with the residential and retail uses in the nearby neighborhoods. Similar to the mitigation in the 1999 FSEIR, the Subarea Plan incorporates an open space buffer between Executive Park development and Bayview Hill Park; this buffer would help to avoid project impacts on the character of the park. The increased intensity and building heights in the Subarea Plan Area, and their impact on the existing character of the vicinity, will be analyzed in the SEIR. The SEIR will also examine the impacts of cumulative development on existing character.

appointment, as part of the Planning Department case file for this project at 1650 Mission Street, Suite 400, San Francisco.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
2. 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 other features of the built or natural environment which contribute to a scenic public setting?	☒	☐	☐	☐	☐
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 or which would substantially impact other people or properties?	☐	☐	☒	☐	☐

Question 2a: The 1985 FSEIR and 1999 FSEIR concluded that development of Executive Park would not “have a substantial negative effect on visual quality or substantially degrade or obstruct a scenic view from public areas.”¹⁶ These environmental documents analyzed the visual impacts of complete buildout of the Executive Park area with multiple office buildings, residences, structured parking, and a hotel. The additional buildings would have had heights of up to 200 feet, with the tallest buildings sited north of Executive Park Boulevard North.

Since that time, development has been approved and is under construction on the Top Vision/St. Francis Bay Phase III and Signature Properties/Candlestick Cove sites in the eastern and northern parts of the Plan Area. The Addendum for the St. Francis Bay Phase III project concluded that the Phase III project would be different than the development analyzed previously for that part of Executive Park, but that the conclusions of the 1999 FSEIR would still apply. The Addendum for the Signature project concluded that the Signature development would be similar to what was analyzed in the 1999 FSEIR, and that the conclusions of the FSEIR would still apply.

Implementation of the proposed Subarea Plan would transform the southern part of the Plan Area from mid-rise office buildings to generally denser, taller residential and retail development. Buildings with heights of up to 240 feet would be allowed. The proposed Yerby and UPC projects combined would replace the three 40- to 48-foot-tall office buildings with multiple mixed-use buildings of up to 240 feet tall. The proposed development would be substantially different from what was analyzed previously.

The 1985 FSEIR noted that the Executive Park site serves as a visual gateway from U.S. 101, due to the prominence of Bayview Hill; impacts on views of and from Bayview Hill and views of the

¹⁶ 1999 FSEIR, p. 116.

Bay were analyzed in the prior documents. The SEIR will analyze whether the proposed Subarea Plan and Yerby and UPC projects would have a substantial adverse effect on these views and other scenic vistas now observed from public areas. The SEIR will also consider cumulative visual impacts, in particular those of the Subarea Plan combined with redevelopment of the Monster Park stadium area to the east.

Question 2b: See the response to Question 2a regarding the visual analysis in the prior environmental documents for the site. The topic of impacts to scenic resources was added to the San Francisco Initial Study Checklist form in 2006. Therefore, the 1985 FSEIR and 1999 FSEIR did not specifically discuss scenic resources as a separate type of impact. However, the prior environmental documents considered the scenic qualities of Bayview Hill (the 1985 FSEIR described it as “scarred and unnatural”) as part of the overall visual analysis.

There are 407 trees within the Yerby and UPC development sites. Implementation of the proposed Subarea Plan would result in the removal of most (or possibly all) of these trees. The proposed Yerby and UPC projects would remove trees to allow for grading and site construction. Seventy-four of the trees are considered “significant” and 28 are considered “street trees” as defined in the Urban Forestry Ordinance (Article 16 of the Public Works Code).¹⁷ However, the Yerby and UPC project sponsors would comply with the landscape guidelines of the Subarea Plan and the requirements of the Urban Forestry Ordinance, including requirements for replacement of significant trees and street trees. There are no other scenic resources within the Subarea Plan Area.

Scenic resources in the Subarea Plan Area vicinity include Bayview Hill Park and San Francisco Bay. Implementation of the Subarea Plan would not remove or directly alter these resources. Nonetheless, the SEIR will discuss the impacts of the project on these features and other scenic resources in the Plan Area vicinity.

Question 2c: See the response to Question 2a regarding the visual analysis in the prior environmental documents for the Subarea Plan Area. The prior environmental documents recognized that development within Executive Park would cause changes in visual character, but concluded that the changes would not be significant. Implementation of the proposed Subarea Plan would replace the three existing office buildings and adjacent parking lots in the southern part of the Plan Area with residential and retail development, parking, and open space. As proposed, the Yerby and UPC projects would include mid-rise and high-rise residential structures, below-ground parking, and several plazas, pedestrian corridors, and open space areas. The impacts of this development on visual character will be analyzed in the SEIR.

¹⁷ Significant trees are those trees within the jurisdiction of the Department of Public Works, or trees on private property within 10 feet of the public right-of-way, that meet certain size criteria. Street trees are trees within the public right-of-way or on land within the jurisdiction of the Department of Public Works. See Section E.12, Biological Resources, of this Initial Study for further discussion.

Question 2d: Current sources of light within the Subarea Plan Area include lighting within the existing office buildings on the Yerby and UPC sites and within the existing residential buildings at St. Francis Bay (for individual apartments and common areas); lighting on the outsides of the buildings; and lighting within the surface parking lots and along Subarea Plan Area roads. The existing buildings and vehicles parked in the Plan Area may be sources of glare. Additional development at St. Francis Bay and the Signature Properties site (approved and under construction) will add to the existing light levels. Existing lighting in the Subarea Plan Area vicinity includes lighting along U.S. 101 and within the Monster Park stadium and parking lots.

Implementation of the Subarea Plan and the Yerby and UPC development projects would replace the existing office buildings and surface parking in the southern part of the Subarea Plan Area with mid-rise and high-rise residential buildings and below-grade parking, and would create a network of local streets and alleys. These changes would introduce additional sources of lighting to the Subarea Plan Area. The proposed buildings would include lighting at the entrances and within common and tenant/private spaces. Lighting for the structured parking would not be visible from off site because the structured parking would be entirely below ground. Given the developed nature of the Subarea Plan Area, the new lighting would not add substantially to light levels. Therefore, the proposed Subarea Plan and Yerby and UPC projects would not generate a new source of substantial light that would adversely affect daytime or nighttime views in the area, and this topic will not be discussed further in the SEIR.

Most of the vehicles within the Subarea Plan Area would use the proposed structured parking and (while parked) would not be visible from off site. Buildings developed in accordance with the Subarea Plan would include transparent or very lightly tinted glass rather than reflective glass, in conformance with Planning Commission Resolution 9212. Therefore, the proposed Subarea Plan and Yerby and UPC projects would not generate obtrusive glare that would adversely affect daytime or nighttime views in the area, and the topic of glare will not be discussed further in the SEIR.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
3. 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 units or create demand for additional housing, necessitating the construction of replacement housing?	☐	☐	☒	☐	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐	☐

Question 3a: Implementation of the proposed Subarea Plan and buildout of the proposed Yerby and UPC projects would include the demolition of the existing office buildings on the Yerby and UPC development sites, and redevelopment of this portion of the Subarea Plan Area with residential, retail, and open space uses. These changes would potentially induce population growth directly through the construction of residential and retail uses.

With implementation of the proposed Subarea Plan and construction of the approximately 1,600 residential units in the proposed Yerby and UPC development projects, residential population within the Subarea Plan Area would increase from about 2,870¹⁸ people (in existing and approved units) to about 6,550 people at full buildout.¹⁹ The net increase of about 3,680 residents would constitute a 128 percent increase in Subarea Plan Area population. The increase would be higher than what was analyzed in the 1985 FSEIR.²⁰ Although Subarea Plan Area population growth with buildout of the proposed development projects would be substantial from a local perspective, the Plan Area is one of the few under-developed areas²¹ in San Francisco with the potential to absorb large amounts of household population growth. The

¹⁸ Combined, the existing residential development and approved and under-construction residential development projects in the Subarea Plan Area currently include about 1,268 residential units. A factor of 2.26 persons per household was used, based on Association of Bay Area Governments (ABAG) Citywide projections (*Projections 2007*). This factor was used instead of the 3.73-person average household size for Census Tract 610 (the tract in which Executive Park is located) because it was more representative of the existing and proposed unit and household sizes.

¹⁹ Based on the 2.30 persons per household forecast for 2025, from ABAG *Projections 2007*.

²⁰ The 1985 FSEIR considered the increased population from 600 dwelling units. The 1999 FSEIR did not analyze growth-inducement impacts.

²¹ Under-developed areas in the City are those parcels that are not developed to their maximum development and zoning potential.

potential adverse impacts of the proposed population growth are analyzed in the other sections of this Initial Study.

The Association of Bay Area Governments (ABAG) *Projections 2007* estimates that San Francisco will gain about 92,600 residents between 2005 and 2025. Future population growth due to the implementation of the proposed Subarea Plan would comprise about four percent of citywide population growth anticipated during this 20-year period.

Cumulatively, buildout of the proposed Subarea Plan and Yerby and UPC projects, in combination with other residential development proposed in nearby areas such as Visitacion Valley, the Brisbane Baylands, Candlestick Point, Hunters Point, and India Basin, is estimated to increase the total population in the project region by about 45,500 people by 2025.²² Of that growth, the cumulative population increase within San Francisco would be about 41,600 people, and would comprise about 45 percent of the anticipated citywide population growth. The impacts of the cumulative development projects, including growth-inducing impacts, will be addressed in the environmental reviews for those projects. The potential for the cumulative population increase to result in growth-inducing impacts and for the project to contribute considerably to any such impacts will be addressed in the SEIR.

Implementation of the proposed Subarea Plan and Yerby and UPC projects would result in changes in business activity in the Subarea Plan Area. About 310,000 gsf of (mainly) office uses would be replaced with about 73,000 gsf of retail uses. Although the office buildings are only partly occupied, it is reasonable to assume that Subarea Plan implementation would not result in a net increase in employment in the Plan Area.²³ Therefore, the proposed Subarea Plan and Yerby and UPC projects would not induce substantial growth or concentration of employment that would cause a substantial adverse physical change to the environment. The proposed Subarea Plan and Yerby and UPC projects also would not contribute to cumulative net increases in employment in the region.

The increase in residential population in the Subarea Plan Area would generate demand for local goods and services. Some of the demand could be met by the approved and proposed retail uses within the Subarea Plan Area. In addition, the departure of office workers from the Subarea Plan Area would offset some of the demand. However, the demand for goods and services could spread to nearby areas such as Little Hollywood, with potential growth-inducing effects. The potential for “spillover effects” was discussed in the 1985 FSEIR, but changes in area conditions

²² The population data and projections are based on information provided by the SFCTA and DMJM+Harris. The spreadsheet with the land use assumptions is available for public review, by appointment, as part of the Planning Department case file for this project at 1650 Mission Street, Suite 400, San Francisco.

²³ As of March 2008, OB 2 and OB 3 were approximately 97 percent to 98 percent occupied; as of August 2008, OB 1 was approximately 40 percent occupied.

and the proposed shift in the types of Subarea Plan Area development warrant further discussion in the SEIR.

The proposed Subarea Plan and Yerby and UPC projects would use much of the existing local road network and would use existing utility connections where possible. As the proposed Subarea Plan is implemented, changes to the local roadway network may be implemented to accommodate the future traffic generated by Subarea Plan development and other future developments. Buildout of the proposed Yerby and UPC projects would require the installation of a new water line that would extend outside of the Subarea Plan Area. The potential growth-inducing impacts of these changes to infrastructure will be analyzed in the SEIR.

Question 3b: The proposed Subarea Plan and Yerby and UPC projects would not displace existing housing because none of the existing residential units in the Subarea Plan Area would be removed. The demolition of the existing office uses on the Yerby and UPC development sites and redevelopment of the sites with residential and retail uses would not likely result in an increase in employment in the Subarea Plan Area. However, the change in employment in the Subarea Plan Area could result in an increase in the demand for housing, conservatively assuming that the new retail employees would be new to the San Francisco Bay Area.

An estimated 338,900 households resided in San Francisco in 2005. By 2025, the number of households is expected to increase to about 377,050, or by about 11 percent.²⁴ Based on assumptions about commute patterns and household size, the proposed Subarea Plan and Yerby and UPC projects could generate a demand for up to 82 new dwelling units in San Francisco (if the retail employees were new to the San Francisco Bay Area).²⁵ These new households would represent less than one percent of the City's estimated household growth by the year 2025 (and would be substantially less than the housing demand identified in the 1999 FSEIR).²⁶ This potential increase in housing demand would be negligible in the context of total households in San Francisco. Implementation of the proposed Subarea Plan and Yerby and UPC projects would add approximately 1,600 units to the City's housing supply. In addition, the Yerby and UPC project sponsors would construct affordable housing in compliance with the Residential Inclusionary Affordable Housing Program. For those reasons, the proposed Subarea Plan and

²⁴ ABAG, *Projections 2007*.

²⁵ This method multiplies the estimated project-related employment (approximately 209 employees) by the proportion of jobs in San Francisco held by people who live in the City (55 percent). This result, the approximate number of project-related employees who would live in the City (115), is divided by the projected number of workers per household in San Francisco (1.4). The estimated housing demand would be 82 units. Based on data from ABAG *Projections 2002* and the Metropolitan Transportation Commission.

²⁶ The project analyzed in the 1999 FSEIR would have generated a demand for about 1,840 new dwelling units. See 1999 FSEIR, p. 117.

Yerby and UPC projects would not result in significant impacts on housing displacement and demand, and this topic will not be discussed further in the SEIR.

Housing demand in and of itself is not a physical environmental effect; an imbalance between local employment and housing can lead to long commutes with associated traffic and air quality impacts. Traffic issues are discussed under Section E. 5 on pp. 35-36, and air quality issues are discussed under Section E. 7 on pp. 43-48.

Question 3c: Implementation of the proposed Subarea Plan and buildout of the proposed Yerby and UPC projects would involve the demolition of three existing on-site office buildings with a total of about 310,000 gsf of commercial space, including about 307,600 gsf of office space and about 2,400 gsf of retail uses. At full occupancy, these existing office buildings were estimated to have approximately 1,120 office employees and approximately 10 retail employees, for a total of approximately 1,130 on-site employees.²⁷ Currently, the office buildings are partly occupied; as of March 2008, OB 1 was occupied by approximately 27 tenants, OB 2 by 28 tenants, and OB 3 by 14 tenants. One of the leases in OB 1, eight of the leases in OB 2, and nine of the leases in OB 3 will expire after 2009. The businesses and employees displaced from the Subarea Plan Area would be expected to relocate, or to have relocated, within San Francisco or elsewhere in the Bay Area.²⁸ In addition, the Yerby and UPC project sponsors would work to resolve individual tenant and leasing issues as required by the project construction and phasing schedule. Business displacement to another Bay Area location could cause some economic impact to individual businesses but given the availability of other space nearby, such temporary displacement would not be a physical environmental impact under CEQA or be expected to cause an environmental impact, and will not be discussed further in the SEIR.

²⁷ Based on a standard multiplier of 275 square feet per employee in office space, based on San Francisco Planning Department transportation analysis guidelines and Keyser Marston Associates, Inc., *San Francisco Cumulative Growth Scenario: Final Technical Memorandum*, prepared for the San Francisco Redevelopment Agency, March 30, 1998. Retail employment density estimated at 350 square feet per employee, based on San Francisco Planning Department transportation analysis guidelines. Totals are rounded to the nearest 10 employees.

²⁸ According to the *San Francisco Business Times*, the current office vacancy rate is 12 percent of direct lease space, a figure that is likely to rise as large financial tenants vacate space. The availability rate (which includes direct lease and sublease space) could approach 20 percent in 2009, See San Francisco Business Times, "Soft Market for Offices Looks to Benefit Tenants," January 2, 2009.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
4. CULTURAL AND PALEONTOLOGICAL RESOURCES— Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco <i>Planning Code</i> ?	☐	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☒	☐	☐	☐	☐
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?	☒	☐	☐	☐	☐

Question 4a: The following discussion addresses potential impacts to historic architectural resources. Historic archaeological resources are addressed in the response to Question 4b.

The existing structures on the Yerby and UPC development sites were built in the early 1980s, and are well under 50 years old. The sites contain no buildings included in, or determined eligible for inclusion in, any federal, state, or adopted local register of historic resources (including *Planning Code* Articles 10 and 11), pursuant to CEQA *Guidelines*, Section 15064.5(a)(1) and (2).²⁹ In addition, there is no evidence that any building on the project sites is an historic architectural resource pursuant to CEQA *Guidelines*, Section 15064.5(a)(3). For those reasons, removal of OB 1, OB 2, and OB 3 would not result in significant impacts to historic architectural resources.

None of the buildings in the Subarea Plan Area have been officially designated as historic resources. Buildings within the Subarea Plan Area have been constructed within the last 30 years and there is no evidence in the record to indicate they would satisfy the significance criteria for historical resources under CEQA. Therefore, implementation of the Subarea Plan and Yerby and UPC development projects would not result in any substantial adverse change in the significance of any off-site historic resources, nor conflict with the preservation of any such buildings subject to *Planning Code* Articles 10 or 11. This topic will not be discussed further in the SEIR.

Question 4b: The following discussion addresses potential impacts to prehistoric and historic archaeological resources.

²⁹ See San Francisco Planning Code, Article 10, Appendix A and Article 11, Appendices A and B; see also National Register of Historic Places, <http://www.cr.nps.gov/nr/>, accessed June 6, 2007.

The prior environmental documents noted that cultural deposits associated with a prehistoric midden site have been identified in portions of Executive Park. The site is known as CA-SFR-7, and is also known as Nelson's #387, the Crocker Mound and the Bayshore Mound. The prior documents also noted that other unidentified cultural resources could be present at Executive Park. The 1985 FSEIR included mitigation for potential impacts to archaeological resources, in the form of site monitoring and archaeological testing.

Implementation of the Subarea Plan and the Yerby and UPC development projects would involve a different excavation "footprint" than analyzed in previous EIRs. Although the Yerby and UPC development sites are underlain by fill, excavation below the fill could disturb cultural resources if they are present. In addition, the methods for identifying potential impacts and for mitigation have changed since the time of the prior archaeological studies. Therefore, potential impacts to archaeological resources will be analyzed in the SEIR.

Question 4c: The Subarea Plan Area is partly developed with residential and office buildings and associated uses, and is in an urban area. Therefore, the project would not affect any unique geologic features. As discussed under Topic E.13, Geology and Soils, p. 73, the Yerby development site is underlain by up to 16 feet of fill, with colluvium, alluvium, and marine deposits beneath the fill. The UPC development site is underlain by up to 24 feet of fill, with colluvium beneath the fill in the northern part of the site and alluvium and marine deposits present in the southern part of the site. Franciscan Complex bedrock is also present underneath the northern part of the UPC development site, with shallow bedrock present beneath the northeastern corner; given the extent of the bedrock and the proposed excavation depths (26 feet or less), the UPC project would not involve extensive excavation into the bedrock. For that reason, and given that few prior excavations in San Francisco have unearthed significant paleontological resources, it is unlikely that the project would disturb any unique paleontological resources. Therefore, the proposed Subarea Plan and Yerby and UPC projects would not have significant impacts on unique geologic features or unique paleontological resources, and this topic will not be discussed further in the SEIR.

Question 4d: See the response to Question 4b. Potential impacts to human remains will be addressed in the SEIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
5. TRANSPORTATION AND CIRCULATION— 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 (unless it is practical to achieve the standard through increased use of alternative transportation modes)?	☒	☐	☐	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels, obstructions to flight, or a change in location, that results in substantial safety risks?	☐	☐	☐	☒	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	☒	☐	☐	☐	☐
e) Result in inadequate emergency access?	☒	☐	☐	☐	☐
f) Result in inadequate parking capacity that could not be accommodated by alternative solutions?	☒	☐	☐	☐	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., conflict with policies promoting bus turnouts, bicycle racks, etc.), or cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity or alternative travel modes?	☒	☐	☐	☐	☐

Questions 5a–b: The additional residents of the Subarea Plan Area, visitors to the Plan Area, and employees of the proposed residential buildings and commercial uses would place increased demands on the local transportation system, including increased traffic, transit demand, and parking demand. The prior environmental documents for Executive Park analyzed the transportation impacts of buildout of the area, but the proposed shift to residential development and changes in area conditions warrant additional analysis. The SEIR will discuss project effects related to transportation and circulation, including project and cumulative impacts on intersection operations, impacts on transit demand, and impacts on pedestrian circulation, parking, bicycles, and freight loading, as well as impacts during construction.

Question 5c: The Subarea Plan Area is not near an airfield; San Francisco International Airport is about seven miles to the south. This distance is outside of the limit for objects near airports in

the guidance published by the Federal Aviation Administration.³⁰ In addition, the proposed heights of the tallest buildings (240 feet) would not be above the crest of the adjacent Bayview Hill (which reaches an elevation of about 390 feet). For those reasons, the heights of the project buildings would not interfere with or result in any changes to air traffic. Therefore, there would be no impacts on air traffic safety and this topic will not be addressed further in the SEIR.

Question 5d: The proposed Subarea Plan would utilize the existing major roadway network. As the proposed Subarea Plan is implemented, changes to the local roadway network may be implemented to accommodate the future traffic generated by Subarea Plan development. The proposed Subarea Plan includes a network of local streets and alleyways to create a residentially-scaled street pattern; the proposed Yerby and UPC projects would be required to comply with the Plan's circulation and streetscape guidelines.

The proposed Yerby and UPC projects would include curb cuts for entrances to the proposed loading docks and below-grade parking. Proposed curb cuts, loading entries, and auto entries would be designed to be consistent with the proposed Subarea Plan (these Subarea Plan policies are being formulated). Each of the proposed buildings would include no more than one entrance to a loading dock. The potential for these changes in site access and circulation to cause hazards will be addressed in the SEIR.

Question 5e: Implementation of the proposed Subarea Plan and Yerby and UPC projects would result in an increase in the Subarea Plan Area population, but would include multiple points of vehicle access for residents and the public. In addition, the Subarea Plan would require (and the Yerby and UPC projects would provide) multiple points of pedestrian access. However, potential impacts on emergency access will be discussed in the SEIR.

Question 5f: See the response to Question 5a. The SEIR will address this topic.

Question 5g: See the response to Question 5a. The SEIR will address this topic.

³⁰ Federal Aviation Administration, Advisory Circular AC 70/7460-2K, Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace, March 1, 2000, available at [http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/22990146db0931f186256c2a00721867/\\$FILE/ac70-7460-2K.pdf](http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/22990146db0931f186256c2a00721867/$FILE/ac70-7460-2K.pdf), accessed October 28, 2008.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
6. NOISE—Would the project:					
a) Result in 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) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	☐
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐	☐
d) Result in 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 area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	☐	☐	☐	☐	☒
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐	☒
g) Be substantially affected by existing noise levels?	☐	☐	☒	☐	☐

Questions 6a–6d, 6g: The 1985 and 1999 FSEIRs analyzed the noise impacts from development at Executive Park. In addition, the 2007 Addendum for the St. Francis Bay Phase III project analyzed the noise impacts from that project plus implementation of the proposed Subarea Plan. The following discussion is based in part on those analyses.³¹ The primary sources of noise in the vicinity of the Subarea Plan Area are automobile and truck traffic, trains, and aircraft overflights. Events at the Monster Park stadium occasionally increase ambient noise levels in the area.

There are a variety of estimates of existing ambient noise levels within Executive Park. Information developed for the San Francisco Department of Public Health indicates that noise levels within Executive Park range from 65 dBA Ldn to 70 dBA Ldn.³² The *San Francisco General Plan* Environmental Protection Element shows noise of 80 dBA, Ldn on U.S. 101 (the

³¹ 1985 FSEIR, pp. 58-61 and 122-124; 1999 FSEIR, pp. 98-109; Top Vision/St. Francis Bay Phase III Addendum, 2007, pp. 59-63.

³² San Francisco Department of Public Health (SFDPH), Executive Park Subarea Plan Health Impact Assessment, draft report, accessed at http://www.thehdm.org/executive_park.php, September 18, 2008.

noise levels within Executive Park would be lower).³³ Noise modeling conducted for the 2007 Top Vision/St. Francis Bay Phase III Addendum estimated that existing noise levels range from 55.0 dBA Ldn to 57.6 dBA Ldn.³⁴ The highest noise levels modeled were along Alana Way, west of Thomas Mellon Drive and Harney Way; the lowest levels were along Harney Way, west of Jamestown Avenue. Due to the limitations of the model, the modeling estimates do not include traffic on U.S. 101, which is a dominant source of noise in the area. Short-term noise measurements taken for the 1999 FSEIR (p. 103) found noise levels of approximately 61.5 dBA Leq along Harney Way (east of Alana Way) and 63.5 dBA Leq along Thomas Mellon Drive (north of Alana). The 1999 FSEIR notes that noise levels in Executive Park are affected substantially by traffic on U.S. 101, and decrease with distance from the freeway.

The *General Plan* includes a Land Use Compatibility Chart for community noise levels. The chart shows that new residential development within areas of 65 to 70 dBA, Ldn are subject to two potential determinations: (1) such development should be “undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design”; and (2) such development should be discouraged (but if it does proceed, a detailed analysis should be conducted). The Department of Public Health draft impact assessment for Executive Park recommends acoustical evaluation of new construction, investigation of sound walls along U.S. 101 and Harney Way, investigation of the benefits of tree planting, and limits on truck travel along Harney Way.³⁵

The 2007 Top Vision/St. Francis Bay Phase III Addendum included noise measurements outside the Subarea Plan Area, along Blanken Avenue, Tunnel Road, and Jamestown Avenue. The noise levels in those areas ranged from 48.8 dBA Ldn to 56.9 dBA Ldn.

Sensitive receptors within the Subarea Plan Area include the residents of St. Francis Bay Phases I and II; additional residents will move into the Plan Area as part of the St. Francis Bay Phase III and the Signature Properties developments. Residents of the Little Hollywood neighborhood across U.S. 101 and users of the Candlestick Point State Recreation Area are also sensitive receptors.

³³ *San Francisco General Plan*, Environmental Protection Element, Map 2, Thoroughfare Noise Levels, 1974.

³⁴ Noise is measured in decibels (dB). The A-weighted sound level or “noise level” is referenced in units of dB(A). It has been developed because the human ear does not respond uniformly to sounds at all frequencies. A doubling of sound energy results in a 3.0 dB(A) increase in noise levels. A 5.0 dB(A) increase in ambient noise levels is readily noticeable to the human ear and the human ear perceives a 10.0 dB(A) increase in sound level to be a doubling of sound. Ldn is the day-night noise level, and describes the average sound level over a 24-hour period, with a penalty given for nighttime noise events.

³⁵ San Francisco Department of Public Health (SFDPH), Executive Park Subarea Plan Health Impact Assessment, draft report, accessed at http://www.thehdm.org/executive_park.php, September 18, 2008.

Construction Noise

Construction and demolition activities conducted as part of Subarea Plan implementation would result in temporary on-site and off-site noise increases. Construction activities would include demolition, excavation and hauling, building erection, and finishing. Depending on the type of foundation used, pile driving might be necessary for building foundations. Demolition and grading activities would involve the use of backhoes, tractors, scrapers, graders, and trucks. The use of explosives for demolition is not anticipated.

On-site and off-site noise level increases due to construction and demolition activities would be temporary and intermittent and would occur at different times through the phases of project construction. The magnitude of the construction noise impact typically depends on the type of construction activity, the sound level generated by the various pieces of construction equipment in operation, the duration of the construction noise, the distance between the noise source and receptor, and the presence or absence of noise barriers.

Proposed development within the Subarea Plan Area would occur in multiple phases. As currently envisioned, the proposed Yerby development project would include two phases; construction activities for each phase would last about 23 months. Demolition, excavation, and foundation work, which tends to be noisier because of the trucks and heavy equipment involved, would last about 10 months for the first development phase and 8 months for the second phase.

As currently envisioned, the proposed UPC development project would include approximately four development phases. Construction activities for each phase would last about 15 months. Construction activities for the entire project would occur over a period of approximately five years. Major excavation would take about three months during each development phase.

Construction noise is regulated by the San Francisco Noise Ordinance (Article 29 of the San Francisco Police Code). The ordinance requires that noise levels from individual pieces of construction equipment, other than impact tools, not exceed 80 dB(A) at a distance of 100 feet from the source. The ordinance does not regulate interior noise levels with respect to construction noise. Impact tools (e.g., jackhammers, pile drivers, and impact wrenches) must have both intake and exhaust muffled to the satisfaction of the Director of Public Works. Section 2908 of the ordinance prohibits construction work between 8:00 p.m. and 7:00 a.m., if the noise would exceed the ambient noise level by 5 dB(A) at the project property line, unless the Director of Public Works authorizes a special permit. Compliance with the Noise Ordinance is required by law and would reduce project construction noise impacts to a less-than-significant level. Therefore, project and cumulative construction noise impacts would not be significant, and this topic will not be discussed further in the SEIR. Although construction noise impacts would not be significant, the Yerby and UPC project sponsors would implement construction noise measures (see Improvement Measure Noise-1, p. 105) to minimize the potential effects to residential receptors at Executive Park.

Temporary demolition and construction activities within the Subarea Plan Area could expose nearby sensitive receptors (e.g., residential uses) to elevated levels of groundborne vibration. As stated, Section 2908 of the Noise Ordinance prohibits construction work between 8:00 p.m. and 7:00 a.m., if noise would exceed the ambient noise level by 5 dBA at the project property line, unless a special permit is authorized by the Director of the DPW. As compliance with the Noise Ordinance would prevent construction activities from occurring during designated sleeping hours, and due to the temporary nature of the construction activities, potential construction vibration impacts would be reduced to a less-than-significant level.

Foundation construction might involve pile driving. Pile driving would generate temporary noise and vibration that could be considered an annoyance to nearby residents in the St. Francis Bay and Signature developments and residents of early-phase buildings within the Yerby and UPC development sites, as well as to users of nearby open space and recreational facilities. Pile driving could generate noise levels of about 90 dBA at a distance of 100 feet from the pile driver during impact. Noise levels at receptors near the development sites would depend on the receptors' distance from the pile-driving equipment, and on the types of intervening structures. Intervening structures would reduce exterior noise levels by about 5 dBA, and interior noise levels with windows closed would be 15 to 20 dBA less than exterior noise levels.

To minimize the temporary construction noise from pile driving, the Yerby and UPC project sponsors would require construction contractors to predrill holes to the maximum depth feasible based on soil conditions. This feature of the project is included in Mitigation Measure Noise-1, p. 101, and would reduce the number of strikes of the pile-driving hammer needed to drive each pile into its final position. The project sponsors would also require that the contractor limit pile-driving activity to times of the day that would minimize disturbance to neighbors, consistent with the construction hours established in the Noise Ordinance, in consultation with the Director of Public Works. The project sponsors would also provide notice to building owners and occupants within 200 feet of the development site at least 48 hours prior to initiating pile-driving activities, providing dates, hours and expected duration of pile driving, as included in the mitigation measure. Based on this mitigation measure, and given the short-term, temporary period of pile-driving activity, pile-driving noise would not be considered a significant environmental impact. Construction noise impacts will not be analyzed further in the SEIR.

Traffic Noise

Traffic makes the greatest contribution to ambient noise levels in most of San Francisco. As analyzed in the prior environmental documents, development at Executive Park would result in an increase in vehicle trips to and from the Subarea Plan Area, and would increase traffic noise levels in the Plan Area. An approximate doubling of traffic volumes would be necessary to produce an increase in ambient noise levels noticeable to most people.

The 1999 FSEIR found the noise impacts of the increased traffic to and from Executive Park to be less than significant. The off-site noise increases caused by the prior Executive Park development plan would have been less than 3 dBA (what is considered a noticeable increase), and the development's contribution to cumulative noise increases would not have been substantial.

The 2007 Top Vision/St. Francis Bay Phase III Addendum analyzed off-site noise increases from the St. Francis Bay Phase III project plus implementation of the proposed Subarea Plan (and other cumulative development). The increases would range from approximately 4.6 dBA Ldn to 11.6 dBA Ldn. These changes in noise levels would be substantial, and warrant analysis in the SEIR.

Stationary Noise

As with the development analyzed in the prior environmental documents, the proposed Yerby and UPC projects would include mechanical equipment, such as air-conditioning units, that could produce operational noise. These operations would be subject to the San Francisco Noise Ordinance, Article 29 of the San Francisco Police Code. Compliance with Article 29, Section 2909, would limit noise from building operations, and substantial increases in ambient noise levels due to building equipment noise would not be expected. This topic will not be discussed further in the SEIR.

The proposed Yerby and UPC projects would include truck loading/unloading spaces. At least some of the loading areas would be completely enclosed. In addition, loading and unloading would be expected to occur generally during daytime business hours. For those reasons, noise from loading and unloading activities would not be significant. Therefore, this topic will not be evaluated in the SEIR.

Interior Noise

State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are collectively known as the California Noise Insulation Standards and are found in Title 24 of the California Code of Regulations. For limiting noise transmitted between adjacent dwelling units, the noise insulation standards specify the extent to which walls, doors, and floor ceiling assemblies must block or absorb sound. For limiting noise from exterior sources, the noise insulation standards set forth an interior standard of 45 dBA, Ldn in any habitable room and, where such units are proposed in areas subject to noise levels greater than 60 dBA, Ldn demonstrating how dwelling units have been designed to meet this interior standard. If the interior noise level depends upon windows

being closed, the design for the structure must also specify a ventilation or air-conditioning system to provide a habitable interior environment.

The proposed Yerby and UPC projects involve construction of multi-family buildings, and thus would be subject to Title 24. Given the relatively high traffic noise levels along U.S. 101, the proposed buildings would likely be required to incorporate additional attenuation features. (The installation of sound walls along U.S. 101, recommended by the Department of Public Health report, is not within the authority of the project sponsors.) Therefore, the project sponsors would implement Mitigation Measure Noise-2 (p. 101), which includes a detailed analysis of the noise reduction requirements for the projects and the incorporation of the required features into the project design. In addition, the Department of Building Inspection would review the final building plans to ensure compliance with Title 24 noise standards. For those reasons, the impact of exterior noise levels on the proposed residences would not be significant with regard to Title 24, and this topic will not be discussed further in the SEIR.

Questions 6e–6f: The Subarea Plan Area is not located within two miles of any airport, and is not included within the airport land use plan area for San Francisco International Airport.³⁶ The Subarea Plan Area is not within the 65 dBA CNEL noise contour for San Francisco International Airport.³⁷ Therefore, no impacts would occur as a result of the proposed project, and this topic will not be discussed further in the SEIR.

³⁶ Carbone, Dave, Airport Land Use Committee, City/County Association of Governments of San Mateo County, personal communication, January 22, 2008.

³⁷ Flaa, Richard, Noise Abatement Specialist, San Francisco International Airport, personal communication, August 23, 2007. Confirmed by CNEL 65 noise contour for San Francisco International Airport, online at <http://www.flyquietsfo.com/images/SFO%202001%20NEM%20full.pdf>, accessed October 28, 2008.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
7. 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 plan?	☒	☐	☐	☐	☐
b) Violate any air quality standard or contribute substantially 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, state, or regional 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?	☐	☐	☒	☐	☐

Questions 7a-7e: The Subarea Plan Area is located within the San Francisco Bay Area Air Basin, which is within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). Since most of San Francisco's topography is below 200 feet in elevation, marine air is able to flow easily across most of the City, making its climate cool and windy. Pollutant emissions in San Francisco are primarily from motor vehicle congestion. Localized pollutants, such as carbon monoxide from vehicles, can build up in "urban canyons," although the winds in San Francisco are generally strong enough to carry the pollutants away from the area before they can accumulate. Winds within the Subarea Plan Area region are generally from the northwest, west-northwest, west, and west-southwest.

Regulation of air pollution is achieved through both federal and state ambient air quality standards and limits for individual sources of air pollutants. An "ambient air quality standard" represents the level of air pollutant in the outdoor (ambient) air necessary to protect public health. As required by the federal Clean Air Act, the United States Environmental Protection Agency (U.S. EPA) has identified criteria pollutants and established National Ambient Air Quality Standards (NAAQS or federal standards) to protect the public health and welfare. NAAQS have been established for ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur oxides (SO_x), particulate matter of less than 10 and 2.5 microns (PM₁₀ and PM_{2.5}), and lead (Pb). The California Air Resources Board (CARB) has adopted more stringent ambient air quality standards (state standards) for most of the criteria pollutants.

Construction-Related Impacts

During construction of the Yerby and UPC development projects, the operation of equipment would emit hydrocarbons, NO_x, CO, inhalable particulate matter (PM₁₀) and fine particulate matter (PM_{2.5}). Demolition, excavation, grading, foundation, and other ground-disturbing construction activity would affect localized air quality and cause a temporary increase in particulate dust and other pollutants. Sensitive receptors in proximity to the Yerby and UPC development sites that could be affected by construction include the existing residents of St. Francis Bay Phases I and II, residents of the approved St. Francis Bay Phase III and Signature Properties/Candlestick Cove developments, and residents of the Yerby and UPC sites as the early project phases are completed.

As currently anticipated, demolition, excavation, and foundation work for the proposed Yerby project would last about 10 months for the first development phase and 8 months for the second phase. Major excavation for the UPC would take about three months during each of the four development phases.

Dust emissions during demolition and grading would increase particulate concentrations near the building site(s). A portion of these emissions would likely result from equipment traveling over unpaved areas and such dust emissions would have the greatest nuisance potential. Fugitive dust is emitted during disturbance of soil and as a result of wind erosion over exposed earth. Dustfall can be expected at times on surfaces within 200 to 800 feet of the source.

Under high winds exceeding 12 miles per hour, localized effects including human discomfort might occur downwind from blowing dust. Dust generated from demolition and construction is composed primarily of particularly large particles that settle out of the atmosphere more rapidly with increasing distance from the source and are easily filtered by human breathing passages. In general, dust generated by demolition and construction activity would result in more of a nuisance than a health hazard in the vicinity of the building site(s). About one-third of the dust generated by demolition and construction activities consists of PM₁₀ or smaller size particles in the range that can be inhaled by humans. Persons with respiratory diseases immediately downwind of the site(s), as well as any unprotected electronics equipment, could be sensitive to this dust.

Dust generation would be highly variable. The amount of dust generated on a given day would be dependent on types and amount of demolition and/or construction activity, as well as meteorological and soil conditions. The highest potential for dust generation occurs during the summer months when winds are highest on average and soil moisture is lowest.

Demolition, excavation, grading, foundation construction, and other ground-disturbing construction activity would temporarily affect localized air quality during demolition, excavation

and shoring, and construction of the foundation, causing temporary and intermittent increases in particulate dust and other pollutants. Excavation and movement of heavy equipment could create fugitive dust and emit nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide (SO2), reactive organic gases or hydrocarbons (ROG or HC), and particulate matter with a diameter of less than 10 microns (PM10) as a result of diesel fuel combustion. Fugitive dust is made up of particulate matter including PM10 and PM2.5. Soil movement for foundation excavation and site grading would create the potential for wind-blown dust to add to the particulate matter in the local atmosphere while open soil is exposed. While construction emissions would occur in short-term, temporary phases, they could cause adverse effects on local air quality. The Bay Area Air Quality Management District (BAAQMD), in accordance with CEQA Guidelines, has developed an analytical approach that obviates the need to estimate these emissions quantitatively.

Project-related demolition, excavation, grading and other construction activities may cause wind-blown dust that could contribute particulate matter into the local atmosphere. Although there are federal standards for air pollutants and implementation of state and regional air quality control plans, air pollutants continue to have impacts on human health throughout the country. California has found that particulate matter exposure can cause health effects at lower levels than national standards. The current health burden of particulate matter demands that, where possible, public agencies take feasible available actions to reduce sources of particulate matter exposure. According to the California Air Resources Board, reducing ambient particulate matter from 1998-2000 levels to natural background concentrations in San Francisco would prevent over 200 premature deaths. Dust can be an irritant causing watering eyes or irritation to the lungs, nose and throat. Demolition, excavation, grading and other construction activities can cause wind-blown dust to add to particulate matter in the local atmosphere. Depending on exposure, adverse health effects can occur due to this particulate matter in general and also due to specific contaminants such as lead or asbestos that may be constituents of soil.

In response, the San Francisco Board of Supervisors approved a series of amendments to the San Francisco Building and Health Codes generally referred hereto as the Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) with the intent of reducing the quantity of dust generated during site preparation, demolition and construction work in order to protect the health of the general public and of onsite workers, minimize public nuisance complaints, and to avoid orders to stop work by the Department of Building Inspection (DBI).

The Ordinance requires that all site preparation work, demolition, or other construction activities within San Francisco that have the potential to create dust or to expose or disturb more than 10 cubic yards or 500 square feet of soil comply with specified dust control measures whether or not the activity requires a permit from DBI. The Director of DBI may waive this requirement for activities on sites less than one half-acre that are unlikely to result in any visible wind-blown dust. The project sponsor and the contractor responsible for construction activities at the project site shall use the following practices to control construction dust on the site or other practices that

result in equivalent dust control that are acceptable to the Director. Dust suppression activities may include watering all active construction areas sufficiently to prevent dust from becoming airborne; increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water must be used if required by Article 21, Section 1100 et seq. of the San Francisco Public Works Code. If not required, reclaimed water should be used whenever possible. Contractors shall provide as much water as necessary to control dust (without creating run-off in any area of land clearing, and/or earth movement. During excavation and dirt-moving activities, contractors shall wet sweep or vacuum the streets, sidewalks, paths and intersections where work is in progress at the end of the workday. Inactive stockpiles (where no disturbance occurs for more than seven days) greater than 10 cubic yards or 500 square feet of excavated materials, backfill material, import material, gravel, sand, road base, and soil shall be covered with a 10 millimeter (0.01 inch) polyethylene plastic (or equivalent) tarp, braced down, or use other equivalent soil stabilization techniques. For projects over one half-acre, the Ordinance requires that the project sponsor submit a Dust Control Plan for approval by the San Francisco Health Department. DBI will not issue a building permit without written notification from the Director of Public Health that the applicant has a site-specific Dust Control Plan, unless the Director waives the requirement. Interior-only tenant improvement projects that are over one-half acre in size that will not produce exterior visible dust are exempt from the site-specific Dust Control Plan requirement.

Site-specific Dust Control Plans shall require the project sponsor to: submit of a map to the Director of Health showing all sensitive receptors within 1000 feet of the site; wet down areas of soil at least three times per day; provide an analysis of wind direction and install upwind and downwind particulate dust monitors; record particulate monitoring results; hire an independent, third party to conduct inspections and keep a record of those inspections; establish shut-down conditions based on wind, soil migration, etc.; establish a hotline for surrounding community members who may be potentially affected by project related dust; limit the area subject to construction activities at any one time; install dust curtains and windbreaks on the property lines, as necessary; limit the amount of soil in hauling trucks to the size of the truck bed and securing with a tarpaulin; enforce a 15 mph speed limit for vehicles entering and exiting construction areas; sweep affected streets with water sweepers at the end of the day; install and utilize wheel washers to clean truck tires; terminate construction activities when winds exceed 25 miles per hour; apply soil stabilizers to inactive areas; and to sweep off adjacent streets to reduce particulate emissions. The project sponsor would be required to designate an individual to monitor compliance with dust control requirements.

These regulations and procedures set forth by the San Francisco Building Code would ensure that potential dust-related air quality impacts would be reduced to a level of insignificance. This topic will not be discussed further in the SEIR.

Operation-Related Impacts

The BAAQMD has established thresholds for projects requiring a quantified analysis of potential air quality impacts. These thresholds are based on the minimum size of projects that the BAAQMD considers capable of producing air quality problems due to vehicular emissions. The BAAQMD “generally does not recommend a detailed air quality analysis for projects generating less than 2,000 vehicle trips per day, unless warranted by the specific nature of the project or project setting.”³⁸ Implementation of the proposed Subarea Plan and Yerby and UPC projects would generate vehicle trips that would exceed this screening threshold. Therefore, the SEIR will include an analysis of project and cumulative air quality impacts due to vehicular emissions.

Odors and Toxic Air Emissions

In general, the proposed residential, retail, and supporting uses would not result in objectionable odors. Odors from development within the Subarea Plan Area (such as from vehicle operation or food preparation) would be typical of those in the Subarea Plan region. Odors from food service facilities would be controlled in accordance with BAAQMD Regulation 7 for odorous emissions and applicable requirements of the San Francisco Department of Public Health for proper kitchen filtration and food storage and disposal. Consequently, no significant impacts from odors are expected, and impacts from odors will not be discussed further in the SEIR.

Toxic air pollutants are not expected to occur in any large amounts in conjunction with the operation of buildings within the Subarea Plan Area. Use of the proposed buildings would require the operation of heating and cooling equipment that could emit trace quantities of toxic air contaminants; these emissions would not be substantial. In addition, only common forms of hazardous or toxic materials typically used or stored in conjunction with residences, retail/commercial uses, and health club/spa facilities are expected to occur within the Subarea Plan Area.

In 1998, the California Air Resources Board (CARB) identified diesel particulate matter as a toxic air contaminant based on research indicating that long-term exposure to diesel particulate can increase the risk of a person developing cancer. Based on studies that show health risk from traffic-generated pollutants evident within 1,000 feet of major roadways (particularly for downwind receptors), and that exposure to traffic-generated pollutants is “greatly reduced at approximately 300 feet,” the CARB’s Air Quality and Land Use Handbook recommends that local agencies “avoid siting new sensitive land uses”³⁹ within 500 feet of a freeway [or] urban

³⁸ BAAQMD, *CEQA Guidelines*, December 1999, p. 24.

³⁹ CARB, *Air Quality and Land Use Handbook*, April 2005. Available on the internet at: <http://www.arb.ca.gov/ch/handbook.pdf>. The *Handbook* (p. 2) describes “sensitive land uses” as including residences, schools, day care centers, playgrounds, and medical facilities, as these uses are locations where “sensitive individuals” [“those segments of the population most susceptible to poor air quality (i.e.,

roads with more than 100,000 vehicles/day....”⁴⁰ Some parts of the proposed Subarea Plan Area would be within 500 feet of U.S. 101, which carries approximately 192,000 vehicles per day in the vicinity of the Plan Area.⁴¹ Therefore, the SEIR will include an analysis of potential exposure to diesel particulate matter.

Contribution to Climate Change

Construction and operation of proposed development within the Subarea Plan Area would contribute to long-term increases in greenhouse gases (GHGs) as a result of traffic increases (mobile sources) and residential and commercial building heating (area sources), as well as indirectly, through electricity generation. These incremental increases in GHG emissions associated with project-generated traffic, residential and commercial space heating, and increased energy demand would contribute to regional and global increases in GHG emissions and associated climate change effects. This issue will be evaluated in the SEIR.

children, the elderly, and those with pre-existing serious health problems affected by air quality)”) are most likely to spend time.

⁴⁰ CARB, *Air Quality and Land Use Handbook*, April 2005, p. 4, Table 1-1.

⁴¹ From California Department of Transportation average daily traffic counts for U.S. 101, Traffic and Vehicle Data Systems Unit, <http://traffic-counts.dot.ca.gov/2007all/r101i.htm>, accessed October 28, 2008.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
8. WIND AND SHADOW—Would the project:					
a) Alter wind in a manner that substantially affects public areas?	☒	☐	☐	☐	☐
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?	☒	☐	☐	☐	☐

Question 8a: Executive Park is located near Monster Park stadium, where conditions are typically windy and turbulent. Implementation of the proposed Subarea Plan and the Yerby and UPC development projects would result in an increase in the number of buildings in the Subarea Plan Area, including buildings of up to 240 feet in height. Depending on the size and orientation of the proposed buildings, the proposed Yerby and UPC development projects could result in adverse effects on ground-level winds in the area. The SEIR will include an analysis of potential wind impacts. The SEIR will also include an analysis of potential impacts to windsurfing activities off of Candlestick Point.

Question 8b: Section 295 of the City *Planning Code* was adopted in response to Proposition K (passed in November 1984) in order to protect public open spaces from shadowing by new structures during the period between one hour after sunrise and one hour before sunset, year-round. Section 295 restricts new shadow upon public open spaces under the jurisdiction of the Recreation and Park Department by any structure exceeding 40 feet unless the City Planning Commission finds the impact to be insignificant. The Subarea Plan would establish height limits above the 40-foot threshold, and the buildings proposed as part of the Yerby and UPC projects would exceed the threshold. An analysis of project-related shadows will be included in the SEIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
9. RECREATION—Would the project:					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	☒	☐	☐	☐	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐	☐
c) Physically degrade existing recreational resources?	☐	☐	☐	☒	☐

Question 9a: The San Francisco Recreation and Park Department administers more than 200 parks, playgrounds, and open spaces throughout the City. System recreation facilities also include 15 recreation centers, 9 swimming pools, 5 golf courses, and more than 300 athletic fields, tennis courts, and basketball courts.⁴² The Subarea Plan Area is within Recreation and Park Neighborhood Service Area 7, which encompasses Bayview Hunters Point and areas west of U.S. 101 and includes about 26 parks, playgrounds, and recreation centers.

Candlestick Point State Recreation Area, a 252-acre regional open space with active and passive recreational opportunities,⁴³ is directly south of the Subarea Plan Area. Bayview Hill Park,⁴⁴ a 44-acre natural open space area, is atop Bayview Hill, just north of the Subarea Plan Area. The Monster Park stadium and associated parking at 602 Jamestown Avenue are directly east of the Subarea Plan Area. Other park and recreation facilities in the vicinity include Gilman Playground at Two Giants Drive, about 1.5 mile northeast of the Subarea Plan Area; Bayview Playground and Martin Luther King Pool at 5601 Third Street, about 2.0 miles north of the Subarea Plan Area; Little Hollywood Community Park at Lathrop and Tocoloma Avenues, about 0.5 mile west of the Subarea Plan Area; Louis Sutter Playground at the intersection of University and Wayland Streets, about 2.5 miles northwest of the Subarea Plan Area; Visitacion Valley Playground at the intersection of Cora Street and Leland Avenue, about 1.0 mile west of the Subarea Plan Area; Herz Playground at the intersection of Hahn Street and Visitacion Avenue, about 1.5 miles west

⁴² San Francisco Recreation and Park Department, http://www.parks.sfgov.org/site/recpark_index.asp?id=24168, accessed October 28, 2008; San Francisco Recreation and Park Department, Recreation Assessment Report, August 2004, p. 21, at http://www.parks.sfgov.org/wcm_recpark/Notice/SFRP_Summary_Report.pdf, accessed October 28, 2008.

⁴³ Candlestick Point State Recreation Area park brochure, <http://www.parks.ca.gov/pages/519/files/CandlestickPt.pdf>, accessed October 28, 2008.

of the Subarea Plan Area; and John McLaren Park at the intersection of Mansell Street and Visitacion Avenue, about 1.5 mile west of the Subarea Plan Area. Combined, these locations offer one ball field, one multi-use field, a swimming pool, two recreation centers, two outdoor basketball courts, and nine tennis courts.⁴⁵

The Recreation and Open Space Element (“Open Space Element”) in the *General Plan* notes that “While the number of neighborhood parks and facilities is impressive, they are not well distributed throughout the City...The [unequal distribution] merits correction where neighborhoods lacking parks and recreation facilities also have relatively high needs for such facilities.” The Open Space Element defines “high need areas” as areas with high population density or high percentages of children, seniors, or low-income households relative to the City as a whole. The Open Space Element defines “deficient” areas as areas that are not served by public open space, areas with population that exceeds the capacity of the open spaces that serve it, or areas with facilities that do not correspond well to neighborhood needs.

The high need areas and deficient areas are shown on Figures 3 through 8 and Map 9 of the Open Space Element, and are based on information from the 1980 U.S. Census. The figures show that the Subarea Plan Area is not within a “high need” area for any of the demographic categories studied. The *General Plan* figures also show the Subarea Plan Area to be served by public open space. Draft updated versions of the maps reflecting 2000 U.S. Census data show that the Subarea Plan Area is not within an area considered “high need” according to any of the Open Space Element criteria, and that the Subarea Plan Area is not considered a high priority for recreation and open space improvements. However, the updated maps show that areas to the north and west of the Subarea Plan Area are considered “high need,” and that parts of those areas have service gaps.⁴⁶

In August 2004, the San Francisco Recreation and Park Department published a Recreation Assessment Report that evaluates the recreation needs of San Francisco residents. Nine service area maps were developed for the Recreation Assessment Report. The service area maps were intended to help the Recreation and Park Department assess where services are offered, how equitable the service delivery is across the City, and how effective the service is as it applies to

⁴⁴ This park is also referred to as Bayview Hill Natural Area in the facility listings on the San Francisco Recreation and Park Department website: http://www.parks.sfgov.org/site/recpark_index.asp?id=1503#b, accessed October 28, 2008.

⁴⁵ San Francisco Recreation and Park Department, Recreation Assessment 2004, Maps, at http://www.parks.sfgov.org/site/recpark_index.asp?id=27310, accessed October 28, 2008. The Gilman Clubhouse and Visitacion Valley Center are Level 3 recreation facilities. Level 3 facilities offer clubhouses, fields, and after-school programs.

⁴⁶ Service gaps are areas identified as not being served by public parks and open space, based on population data and facility service areas. San Francisco Department of Recreation and Parks, *Recreation and Park Acquisition Policy*, Second Public Draft, November 7, 2005, attached as Appendix C to the 2005 Capital Plan Update, http://parks.sfgov.org/site/capimp_index.asp?id=36403, accessed October 28, 2008.

the demographics of the service area. The maps (which were developed based on population served rather than distance) show that the Subarea Plan Area is within the defined service areas for the nearest Recreation and Park ball fields, pools, and outdoor basketball courts in the City, and is not within the service areas for the nearest multi-use/soccer fields, recreation centers, or tennis courts. Compared to the standards recommended in the report, additional ball fields, multi-use/soccer fields, and outdoor basketball courts are needed for the City as a whole.⁴⁷

With implementation of the proposed Subarea Plan and construction of the approximately 1,600 residential units in the proposed Yerby and UPC development projects, residential population within the Subarea Plan Area would increase from about 2,870 people (in existing and approved units) to about 6,550 people at full buildout. The increase of about 3,680 residents would constitute a 128 percent increase in Subarea Plan Area population. The anticipated Subarea Plan Area population would be higher than that analyzed in the 1985 FSEIR or 1999 FSEIR.

The proposed Subarea Plan would provide for recreation and open space through the Recreation and Open Space Element of the Plan, which includes Policy 1, “Provide convenient access to a variety of recreation opportunities.” The Subarea Plan includes proposed open spaces within the Subarea Plan Area and a network of pedestrian paths. The pedestrian paths would provide connections within the Subarea Plan Area and from the Plan Area to other locations, including the Candlestick Point State Recreation Area, which provides recreational opportunities.

The proposed Yerby and UPC projects would provide open spaces on site for project residents. The proposed Yerby project would provide private open space for some of the individual units, and common open space in the form of landscaped courtyards. The UPC project also would provide private open space for individual units and landscaped courtyards. In addition, the UPC project would provide several publicly accessible open spaces. Together, the Yerby and UPC projects would also provide a publicly accessible park in the southeastern corner of the Yerby development site. These open spaces would be intended to comply with the proposed Subarea Plan and the *Planning Code* requirements for open space, and they would help to meet the demand for parks and open space generated by Subarea Plan development. .

The increase in population from Subarea Plan implementation would increase the demand for park and recreation facilities. The additional Subarea Plan Area development would contribute to cumulative demand for recreational facilities that exceeds the recommended service population of some of the nearest City-operated recreation facilities such as soccer fields, recreation centers, or tennis courts

The impact of the proposed project on recreation will be discussed in the SEIR.

⁴⁷ San Francisco Recreation and Park Department, Recreation Assessment 2004, pp. 20-23 and Maps, at

Question 9b: As noted previously, implementation of the proposed Subarea Plan and Yerby and UPC projects would provide open spaces in the Subarea Plan Area for project residents and the general public. The impacts from construction of those spaces are addressed elsewhere in the Initial Study, as part of the analysis of the project as a whole.

Question 9c: See Response to Question 9a above. (Potential visual and biological impacts on Bayview Hill Park are discussed under Section E.2, Aesthetics, pp. 26-27, and Section E.12, Biological Resources, pp. 66-70.) Therefore, there would be no impact and this topic will not be analyzed further in the SEIR.

http://www.parks.sfgov.org/site/recpark_index.asp?id=27310, accessed October 28, 2008.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
10. UTILITIES AND SERVICE SYSTEMS—Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐	☐
b) 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?	☐	☐	☒	☐	☐
c) 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?	☒	☐	☐	☐	☐
d) Have sufficient water supply available to serve the project from existing entitlements and resources, or require new or expanded water supply resources or entitlements?	☐	☐	☒	☐	☐
e) Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒	☐

The Subarea Plan Area and vicinity are currently served by public utilities and service systems, including provision of water, wastewater collection and treatment, and solid waste collection and disposal. The proposed Subarea Plan would increase the intensity of development in the Subarea Plan Area and consequently increase demand for and use of public utilities.

Questions 10a through 10e: The following discussion addresses potential impacts related to water and wastewater services and systems.

Citywide water use in 2000 (the most recent year reported in the 2005 Urban Water Management Plan, or UWMP) was approximately 84 mgd, of which about 57 percent was for residential customers and about 34 percent for business.⁴⁸ Citywide total water demand in San Francisco is expected to decrease slightly between 2000 and 2030, in spite of a projected increase in the City's population. Lower total residential water use is expected because household use rates are

⁴⁸ Most of the remaining 9 percent was considered "unaccounted" water, which includes necessary, but unmetered uses such as fire fighting, main flushing, and storage facility cleaning, as well as losses due to leaking pipes.

expected to decrease, due to an anticipated decrease in the number of people in each housing unit and the increased use of water-efficient plumbing fixtures.⁴⁹

Total system-wide demand (which includes San Francisco plus other cities and counties, water districts, and institutional users) is projected to increase to 300 mgd by 2030. The City's 2005 UWMP projects that, during normal precipitation years, the SFPUC will have adequate supplies to meet the projected demand. During multiple dry years, however, additional water sources will be required.⁵⁰ To address this issue, the SFPUC has embarked on a multi-year program, called the Water System Improvement Program (WSIP), to rebuild the water system.⁵¹ The Planning Commission certified a program environmental impact report (PEIR) for the WSIP on October 30, 2008, and on the same day, the SFPUC approved a variant of the originally proposed WSIP, the Phased WSIP Variant, which provides a plan for meeting water supply needs in the SFPUC service area through 2018. The SFPUC intends to embark on a further planning effort prior to 2018 to determine water demand and supply options to meet 2030 demand.

All major development projects in San Francisco, including the cumulative projects in the Subarea Plan region, are required to determine whether they are accounted for in the UWMP, and if necessary, conduct an assessment to determine the projects' impacts to water supply. In addition, the SFPUC is undertaking a number of efforts to meet projected system-wide demand and ensure the reliability of the system's water supply.

The impact of the proposed project on water supply will be discussed in the SEIR.

To distribute water to the proposed Yerby and UPC projects, installation of a new water main would be required. The impacts of construction of the water main on noise and air quality are addressed elsewhere in this Initial Study.

Wastewater/Stormwater

The Subarea Plan Area is served by the Southeast Water Pollution Control Plant, which treats all of San Francisco's eastside (Bayside watershed) sewage flows during dry weather. During wet weather, the Southeast Plant is supplemented by the North Point Wet Weather Facility and a series of storage and transport boxes. When wet-weather flows exceed the capacity of the overall system, the excess is discharged from 29 combined sewer overflow (CSO) structures located along the waterfront. All discharges are operated in compliance with permits issued by the

⁴⁹ SFPUC, Urban Water Management Plan, http://sfwater.org/mto_main.cfm/MC_ID/13/MSID/165/MTO_ID/286, accessed October 28, 2008, pp. 42-43.

⁵⁰ SFPUC, Urban Water Management Plan, p. 47.

⁵¹ SFPUC, "Notice of Changes to Water System Improvement Program AB 1823 (March 8, 2006)," available at http://sfwater.org/detail.cfm/MC_ID/13/MSID/167/CID/3007, accessed October 28, 2008.

Regional Water Quality Control Board and with the U.S. EPA's Combined Sewer Overflow Control Policy.

The Bayside watershed is divided into smaller watersheds; the Subarea Plan Area is in the Sunnydale watershed. Stormwater runoff and sanitary sewage from the Subarea Plan Area flow to 12-inch sewers that connect to a 30-inch-by-45-inch interceptor sewer under Harney Way. No stormwater flows directly from the Subarea Plan Area to the Bay.

In 2005, the SFPUC launched a citywide \$150 million 5-Year Wastewater Capital Improvement Program (CIP) to improve the reliability and efficiency of the combined system. The program is aimed at reducing flood risk in many neighborhoods, upgrading treatment plants, and curbing wastewater odors at the Southeast Plant. One of the projects in the CIP is the Sunnydale Auxiliary Sewer Project, which involves the construction of an auxiliary sewer tunnel from the Sunnydale drainage basin (Bayshore Boulevard) to the Sunnydale Transport/Storage facility southwest of Monster Park. The tunnel and associated improvements are intended to address flooding in Visitacion Valley. Completion of the project is expected in 2011.⁵²

The SFPUC also is in the midst of a Sewer System Master Planning process to develop a long-term strategy for the management of the City's wastewater and stormwater; to address system deficiencies, community impacts, public interests, and future needs; and to maximize system reliability and flexibility. The Master Plan, which will undergo separate CEQA review, is expected to be completed in approximately 2010.⁵³

Implementation of the Subarea Plan would involve the redevelopment of the Yerby and UPC development sites with residential buildings, below-grade parking, and open spaces, as well as changes to the Subarea Plan Area circulation network. With the proposed Subarea Plan, the number of residences in the Subarea Plan Area would be substantially higher than analyzed in the 1985 FSEIR and 1999 FSEIR, but there would be no office space (as opposed to the substantial amount of office space analyzed in the prior FSEIRs). Without mitigation, the proposed Yerby and UPC projects would result in an increase in impervious surfaces. These changes in site population and impervious surfaces would result in changes to area sewage and stormwater flows.

The San Francisco Department of Public Works conducted an analysis of future sewage and stormwater flows from the Subarea Plan Area. The analysis considered the flows associated with Subarea Plan Area buildout (including the proposed Yerby and UPC projects). The analysis concluded that the existing sewer lines were adequate to carry the peak flows from the five-year

⁵² SFPUC, 5-Year Wastewater CIP, 4th Quarter Report Fiscal Year 07-08, Sewer Improvement, http://sfwater.org/detail.cfm/MC_ID/14/MSD_ID/119/C_ID/4156, accessed October 28, 2008.

⁵³ SF Sewer System Master Plan, Project Updates, <http://www.sfsewers.org/projectupdates.asp>, accessed September 19, 2008.

storm.⁵⁴ Therefore, the proposed Subarea Plan and Yerby and UPC projects would not have significant effects on the combined sewer system.

An increase in impervious surfaces within the Subarea Plan Area could contribute to the number and volume of combined sewer discharges during wet weather. For that reason, the SFPUC focuses on stormwater runoff as the means of minimizing wastewater impacts on the combined system.⁵⁵ SFPUC is developing a policy that would require new development and redevelopment projects in San Francisco to incorporate “green” stormwater runoff management practices (often called Best Management Practices or Low Impact Design approaches) to maximize infiltration and reduce runoff (and the pollutants carried by runoff).⁵⁶ Examples of candidate “green” stormwater management practices include using vegetated swales in place of gutters, installing green roofs, using pervious paving, and creating unpaved open space. Implementation of these techniques helps reduce the volume of runoff entering the combined sewer system, and reduces combined sewer discharge volumes.

The Subarea Plan calls for the use of “green streets” principles wherever possible, including alternative paving materials and landscaping that increases permeability. The Subarea Plan also calls for an analysis of techniques such as vegetated swales, porous pavement, green roofs, and catch basins to slow stormwater flows and treat pollutants. In addition, the Yerby and UPC project sponsors would implement design features and techniques to achieve a “no net increase” standard for stormwater runoff from the project sites. This commitment is included in Mitigation Measure Stormwater-1 on p. 101. Meeting this standard would reduce project and cumulative impacts on the combined sewer system to a less-than-significant level.

Section E.14, Hydrology and Water Quality, pp. 81-88, addresses the potential for the increase in the volume of CSO discharges to degrade water quality, in the context of the City’s compliance with existing regulatory requirements and ongoing planning efforts.

In light of the above, impacts related to wastewater would be less than significant, and will not be discussed in the SEIR.

Questions 10f-10g: According to the California State Integrated Waste Management Act of 1989, San Francisco is required to adopt an integrated waste management plan, implement a program to reduce the amount of waste disposed, and have its waste diversion performance periodically reviewed by the Integrated Waste Management Board. Reports filed by the San Francisco Department of the Environment showed the City generated 1.88 million tons of waste material in 2002. Approximately 63 percent (1.18 million tons) was diverted through recycling,

⁵⁴ Moore, Gregory A., P.E., San Francisco Public Utilities Commission, letter to Jason Lin, UPC, May 24, 2007.

⁵⁵ Ho, Ed, Engineer, SFPUC, personal communication, March 13, 2008.

composting, reuse, and other efforts while 700,000 tons went into landfill. The diversion percentage increased from 52 percent reported in 2001.⁵⁷

Solid waste generated in San Francisco is transported to, and disposed of at, the Altamont Landfill in Alameda County. The Altamont Landfill has a permitted maximum disposal of 11,500 tons per day and received about 1.31 million tons of waste in 2005 (the most recent year reported by the state). The remaining permitted capacity of the landfill is about 45.7 million cubic yards; with this capacity, the landfill can operate until 2029.⁵⁸ Although the increased residential population and commercial activity resulting from Subarea Plan implementation would incrementally increase total waste generation from the City, the increasing rate of diversion through recycling and other methods would result in a decreasing share of total waste that requires deposition in the landfill. Given this, and given the long-term capacity available at the Altamont Landfill, the proposed Subarea Plan and Yerby and UPC projects would not result in this or any other landfill exceeding its permitted capacity, and would result in a less-than-significant impact. For these reasons, solid waste will not be discussed in the SEIR.

⁵⁶ SFPUC, http://sfwater.org/msc_main.cfm/MC_ID/14/MSC_ID/361, accessed October 28, 2008.

⁵⁷ City and County of San Francisco, Office of the Controller, Community Indicators Report, http://www.sfgov.org/wcm_controller/community_indicators/physicalenvironment/recycling/recycling.htm accessed October 28, 2008.

⁵⁸ California Integrated Waste Management Board, Active Landfill Profiles, Altamont Landfill, <http://www.ciwmb.ca.gov/Profiles/Facility/Landfill/LFProfile1.asp?COID=3&FACID=01-AA-0009>, accessed October 28, 2008.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
11. PUBLIC SERVICES— Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of, 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 public services such as fire protection, police protection, schools, parks, or other services?	☒	☐	☐	☐	☐

The Subarea Plan Area is currently served by public services, including provision of fire suppression and emergency medical services, police protection, public schools, and recreational facilities. The proposed Subarea Plan and Yerby and UPC projects would increase the intensity of residential development in the Subarea Plan Area, and consequently would increase demand for and use of some public services. The following discussion addresses potential impacts to fire and police protection, school services, and other community facilities. Impacts on recreation are discussed under Question E.9 on pp. 50-53.

Fire Protection

The San Francisco Fire Department (SFFD), headquartered at 698 Second Street, provides fire suppression and emergency medical services to the City and County of San Francisco, including the Subarea Plan Area. The SFFD consists of three divisions, which are further divided into 10 battalions and 42 active stations located throughout the City. The SFFD includes approximately 1,700 firefighting and emergency personnel, approximately 2.28 personnel for every 1,000 residents. The SFFD does not have adopted standards or performance objectives for response times or service ratios. However, a review against National Fire Protection Agency standards indicates that the SFFD meets national standards for response times and staffing.⁵⁹

The Subarea Plan Area is located within the southeastern part of San Francisco, and is served by Division Three of the SFFD. The first responder to the Subarea Plan Area is Station 17, at 1295 Shafter Avenue (about 1.9 miles away). Other fire stations in the vicinity include Station 44, at 1298 Girard Street (about 1.3 miles away); Station 42, at 2430 San Bruno Avenue

⁵⁹ From Office of the Controller, City and County of San Francisco, "A Review of the San Francisco Fire-EMS System," April 2004, http://www.sfgov.org/site/controller_page.asp?id=24430, p. C-3, accessed October 28, 2008.

(about 2.3 miles away); and Station 25, at 3305 Third Street (about 4.4 miles away).⁶⁰ Three of the stations have advanced life support (ALS) engine companies; Station 17 also has a medic unit and a truck company. The SFFD is proposing to build stations in the Bayview Hunters Point neighborhood and the Mission Bay Business District; timelines for construction have not been determined.⁶¹

The San Francisco Fire Department provides unified emergency medical services (EMS) in the City, including basic life support (BLS) and ALS services. In addition, several privately-operated ambulance companies are authorized to provide BLS and ALS services.⁶² In 2005, the San Francisco Fire Commission authorized a reconfiguration of EMS in the City over a period of three years, including the hiring and training of paramedic and EMT personnel, among other changes.⁶³

The 1999 FSEIR (p. 123) concluded that Executive Park development would create little additional demand for fire services in the area. In addition, the project analyzed in the 1999 FSEIR included measures to minimize the need for fire services, and the SFFD would review circulation plans and building plans to ensure adequate access. The 1999 FSEIR also determined that the increase in demand would not require the construction of any new fire prevention facilities. For those reasons, the 1999 FSEIR concluded that impacts to fire protection services would be less than significant.

Implementation of the proposed Subarea Plan and Yerby and UPC projects would result in an increase in the number of fire suppression and emergency medical service calls received from the Subarea Plan Area, compared to existing conditions. The proposed development would also result in an increase in residential population compared to what was analyzed in the 1999 FSEIR. The SFFD has determined that the proposed increase in residential units would increase the Department's call volume to the area significantly, and could result in an adverse impact to SFFD response times.⁶⁴

⁶⁰ From Office of the Controller, City and County of San Francisco, "A Review of the San Francisco Fire-EMS System," April 2004, http://www.sfgov.org/site/controller_page.asp?id=24430, p. C-3, accessed October 28, 2008; San Francisco Fire Department, http://www.sfgov.org/site/sffd_page.asp?id=57819, accessed October 28, 2008; distances calculated with www.mapquest.com.

⁶¹ Hayes-White, Joanne, Chief of Department, San Francisco Fire Department, written communication, May 17, 2007.

⁶² San Francisco Emergency Medical Services Agency, <http://www.sanfranciscoems.org/> (EMS System Providers), accessed October 28, 2008.

⁶³ San Francisco Fire Commission, Resolution 05-4, EMS Reconfiguration, adopted March 24, 2005, from http://www.sfgov.org/site/firecomm_page.asp?id=33532, accessed October 28, 2008.

⁶⁴ Hayes-White, Joanne, Chief of Department, San Francisco Fire Department, written communication, May 17, 2007.

The anticipated cumulative development that would be likely served by Station 17 includes the Hunters Point Phase I and Hunters View projects; the continued redevelopment of the Hunters Point Shipyard north of Bayview Hill; and redevelopment of the Candlestick Point/Monster Park stadium area directly to the east. These projects would include about 12,400 residential units, 0.9 million square feet of retail uses, 2.0 million square feet of R&D uses, 0.2 million square feet of office uses and about 500 hotel rooms. The cumulative increase in demand for fire protection services would be substantial.

The impact of the proposed project on fire protection services will be discussed in the SEIR.

Police Protection

The San Francisco Police Department (SFPD), headquartered at 850 Bryant Street, provides police protection for the City and County of San Francisco including the project site. The SFPD consists of 4 Bureaus and 10 Districts located throughout the City, and the Department employs approximately 2,370 sworn officers. The SFPD does not have an adopted standard for the ratio of officers per population or developed acreage, and bases its staffing levels on the number of service calls and crime incidents. The Bayview Police Station has jurisdiction over the Subarea Plan Area and vicinity.⁶⁵

The Bayview District has a population of about 60,000 people (about 10 percent of the City total) and covers about 8 square miles (about 18 percent of the City total). From 2002 through 2007, there were approximately 424,000 calls for service in the Bayview District (about 10 percent of the total). Bayview is considered to have a relatively higher demand for police services because of poverty within parts of the district. Citywide, crime rates have not changed substantially over the past five years.⁶⁶

SFPD, in conjunction with the San Francisco Controller's office, conducted an analysis of SFPD station boundaries. The station boundaries study was one of three planning studies that comprise the Police Effectiveness Review, a comprehensive review of the operations, structure, and personnel resources of SFPD. The station boundaries study found that the existing 10 SFPD district stations do not meet the current and future needs of the City. The study recommended that the number of SFPD districts be consolidated from 10 to 5, in order to increase the number of officers on patrol, redistribute workload, concentrate unified crime planning and police operations, and provide for efficient replacement and retrofit of the existing stations (among other

⁶⁵ San Francisco Police Department, http://www.sfgov.org/site/police_index.asp?id=19971, accessed October 28, 2008; Lazar, Lieutenant David, SFPD Field Operations Bureau, written communication, July 13, 2007; meeting with SFPD staff regarding Candlestick Point/Hunters Point Shipyard Redevelopment Plan, April 22, 2008.

⁶⁶ Public Safety Strategies, *San Francisco Police Department, District Station Boundaries Analysis*, May 13, 2008, pp. 46, D4. Available on the internet at <http://www.sfpolicereview.org/about.shtml>, accessed October 28, 2008.

benefits). With regard to the Bayview District, the study concluded that the existing station would need improvement to accommodate additional officers, and that there was potential for station expansion. The station boundaries study has not been officially adopted by the City, and it is not known whether the study's recommendations will be implemented.⁶⁷

The 1999 FSEIR (p. 123) concluded that Executive Park development would create little additional demand for police services in the area. In addition, the project analyzed in the 1999 FSEIR included measures to minimize the need for police services. The 1999 FSEIR also determined that the increase in demand would not require the construction of any new police facilities. For those reasons, the 1999 FSEIR concluded that impacts to police protection services would be less than significant.

Implementation of the proposed Subarea Plan and Yerby and UPC projects would result in an increase in the number of police service calls received from the Subarea Plan Area, compared to existing conditions. The proposed development would also result in an increase in residential population compared to what was analyzed in the 1999 FSEIR.

The anticipated cumulative development that would be likely served by Bayview Station includes redevelopment in Visitacion Valley across U.S. 101; continued redevelopment of the Hunters Point Shipyard/India Basin areas north of Bayview Hill; and redevelopment of the Candlestick Point/Monster Park stadium area directly to the east. These projects would include about 15,200 residential units, 1.1 million gsf of retail uses, 2.0 million gsf of R&D uses, 1.5 million square feet of office uses, 25,000 gsf of cultural/institutional/educational uses, and about 800 hotel rooms. The cumulative increase in demand for police protection services would be substantial. Specifically, SFPD has indicated that the Candlestick Point/Hunters Point redevelopment project would itself generate the need for an additional station, to house approximately 60 officers.⁶⁸

The impact of the proposed project on police protection services will be discussed in the SEIR.

Schools

The project site is within the attendance districts for El Dorado Elementary School, Visitacion Valley Middle School, Philip and Sala Burton Academic High School, and June Jordan School for Equity. However, the San Francisco Unified School District (SFUSD) has a "choice-based" enrollment system, whereby parents submit an application with a list of school choices and the

⁶⁷ *San Francisco Police Department, District Station Boundaries Analysis*, pp. 20, 53-57, 69-71.

⁶⁸ Meeting with SFPD staff regarding Candlestick Point/Hunters Point Shipyard Redevelopment Plan, April 22, 2008.

District assigns students based on available openings, attendance areas, and a lottery process.⁶⁹ For that reason, the following discussion focuses on conditions in the District as a whole.

Student enrollment in the SFUSD has been decreasing steadily for more than 10 years. During the 2008-2009 academic year, total enrollment is 55,497, a decline of about 10.9 percent from the 62,300 students enrolled during the 1994-95 academic year.⁷⁰ Private school enrollment has also been decreasing, with student enrollment almost eight percent less for the 2004-05 academic year than student enrollment for the 1999-2000 academic year.

To estimate the number of students generated by new housing development, the SFUSD employs a student generation rate of 0.125 students per new multi-family housing unit for planning purposes.⁷¹ Based on this factor, the proposed Subarea Plan would generate about 200 students. The Subarea Plan would generate a higher number of students than analyzed in the 1985 FSEIR.⁷²

The Leroy F. Greene School Facilities Act of 1998, or Senate Bill 50 (SB 50), restricts the ability of local agencies, such as the City and County of San Francisco, to deny land use approvals on the basis that public school facilities are inadequate. The payment of development impact fees is intended to compensate for potential impacts to local school districts that may be attributed to new developments. Development impact fees are based on the type of land use and its size, rather than the anticipated number of new students that may be generated. The current SFUSD fees (among others) are \$2.24 per square foot of residential development and \$0.18 per square foot of retail development.⁷³

Local jurisdictions are precluded under state law (SB 50) from imposing school-enrollment-related mitigation beyond the school development fees. The collection of these fees, therefore, is considered under SB 50 to fully mitigate any potential effects associated with additional development that could result from implementation of the proposed Subarea Plan and Yerby and UPC projects, and the impact would be considered less than significant. Impacts to schools will not be discussed further in the SEIR.

⁶⁹ San Francisco Unified School District, <http://portal.sfusd.edu/> (Departments/ Educational Placement Center / Student Assignment System/ School Maps), accessed October 28, 2008.

⁷⁰ San Francisco Unified School District, <http://portal.sfusd.edu/template/default.cfm?page=about.glance>, accessed October 28, 2008.

⁷¹ Smith, Philip, Director, Real Estate, San Francisco Unified School District, email communication with Turnstone Consulting, October 30, 2008.

⁷² The 1999 FSEIR did not include an analysis of impacts to schools.

⁷³ Smith, Philip, Director, Real Estate, San Francisco Unified School District, email communication with Turnstone Consulting, October 30, 2008.

Other Community Facilities

The two closest libraries to Executive Park site are the Visitacion Valley Branch and the Bayview/Anna E. Waden Branch of the San Francisco Public Library. The Visitacion Valley Branch is at 45 Leland Avenue, about 0.7 mile west of the Subarea Plan Area; the Anna Waden Branch library is approximately 2.0 miles north of the Subarea Plan Area.

In November 2000, San Francisco voters passed Proposition A, the \$105.9 million Branch Library Improvement Program. Combined with other state and local public and private fund sources, this program was designed to renovate 19 branches (including the Bayview/Anna E. Waden branch), replace four leased facilities with City-owned branches, and construct a new branch in Mission Bay. Since that time, the funds allocated to the Bayview library branch have increased, and the Library Commission has decided to study several options for building a new branch library.⁷⁴ Construction of a new 8,500-square-foot Visitacion Valley Branch is expected to be complete by 2010.⁷⁵

The Subarea Plan vicinity is also served by the Southeast Community Facility (SECF) at 1800 Oakdale Avenue. The SECF is intended to further the gainful employment of residents in the community; create opportunities for them to participate in educational programs; establish and expand opportunities for children's daycare; and provide information and resources for the enhancement and growth of the community as a whole.

Implementation of the proposed Subarea Plan and Yerby and UPC projects would result in an increase in residential population in the Subarea Plan Area. The increased population would cause a corresponding increase in the demand for other community facilities. However, development within the Subarea Plan Area (including the proposed Yerby and UPC projects) would be subject to the Visitacion Valley Community Facilities and Infrastructure Fee and Fund, which was established in November 2005. This \$4.58-per-square-foot fee on new residential

⁷⁴ San Francisco Public Library, Bayview/Anna E. Waden Branch Renovation, <http://sfpl.lib.ca.us/news/blip/bayviewsurvey.htm>, accessed June 27, 2008.

⁷⁵ San Francisco Public Library, New Construction – Visitacion Valley Branch, <http://sfpl.lib.ca.us/news/blip/visvalleyconstruction.htm>, accessed June 27, 2008.

development in the Visitacion Valley area is deposited in a “Visitacion Valley Community Facilities and Infrastructure Fund” to mitigate impacts from new residential development in Executive Park and elsewhere on public infrastructure in Visitacion Valley. Among other purposes, the fee revenues are to be used for libraries and community facilities. In addition, the proposed Yerby development project would include a community center for use by Executive Park and other area residents. For those reasons, the proposed Subarea Plan and Yerby and UPC projects would not have a significant effect on other community facilities, and this topic will not be discussed further in the SEIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
12. BIOLOGICAL RESOURCES— Would the project:					
a) 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?	☐	☐	☒	☐	☐
b) 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?	☐	☐	☒	☐	☐
c) 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?	☐	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒	☐

Questions 12a-12d: The Yerby and UPC development sites are developed with office buildings, streets, and parking lots. Vegetation consists of trees and landscaping, which is disturbed on a regular basis by landscape maintenance. (The trees within the development sites are described in the response to Question 12e below.) The remainder of the Subarea Plan Area includes existing residential buildings, buildings under construction, and vacant lands where approved development will occur. Bayview Hill Park, north of the Subarea Plan Area, is a natural area with grasslands, shrubs, and groups of trees; Candlestick Point State Recreation Area to the south is landscaped. The Subarea Plan Area is adjacent to the San Francisco Bay but does not drain to it (Plan Area drainage is collected by the combined wastewater/stormwater system). (See Section E.14 for a discussion of drainage issues.)

No species identified as candidate, sensitive, or special-status species are present on either development site.⁷⁶ No riparian habitat or other sensitive natural community, federally protected wetlands, or resident or migratory fish are present on either development site. The sites are also not nursery sites for any animal species. Some wildlife species that are tolerant of urban development, such as raccoons, opossums, and rodents, are likely to be present. These conditions are similar to the conditions reported in the 1999 FSEIR.

A species listed as endangered by the U.S. Fish and Wildlife Service, the Mission blue butterfly (*Plebejus icaroides missionensis*), is believed to be present on Bayview Hill.⁷⁷ The 1999 FSEIR reported that the Callippe silverspot butterfly was also present. As of August 2007, the Callippe silverspot butterfly was not present on Bayview Hill, although it is present elsewhere in the San Francisco Bay Area.⁷⁸ The *San Francisco Significant Natural Resources Areas Management Plan* notes that Mission blue butterflies were observed at the park in 2001 and are presumed to be present. In addition, the San Bruno elfin butterfly (*Incisalia mossii bayensis*), and bay checkerspot butterfly (*Euphydryas editha bayensis*) could potentially occur in Bayview Hill Park.⁷⁹ The 1999 FSEIR (p. 123) notes that the San Bruno elfin and Mission blue butterflies were known to occur in the park in 1985, but were not identified within Executive Park in 1983 (in the survey conducted for the 1985 FSEIR) or 1992 (in the survey conducted for the 1992 FSEIR Addendum).

Implementation of the proposed Subarea Plan would include redevelopment of the Yerby and UPC development sites with residential buildings and below-ground parking, an internal street network, and landscaped open space areas. As the proposed Subarea Plan is implemented, changes to the local roadway network may be implemented to accommodate the future traffic generated by Subarea Plan development. The proposed projects and potential changes to Plan Area roadways would occur within the boundaries of the Subarea Plan Area. No development would occur within or adjacent to Bayview Hill Park.

Given the conditions present on the development sites and in the Subarea Plan Area, implementation of the Subarea Plan would not affect a rare or endangered plant or animal species or its habitat, riparian habitat or sensitive natural communities, or wetlands. Therefore, this topic will not be discussed further in the SEIR.

⁷⁶ California Department of Fish and Game, *California Natural Diversity Database*, 2007. The results of the database run are on file with the Planning Department, 1650 Mission Street, Suite 400, San Francisco, and is available for public review, by appointment, as part of the project file.

⁷⁷ California Department of Fish and Game, *California Natural Diversity Database*, 2007.

⁷⁸ *Ibid.*

⁷⁹ San Francisco Recreation and Park Department, *Significant Natural Resources Areas Management Plan*, April 2006, p. 6.17-6.

Resident and migratory birds may nest in the trees and other landscaping on the sites. Bird nests could be present in the trees on the sites at times. Federal requirements in the Migratory Bird Treaty Act (16 U.S.C. Section 703) protect nesting birds, and the project sponsors would be subject to those requirements. The project sponsors have agreed to make part of their projects Mitigation Measure Bio-1 (pp. 101-102) to determine whether active nests are present prior to removal of the trees, and to provide for protection of any active nests present at the time tree removal is proposed. With implementation of this measure, the proposed Subarea Plan and Yerby and UPC projects would not interfere substantially with wildlife movement or impede the use of nursery sites.

Question 12e: Article 16 of the San Francisco Public Works Code, the Urban Forestry Ordinance, provides for the protection of “landmark” trees, “significant” trees, and street trees. Landmark trees are designated by the Board of Supervisors upon the recommendation of the Urban Forestry Council, which determines whether a nominated tree meets the qualifications for landmark designation by using established criteria (Section 810). Special permits are required to remove a landmark tree on private property or on City-owned property.

Significant trees are those trees within the jurisdiction of the Department of Public Works, or trees on private property within 10 feet of the public right-of-way, that meet certain size criteria. To be considered significant, a tree must have a diameter at breast height of more than 12 inches, a height of more than 20 feet, or a canopy of more than 15 feet (Section 810A(a)). The removal of significant trees on privately owned property is subject to the requirements for the removal of street trees (discussed in the following paragraph). As part of the determination to authorize removal of a significant tree, the Director of the Department of Public Works is required to consider certain factors related to the tree, including (among others) its size, age, species, and visual, cultural, and ecological characteristics (Section 810A(c)).

The removal of “street trees” (trees within the public right-of-way or on land within the jurisdiction of the Department of Public Works) by abutting property owners requires a permit under Article 16 of the San Francisco Public Works Code. If the Department grants a permit, it shall require that replacement trees be planted (at a one-to-one ratio) or that an in-lieu fee be paid (Section 806(b)).

An arborist surveyed and assessed the trees within the Yerby and UPC development sites.⁸⁰ Approximately 407 trees representing 15 species are present within the development sites and along the adjacent public rights-of-way: 379 trees are within the development sites and 28 trees are along the sidewalks and walkways. Of the 15 species represented, 3 are native species.

⁸⁰ Kobayashi, Russell, Certified Arborist, EIP Associates, *Initial Arborist Report for Executive Park*, January 2008. This report is on file with the Planning Department, 1650 Mission Street, Suite 400, San Francisco, and is available for public review, by appointment, as part of the project file.

The trees within the development sites are generally located around the perimeter of, and within, the parking lots. Generally the trees on the development sites and the adjacent street trees are in good condition.⁸¹

Seventy-four of the trees surveyed qualify as “significant trees” under the San Francisco tree ordinance. Twenty-eight of the trees are street trees. There are no landmark trees within the development sites or the adjacent public right-of-way. The “significant trees” occur mostly within the southwest part of the UPC development site. The street trees occur along Executive Park Boulevard East, North, and West.

Implementation of the Subarea Plan and the Yerby and UPC development projects would include redevelopment of the Yerby and UPC development sites with residential and commercial uses. Most (or possibly all) of the 407 trees surveyed would be removed.

Prior to tree removal, the Yerby and UPC project sponsors would apply to the Department of Public Works for a tree removal permit, and the sponsors would comply with all requirements of the Urban Forestry Ordinance (including requirements for tree replacement or in-lieu fees). The Yerby and UPC projects would also be required to comply with any streetscape plan and associated requirements for street tree planting of the Executive Park Subarea Plan. The Street Tree Plan calls for the planting of trees within the development sites and along the adjacent sidewalks. The project sponsors have indicated that new trees would be planted in at least a 1:1 ratio to replace those removed. Therefore, implementation of the Subarea Plan would not conflict with any local policies or ordinances protecting trees. For the reasons noted in the response to Questions 12a-12d, the proposed Subarea Plan and Yerby and UPC projects would not conflict with any local policies or ordinances protecting other biological resources.

Question 12f: There are no adopted habitat conservation plans that include the Subarea Plan Area. The San Francisco Recreation and Park Department has prepared a draft Significant Natural Resource Area Management Plan, which “is a planning document that will guide management activities and site improvements in designated Significant Natural Resource Areas in San Francisco for the next 20 years.”⁸² The section of the draft Significant Natural Resource Area Management Plan on Bayview Hill Park describes the park as “a highly visible focal point within the City that supports a diverse array of habitats... Bayview Park has high natural resource and recreational values for the citizens of San Francisco.”⁸³ The draft Significant Natural Resource

⁸¹ Kobayashi, Russell, Certified Arborist, EIP Associates, *Initial Arborist Report for Executive Park*, May 2007, pp. 20-28.

⁸² San Francisco Recreation & Park Natural Areas Program website, <http://sfnap.org/pub/index.html>, accessed June 27, 2008.

⁸³ Significant Natural Resource Area Management Plan, Bayview Hill Park, Final Draft, February 2006, Section 6.17, Bayview Park, http://www.parks.sfgov.org/wcm_recpark/SNRAMP_Final_Draft/6_Site-Specific/617Bayview.pdf, accessed June 27, 2008.

Area Management Plan for Bayview Hill Park includes recommendations for vegetation management, improvement of habitat for wildlife, measures that would encourage use of established trails, and erosion control. Regarding Executive Park, the draft Management Plan recommends consideration of a new entryway on the park's south side that would connect "residents from the new housing units south of the park to the hill itself." The proposed Subarea Plan and Yerby and UPC projects would not conflict with the draft Management Plan, in that the Plan recognizes (and attempts to accommodate) the presence of housing in Executive Park. In addition, the steep park topography and park conditions would likely discourage the level of use that could lead to substantial additional impacts on vegetation and wildlife habitat.

The Subarea Plan and Yerby and UPC development projects would not have any significant impacts on biological resources, and this topic will not be discussed further in the SEIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
13. 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 geologic unit 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?	☐	☐	☐	☐	☒
f) Change substantially the topography or any unique geologic or physical features of the site?	☐	☐	☒	☐	☐

The 1985 FSEIR analyzed the potential geology and seismicity impacts of Executive Park development, using geotechnical and soils investigations from 1969, 1977, and 1982. Those prior reports analyzed the geotechnical characteristics of Executive Park (including the Yerby and UPC development sites) based on soil borings and other geotechnical information, and concluded that any potential geological problems posed by development would be addressed by application of appropriate geotechnical measures during design and construction. The 1985 FSEIR incorporated those measures as mitigation, and the measures were proposed as part of the project analyzed in the 1999 FSEIR.

Since the time of those reports, some of the methods for analyzing geotechnical and seismic issues have changed, information regarding seismic hazards in the Bay Area has been updated, and building codes have been revised. In addition, the proposed Yerby and UPC development

projects involve building sizes, building heights, and excavation depths than are different from those analyzed previously.

To respond to those changes, recent geotechnical reports were prepared for the proposed Yerby⁸⁴ and UPC⁸⁵ projects by California-licensed geotechnical engineers. The investigations included a review of selected geotechnical reports and other available information for the project area; exploration of subsurface conditions through borings; laboratory tests of the soil samples that were collected; and engineering analyses. The reports conclude that the proposed Yerby and UPC projects are feasible from a geotechnical standpoint. The primary geotechnical concerns are site seismicity and seismic hazards; geologic hazards; selection of an appropriate foundation type; lateral earth and water pressures on temporary shoring and permanent below-grade walls; hydrostatic uplift pressures on the building floors and foundations; and dewatering systems. These issues are summarized below, along with methods recommended in the studies to avoid adverse geotechnical effects; the methods identified would be incorporated into the proposed projects. The Yerby and UPC project sponsors have agreed to follow the recommendations of the reports in constructing the projects and detailed geotechnical investigations would be conducted to develop specific design criteria for the projects prior to development of final project plans.

The final building plans would be reviewed by the Department of Building Inspection (DBI) as part of the building permit application process. In reviewing building plans, the DBI refers to a variety of information sources to determine existing hazards and assess requirements for mitigation. Sources reviewed include maps of Special Geologic Study Areas and known landslide areas in San Francisco as well as the building inspectors' working knowledge of areas of special geologic concern. The geotechnical investigations prepared for the proposed Yerby and UPC projects and the more detailed investigations performed during final project design would be available for use by the DBI during its review of building permits for the Yerby and UPC development sites. Also, DBI could require that additional site-specific soils report(s) be prepared in conjunction with permit applications, as needed. Therefore, potential damage to structures from geologic hazards on the project site would be less than significant, as discussed below, through the recommendations of the project geotechnical investigations and DBI review of the building permit applications pursuant to its implementation of the Building Code.

⁸⁴ Treadwell and Rollo, *Preliminary Geotechnical Investigation, Executive Park Boulevard, Lot 75, San Francisco, California*, May 2007. A copy of this report is on file with the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, and is available for public review, by appointment, as part of Case File No. 2006.0422E.

⁸⁵ Treadwell and Rollo, *Preliminary Geotechnical Investigation, Executive Park Housing, San Francisco, California*, March 2007. A copy of this report is on file with the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, and is available for public review, by appointment, as part of Case File No. 2006.0422E.

Question 13a: The Yerby development site is occupied by an office building and surface parking. Two borings drilled at the development site indicate that the site is underlain by 13.5 to 16 feet of fill composed of a mixture of clay, sand, gravel, and fractured bedrock. The fill has a low to moderate expansion potential. The native soils beneath the fill include colluvium, alluvium, and marine deposits. The colluvium consists of loose to very dense sands with varying amounts of clay, gravel, and silt. In the southern part of the site, the colluvium is above alluvial and marine deposits, consisting of clays and silt. The colluvium is about 7 feet thick in the southern part of the site and at least 42 feet thick in the northern part of the site. Bedrock was not encountered at depths of 60 to 100 feet below the ground surface.

The UPC development site is occupied by two office buildings and surface parking lots. Five borings drilled at the development site indicate that the site is underlain by 8 feet to 24 feet of fill consisting of a mixture of clay, silt, sand, and gravel.⁸⁶ The fill has a low to moderate expansion potential. Colluvium is present beneath the fill in the northern part of the site, and alluvial and marine deposits are present in the southern part of the site. The colluvium generally consists of clay and silt and various types of sand. The alluvial and marine deposits generally consist of sandy clay and silty sand with varying amounts of shells and gravel. Bedrock was encountered at depths ranging from 8 feet below the ground surface at the northeast corner of the site to 44 feet at the northwest corner of the site. Bedrock was not encountered in the southern portion of the UPC development site. The bedrock is known as the Franciscan Complex, and includes serpentinite, sandstone and shale, and sheared rocks.

Drilling materials obscured the presence of groundwater in the soil borings for the Yerby development site. Groundwater was observed during the drilling of four of the five borings at the UPC development site, at depths ranging from 12 to 26 feet below the ground surface. (Groundwater was not encountered in the northeastern part of the site, where relatively shallow bedrock was encountered.) Groundwater levels at both sites were estimated based on the UPC borings and prior borings from adjacent properties. In the northern part of the sites, it is estimated that groundwater will occur at approximately 2.5 feet to 6 feet above the interface between the fill and the underlying colluvium and residual soil. In the southern part of the sites, groundwater is likely to be encountered at approximately mean sea level. These estimates indicate that the proposed excavations for both projects would encounter groundwater, except where shallow bedrock is present. The groundwater in the southern part of the sites is likely to be influenced by changes in sea levels and tidal fluctuations.

⁸⁶ Treadwell and Rollo, *Preliminary Geotechnical Investigation, Executive Park Housing, San Francisco, California*, March 2007, pp. 5-7.

Fault Rupture

The Subarea Plan Area and Yerby and UPC development sites are not located within an Alquist-Priolo Earthquake Fault Zone as defined by the California Department of Conservation Division of Mines and Geology (CDMG), and no active or potentially active faults exist on or in the immediate vicinity.⁸⁷ Therefore, the potential for surface fault rupture is low, and the impact is considered less than significant and will not be analyzed in the SEIR.

Ground Shaking

The USGS Working Group on California Earthquake Probabilities concluded that there is a 62 percent probability of a strong earthquake (magnitude ≥ 6.7) occurring in the San Francisco Bay region in a 30-year period between 2003 and 2032.⁸⁸ The faults nearest the Subarea Plan Area are the San Andreas fault (1906 rupture), located within 6 miles; the San Gregorio fault, located within 10 miles; the San Andreas fault (North Coast South segment), located within 12 miles; the Hayward fault, located within 13 miles; and the Monte Vista fault, located within 20 miles. Based on shaking hazard mapping done by the Association of Bay Area Governments (ABAG), it is expected that the Subarea Plan Area, including the Yerby and UPC development sites, would experience very strong to violent ground shaking due to an earthquake along the San Andreas fault, and moderate to violent ground shaking due to an earthquake along the San Gregorio fault⁸⁹ (the faults closest to the Subarea Plan Area).

Although the Subarea Plan Area and development sites would be subject to moderate to violent ground shaking in the event of a major earthquake, Subarea Plan implementation would not expose people or structures to substantial adverse effects related to ground shaking. Development within the Subarea Plan Area (including the proposed Yerby and UPC development projects) would be designed and constructed in accordance with the current version of the San Francisco Building Code, which incorporates California Building Code requirements that specify definitions of seismic sources and the procedure used to calculate seismic forces on structures during groundshaking. The geotechnical reports prepared for the proposed Yerby and UPC projects discuss recommended seismic design criteria, including seismic standards, soil profiles, and acceleration values (among others). During its review of the building permit applications, the DBI would use the geotechnical reports and the more detailed reports to be prepared during final project design to ensure compliance with all San Francisco Building Code provisions regarding

⁸⁷ California Geological Survey, Table 4, Cities and Counties Affected by Alquist-Priolo Earthquake Fault Zones as of May 1, 1999, from <http://www.conservation.ca.gov/cgs/rghm/ap/affected.htm>, accessed October 28, 2008.

⁸⁸ U.S. Geological Survey (USGS), Earthquake Probabilities in the San Francisco Bay Region, by Working Group on California Earthquake Probabilities: 2002–2031, USGS Open-File Report 03-214, 2003.

⁸⁹ Association of Bay Area Governments, Hazard Maps, Shaking Maps, March 2007, accessed through www.abag.ca.gov (go to Earthquakes/Shaking Maps/Interactive), October 28, 2008.

structural safety. Therefore, impacts related to ground shaking are considered less than significant and will not be analyzed in the SEIR.

Liquefaction, Lateral Spreading, and Seismically Induced Densification

Strong shaking during an earthquake can result in ground failure associated with soil liquefaction,⁹⁰ lateral spreading,⁹¹ and seismically induced densification.⁹² ABAG has prepared maps showing the susceptibility of areas of the city to liquefaction, based on the presence of water-saturated sandy and silty materials. Parts of the Subarea Plan Area (and parts of the Yerby and UPC development sites) are in an area with a very high susceptibility to liquefaction.⁹³ In addition, the southern part of the Subarea Plan Area is in a designated liquefaction zone on the seismic hazard zone maps prepared by the California Department of Conservation, and as such, development within that area is subject to the mitigation requirements of the Seismic Hazards Mapping Act of 1990.⁹⁴

The preliminary geotechnical investigations for the Yerby and UPC development sites included an analysis of liquefaction potential, based on subsurface exploration, laboratory testing, and engineering analyses. The Yerby geotechnical investigation identified a potentially liquefiable soil layer at a depth of about 18 feet below the ground surface. The investigation concluded that the soil layer would not affect the performance of the proposed buildings, given the low potential for surface manifestations of liquefaction, the thickness and depth of the liquefiable layer, and the depth of the proposed building foundations. However, the investigation recommended that the extent of liquefiable soil beneath the site be studied further as part of final project design, given the results of the UPC geotechnical investigation (discussed below). The Yerby investigation also found the potential for lateral spreading within the alluvium and marine deposits zone.

The Yerby geotechnical investigation offers several options for foundation design within the alluvium and marine deposits zone. These recommendations would address potential lateral

⁹⁰ Liquefaction is a phenomenon in which saturated, cohesionless soil experiences a temporary loss of strength due to the buildup of excess pore water pressure, especially during cyclic loading such as that induced by earthquakes. Soil most susceptible to liquefaction is loose, clean, saturated, uniformly graded, fine-grained sand and silt of low plasticity that is relatively free of clay.

⁹¹ Lateral spreading is a phenomenon in which surficial soil displaces along a shear zone that has formed within an underlying liquefied layer. Upon reaching mobilization, the surficial blocks are transported downslope or in the direction of a free face by earthquake and gravitational forces.

⁹² Seismically induced densification is a phenomenon in which non-saturated, cohesionless soil is compacted by earthquake vibrations, causing differential settlement.

⁹³ ABAG, Hazard Maps, Liquefaction Susceptibility, from USGS Open-File Report 00-444, 2000, accessed through www.abag.ca.gov (go to Earthquakes/Liquefaction Maps/Interactive), October 28, 2008.

⁹⁴ ABAG, Hazard Maps, CGS Liquefaction Zones, from California Geological Survey, 2004, accessed through www.abag.ca.gov (Interactive Maps Showing Liquefaction Seismic Hazards Areas), accessed October 28, 2008. The Seismic Hazards Mapping Act requires that site-specific geotechnical investigations be performed prior to permitting most development projects within an identified hazard zone.

spreading impacts, as well as liquefaction impacts, should the potential for liquefaction be identified as a concern during the more detailed investigation.

The UPC geotechnical investigation identified several potentially liquefiable soil layers within the alluvium and marine deposits soil zone in the southern part of the development site. The report estimated that the potentially liquefiable layers are thickest along the southern and southeastern edges of the property, and become thinner toward the north and northwest. Based on the thickness of the soil layers, the investigation found a high potential for liquefaction-related surface rupture in the southwestern part of the UPC site, and a low potential in the south-central part of the site. The investigation also found the potential for liquefaction-induced settlement. The investigation recommended that the extent of liquefiable soils beneath the UPC development site be studied further prior to final design. The UPC investigation also found the potential for lateral spreading within the alluvium and marine deposits zone.

To address the potential for liquefaction, the proposed Yerby and UPC development projects would incorporate design features as outlined in Mitigation Measure Geo-1, p. 102. Based on the preliminary geotechnical studies completed for the projects, these features may include (but are not limited to): soil cement columns, reinforced concrete mat foundations, pre-densification, drilled piers, or driven concrete or steel piles. The measures specified would incorporate all applicable California Building Code requirements.

Both geotechnical investigations concluded that the potential for ground settlement due to seismically-induced densification would be low. Therefore, potential project impacts related to seismically-induced densification would be less than significant.

Regardless, the DBI would, in its review of the building permit applications, require each project sponsor to submit geotechnical reports pursuant to the State Seismic Hazards Mapping Act. The reports (the geotechnical investigations prepared for the Yerby and UPC development sites and the more detailed investigations to be prepared for final project design) would assess the nature and severity of the hazard(s) on the sites and recommend project design and construction features that would reduce the hazards(s). During its review, the DBI would ensure compliance with all San Francisco Building Code provisions regarding structural safety. Given compliance with the DBI requirements and the requirements of the San Francisco Building Code, and the implementation of Mitigation Measure Geo-1, impacts related to liquefaction-induced settlement and lateral spreading are considered less than significant and will not be discussed in the SEIR.

Earthquake-Induced Landslides

The Subarea Plan Area and Yerby and UPC development sites are not in an area of mapped landslide susceptibility identified in the Community Safety Element of the *San Francisco General Plan* or by the California Department of Conservation under the Seismic Hazards

Mapping Act of 1990.⁹⁵ Therefore, there would be no impacts related to landslides, and this topic will not be analyzed in the SEIR.

Question 13b: Soil movement for foundation excavation could create the potential for wind- and water-borne soil erosion. The Yerby and UPC development sites are already developed and are moderately sloped. Therefore, substantial erosion and loss of soil would not be expected to occur during site preparation and construction. Furthermore, the project sponsors would be required to prepare an erosion and sediment control plan for construction activities in accordance with Article 4.1 of the San Francisco Public Works Code to reduce the impact of runoff from the construction sites. The City must review and approve the erosion and sediment control plan prior to implementation, and would conduct periodic inspections to ensure compliance with the plan. (See Section E. 14, Hydrology and Water Quality, for a discussion of water quality effects of erosion and sedimentation during construction.) Therefore, impacts related to soil erosion and the loss of topsoil are considered less than significant and this topic will not be analyzed in the SEIR.

Questions 13c-13d: Ground settlement could result from excavation for construction of up to three levels of subsurface parking and from construction dewatering. (Long-term dewatering would not be required because the underground structure would be waterproofed and constructed to withstand hydrostatic pressure of the groundwater.) In addition, differential settlement could occur at the UPC development site where buildings span areas with soil and bedrock. Differential settlement of near-surface improvements could occur within potentially expansive soils at both development sites. Potential global sea level rise could lead to saturated soils and increased hydrostatic pressures beneath the development sites.

Excavation

During excavation for the proposed subsurface parking, the soils beneath the development sites, described in the response to Question 13a, could become unstable. To address this potential effect, the proposed Yerby and UPC development projects would incorporate design features as outlined in Mitigation Measure Geo-1, p. 102. Based on the preliminary geotechnical studies completed for the projects, these features may include (but are not limited to): excavation and shoring to prevent the soils from becoming unstable, including the use of a soldier pile and lagging system with active dewatering in areas of bedrock or colluvium, soil-cement column walls with passive dewatering in areas of alluvial and marine deposits, and monitoring the movement of adjacent buildings and improvements during and immediately after construction. Implementation of this Mitigation Measure would ensure that potential impacts related to excavation would be less than significant.

⁹⁵ California Geological Survey, Seismic Hazards Zonation Program, <http://www.conservation.ca.gov/cgs/shzp/>, accessed October 28, 2008. The Seismic Hazards Mapping Act

Dewatering

The proposed excavations would likely extend below groundwater levels for all proposed buildings at the development sites (except for the northeastern corner of the UPC site, where shallow bedrock is present). Therefore, there is the potential for substantial water inflow. To address this potential effect, the proposed Yerby and UPC development projects would incorporate design features as outlined in Mitigation Measure Geo-1, p. 102. Based on the preliminary geotechnical studies completed for the projects, these features may include (but are not limited to): drawing groundwater down to a depth of at least three feet below the bottom of the proposed excavation and maintaining it at that elevation until sufficient weight and/or tiedown capacity is available to resist the hydrostatic uplift forces. As noted above, active systems (using pumping) and passive systems (using a cutoff wall and collection) are recommended for dewatering at both development sites. This mitigation would be implemented during final project design through compliance with DBI requirements for building permit review, as discussed below. Implementation of this Mitigation Measure would ensure that potential impacts related to water inflow during excavation would be less than significant.

Transitions from Soil to Bedrock

At the UPC development site, some of the proposed buildings (such as Building 5) would be founded entirely in rock, some (such as Buildings 1, 2, and 3) would be supported entirely in native colluvium, and some (such as Building 4) might span between colluvium and bedrock. Where buildings span between colluvium and bedrock, the geotechnical report recommends that the differential settlement be checked as part of the more detailed geotechnical reports prepared for final project design. If the potential for differential settlement is large, the proposed building foundations should be deepened at portions of the site so that the entire building foundation will rest on competent bedrock. These recommendations would be implemented during final project design through compliance with DBI requirements for building permit review, as discussed below.

Expansive Soils

The proposed near-surface site improvements would likely be underlain by the existing undocumented fill, which has a low to moderate expansion potential. The geotechnical reports recommend that the effects of expansive soil on the proposed near-surface site improvements be evaluated on a case-by-case basis. If needed, soil improvement techniques, such as overexcavation and recompaction, deep dynamic compaction, rapid impact hammers, or rammed aggregate piers, would be used to efficiently compact the near-surface fill resulting in less settlement at the ground surface.

requires that site-specific geotechnical investigations be performed prior to permitting most development projects within an identified hazard zone.

Sea Level Rise and Groundwater

There are a variety of projections of the extent of future global sea level rise. Global sea level rise would lead to a rise in the groundwater levels below the southern parts of the Yerby and UPC development sites. Rising groundwater levels could result in an increase in the extent of saturated soils, and a potential increase in liquefaction hazard. In addition, rising groundwater levels could result in increased hydrostatic pressures on the below-grade floors and walls of the proposed Yerby and UPC buildings.⁹⁶

The potential for liquefaction associated with global sea level rise would be addressed through the design features included in Mitigation Measure Geo-1, p. 102. The potential for increased pressure on the proposed buildings would be addressed through the selection of an appropriate “long-term design groundwater level” for use in the design of the proposed buildings and other site improvements, as outlined in Mitigation Measure Geo-2, p. 102. With implementation of these measures, potential impacts related to sea-level-induced changes in groundwater levels would be less than significant.

DBI Requirements

The DBI would require that the detailed geotechnical reports address the potential settlement and subsidence impacts of excavation, dewatering, and construction in geologic transition areas and areas of expansive soils. The DBI would also require that each report include a determination as to whether a lateral movement and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey were recommended, the Department of Public Works would require that a Special Inspector be retained by the project sponsor to perform this monitoring. Groundwater observation wells could be required to monitor potential settlement and subsidence. If, in the judgment of the Special Inspector, unacceptable movement were to occur during construction, groundwater recharge or other corrective actions would be used to halt this settlement. Costs for the survey and any necessary repairs to service lines under the street would be borne by the project sponsor.

With implementation of the recommendations of the geotechnical investigations prepared for the proposed Yerby and UPC projects and the detailed geotechnical studies for final project design, subject to review and approval by the DBI, and monitoring by a DBI Special Inspector (if required), impacts related to the potential for settlement and subsidence due to construction on soil that is unstable, or could become unstable as a result of the proposed Yerby and UPC projects, are less than significant and will not be discussed in the SEIR.

⁹⁶ Treadwell and Rollo, *Updated Geotechnical Consultation, Potential Impacts of Sea Level Rise, Executive Park Boulevard, San Francisco, California*, October 2008. A copy of this report is on file with the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, and is available for public review, by appointment, as part of Case File No. 2006.0422E.

Question 13e: The proposed new buildings would connect to existing wastewater conveyance, treatment, and disposal facilities and would not use septic tanks or other on-site land disposal systems. Therefore, impacts related to having soils capable of supporting the use of septic tanks or alternative waste disposal systems do not apply to the Subarea Plan, and this topic will not be analyzed in the SEIR.

Question 13f: The Yerby and UPC development sites are moderately sloped, rising to the north, with a maximum elevation difference of about 50 feet from north to south. The proposed Yerby and UPC projects would change the topography of the development sites within the area bounded by Executive Park Boulevard and Harney Way, but the changes would not be substantial relative to the existing topography of the Subarea Plan Area or vicinity. There are no unique geologic or physical features within the Subarea Plan Area. Therefore, implementation of the Subarea Plan would not significantly affect the topography of the Subarea Plan Area or any unique geologic or physical features, and this topic will not be discussed further in the SEIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
14. 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 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 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 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 which 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 authoritative 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?	☐	☐	☐	☐	☒
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒	☐

Question 14a: Domestic wastewater from the Subarea Plan Area is currently discharged to the San Francisco Public Utilities Commission (SFPUC) wastewater treatment system.

Implementation of the proposed Subarea Plan and Yerby and UPC projects would result in wastewater and stormwater discharges once proposed development is constructed, as well as discharge of groundwater produced during construction dewatering. These discharges would be conducted in accordance with applicable regulations, and implementation of required permit

conditions and control measures would not result in a violation of any water quality standards or waste discharge requirements, as discussed below.

Wastewater and Stormwater Discharges

Wastewater from the east side of the City, including the proposed Subarea Plan Area, flows in the City's combined stormwater/sewage system to the Southeast Water Pollution Control Plant. The Southeast Plant discharges treated wastewater to San Francisco Bay through an outfall located at Pier 80, immediately north of the Islais Creek Channel.

During wet weather, stormwater flows from most of the City, including the Subarea Plan Area, also drain to the combined sewer system where they are treated and discharged from one of the City's wastewater treatment plants. Stormwater from the Subarea Plan Area is transported to, and treated in, the Southeast Plant before eventual discharge to the Bay. The combined sewer system includes storage and transport boxes that, during wet weather, retain the combined stormwater and sewage flows that exceed the capacity of the Southeast Plant. When rainfall intensity results in combined flows that exceed the total capacity of the Southeast Plant and the storage and transport structures, the excess flows are discharged through combined sewer overflow (CSO) structures located along the City's Bayside waterfront. Wet weather flows are intermittent during the rainy season, and combined sewer discharge events vary in nature and duration depending largely on the intensity of rainstorms. During heavy rainfalls, overflows from the sewers can occur in low-lying neighborhood streets or in basements. This problem has been particularly marked near the Southeast Plant, as well as in other lower-lying neighborhoods near historic creeks along the City's southeast shoreline.

All of the discharges described above are made in compliance with the federal Clean Water Act and California's Porter Cologne Water Quality Control Act. Both are implemented by the California Environmental Protection Agency, San Francisco Bay Regional Water Quality Control Board (RWQCB). The RWQCB issues the City's National Pollutant Discharge Elimination System (NPDES) permit. The NPDES permit allows for a long-term average of four combined sewer overflow discharges to the Bay per year. Historically, between 1989 and 2004, there was an average of three discharge events per year.

The City is currently conducting planning efforts that address combined sewer discharges and associated water quality impacts and may directly or indirectly affect the proposed Subarea Plan and Yerby and UPC projects. Two of these planning efforts are discussed below: the Sewer System Master Plan and New Development and Redevelopment Guidelines.

Sewer System Master Plan. In 2004, the SFPUC began the development of a new *Sewer System Master Plan* to provide a comprehensive long-term vision and strategy for the management of the City's wastewater and stormwater. The plan will guide development and implementation of a 30-

year capital improvement program for wastewater facilities.⁹⁷ In addition to addressing the volume and frequency of sewage overflows during major rainstorms, the plan will address aging infrastructure, flooding in neighborhoods, odors from the wastewater system and facilities, and neighborhood concerns about the Southeast Plant. The *Master Plan*, which will undergo separate CEQA review, is expected to be completed in approximately 2010.⁹⁸

New Development and Redevelopment Guidelines. Impervious surfaces such as buildings, roads, and parking lots cover much of San Francisco, blocking infiltration of rainwater, contributing to the number and volume of combined sewer discharges during wet weather, and causing pollutants to be washed into the combined sewer system. The SFPUC is developing a policy that would require new development and redevelopment projects in San Francisco to incorporate “green” stormwater runoff management practices (often called Best Management Practices or Low Impact Development approaches) to maximize infiltration and reduce runoff (and the pollutants carried by runoff).⁹⁹ Examples of candidate “green” stormwater management practices include using vegetated swales in place of gutters, installing green roofs, using pervious paving, and creating unpaved open space. Implementation of these techniques helps reduce the volume of runoff entering the combined sewer system, reduces combined sewer discharge volumes, and removes pollutants close to their source.

Implementation of the proposed Subarea Plan would result in the addition of approximately 1,600 residential units to the Subarea Plan Area, as well as retail uses, local roadways, and parking. The additional population and employment and site visitors would generate wastewater that would enter the City’s combined wastewater/stormwater system. The additional impervious surfaces constructed in the Subarea Plan Area would generate additional runoff flows to the combined system. The 1999 FSEIR analyzed the wastewater and stormwater impacts from Executive Park buildout, but the wastewater generation was based on a mix of uses that is different from those currently proposed.

The Subarea Plan calls for the use of “green streets” principles wherever possible, including alternative paving materials and landscaping that increases permeability. The Subarea Plan also calls for an analysis of techniques such as vegetated swales, porous pavement, green roofs, and catch basins to slow stormwater flows and treat pollutants.

The proposed Yerby and UPC projects would employ “green” stormwater management practices in compliance with the Subarea Plan. In addition, the Yerby and UPC project sponsors would implement design features and techniques to achieve a “no net increase” standard for stormwater

⁹⁷ SFPUC, http://sfwater.org/msc_main.cfm/MC_ID/14/MSC_ID/120, accessed June 27, 2008.

⁹⁸ SF Sewer System Master Plan, Project Updates, <http://www.sfsewers.org/projectupdates.asp>, accessed September 19, 2008.

⁹⁹ SFPUC, <http://www.ci.sf.ca.us/site/frame.asp?u=http://www.sfwater.org/>, accessed June 27, 2008.

runoff from the project sites, based on the requirements of the recently adopted San Francisco Green Building Ordinance.¹⁰⁰ This commitment is included in Mitigation Measure Stormwater-1 on p. 101.

Construction Dewatering Discharges

Groundwater produced during construction dewatering would be discharged to the combined sewer system in accordance with Article 4.1 of the San Francisco Public Works Code, as supplemented by Order No. 158170, which regulates the quantity and quality of discharges to the combined sewer system. This permit would contain appropriate discharge standards and may require installation of meters to measure the volume of the discharge. The groundwater would be treated as necessary to meet permit requirements prior to discharge. Long-term dewatering would not be required because the underground structure would be waterproofed and constructed to withstand the hydrostatic pressure of the groundwater.

Conclusion

Wastewater and stormwater from the Subarea Plan Area, as well as groundwater produced during construction dewatering, would be discharged to the combined sewer system in accordance with applicable regulations. The combined flows in the stormwater/wastewater would continue to be treated and discharged in accordance with the provisions of NPDES Permit requirements. In addition, the proposed Subarea Plan calls for the implementation of Best Management Practices to retain and treat runoff, and the proposed Yerby and UPC projects would incorporate such measures, as specified in Mitigation Measure Stormwater-1. For those reasons, impacts related to the potential to violate any water quality standards or waste discharge requirements would be less than significant and this topic will not be analyzed in the SEIR.

Question 14b: The proposed Subarea Plan and Yerby and UPC projects would not use or deplete groundwater supplies because construction within the Subarea Plan Area (including the proposed Yerby and UPC projects) would not include groundwater withdrawals for any purpose except dewatering during construction. Any effects related to lowering the water table would be temporary and would not be expected to substantially deplete groundwater resources.

The Yerby and UPC project sites (the areas that would change as a result of Subarea Plan implementation) are already developed and together are approximately 60 percent covered with impervious surfaces. The proposed Yerby and UPC projects would increase the impervious area. These changes in impervious surfaces would not be substantial in the context of the Sunnydale watershed (in which the Subarea Plan is located), nor would they be substantially different than analyzed in the prior FSEIRs. Therefore, no impacts related to interference with groundwater recharge would occur.

¹⁰⁰ Chapter 13C, *San Francisco Building Code*,

Project development would require excavation at an average depth of up to 25 feet at the Yerby development site and approximately 23 feet at the UPC development site. As discussed in the Geology and Soils section of this Initial Study (p. 73), groundwater is present at approximately 12 feet to 26 feet below the ground surface. Therefore, it is probable that the proposed excavations would result in the need for dewatering at the development sites. Groundwater produced during construction dewatering would be discharged to the combined sewer system in accordance with Article 4.1 of the San Francisco Public Works Code, as supplemented by Order No. 158170, which regulates the quantity and quality of discharges to the combined sewer system. This permit would contain appropriate discharge standards and may require installation of meters to measure the volume of the discharge.

In view of the above, the project would not have a significant impact regarding groundwater, and this topic will not be discussed further in the SEIR.

Question 14c: There are no surface water channels in the Subarea Plan Area. Therefore, the proposed Subarea Plan and Yerby and UPC projects would not alter the course of a stream or river. Although the proposed Subarea Plan development would occur within areas that are currently developed, construction activities such as earthwork could lead to erosion where soil is exposed. In accordance with Article 4.1 of the San Francisco Public Works Code, construction contractors in the Subarea Plan Area (including contractors for the proposed Yerby and UPC projects) would prepare an erosion control plan. The plan would specify erosion control measures to prevent loss of soil during construction by stormwater runoff and/or wind erosion and to prevent sedimentation to the combined sewer system. The plan would be reviewed and approved by the City prior to construction, and the City would conduct periodic inspections to ensure compliance with the plan. With preparation and implementation of the erosion control plan, water quality impacts related to on- and off-site erosion and siltation would be less than significant, and this topic will not be analyzed in the SEIR.

Questions 14d-14e: The Yerby and UPC development sites total approximately 14 acres in area. The Yerby development site is currently occupied by an office building and surface parking; the UPC development site is currently occupied by two office buildings and surface parking. Both sites include landscaped areas. Existing impervious surfaces cover approximately 8.7 acres (i.e., 60 percent) of the development sites combined; the landscaped areas (mainly planting strips with trees along the site edges) cover approximately 5.7 acres, about 40 percent.¹⁰¹

Based on the proposed Yerby and UPC conceptual project plans, the projects would increase the impervious area of the development sites. The change would not be substantial in the context of the developed, mostly impervious character of the development sites and Subarea Plan Area. In

¹⁰¹ Approximate calculation based on review of photographs and conceptual site plans.

addition, the stormwater impacts from buildout of Executive Park were analyzed in the prior FSEIRs and found not to be significant.

The Subarea Plan calls for the use of “green streets” principles wherever possible, and the proposed Yerby and UPC projects would employ “green” stormwater management practices in several areas. Given all of the above, the proposed Yerby and UPC projects would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site or exceed the capacity of existing or planned stormwater drainage systems, and surface runoff impacts will not be analyzed in the SEIR.

Question 14f: Apart from the wastewater and stormwater runoff described above, the proposed Subarea Plan and Yerby and UPC projects would not generate any pollutants or waste discharges that would not be collected and treated in the City’s wastewater management facilities. Therefore, the proposed Subarea Plan and Yerby and UPC projects would not substantially degrade water quality and this topic will not be discussed further in the SEIR.

Questions 14g-14h: Flood risk assessment and some flood protection projects are conducted by federal agencies including the Federal Emergency Management Agency (FEMA) and the U.S. Army Corps of Engineers (Corps). The flood management agencies and cities implement the National Flood Insurance Program (NFIP) under the jurisdiction of FEMA and its Flood Insurance Administration. Currently, the City of San Francisco does not participate in the NFIP and no flood maps are published for the City. However, FEMA is preparing Flood Insurance Rate Maps (FIRMs) for the City and County of San Francisco for the first time. FIRMs identify areas that are subject to inundation during a flood having a 1 percent chance of occurrence in a given year (also known as a “base flood” or “100-year flood”). FEMA refers to the floodplain that is at risk from a flood of this magnitude as a special flood hazard area (“SFHA”).

Because FEMA has not previously published a FIRM for the City and County of San Francisco, there are no identified SFHAs within San Francisco's geographic boundaries. FEMA has completed the initial phases of a study of the San Francisco Bay. On September 21, 2007, FEMA issued a preliminary FIRM of San Francisco for review and comment by the City. The City has submitted comments on the preliminary FIRM to FEMA. FEMA anticipates publishing a revised preliminary FIRM in 2009, after completing the more detailed analysis that Port and City staff requested in 2007. After reviewing comments and appeals related to the revised preliminary FIRM, FEMA will finalize the FIRM and publish it for flood insurance and floodplain management purposes.

FEMA has tentatively identified SFHAs along the City’s shoreline in and along the San Francisco Bay consisting of Zone A (in areas subject to inundation by tidal surge) and Zone V (areas of

coastal flooding subject to wave hazards).¹⁰² On June 10, 2008, legislation was introduced at the San Francisco Board of Supervisors to enact a floodplain management ordinance to govern new construction and substantial improvements in flood prone areas of San Francisco, and to authorize the City's participation in NFIP upon passage of the ordinance. Specifically, the proposed floodplain management ordinance includes a requirement that any new construction or substantial improvement of structures in a designated flood zone must meet the flood damage minimization requirements in the ordinance. The NFIP regulations allow a local jurisdiction to issue variances to its floodplain management ordinance under certain narrow circumstances, without jeopardizing the local jurisdiction's eligibility in the NFIP. However, the particular projects that are granted variances by the local jurisdiction may be deemed ineligible for federally-backed flood insurance by FEMA.

Once the Board of Supervisors adopts the Floodplain Management Ordinance, the Department of Public Works will publish flood maps for the City, and applicable City departments and agencies may begin implementation for new construction and substantial improvements in areas shown on the Interim Floodplain Map.

According to the preliminary map, the Executive Park Subarea Plan Area is not within an A zone or a V zone.¹⁰³ In addition, the Subarea Plan Area is not within an area of predicted sea level rise as shown on maps prepared by the San Francisco Bay Conservation and Development Commission.¹⁰⁴ Therefore, no impacts related to placement of housing or other structures in a 100-year flood zone would occur, and this topic will not be analyzed in the SEIR.

Question 14i-j: A tsunami is an advancing ocean wave originating from an earthquake epicenter. In San Francisco, the potential for damage due to direct wave action resulting from a tsunami would be expected to be limited to the coastline along the Pacific Ocean, including Ocean Beach between the Golden Gate Bridge and Fort Funston.¹⁰⁵ Because the advancing ocean wave would be restricted at the Golden Gate, damage due to direct wave action along the San Francisco Bay shoreline is not considered likely. However, the Bay shoreline between the Palace of Fine Arts and the Central Basin could be subjected to a seiche, or oscillation of the Bay water surface, as a result of a tsunami reaching the Golden Gate, and damage could occur in inundated areas.

¹⁰² City and County of San Francisco, Office of the City Administrator, National Flood Insurance Program Flood Sheet, http://www.sfgov.org/site/uploadedfiles/risk_management/factsheet.pdf, accessed July 31, 2008.

¹⁰³ Federal Emergency Management Agency, Preliminary Flood Insurance Rate Map, City and County of San Francisco, California, Panel 120, September 21, 2007, http://www.sfgov.org/site/uploadedimages/risk_management/j235A.jpg, accessed January 8, 2008.

¹⁰⁴ San Francisco Bay Conservation and Development Commission (BCDC), San Francisco Bay Scenarios for Sea Level Rise, San Francisco map, http://www.bcdc.ca.gov/media/planning/CCP_SF_H.jpg, accessed October 28, 2008.

The Subarea Plan Area is not located in an area identified for potential inundation in the event of a tsunami along the San Francisco coast, based on a 20-foot water level rise at the Golden Gate (Map 6 of the Community Safety Element of the *San Francisco General Plan*).¹⁰⁶ The area of inundation shown on the map is limited to the vicinity of the Candlestick Point State Recreation Area. For that reason, the Subarea Plan Area would not be subject to significant impacts related to tsunami or seiche, and these topics will not be discussed further in the SEIR.

In addition, the Subarea Plan Area is not located within an area that would be flooded as the result of failure of a levee or dam, and is not located within an area that is subject to mudflow.¹⁰⁷ Therefore, these topics are not applicable to the proposed Subarea Plan or Yerby and UPC projects, and they will not be discussed further in the SEIR.

¹⁰⁵ City and County of San Francisco, *City and County of San Francisco Emergency Operations Plan*, January 2005.

¹⁰⁶ <http://www.abag.ca.gov/bayarea/eqmaps/tsunami/tsunami.html>, accessed October 28, 2008; also .20-Foot Tsunami Run-Up Map, http://www.sfgov.org/site/uploadedimages/planning/Codes/General_Plan/images/csa_Map6.gif, accessed October 28, 2008.

¹⁰⁷ Dam Failure Inundation Hazard Map for San Francisco, through <http://www.abag.ca.gov> (Earthquakes/Dam Failure after Earthquakes), accessed October 28, 2008.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
15. 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 fires?	☐	☐	☐	☒	☐

The Initial Study for the 1985 FSEIR (p. A-19) included a brief discussion of potential hazards and concluded that no impacts would be expected from development at Executive Park. Mitigation incorporated into the project included the development of an evacuation and emergency response plan. The 1999 FSEIR incorporated the results of a 1992 literature search to document known historic hazardous materials usage on site; no information was produced to suggest historic uses that would have produced hazardous waste on the project site. Based on this information and the 1985 Initial Study, the 1999 FSEIR concluded that no further analysis of hazards was needed.

The types of uses proposed as part of the Subarea Plan are similar to the uses analyzed in the prior EIRs, and the Subarea Plan Area corresponds to the project site analyzed in the prior EIRs.

However, the passage of time since the prior reports, lack of site-specific analysis, and changes in regulatory standards suggest the need for an updated evaluation of hazards issues.

Question 15a: During operation, the proposed residential and retail uses would involve routine household and commercial use of relatively small quantities of hazardous materials. Implementation of the proposed Subarea Plan and Yerby and UPC projects would likely result in the use of common types of hazardous materials such as paints, cleaners, pesticides and herbicides, solvents, and disinfectants. All of these products are labeled to inform users of risks, and to instruct them in proper disposal methods. Most of these materials are consumed or neutralized through use, resulting in little hazardous waste. Businesses are required by law to ensure employee safety by identifying hazardous materials, providing safety information, and adequately training workers in hazardous material handling. For these reasons, hazardous material use by Subarea Plan Area occupants and businesses would not pose a substantial public health or safety hazard, and the projects would not involve the routine generation of hazardous wastes. This topic will not be discussed further in the SEIR.

Question 15b: If hazardous materials are present in the soil or groundwater that would be disturbed during construction, or in building materials that would be disturbed during demolition, implementation of the Subarea Plan and the Yerby and UPC projects could result in an accidental release of hazardous materials, potentially affecting public health or the environment. The following discussion focuses on the potential for exposure to hazardous materials in soil or groundwater beneath the Yerby and UPC development sites, or in the existing buildings on the sites.

Potential Impacts Related to Materials in Soil or Groundwater

Project construction would include the excavation of soil for up to three levels of subsurface parking and the building foundations. Excavation would extend up to about 25 feet below ground surface (bgs) on the Yerby site and about 23 feet bgs on the UPC site. Proposed excavation would result in the removal of a total of up to 294,700 cubic yards of soil.¹⁰⁸

Hazardous Waste Studies. Phase I Environmental Site Assessments (ESAs) were prepared for the Yerby¹⁰⁹ and UPC¹¹⁰ project sites in 2007. The Phase I ESAs describe current and prior uses of

¹⁰⁸ The Subarea Plan area is not within the area covered by the “Maher Ordinance.” Cushing, Stephanie, San Francisco Department of Public Health, Local Oversight Program, personal communication, January 18, 2008.

¹⁰⁹ EMG, *Phase I Environmental Site Assessment of 5 Thomas Mellon Circle, San Francisco, California, 94134*, February 5, 2007. A copy of this report is on file with the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, and is available for public review, by appointment, as part of the project Case File No. 2006.0422E.

¹¹⁰ Green Environment Inc., *Phase I Environmental Site Assessment, Assessor’s Parcels 30-4991-24, 61, 65, 74, 85, 86 & 005-153-030, Executive Park Boulevard, San Francisco & Brisbane, CA*, May 2, 2007. A

the property, review environmental agency databases and records, report site reconnaissance observations, and summarize potential soil and groundwater contamination issues.

Past Uses of Hazardous Materials. The Yerby and UPC development sites were occupied by farmland, military housing, and vacant land prior to the development of the existing office buildings in the early 1980s. The Phase I studies concluded that there was no evidence that these past uses contributed hazardous wastes to soil or groundwater. The Phase I studies did not identify any regulatory or physical evidence of above-ground or underground storage tanks (ASTs or USTs) at the development sites.

The Yerby and UPC development sites are occupied by office buildings and surface parking. The types of hazardous materials present would be those typical of office uses. At the time of the Phase I studies, no hazardous materials were observed at the Yerby development site other than typical cleaning and maintenance supplies. The site reconnaissance conducted for the UPC development site found corrosive anti-scaling agents and algaecides and an unlabeled 5-gallon container with oily residue on its lid in a cooling tower enclosure, and compressed gas Freon 22 containers on a building rooftop. In addition, condensate discharge from the cooling tower was observed to discharge to an unmarked drain. The Phase I study did not identify any of these conditions as affecting soil or groundwater at the UPC development site, and UPC is working to address these minor issues.

Regulatory database reviews for the Yerby and UPC development sites were prepared by Environmental Data Resources, Inc, and incorporated into the Phase I studies. The reviews found that the Yerby and UPC sites were not on any listed sites included in the regulatory database.¹¹¹ Reviews of nearby listed sites indicated that none of the sites had the potential to affect the soil or groundwater conditions at the Yerby and UPC development sites.

Hydraulic elevators with subsurface components are present at both development sites. The Phase I study for the Yerby project found no visual indication of leakage from the elevator units; the Phase I study for the UPC project did not mention a visual inspection of the elevators. However, there is the potential that the elevator units could leak hydraulic oils to soils and groundwater.

In addition, both development sites are on fill that is of unknown origin. Based on experience with fill material elsewhere in San Francisco and nearby areas, there is the potential that the fill

copy of this report is on file with the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, and is available for public review, by appointment, as part of the project Case File No. 2006.0422E.

¹¹¹ The EDR review identified Tuntex Properties at 150 Executive Park Boulevard as a San Mateo County listed site with borings/wells and a County hazardous waste program. However, the regulated site is actually at Tunnel Avenue and Bayshore Boulevard. The UPC development site was in the database because the Tuntex offices were at 150 Executive Park Boulevard.

could contain hazardous substances and/or petroleum products. For these reasons, excavation for the proposed Yerby and UPC projects could result in the disturbance of soils and groundwater containing hazardous materials. To reduce the potential impacts associated with soil and groundwater contamination, the project sponsors have agreed to implement Mitigation Measure Haz-1 (pp. 102-104), which involves representative sampling of the fill and sampling of the areas near the below-ground components of the elevators. In addition, groundwater produced during construction dewatering would be discharged to the combined sewer system in accordance with Article 4.1 of the San Francisco Public Works Code, as supplemented by Order No. 158170, which regulates the quantity and quality of discharges to the combined sewer system. Article 4.1 would require the discharged water to meet established contaminant limits prior to discharge. If necessary, dewatered groundwater would be treated on site prior to discharge (e.g., with filters, activated carbon, chemical treatment, settling tanks, or oil/water separators). Compliance with the ordinance and implementation of Mitigation Measure Haz-1 by the Yerby and UPC project sponsors would minimize potential impacts related to soil and groundwater contamination to a less-than-significant level.

Franciscan Formation bedrock under the UPC development site could contain chrysotile, a variety of serpentine that constitutes a potentially harmful form of asbestos. Asbestos poses a hazard to human health when it is in a friable (crushed) condition and becomes airborne. If the proposed excavation for the below-grade parking levels were to encounter chrysotile serpentine present in the rock, operations such as drilling, ripping, and off-hauling could produce dust that contains asbestos. Serpentine could also be present in the fill and colluvium beneath the development sites. The presence of the dust could be a short-term construction hazard possibly affecting on-site personnel, the residents of nearby buildings, and persons in near-vicinity, off-site locations.

As discussed above under Section E.7 Air Quality (p. 45) the Board of Supervisors has approved a series of amendments to the San Francisco Building and Health Codes generally referred to as the Construction Dust Control Ordinance with the intent of reducing the quantity of dust generated during site preparation, demolition, and construction work. Construction of the proposed Yerby and UPC projects would involve disturbance of more than one acre of land, and thus would also be subject to the requirements of the Asbestos Airborne Toxic Control Measure adopted by the California Air Resources Board for construction-related activities (California Code of Regulations, Title 17, Section 93105).¹¹² These requirements have been incorporated into Measure Haz-2 for both development projects (pp. 104-105) to limit dust generation and adequately protect on-site workers and neighbors against prolonged asbestos exposure. Implementation of this measure by the project sponsors, and implementation of an approved, site-

¹¹² Although excavation for the proposed Yerby project would be unlikely to encounter Franciscan Formation bedrock, the mitigation would apply to both projects due to their proximity to each other.

specific dust control plan under the Construction Dust Control Ordinance would minimize potential impacts related to serpentine-containing asbestos to a less-than-significant level.

Conclusions. The Phase I studies for the Yerby and UPC development sites found no evidence of potential sources of contamination in the soil or groundwater beneath the sites, but noted the possibility that there could be soil or groundwater contamination related to undocumented fill and below-ground hydraulic elevator components. The project sponsors would conduct sampling and would either confirm the absence of contamination, or would remediate contaminated areas as required by law. In addition, the UPC project sponsor would implement measures to minimize potential impacts related to asbestos in construction dust. For those reasons, no significant impacts would occur due to hazardous materials in soil or groundwater on the Yerby and UPC development sites, and no further analysis is required in the SEIR.

Potential Impacts Related to Building Materials

Implementation of the proposed Subarea Plan would involve demolition and removal of the existing office buildings and surface parking on the Yerby and UPC development sites. The following discussion addresses impacts related to the potential presence of hazardous substances in building materials.

Lead-Based Paint. The building on the Yerby development site was constructed in 1980, and the buildings on the UPC development site were developed in the 1980s. Given the age of the buildings, it is unlikely that lead-based paint is present. The Phase I study for the UPC development site identifies the potential for lead to be present in ceramic tiles, but lead in tile glazing would not present a significant hazard. Therefore, this topic will not be analyzed in the SEIR.

Asbestos. The Phase I study for the Yerby development site identified the potential for asbestos to be present in the existing office building, in the form of wallboard, tile floor covering, textured stucco exterior, roofing materials, and fabric ductwork connectors. Testing on a limited set of samples did not detect asbestos. The Phase I study for the UPC development site identified the potential for asbestos to be present in the existing office buildings, in the form of acoustic ceilings, joint compound and skim-coated wall systems in office areas. The UPC Phase I did not include testing.

Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. The BAAQMD is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both

inspection and law enforcement, and is to be notified 10 days in advance of any proposed demolition or abatement work.

Notification includes the names and addresses of operations and persons responsible; description and location of the structure to be demolished/alterd including size, age and prior use, and the approximate amount of friable asbestos; scheduled starting and completion dates of demolition or abatement; nature of planned work and methods to be employed; procedures to be employed to meet BAAQMD requirements; and the name and location of the waste disposal site to be used. The BAAQMD randomly inspects asbestos removal operations. In addition, BAAQMD will inspect any removal operation for which a complaint has been received.

The local office of the State Occupational Safety and Health Administration (OSHA) must be notified of asbestos abatement to be carried out. Asbestos abatement contractors must follow state regulations contained in Title 8, Sections 341.6 through 341.14, and Section 1529 of the California Code of Regulations where there is asbestos-related work involving 100 square feet or more of asbestos-containing material. Asbestos removal contractors must be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement is to occur must have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Health Services in Sacramento. The contractor and hauler of the material is required to file a Hazardous Waste Manifest which details the hauling of the material from the site and its disposal. Pursuant to California law, DBI would not issue the required permit until the applicant has complied with the notice requirements described above. These regulations and procedures, already established as a part of the permit review process, would ensure that any potential impacts due to asbestos would be reduced to a level of insignificance.

PCBs and Other Building Materials. The Phase I study for the Yerby development site identified the potential for PCBs to be present in a pad-mounted Pacific Gas & Electric (PG&E) transformer. The Phase I study concluded that other PCB-containing equipment was unlikely to be present at the Yerby site. The Phase I study for the UPC development site did not include inspection of PG&E transformers. The study concluded that other PCB-containing equipment was unlikely to be present at the UPC site. The transformers and other potentially hazardous building materials could pose health risks for site workers if improperly handled. However, adherence to applicable laws and regulations for removal and disposal of these materials would reduce the potential for exposure to hazardous substances during demolition activities. Therefore, this impact would be less than significant and no further analysis is necessary in the EIR.

Question 15c: There are no public or private schools within one-quarter mile of the Subarea Plan Area.¹¹³ Therefore, this topic is not applicable.

Question 15d: See the discussion of Question 15b. Regulatory database reviews were conducted as part of the Phase I studies. There are no known contaminants present in soil or groundwater beneath the development sites and no known previous uses that routinely involved the use or transport of hazardous materials. Therefore, no impact would occur, and this topic will not be addressed further in the SEIR.

Questions 15e-15f: The Subarea Plan Area is not within the vicinity of a private airstrip; San Francisco International Airport is about seven miles to the south. The Subarea Plan Area is not located within an airport land use plan.¹¹⁴ Therefore, these topics are not applicable to the proposed Subarea Plan or Yerby and UPC projects.

Question 15g and 15h: Implementation of the proposed Subarea Plan and Yerby and UPC projects would result in changes to the local street network, but would not change the existing traffic circulation network in the Subarea Plan vicinity. Occupants of the proposed buildings would contribute to congestion if an emergency evacuation of the Executive Park area were required. Section 12.202(e)(1) of the San Francisco Fire Code requires that all owners of high-rise buildings (over 75 feet) “shall establish or cause to be established procedures to be followed in case of fire or other emergencies. All such procedures shall be reviewed and approved by the chief of division.”

The 1985 FSEIR (p. A-20) included a mitigation measure requiring an evacuation and emergency response plan to be developed in coordination with the Mayor’s Office of Emergency Services. The Yerby and UPC buildings have Safety and Evacuation Plans that are updated every year;¹¹⁵ these plans would be modified to include the proposed development. In addition, there would be at least three entries to the Subarea Plan Area that could be used in an emergency. Therefore, project impacts related to interference with emergency response or evacuation plans would be less than significant, and this topic will not be discussed further in the SEIR.

¹¹³ Based on a review of the San Francisco Unified School District Schools Directory, http://portal.sfusd.edu/template/default.cfm?page=school_info, accessed August 1, 2007. A search of private schools in the Subarea Plan region was conducted August 23, 2007.

¹¹⁴ Carbone, Dave, Airport Land Use Committee, City/County Association of Governments of San Mateo County, personal communication, January 22, 2008.

¹¹⁵ Scharfman, Jonathan, Land Development Director, Universal Paragon Corporation, personal communication, August 22, 2007.

San Francisco ensures fire safety primarily through provisions of the Building Code and the Fire Code. Development within the Subarea Plan Area (including the proposed Yerby and UPC projects) would be required to conform to those provisions, which include additional life-safety protections for high-rise buildings. Therefore, the proposed Subarea Plan and Yerby and UPC projects would have no significant impacts related to fire hazards and this topic will not be discussed further in the SEIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
16. MINERAL AND ENERGY RESOURCES— Would the project:					
a) Result in the loss of availability of a known mineral resource 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?	☐	☐	☐	☐	☒
c) Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	☐	☐	☒	☐	☐

Questions 16a-b: All land in San Francisco, including the Subarea Plan Area, is designated Mineral Resource Zone 4 (MRZ-4) by the California Division of Mines and Geology (CDMG) under the Surface Mining and Reclamation Act of 1975 (CDMG, Open File Report 96-03 and Special Report 146 Parts I and II). This designation indicates that there is inadequate information available for assignment to any other MRZ and thus the Subarea Plan Area is not a designated area of significant mineral deposits. Since the Subarea Plan Area is partly developed and has projects under construction, future evaluation or designation of the Subarea Plan Area would not affect or be affected by the proposed Subarea Plan or Yerby and UPC projects. There are no operational mineral resource recovery sites in the Subarea Plan Area whose operations or accessibility would be affected by the construction or operation of the proposed Subarea Plan or Yerby and UPC projects. This topic will not be discussed further in the SEIR.

Question 16c: Implementation of the Subarea Plan would involve the redevelopment of the Yerby and UPC development sites with residential buildings, below-grade parking, and open spaces, as well as changes to the Subarea Plan Area circulation network. With the proposed Subarea Plan, the future residential population of the Subarea Plan Area would be substantially higher than analyzed in the 1985 FSEIR and 1999 FSEIR, but the future employment would be substantially lower. The anticipated energy use at Subarea Plan buildout would likely be lower than analyzed in the prior EIRs.¹¹⁶ The increase in Subarea Plan Area population and employment (compared to existing conditions) would be small in the context of overall population and employment in San Francisco. In addition, the proposed Subarea Plan calls for development projects to incorporate energy efficiency into their design. For those reasons,

¹¹⁶ The 2000 Approved Development Plan includes 808 residential units, about 1.6 million gsf of office uses, and about 93,000 gsf of commercial uses. The 1985 FSEIR analyzed a buildout scenario with 600 residential units, about 1.6 million gsf of office uses, a hotel, and about 50,000 gsf of retail/restaurant uses.

implementation of the proposed Subarea Plan and Yerby and UPC projects would not result in the use of large amounts of fuel, water, or energy.

Development within the Subarea Plan Area would meet current state and local standards regarding energy consumption, including Title 24 of the California Code of Regulations enforced by the Department of Building Inspection. For those reasons (and consistent with the conclusions of the 1999 FSEIR), the proposed Subarea Plan and Yerby and UPC projects would not result in a wasteful use of energy.

Development within the Subarea Plan Area would use energy produced in regional power plants using hydropower and natural gas, coal, and nuclear fuels. This development would not use substantial quantities of other non-renewable natural resources. Therefore, the proposed Subarea Plan and Yerby and UPC projects would not have a substantial effect on the use, extraction, or depletion of a natural resource. This topic will not be evaluated in the SEIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
17. 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 (1997) 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, 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 of Statewide Importance, to non-agricultural use?	☐	☐	☐	☐	☒

Questions 17a-17c: The project site is located within an urbanized area of San Francisco. The California Department of Conservation's Farmland Mapping and Monitoring Program identifies the site as "Urban and Built-up Land."¹¹⁷ Because the site does not contain agricultural uses and is not zoned for such uses, the proposed project would not convert any prime farmland, unique farmland, or Farmland of Statewide Importance to non-agricultural use, and it would not conflict with existing zoning for agricultural land use or a Williamson Act contract, nor would it involve any changes to the environment that could result in the conversion of farmland.

¹¹⁷ California Department of Conservation, Farmland Mapping and Monitoring Program, 2002.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
18. MANDATORY FINDINGS OF SIGNIFICANCE— Would the project:					
a) 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) Have impacts that would be individually limited, but cumulatively considerable? ("Cumulatively 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) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐	☐

Question 18a: The proposed Subarea Plan and Yerby and UPC projects could result in adverse impacts with respect to visual quality, transportation, noise, air quality, shadow, and public services. These topics will be addressed in the SEIR. As noted elsewhere in this Initial Study, with the implementation of mitigation measures, the proposed Subarea Plan and Yerby and UPC projects would not result in significant impacts to biological resources or wind.

Question 18b: The proposed Subarea Plan and Yerby and UPC projects could have cumulative impacts, primarily with respect to increased traffic congestion. These impacts will be addressed in the SEIR.

Question 18c: Potential adverse effects on human beings have been considered as part of the analysis of individual environmental topics in this Initial Study. Potential impacts to humans with respect to visual quality, transportation, noise, air quality, and shadow will be addressed in the SEIR. The proposed Subarea Plan and Yerby and UPC projects would not have any other environmental effects that would cause substantial adverse effects on humans.

F. MITIGATION MEASURES AND IMPROVEMENT MEASURES

Mitigation Measures

The following mitigation measures are necessary to avoid potential significant effects of the proposed Yerby and UPC projects and have been agreed to by the project sponsors:

Mitigation Measure Noise-1: Construction Noise Pile driving might be required for the Yerby and UPC development projects. If pile driving is required, the project sponsors shall require construction contractors to pre-drill site holes to the maximum depth feasible based on soil conditions. The project sponsors shall also require that contractors schedule pile-driving activity for times of the day that would be in accordance with the provisions of the San Francisco Noise Ordinance and in consultation with the Director of Public Works, to disturb the fewest people. Contractors shall be required to use construction equipment with state-of-the-art noise shielding and muffling devices. At least 48 hours prior to pile-driving activities, the project sponsors shall notify building owners and occupants within 200 feet of the development site by fliers posted on each floor in each building and distributed by building management of the dates, hours, and expected duration of such activities.

Mitigation Measure Noise-2: Interior Noise Levels The project sponsors shall conduct site-specific acoustical studies for all of the proposed buildings. The studies shall be consistent with the requirements of the State Building Code, and shall identify appropriate noise-reduction measures to be incorporated into project final design. Each noise study must be submitted to and approved by the San Francisco Department of Building Inspection prior to the issuance of a building permit. Potential noise-reduction techniques may include, but are not limited to: (a) incorporation of air circulation systems in all affected units so that windows can remain closed to maintain interior noise levels of less than 45 dBA Ldn; and (b) incorporation of sound-rated windows and construction methods in residential units.

Mitigation Measure Stormwater-1: Minimizing Stormwater/Wastewater Runoff The project sponsors would implement design features and stormwater control techniques to achieve no net increase in stormwater runoff from the project site. Potential stormwater control techniques would include, but would not be limited to, vegetated swales, porous pavement, green roofs, and catch basins. The measures implemented would be consistent with the San Francisco Green Building Ordinance (Chapter 13C of the San Francisco Building Code). The sponsors would work with SFPUC staff to explore and implement feasible techniques prior to detailed project design.

Mitigation Measure Bio-1: Protection of Birds during Tree Removal The project sponsors would implement the following protective measures to assure implementation of the Migratory Bird Treaty Act and compliance with state regulations during tree removal.

Pre-construction surveys for nesting birds shall be conducted by a qualified ornithologist or wildlife biologist to ensure that no nests will be disturbed during project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of demolition/construction activities during the early part of the breeding season (January through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). During this survey, the qualified person shall inspect all trees in and immediately adjacent to the impact areas for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the ornithologist or wildlife biologist, in consultation with CDFG, shall determine the extent of a construction-free buffer zone to be established around the nest.

Mitigation Measure Geo-1: Liquefaction Potential, and Excavation, and Dewatering The UPC and Yerby development project sponsors would incorporate features into the project foundation designs to address the potential for liquefaction in the soils beneath portions of the development sites, the potential for soil instability, and the potential for groundwater inflow during excavation. The specific measures to be implemented would be specified in the geotechnical reports prepared as part of the final project design. Based on the preliminary geotechnical studies completed for the projects, these features may include (but are not limited to): soil cement columns, reinforced concrete mat foundations, pre-densification, drilled piers, or driven concrete or steel piles, shoring to prevent soils from becoming unstable during excavation, and drawing down groundwater to a depth of at least three feet below the bottom of excavation. The measures specified would incorporate all applicable California Building Code requirements.

Mitigation Measure Geo-2: Sea Level Rise and Groundwater The UPC and Yerby development project sponsors would incorporate features into the project foundation designs to address the potential for rising groundwater levels due to predicted global sea level rise. The specific measures to be implemented would be specified in the geotechnical reports prepared as part of the final project design. Based on the preliminary geotechnical studies completed for the projects, the projects would include an appropriate long-term design groundwater level for use in the design of the proposed buildings and other site improvements. Using a predicted sea level rise of 3 feet by 2100, the long-term design groundwater level would be Elevation -3.6 feet in the southern and southeastern portions of the development sites.

Mitigation Measure Haz-1: Hazardous Materials/Contaminated Soil

Step 1: Determination of Presence of Contaminated Soil

The development sites contain undocumented fill. Therefore, prior to approval of a building permit for the proposed project, the project sponsor shall hire a consultant to collect soil samples (borings) from areas on the site in which soil would be disturbed and test the soil samples for contamination (including, but not limited to, substances such as total lead, petroleum

hydrocarbons, and heavy metals). The consultant shall analyze the soil borings as discrete, not composite samples. The consultant shall prepare a report that includes the results of the soil testing and a map that shows the locations from which the consultant collected the soil samples.

The project sponsor shall submit the report on the soil testing with the appropriate fee. These fees shall be charged pursuant to Section 31.47(c) of the *San Francisco Administrative Code*. DPH shall review the soil testing report to determine whether soils on the project site are contaminated at or above potentially hazardous levels.

If DPH determines that the soils on the project site are not contaminated at or above a potentially hazardous level, no further mitigation measures with regard to contaminated soils on the site would be necessary.

Step 2: Preparation of Site Mitigation Plan

If based on the results of the soil tests conducted, DPH determines that the soils on the project site are contaminated at or above potentially hazardous levels, the DPH shall determine if preparation of a Site Mitigation Plan (SMP) is warranted. If such a plan is requested by the DPH, the SMP shall include a discussion of the type and level of contamination of soils on the project site and mitigation measures for managing contaminated soils on the site, including, but not limited to: 1) the alternatives for managing contaminated soils on the site (e.g., encapsulation, partial or complete removal, treatment, recycling for reuse, or a combination); 2) the preferred alternative for managing contaminated soils on the site and a brief justification; and 3) the specific practices to be used to handle, haul, and dispose of contaminated soils on the site. The SMP shall be submitted to the DPH for review and approval. A copy of the SMP shall be submitted to the Planning Department to become part of the case file.

Step 3: Handling, Hauling, and Disposal of Contaminated Soils

- a. Specific work practices: If based on the results of the soil tests conducted, DPH determines that the soils on the project site are contaminated at or above potentially hazardous levels, the construction contractor shall be alert for the presence of such soils during excavation and other construction activities on the site (detected through soil odor, color, and texture and results of on-site soil testing), and shall be prepared to handle, profile (i.e., characterize), and dispose of such soils appropriately (i.e., as dictated by local, state, and federal regulations, including OSHA work practices) when such soils are encountered on the site.
- b. Dust suppression: Soils exposed during excavation for site preparation and construction activities shall be kept moist throughout the time they are exposed, both during and after work hours.
- c. Surface water runoff control: Where soils are stockpiled, Visqueen (a type of polyethylene film) shall be used to create an impermeable liner, both beneath and on top of the soils, with a berm to contain any potential surface water runoff from the soil stockpiles during inclement weather.

- d. Soils replacement: If necessary, clean fill or other suitable material(s) shall be used to bring portions of the project site, where contaminated soils have been excavated and removed, up to construction grade.
- e. Hauling and disposal: Contaminated soils shall be hauled off the project site by waste hauling trucks appropriately certified with the State of California and adequately covered to prevent dispersion of the soils during transit, and shall be disposed of at a permitted hazardous waste disposal facility registered with the State of California.

Step 4: Preparation of Closure/Certification Report

After excavation and foundation construction activities are completed, the project sponsors shall prepare and submit a closure/certification report to DPH for review and approval. The closure/certification report shall include the mitigation measures in the SMP for handling and removing contaminated soils from the project site, whether the construction contractor modified any of these mitigation measures, and how and why the construction contractor modified those mitigation measures.

Mitigation Measure Haz-2: Dust Program for Asbestos-Containing Serpentine Materials

The project sponsors would implement the following protective measures to assure implementation of the California Air Resources Board Asbestos Airborne Toxic Control Measure (ATCM) for construction-related activities (California Code of Regulations, Title 17, Section 93105).

The construction contractor would be required to submit the appropriate notification forms and prepare an asbestos dust mitigation plan specifying measures that would be taken to ensure that no visible dust crosses the property boundary during construction. The plan must specify the following measures:

- Prevent and control visible track-out from the property.
- Ensure adequate wetting or covering of active storage piles.
- Control disturbed surface areas and storage piles that would remain inactive for seven days.
- Control traffic on on-site unpaved roads, parking lots, and staging areas, including a maximum vehicle speed of 15 miles per hour.
- Control earthmoving activities.
- Control off-site transport of dust emissions that contain naturally occurring asbestos-containing materials.
- Stabilize disturbed areas following construction.

In addition, excavated materials containing over one percent friable asbestos would be treated as hazardous waste, and would be transported and disposed of in accordance with applicable State and Federal regulations.

The asbestos dust mitigation plan must be submitted to and approved by the BAAQMD prior to the beginning of construction, and the site operator must ensure the implementation of all specified dust mitigation measures throughout the construction project. The BAAQMD may require air monitoring for off-site migration of asbestos dust during construction activities and may change the plan on the basis of the air monitoring results. Compliance with the asbestos ATCM would reduce impacts from airborne asbestos to less-than-significant levels.

Improvement Measures

The Yerby and UPC project sponsors have agreed to implement the following improvement measures to reduce impacts of the Yerby and UPC projects that were found in this Initial Study to be less than significant. Improvement measures identified in this Initial Study may be required by decision-makers as conditions of project approval.

Improvement Measure Noise-1: Construction Noise The project sponsors shall require the construction contractors to implement noise control techniques to minimize disturbance to adjacent residential receptors during project construction. Specific noise control measures shall include the following:

- (1) The contractors shall implement feasible noise controls to reduce the noise levels generated by construction equipment. Feasible noise controls include improved mufflers; equipment redesign; and use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds.
- (2) Equipment used for project construction shall be hydraulically or electrically powered impact tools (e.g., jack hammers and pavement breakers) wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. However, where use of pneumatically-powered tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler could lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves should be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used such as drilling rather than impact equipment whenever feasible.
- (3) Stationary noise sources shall be located as far from existing sensitive receptors as possible. If stationary sources must be located near existing receptors, they shall be adequately muffled and enclosed within temporary sheds.
- (4) To the extent feasible, concrete crushers shall be located so that existing buildings block noise for adjacent receptors. Portable sound blankets shall be used wherever feasible to reduce noise generated by concrete crushers. Such blankets can provide up to a 10-dBA noise reduction.

- (5) During construction of new buildings, the exterior facades facing existing sensitive receptors shall be enclosed as early in the construction process as feasible.
 - (6) During all construction phases, there shall be close coordination between construction staff and staff of the residential buildings. Residential building staff shall be made aware of the construction schedule and activities.
 - (7) During all construction phases, locations of access roads, delivery routes, and loading areas shall be selected to minimize exposure to adjacent residential receptors.
 - (8) A designated complaint coordinator shall be responsible for responding to noise complaints during the construction phase. The name and phone number of the complaint coordinator shall be conspicuously posted at construction areas and on all advanced notifications. This person shall maintain a log of complaints received and take steps to resolve complaints, including periodic noise monitoring, if necessary, to ensure that significance thresholds are not exceeded by project construction activities.
-

G. INITIAL STUDY AUTHORS AND PROJECT SPONSOR TEAM

INITIAL STUDY AUTHORS

Planning Department, City and County of San Francisco
Major Environmental Analysis Division
1650 Mission Street, Suite 400
San Francisco, CA 94104
Environmental Review Officer: Bill Wycko
Initial Study Coordinator: Joy Navarrete

INITIAL STUDY CONSULTANTS

Turnstone Consulting
330 Townsend Street, Suite 216
San Francisco, CA 94107
Nancy Cunningham Clark, Principal
Arlyn Purcell, Project Manager
Michael Kometani, Project Manager
Barbara Westree, Staff Scientist
S. Elizabeth Haines, Editor
Ron Teitel, Graphic Artist

PBS&J (Tree Report)
353 Sacramento Street, Suite 1000
San Francisco, CA 94111
Russell Kobayashi, Certified Arborist

PROJECT SPONSOR TEAM

The Yerby Company
5 Thomas Mellon Circle, Suite 104
San Francisco, CA 94134
George Yerby
President

Universal Paragon Corporation
150 Executive Park Blvd., Suite 4200
San Francisco, CA 94134
Jonathan Scharfman
Land Development Director

H. DETERMINATION

On the basis of this initial study:

- ☐ 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 or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.



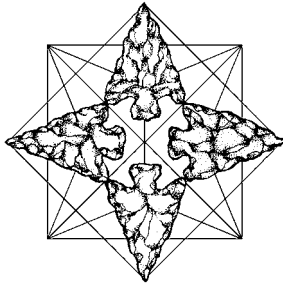
Bill Wycko
Environmental Review Officer

for

John Rahaim
Director of Planning

DATE February 10, 2009

APPENDIX B: ACHAEOLOGICAL RESOURCES



ARCHEO-TEC
CONSULTING ARCHAEOLOGISTS

Ms. Debbie Pilas-Treadway
Native American Heritage Commission
915 Capital Mall, Room 364
Sacramento, CA 95814

September 27, 2007

Subject: Assessment of the Executive Park Project, City and County of San Francisco.

Dear Ms. Pilas-Treadway:

I am conducting a cultural resources assessment in the city of San Francisco, California. The proposed project is located and described as follows:

The Executive Park Project is situated in the southern part of the City and County of San Francisco, just east of U.S. 101 and along the borders of San Francisco and San Mateo counties. As depicted on the enclosed map, this project is shown on the 1956 South San Francisco, California 7.5 USGS topographic quadrangle map, within T.2S & R.4W (Photorevised 1995 & 1999). I am conducting this cultural resources research at the request of Arlyn Purcel of Turnstone Consulting.

At this time, I request that you consult the Native American Heritage Commission's Sacred Land File to determine whether the above-mentioned project will encroach upon any areas deemed sacred by the Native American community. If possible, please send any response you may have by October 12, 2007. As always, please feel free to fax the information you may find in regard to these projects.

Sincerely,

Allen G. Pastron, Ph.D
Archeo-Tec

STATE OF CALIFORNIA

Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 264
SACRAMENTO, CA 95834
(916) 653-4082
Fax (916) 657-5390
Web Site: www.nahc.ca.gov



October 9, 2007

Allen G. Pastron
Archeo-Tech
5283 Broadway
Oakland, CA 94618

Sent by Fax: 510-601-8203
Number of Pages: 2

Re: Proposed Executive Park Project, San Francisco County.

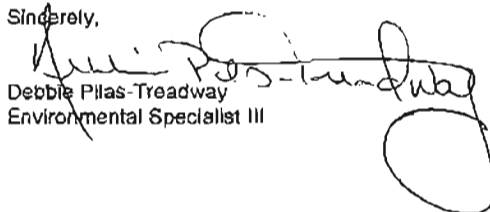
Dear Mr. Pastron:

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4038.

Sincerely,


Debbie Pilas-Treadway
Environmental Specialist III

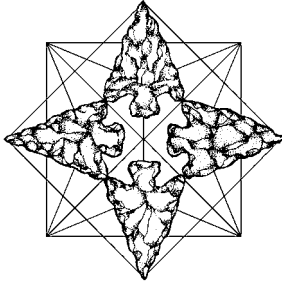
Native American Contacts
San Francisco County
October 9, 2007

Jakki Kehl 720 North 2nd Street Patterson, CA 95363 jakki@bigvalley.net (209) 892-2436 (209) 892-2435 - Fax	Ohlone/Costanoan	Muwekma Ohlone Indian Tribe of the SF Bay Area Rosemary Cambra, Chairperson PO Box 360791 Milpitas, CA 95036 muwekma@muwekma.org 408-434-1668 408-434-1673
Amah/Mutsun Tribal Band Michelle Zimmer, Cultural Resource Coordinator P O Box 3892 Clear Lake, CA 95422 408-375-4281	Ohlone/Costanoan	The Ohlone Indian Tribe Andrew Galvan PO Box 3152 Mission San Jose, CA 94539 chochenyo@AOL.com (510) 656-0787 - Voice (510) 882-0527 - Cell (510) 687-9393 - Fax
Amah/Mutsun Tribal Band Irene Zwiernlein, Chairperson 789 Canada Road Woodside, CA 94062 amah_mutsun@yahoo.com (650) 851-7747 - Home (650) 851-7489 - Fax	Ohlone/Costanoan	Trina Marine Ruano Family Ramona Garibay, Representative 16010 Halmar Lane Lathrop, CA 95330 510-300-5971 - cell
Indian Canyon Mutsun Band of Costanoan Ann Marie Sayers, Chairperson P.O. Box 28 Hollister, CA 95024 ams@garlic.com 831-637-4238	Ohlone/Costanoan	Ohlone/Costanoan Bay Miwok Plains Miwok Patwin

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Executive Park Project, San Francisco County.



ARCHEO-TEC
CONSULTING ARCHAEOLOGISTS

Jakki Kehl
720 North 2nd Street
Patterson, CA 95363

October 10, 2007

Subject: Assessment of the Executive Park Project, City and County of San Francisco.

Dear Ms. Kehl,

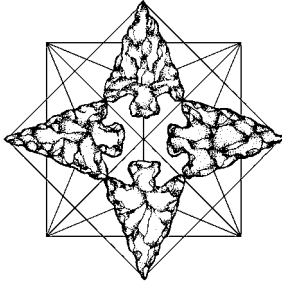
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At this time, I request that you assess whether the above-mentioned project will encroach upon any areas deemed sacred by the Native American community. If possible, please send any response you may have by October 25, 2007. As always, please feel free to fax any information you may have in regard to this project.

Sincerely,

Allen G. Pastron
President



ARCHEO-TEC
CONSULTING ARCHAEOLOGISTS

Amah/Mutsun Tribal Band
Michelle Zimmer, Cultural Resources Coordinator
P.O. Box 3892
Clear Lake, CA 95422

October 10, 2007

Subject: Assessment of the Executive Park Project, City and County of San Francisco.

Dear Ms. Perez,

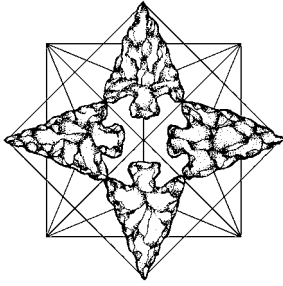
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Sincerely,

Allen G. Pastron
President



ARCHEO-TEC
CONSULTING ARCHAEOLOGISTS

Amah/Mutsun Tribal Band
Irene Zwierlein, Chairperson
789 Canada Road
Woodside, CA 94062
October 10, 2007

Subject: Assessment of the Executive Park Project, City and County of San Francisco.

Dear Ms. Zwierlein,

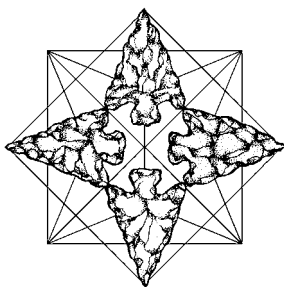
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Sincerely,

Allen G. Pastron
President



ARCHEO-TEC
CONSULTING ARCHAEOLOGISTS

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA 95024

October 10, 2007

Subject: Assessment of the Executive Park Project, City and County of San Francisco.

Dear Ms. Sayers,

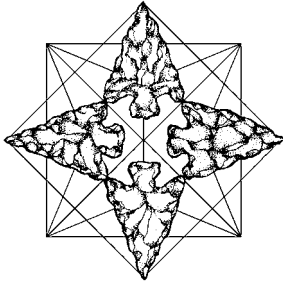
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Sincerely,

Allen G. Pastron
President



ARCHEO-TEC
CONSULTING ARCHAEOLOGISTS

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
P.O. Box 360791
Milpitas, CA 95036

October 10, 2007

Subject: Assessment of the Executive Park Project, City and County of San Francisco.

Dear Ms. Cambra,

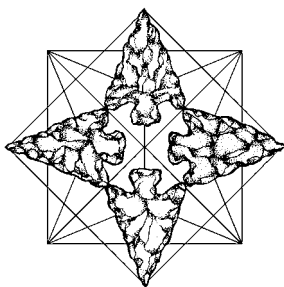
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Sincerely,

Allen G. Pastron
President



ARCHEO-TEC
CONSULTING ARCHAEOLOGISTS

The Ohlone Indian Tribe
Andrew Galvan
P.O. Box 3152
Mission San Jose, CA 94539

October 10, 2007

Subject: Assessment of the Executive Park Project, City and County of San Francisco.

Dear Mr. Galvan:

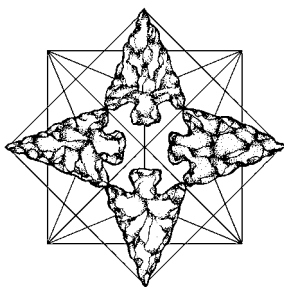
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At this time, I request that you assess whether the above-mentioned project will encroach upon any areas deemed sacred by the Native American community. If possible, please send any response you may have by October 25, 2007. As always, please feel free to fax any information you may have in regard to this project.

Sincerely,

Allen G. Pastron
President



ARCHEO-TEC
CONSULTING ARCHAEOLOGISTS

Trina Marie Ruano Family
Ramona Garibay, Representative
16010 Halmar Lane
Lathrop, CA 95330

October 10, 2007

Subject: Assessment of the Executive Park Project, City and County of San Francisco.

Dear Ms. Garibay,

I am conducting a cultural resources assessment in the City and County of San Francisco, California. The proposed project is located and described as follows:

The Executive Park Project is situated in the southern part of the City and County of San Francisco, just east of U.S. 101 and along the borders of San Francisco and San Mateo counties. As depicted on the enclosed map, this project is shown on the 1956 South San Francisco, California 7.5 USGS topographic quadrangle map, within T.2S & R.4W (Photorevised 1995 & 1999). I am conducting this cultural resources research at the request of Arlyn Purcel of Turnstone Consulting.

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Sincerely,

Allen G. Pastron
President

APPENDIX C: WATER SUPPLY



SAN FRANCISCO PUBLIC UTILITIES COMMISSION

1155 Market St., 11th Floor, San Francisco, CA 94103 • Tel. (415) 554-3155 • Fax (415) 554-3161 • TTY (415) 554.3488



May 6, 2009

GAVIN NEWSOM
MAYOR

ANN MOLLER CAEN
PRESIDENT

F.X. CROWLEY
VICE PRESIDENT

FRANCESCA VIETOR
COMMISSIONER

JULIET ELLIS
COMMISSIONER

ED HARRINGTON
GENERAL MANAGER

Ms. Arlyn Purcell
Turnstone Consulting
330 Townsend St., Suite 216
San Francisco, CA 94107

RE: Executive Park Project Water Supply Assessment

Dear Ms. Purcell

I am writing in response to your request for an assessment of adequate water supply for the Executive Park Development Project, which includes new development plans for approximately 1,600 additional units. As confirmed by the San Francisco Planning Department, the proposed development was included within the growth projections for the region as forecasted in the City and County of San Francisco Planning Department's Land Use Allocation 2002 (LUA 2002).

The SFPUC Urban Water Management Plan Update 2005 (UWMP) projects water use in the City and County of San Francisco through year 2030. The water use projections are related to population and business trends forecast by the Association of Bay Area Governments (ABAG) Projections 2002 as well as San Francisco Planning Department's Land Use Allocation 2002 (LUA 2002) projections. As such, the SFPUC has included the water demands associated with the proposed project in future water demands for the City and County of San Francisco.

The UWMP 2005 provides plans to meet the City and County of San Francisco's future water demands through 2030. The proposed project will not result in major expansion of the water utility system.

Please feel free to contact Molly Petrick with any further questions or concerns at (415) 934-5767 or mpetrick@sfwater.org

Sincerely,

Paula Kehoe
Director of Water Resources, SFPUC

Cc: Joy Navarrete, Planning Department

PLACE
POSTAGE
HERE

Joy Navarrete
San Francisco Planning Department
Major Environmental Analysis Division
1650 Mission Street, Suite 400
San Francisco, CA 94103

PLEASE CUT ALONG DOTTED LINES

PLEASE RETURN THIS POSTCARD TO REQUEST A COPY OF
THE FINAL ENVIRONMENTAL IMPACT REPORT

(NOTE THAT THE DRAFT EIR PLUS THE COMMENTS AND RESPONSES
DOCUMENT CONSTITUTE THE FINAL EIR)

REQUEST FOR FINAL ENVIRONMENTAL IMPACT REPORT

Planning Department Case No. 2006.0422E

Executive Park Subarea Plan and Development Projects

Check one box: ☐ Please send me a copy of the Final EIR on CD-ROM.
 ☐ Please send me a paper copy of the Final EIR.

Signed: _____

Name: _____

Street: _____

City: _____ State: _____ Zip: _____
