

CHAPTER V

ALTERNATIVES

A. INTRODUCTION

CEQA requires an evaluation of the comparative effects of a range of reasonable alternatives to the project that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the project's significant effects (*CEQA Guidelines* Section 15126.6(a)). The range of alternatives is governed by the "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice (Section 15126.6(f)). Evaluation of a No Project Alternative and identification of an environmentally superior alternative are required. The significant effects of the alternatives shall be discussed, but in less detail than the significant effects of the proposed project (Section 15126.6(d)).

This chapter discusses the following alternatives to the proposed project: 1) a No Project Alternative, consisting of subalternatives addressing no subsequent development and reasonably foreseeable development; 2) an IP (Industrial Park) Zoning District Alternative; 3) a Reduced Height Alternative; and 4) a Split-Site Alternative. The components of these alternatives are described below, including a discussion of their impacts and how they would differ from those that would occur with the proposed project.

The *CEQA Guidelines* require that an EIR briefly describe the rationale for selecting the alternatives to be discussed (Section 15126.6(a)), and suggest that an EIR also identify any alternatives that were considered by the lead agency but were rejected as infeasible (Section 15126.6(c)). This chapter of the EIR also addresses these issues.

B. FACTORS IN SELECTION OF ALTERNATIVES

The alternatives addressed in this EIR were selected in consideration of one or more of the following factors:

- the extent to which the alternative would accomplish most of the basic objectives of the project (see "Project Sponsor's Objectives" in Chapter III);
- the extent to which the alternative would avoid or lessen any of the identified significant adverse environmental effects of the project;
- the feasibility of the alternative, taking into account site suitability, economic viability, availability of infrastructure, consistency with regulatory limitations, and the reasonability of the project sponsor's acquiring or controlling the site;

- the appropriateness of the alternative in contributing to a “reasonable range” of alternatives necessary to permit a reasoned choice; and
- the requirement of *CEQA Guidelines* to consider a “no project” alternative as well as an “environmentally superior” alternative (*CEQA Guidelines*, Section 15126.6).

In consideration of the above factors, four alternatives were selected to be addressed in this EIR. Each of these alternatives is described in Section V.C, below, together with the basis for their selection.

C. DESCRIPTIONS OF ALTERNATIVES AND BASES FOR THEIR SELECTION

SUBALTERNATIVE 1A: NO PROJECT—NO SUBSEQUENT DEVELOPMENT ALTERNATIVE

The No Project —No Subsequent Development Subalternative is included in this EIR because *CEQA Guidelines*, Section 15126.6(e)(1) requires that an EIR evaluate a “no project” alternative along with its impact in order to provide a comparison of the impacts of approving the proposed project with the impacts of not approving the proposed project. Pursuant to *CEQA Guidelines*, Section 15126.6(e)(3)(B), the No Project Alternative—No Subsequent Development Subalternative discusses the “property remaining in its existing state.”

Under the No Subsequent Development Subalternative, the project would not be constructed and all site characteristics would remain in their existing condition, as described in Chapter III, Project Description, and in the setting sections of Chapter IV of this EIR. No zoning map, or Zoning Text Amendment, or other approvals would be required under this subalternative.

SUBALTERNATIVE 1B: NO PROJECT—REASONABLY FORESEEABLE DEVELOPMENT ALTERNATIVE

The No Project—Reasonably Foreseeable Development Subalternative is included in this EIR because *CEQA Guidelines* Section 15126.6(e)(2) requires that the No Project Alternative shall discuss “what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.”

This subalternative is based on an existing vacant site, and what would reasonably be expected to occur in the future based on a use or uses permitted under the existing General Plan, consistent with available infrastructure and community services. As discussed in Section IV.A, Land Use and Planning, the General Plan designation for the site is Light Industrial (Research and Development) and the zoning designation is GI (General Industrial). Potential land uses that are permitted and that could be developed at the project site include one or more of the following: a manufacturing, processing, fabricating, or some kind of assembly operation; a wholesale

business, storage, or warehousing use; research, film, experimental or testing laboratories; and parking lots and garages (Zoning Ordinance, Section 19.2). The intensity and extent of the development would depend on which of these specific use(s) would be developed on the site. It is assumed that all onsite and offsite infrastructure (including transportation and utility improvements) would be constructed at a sufficient level to serve the proposed development, and that Cargill would continue to have access to its easements until they expire in the year 2010. The Marine Science Institute use would not be assumed to be a part of the No Project Alternative.

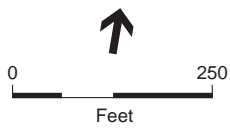
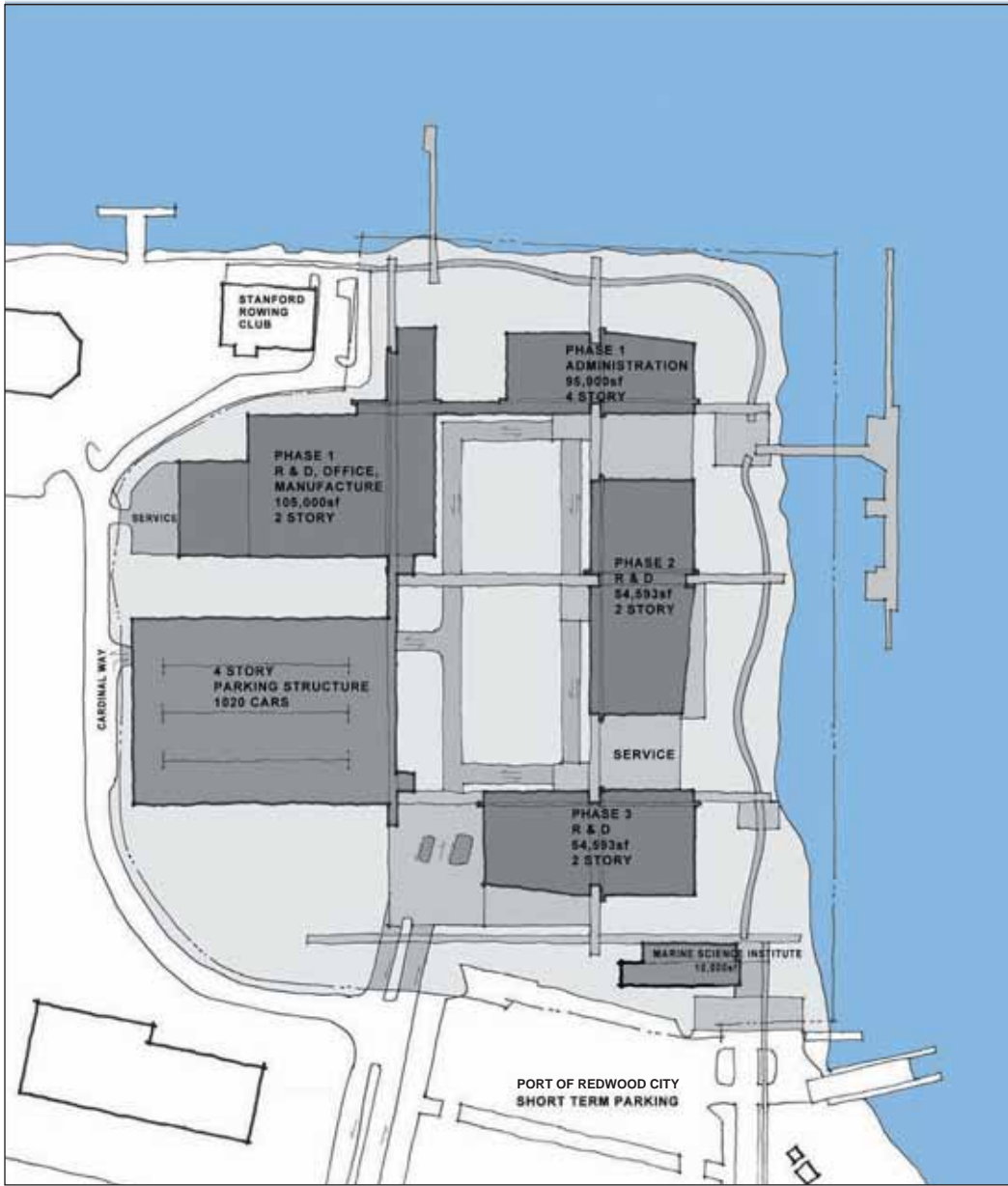
ALTERNATIVE 2: INDUSTRIAL PARK ZONING DISTRICT ALTERNATIVE

The basis for selection of the Industrial Park (IP) Zoning District alternative is to examine a mix of land uses that conform to the uses permitted in the IP Zoning District, as well as to develop an alternative that conforms to the IP Zoning District's building height limits (3 stories or 50 feet, whichever is greater) and floor-area-ratio requirements (40 percent). Because this would also be a reduced-intensity alternative, it would have lesser impacts related to onsite population, including, in particular, traffic. An illustrative example of this alternative is shown in Figure V-1.

The Industrial Park (IP) Zoning District seeks to "...develop modern, large-scale administrative facilities, research institutions, specialized manufacturing organizations, and specified retail establishments all of a type in which the architecture, landscaping, and operations of the uses is such that each is a credit to the other and investment in well designed and maintained plants and grounds is secured by the maintenance of the highest standards throughout the district (Zoning Ordinance, Section 18.1)." As such, the IP Zoning Alternative assumes the construction of a campus-like development that would contain the maximum amount of administrative, business, and professional offices; research, experimental, or testing laboratories; precision instrument and device manufacturing; as well as warehousing uses allowable in this zoning district.

In the illustrative example of this alternative, this mix of uses would be contained in four buildings on the site oriented around a central quad and would be developed in three phases. Similar to the project, buildout of the IP Zoning District Alternative would occur over a period of approximately 10 years. This alternative would construct a total of as much as 309,186 sf of the uses above, and onsite buildings would be a maximum of 50 feet or three stories in height (see Figure V-1, IP Zoning Alternative).

Phase 1 of this alternative would include construction of a 95,000 sf building along the site's northeastern boundary. This four-story building would be 50 feet tall (9 feet shorter than the proposed project), and would contain R&D, office administration uses and employee amenities on the ground floor. A two-story, 105,000-sf R&D/administrative building would be located on the site's northwestern boundary. This building would contain 50,000 sf of R&D and administrative uses, 35,000 sf of space for manufacturing activities, and 20,000 sf of warehouse storage space. In Phase 2 of this alternative, a 54,593-sf R&D building would be constructed



SOURCES: Gensler; Environmental Science Associates

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Figure V-1
IP Zoning District Alternative

along the site's eastern boundary. Similarly in Phase 3, a 54,593-sf R&D building would be constructed along the site's southern boundary. Each R&D building would be two stories, compared to five stories each as proposed by the project.

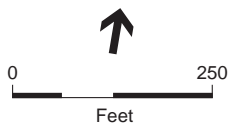
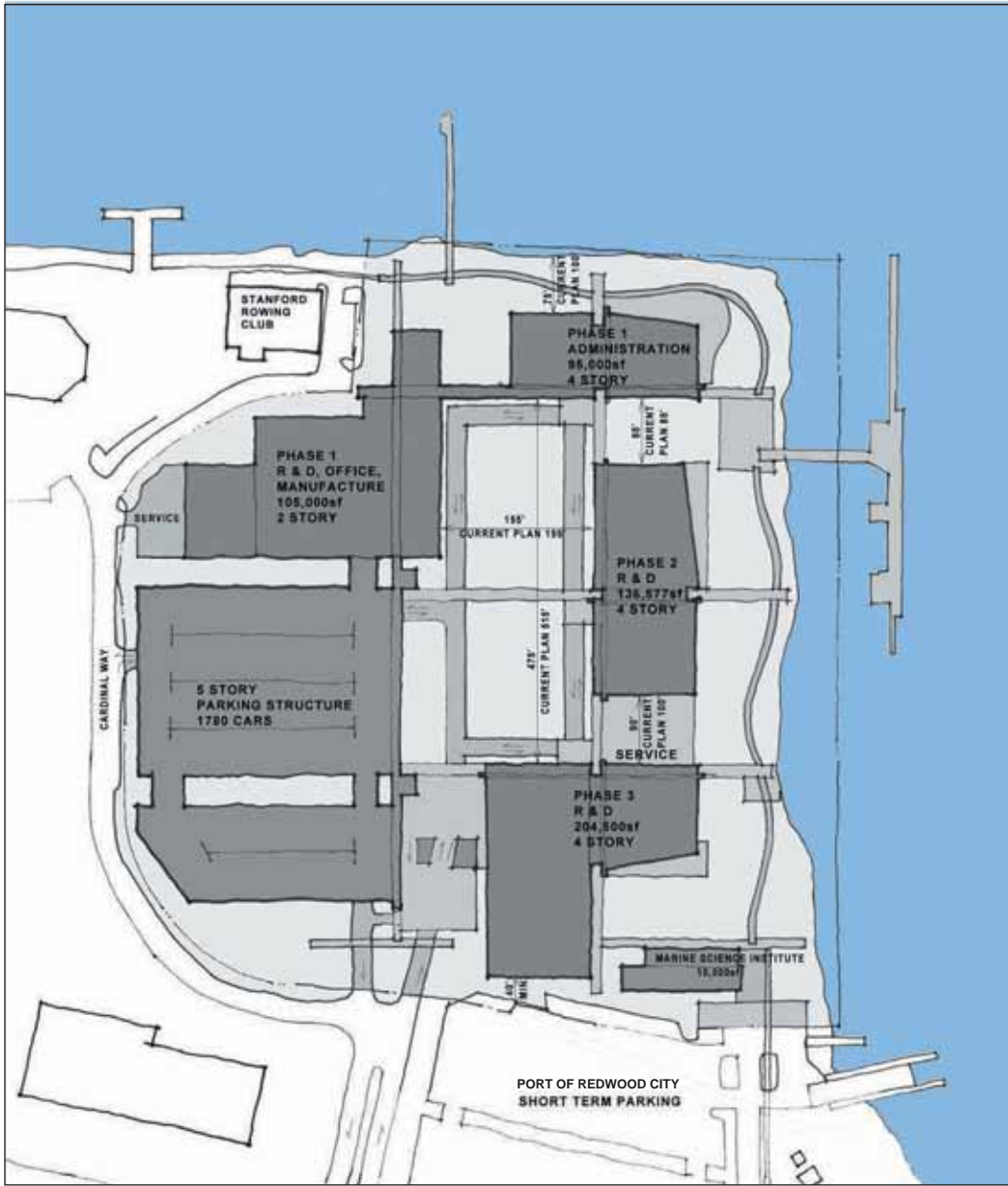
This alternative would provide approximately 1,020 parking spaces in a four-level parking structure which would be located in the site's southwestern corner. Vehicles would enter the site at the site's main entrance at Cardinal Way, pass through a security checkpoint, and would then enter the parking garage from an internal access road that would ring a central quad. Shipping and receiving would occur at loading bays adjacent to the manufacturing building, accessible from Cardinal Way, and between the Phase 2 and Phase 3 R&D buildings, accessible from the central quad. The site would be landscaped in phases in conjunction with this alternative's proposed building program, and would include a pedestrian pathway that would loop around the site's eastern and northern boundaries. Similar to the project, this Alternative assumes construction of a 10,000-sf replacement facility for the Marine Science Institute at the southeastern corner of the site. Cargill would also continue to have access to its easements until they expire in the year 2010.

ALTERNATIVE 3: REDUCED HEIGHT ALTERNATIVE

The basis for selection of the reduced height alternative is to examine land uses and intensities on the site which would conform to the 75-foot height limit of the IR Zoning District. An illustrative example of this alternative is shown in Figure V-2.

In the illustrative example, the Reduced Height Alternative would consist of the same mix of uses as the proposed project, which proposes approximately 541,000 sf of R&D, manufacturing, administrative, office and warehousing uses. These uses would be contained in buildings that would conform to the established height limits of the IR (Industrial-Restricted) Zoning District, which limit building heights to a maximum of 75 feet. This alternative would be constructed in three phases, over a period of approximately 10 years.

Phase 1 of this alternative would include construction of a four-story, 95,000 sf R&D / administrative building along the site's northeastern boundary, and would contain R&D, office administration uses, and employee amenities on the ground floor. A two-story, 105,000-sf manufacturing building would be located along the site's northwestern boundary. The manufacturing building would contain 50,000 sf of R&D and administrative uses, 35,000 sf of space for manufacturing activities, and 20,000 sf of warehouse storage space (see Figure V-2, Reduced Height Alternative). In Phase 2 of this alternative, a 136,577-sf R&D building would be constructed along the site's eastern boundary. This building would contain four levels (compared to five levels with the proposed project) and would be 40,000 sf smaller in floor area than the R&D building proposed in Phase 2 of the proposed project. In Phase 3 of this alternative, a 204,500-sf R&D building would be constructed along the site's southern boundary. This R&D building would be four stories and would be 40,000 sf larger than the R&D building proposed in Phase 3 of the preferred project.



SOURCES: Gensler; Environmental Science Associates

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Figure V-2
Reduced Height Alternative

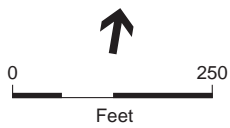
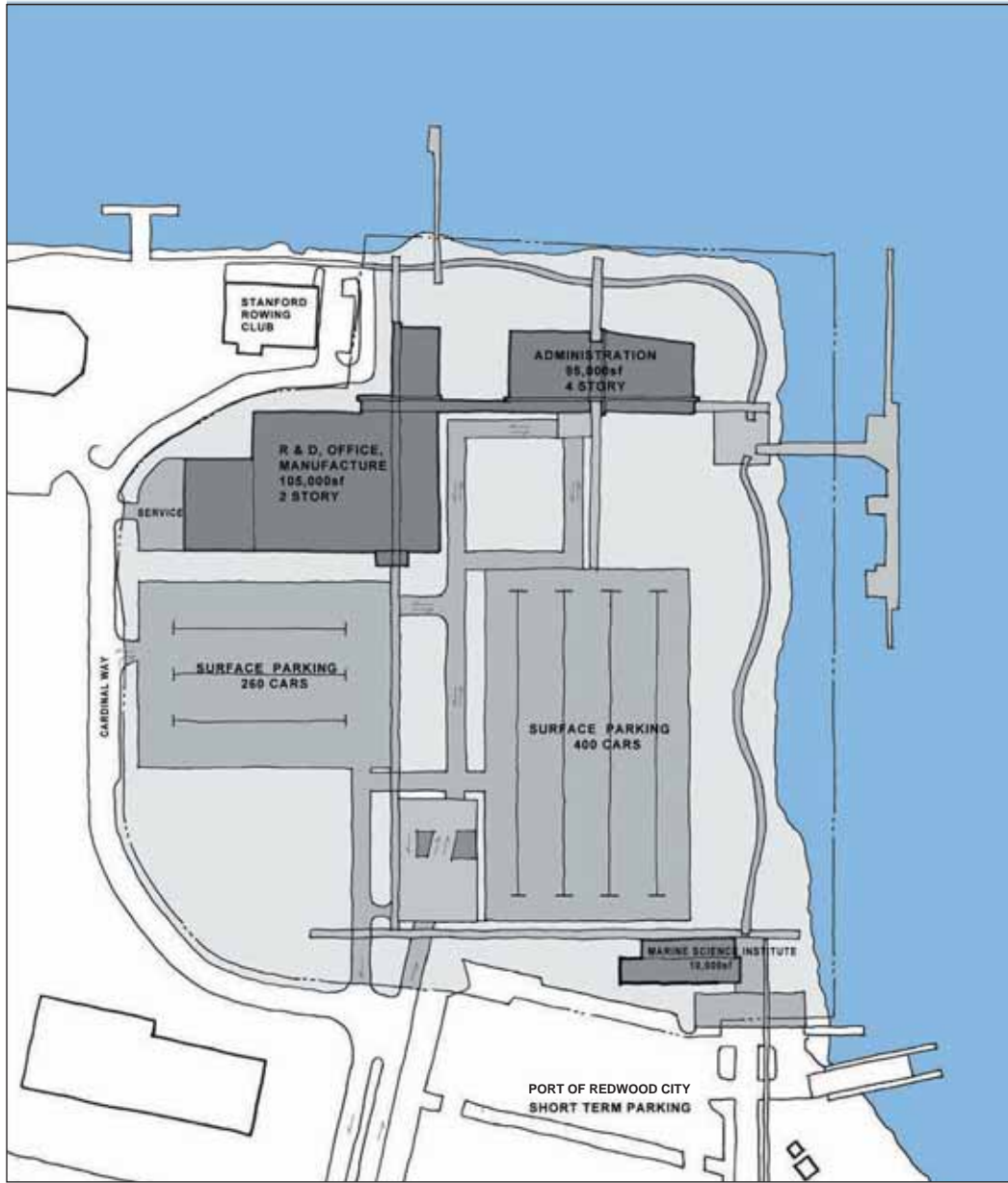
This alternative would provide approximately 1,780 parking spaces in a five-level parking structure located in the site's southwestern corner, one level taller than the parking structure included in the proposed project. Vehicles would enter the site at the site's main entrance at Cardinal Way, pass through a security checkpoint, and would then enter the parking garage from an internal access road that would ring the central quad. Shipping and receiving would occur in loading bays adjacent to the manufacturing building, accessible from Cardinal Way, and between the Phase 2 and Phase 3 R&D buildings, accessible from the central quad.

The site would be landscaped in phases in conjunction with this alternative's proposed building program, and would include a pedestrian pathway that would loop around the site's eastern and northern boundaries. Similar to the project, this alternative assumes construction of the approximately 10,000-sf Marine Science Institute at the southeastern corner of the site. Cargill would also continue to have access to its easements until they expire in the year 2010.

ALTERNATIVE 4: SPLIT-SITE ALTERNATIVE

The basis for selection of a Split-Site Alternative is to examine the distinctive environmental effects of an alternative that would develop the site at a substantially lower intensity, would conform to the height and density limits established by the General Industrial (GI) Zoning District, and that would utilize some of the substantial local inventory of available vacant commercial space. It is noted that splitting the manufacturing use from the R&D use could result in a loss of collaboration between the functions. An illustrative example of this alternative is shown in Figure V-3.

The Split-Site Alternative assumes that uses associated with the Perclose facility would be located on the site, similar to development proposed under Phase 1 of the proposed project. This alternative would consist of approximately 200,000 sf of manufacturing and limited R&D and administrative uses in two buildings along the site's northern boundary. The 95,000-sf R&D building would be four stories in height and would be constructed along the site's northeastern boundary. The R&D building would be connected to a two-story, 105,000-sf manufacturing and warehouse building. The remainder of the site area would be graded and developed with two adjoining surface parking lots with capacity for 660 vehicles (see Figure V-3, Split-Site Alternative). The remaining administrative, office and R&D uses proposed for the Abbott Laboratories' other divisions could be located off-site at Pacific Shores, or in a similar office park setting in Redwood City or other Bay Area location to be determined at a later date. The site would contain a publicly accessible pedestrian parkway along its eastern and northern boundaries. This alternative assumes construction of a 10,000-sf replacement facility for the Marine Science Institute at the southeastern corner of the site. Cargill would also continue to have access to its easements until they expire in the year 2010.



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Figure V-3
Split-Site Alternative

D. DISTINCTIVE ENVIRONMENTAL CHARACTERISTICS OF ALTERNATIVES

This section consists of descriptions of the possible environmental impacts of each alternative. Based on the Initial Study (see Appendix A), a number of potential environmental effects of the project were found to be less than significant. Under the alternatives described in this section, these effects would also be less than significant assuming mitigation measures similar to those identified in the Initial Study were implemented.

SUBALTERNATIVE 1A: NO PROJECT—NO SUBSEQUENT DEVELOPMENT ALTERNATIVE

LAND USE AND PLANNING

This alternative would not involve any new construction, and therefore would avoid temporary construction impacts to adjacent uses associated with traffic congestion, air emissions, noise increases, visual quality degradation, and public safety. Since no new development on the site is proposed, this alternative would also avoid all effects (albeit less than significant) associated with a change in land use on the project site.

GEOLOGY, SOILS, AND SEISMIC SAFETY

This alternative would not increase population on the site nor develop any new onsite land uses, and therefore would avoid the potentially significant (but mitigable) effects from seismic groundshaking, slope stability hazards, and other potential geologic hazards resulting from soil erosion, corrosion, and differential settlement that could occur under the proposed project.

HYDROLOGY AND WATER QUALITY

This alternative would not involve any new construction, including disturbance of soils, and would therefore avoid the potentially significant (but mitigable), temporary increases in soil erosion or increases in sedimentation or potential degradation of stormwater quality from the site that could occur under the proposed project. Moreover, this alternative would not increase the existing impermeable surface area on the site, and therefore would avoid the increase in water runoff from the project site that would occur under the project.

TRAFFIC, TRANSPORTATION, CIRCULATION AND PARKING

No traffic would be generated at the project site. No additional trips would be generated by uses on the site and no project impacts on study area intersections would occur since no new development would occur. As such, this subalternative would have no short- or long-term impacts on traffic and circulation in the project vicinity.

AIR QUALITY

This alternative would not involve any new construction, and therefore would avoid the potentially significant (but mitigable), temporary increases in dust that would be encountered during construction. In addition, this alternative would not introduce long-term stationary or mobile sources of air pollution, and would therefore avoid the long-term (although less than significant) increase in criteria air pollutants and localized carbon monoxide concentrations at nearby intersections that would occur under the proposed project.

NOISE

This alternative would not involve any new construction, and therefore would avoid the potentially significant (but mitigable), temporary noise impacts that would occur under the proposed project. Operational noise impacts resulting from vehicle trip generation under the proposed project would also not occur under this subalternative.

AESTHETICS AND VISUAL QUALITY

This alternative would not involve any new construction, and therefore would avoid the potentially significant (but mitigable), temporary aesthetic nuisances associated with construction that would occur with proposed project. In addition, since this alternative would not involve any long-term physical alteration to the site, it would avoid any of the visual effects (albeit less than significant) associated with potential incompatibility with surrounding land uses, potential blockage of views, and new sources of light and glare of the proposed project. However, because the site would remain in its existing state, the No Project—No Subsequent Development Alternative would not result in any of the beneficial effects associated with the development of a master-planned campus with consistent architectural themes and public access to the waterfront via a multi-use path.

BIOLOGICAL RESOURCES

This alternative would not involve any new construction, and therefore would avoid less than significant impacts to biological resources related to construction noise and pollutants (including contaminated sediments or stormwater runoff) and increased human activity on the site.

HAZARDS AND HAZARDOUS MATERIALS

Since no new development or increase in population would occur on the site under this subalternative, there would be no handling of toxic or potentially toxic materials, or hazardous waste generated on the site, and this sub-alternative would thus avoid potentially significant (but mitigable) impacts to public safety. However, the site now includes subsurface soil containing diesel fuel which would not be cleared under the No Project —No Subsequent Development Alternative.

PUBLIC SERVICES

Since no new construction or subsequent development would occur on the site under this subalternative, there would be no increase in demand for public services. However, MSI would be removed from the site. MSI, although not a public school, does provide educational facilities and services to schools throughout the Bay Area.

CULTURAL RESOURCES

This alternative would not involve any new construction or disturbance of soils at the site. Therefore, there would be correspondingly no potentially significant (but mitigable) effects to archaeological or cultural resources.

UTILITIES AND SERVICE SYSTEMS

Since no new construction or subsequent development would occur on the site under this subalternative, there would be correspondingly no increase in demand for utilities. As such, the No Project—No Subsequent Development Subalternative would avoid the proposed project's significant unavoidable impacts related to water demand.

POPULATION, JOBS, AND HOUSING

Because this alternative would not involve any construction or introduce any new uses to the site, this subalternative would neither induce population growth, nor result in increases in employment in or housing demand in Redwood City or the region. As such, the No Project—No Subsequent Development Subalternative would not result in the project's beneficial effects related to job growth.

SUBALTERNATIVE 1B: NO PROJECT—REASONABLY FORESEEABLE DEVELOPMENT ALTERNATIVE

This alternative assumes development of one or more of the following land uses at the project site: a manufacturing, processing, fabricating, or some kind of assembly operation; a wholesale business, storage, or warehousing use; research, film, experimental or testing laboratories; and parking lots and garages. These uses are permitted under the current Light Industrial (Research and Development) General Plan land use designation for the site. Given this wide range of potential uses, it is speculative to determine the specific level of environmental impact this alternative would have compared to the proposed project. However, since this alternative would involve development and induce population on the site, it is reasonable to assume it would require some disturbance of existing site soils and biological resources, increase impermeable surfaces at the site, alter the visual landscape, generate traffic (albeit fewer vehicle trips than the proposed project), contain new sources of stationary and/or mobile sources of air pollution and noise, and increase demands for public services and utilities.

The project site would not be expected to generate as much onsite employment, because the GI Zoning District regulations would only allow industrial and warehouse uses and a small amount

of accessory office use (maximum 10% FAR). Therefore, the site would not accommodate as many jobs, and the types of jobs would be different from those of the proposed project. The No Project— Reasonably Foreseeable Development Alternative would result in employment growth of just over 1,000 jobs in the project area, about one-third less employment growth that would be accommodated under the proposed project. This would represent about 17 percent of the job growth projected for Redwood City from 2000 through 2010 and eight percent of the total job growth projected for the city through 2020.

The placement of light industrial/R&D uses on the project site would be similarly compatible with the existing exterior environment in terms of use, activity, and level of intensity on the project site and in the surrounding area.

ALTERNATIVE 2: INDUSTRIAL PARK (IP) ZONING DISTRICT ALTERNATIVE

LAND USE AND PLANNING

Under the Industrial Park (IP) Zoning District Alternative, the site could be developed with a master plan and design guidelines, which would include a mix of uses similar to the proposed project. However, in contrast to the proposed project, the development intensity on the site would be restricted to the floor-area-ratio limits of the IP Zoning District, which permits a maximum FAR of 40 percent, or a total of 309,186 sf, and a maximum building height of 50 feet or three stories. This alternative would therefore result in substantially less development intensity on the site, consisting of a total of 231,891 square feet less than the proposed project. Similar to the proposed project, this alternative would require both a zoning text and zoning map amendment because the project site would require rezoning from its current zoning designation of General Industrial (GI) to Industrial Park (IP).

Onsite structures would be developed to a height which would be approximately 34 feet shorter than project buildings, consistent with the IP Zoning District's 50-foot height limit. The surrounding development in Seaport Center is in the IP Zoning District and thus a rezoning to IP would be compatible with the area. The IP zone would also be compatible with the General Plan land use designation of Light Industrial, Research and Development. Because this alternative would contain less square footage, potentially significant impacts related to site construction would likely be less than those of the proposed project, and would still be mitigable to less-than-significant levels. This alternative proposes a mix of uses similar to existing uses in the surrounding area, although the size, scale and mix of uses in this alternative would be less than that of the proposed project. Therefore, effects associated with the change of land use on the site would be similar (although slightly less than) the effects of the proposed project, and would result in less than significant land use impacts.

GEOLOGY, SOILS, AND SEISMIC SAFETY

This alternative would increase population on the site and develop new onsite uses, and therefore, would have similar potentially significant (but mitigable) effects from seismic groundshaking,

and potential geologic hazards resulting from soil erosion, corrosion, and differential settlement that could occur under the proposed project. Implementation of measures B.1 through B.4 as well as the recommendations in the project's geotechnical report would ensure that effects related to geology, soils and seismicity would be less than significant.

HYDROLOGY AND WATER QUALITY

Under the IP Zoning District Alternative, construction impacts for the IP Zoning District Alternative would be similar to those for the proposed project. However, the duration of construction would be shorter for this alternative given the overall less intensive development proposed under this alternative than in the proposed project. Implementation of Mitigation Measure C.1, requiring the applicant to develop and implement a Stormwater Pollution and Prevention Plan, as required by the project, would ensure that construction activities under this alternative would not adversely affect water quality.

Because the project site would be developed with uses similar to the proposed project at a lower level of intensity, no additional sources of surface or groundwater contaminants would be expected following construction. Additionally, this alternative would involve a smaller increase in the amount of impermeable surface area on the site in comparison with the proposed project, and would therefore result in less increase in volume of stormwater runoff caused by this alternative. Implementation of measures C.2 through C.4 for the proposed project would ensure that effects related to flooding, storm water runoff, and water quality would be less than significant under this alternative.

TRAFFIC, TRANSPORTATION, CIRCULATION AND PARKING

The IP Zoning District Alternative is estimated to generate about 2,320 daily vehicle trips, with about 170 and 310 trips during the AM and PM peak hour, respectively, which would be about 36 to 42 percent fewer daily and peak-hour vehicle trips than the proposed project. The near-term project impact at the Broadway / Woodside Road intersection [#13] and on eastbound State Route 84 (Bayfront Expressway) would be reduced to a less-than-significant level under this alternative, because the 36 to 42 percent fewer trips would markedly exceed the thresholds established for the level of trip reduction required to be achieved by enhanced Travel Demand Management (TDM) measures to eliminate impacts of the proposed project. Similar to the proposed project, this alternative would contribute to the potential safety impact at the Veterans Boulevard / Woodside Road intersection [#14] (significant unavoidable); increase traffic volumes on freeway ramps (less than significant); affect transit, pedestrian and bicycle conditions (less than significant); and increase demand for parking (less than significant).

This alternative would result in significant impacts identified under cumulative conditions (like the proposed project) because it would also add traffic to the surrounding roadway system (albeit to a lesser degree than the proposed project), which would result in either degraded levels of service, or increases in average delay of more than five seconds, at study area intersections; except for mitigation measures D.9b and D.9c, mitigation measures D.9a-D.9f identified in this report would be mitigated to less-than-significant levels (although implementation of mitigation

measures D.9d-D.9f would require approval by agencies other than the City of Redwood City). This alternative would also result in increased traffic volumes on area freeways in cumulative conditions (like the proposed project), but unlike the proposed project, the reduced trip generation for this alternative would cause less-than-significant impacts.

Construction of this alternative would be phased like the proposed project and would also result in temporary, short-term construction impacts in each construction phase. Because this alternative would require considerably less construction than the proposed project, potentially significant but mitigable construction-related traffic impacts would accordingly be less than with the proposed project. The resultant construction effects could be mitigated to less-than-significant levels with implementation of mitigation measure D.7 identified by this EIR. It should be noted that similar to the proposed project, this alternative would be required to implement a TDM program to aggressively reduce the overall impact that this alternative would have on traffic, transportation and circulation.

AIR QUALITY

Construction air quality impacts for the IP Zoning District Alternative would be similar to those for the proposed project, although the duration of construction would be shorter for this alternative given the overall less intensive development proposed under the IP Zoning District Alternative compared to the proposed project. Construction impacts would be considered less than significant with the implementation of the dust abatement measures identified under Mitigation Measure E.1 for the proposed project.

Operational impacts for this alternative were analyzed by comparing trip generation estimates for this alternative to the proposed project. As the number of daily trips generated in this alternative would be approximately 36 to 42 percent lower than the proposed project, the associated air quality impacts would also be lower than the proposed project. Thus, the operational impacts of this alternative on regional air quality would be less than significant. Also, since this alternative is expected to have a lower trip generation than the proposed project during the AM and PM peak-hours, carbon monoxide impacts for project and cumulative conditions would be proportionally lower than those estimated for the proposed project and would be well below the state and national ambient air quality standards for carbon monoxide. Therefore similar to the project, this impact would be less than significant.

NOISE

Construction noise impacts for the IP Zoning District Alternative would be similar to those for the proposed project. The duration of construction would also be shorter, as this alternative would entail less intensive development than the proposed project. Therefore, the duration of the impact on nearby noise-sensitive receptors would be shorter, and the impacts to noise would be considered less than significant with the implementation of the measures identified under Mitigation Measures F.1a, F.1b, F2.a and F2.b for the proposed project. Moreover, should the applicant pursue a construction schedule which could entail pile driving around the clock, the

applicant would be required to implement Mitigation Measure F.2c identified by this EIR to reduce construction noise to less-than-significant levels.

Since this alternative is expected to have a lower trip generation than the proposed project during the AM and PM peak hours, the associated roadside noise impacts for project and cumulative conditions would be proportionally lower than those estimated for the proposed project. Thus, this alternative would result in less than significant impacts on roadside noise levels. Other operational impacts from stationary noise sources such as HVAC equipment and truck loading/unloading would be similar to the proposed project and hence, less than significant.

AESTHETICS AND VISUAL QUALITY

Development of the uses proposed as part of the IP Zoning District Alternative, like the proposed project, would substantially alter the visual character of the site. The development would construct a master-planned office/R&D park that would likely be more comparable in scale to existing light industrial/office park adjacent to the site in the Seaport Center (which has an average FAR of approximately 33%) than of the proposed project, given this alternative's reduced building program. In the context of the existing surrounding uses, this alternative would therefore not be visually incompatible.

This alternative would construct lower buildings on the site (2- to 4-stories as opposed to up to 5 stories under project conditions), resulting in considerably less square footage (and more onsite open space) than the proposed project. This is particularly evident at the southwest corner of the site at the location of the parking structure. The parking structure would occupy a smaller footprint, similar in size to the parking structure constructed in Phase 1 of the proposed project. The absence of building mass in the southwest of the site would provide more views to the site from public viewpoints along Cardinal Way and in the Seaport Center however, these views would terminate within the interior of the project site, similar to conditions expected under the project. It should, however, be noted that the provision of additional open space at that location on the site would not in itself constitute a visual amenity. Similar to the proposed project, the IP Zoning District Alternative would be required to implement Mitigation Measures G.1, G.2, and G.4, which would require the applicant to submit a demolition and construction plan, a master plan and design guidelines, and a lighting plan for review and approval by the Redwood City Community Development Service Director and Planning Services Department.

The effects associated with the change in visual character on the site under this alternative would differ from the effects of the proposed project given its reduced height and floor area. The lower building height could improve the pedestrian experience along the waterfront multi-use path since the building wall heights proposed by the project would be reduced by about 50%. Because of the existing state of the former industrial site with low visual quality, implementation of this alternative would, similar to the proposed project, result in less-than-significant (i.e., beneficial) impacts to aesthetics and visual quality.

BIOLOGICAL RESOURCES

Since this alternative would develop the site with a footprint similar to that of the proposed project, impacts to biological resources resulting from construction noise and pollutants (including contaminated sediments or stormwater runoff), and increased human activity on the site, would also likely be similar to the proposed project. Accordingly, these impacts could be mitigated to less-than-significant levels by implementing Mitigation Measures C.1a-C.3d and BMPs related to stormwater runoff included in the project.

HAZARDS AND HAZARDOUS MATERIALS

This alternative would involve new construction, and therefore, would have impacts (albeit less than significant) associated with the potential transportation, handling or storage of hazardous materials used during project construction (and potentially project operation), similar (though slightly less than) to those which would occur with the proposed project, given the overall reduced levels of activity on the site proposed under this alternative. This would also include implementing the project's Mitigation Measure I.1 which would require the sponsor to include area evacuation and business evacuation plans as a part of its business plan and to conduct onsite hazardous materials training and orientation to hazardous conditions at least every 18 months.

PUBLIC SERVICES

This alternative would result in less overall development on the site and would not likely create a significant demand for public services. This alternative would create approximately 590 new jobs and result in an increase of approximately 148 new Redwood City residents. The total number of K-12 public school students would range from approximately 80 to 165, about 68 to 130 students less than under the proposed project. This alternative would generate the demand for approximately 0.26 acres of additional parkland due to the increase in resident population; however, similar to the project, this alternative's provision of publicly accessible open space would offset this additional demand. With implementation of the measures identified under Mitigation Measures J.1 through J.7 for the project, the potential effects to public services, including the Redwood City Police Department (police services), Fire Department (fire and emergency medical services), Parks, Recreation, and Community Services Department (parks and recreation), Redwood City School District and the Sequoia Union High School District (schools), and child care demand would be less than would occur under the proposed project, and would be similarly less than significant.

CULTURAL RESOURCES

This alternative would result in the demolition of onsite structures, the removal of the portable facilities occupied by the Marine Science Institute, disturbance of soils due to site grading, and construction of a coordinated, master-planned campus consisting of 309,186 sf of administrative office, R&D and manufacturing uses, as well as an approximately 10,000-sf replacement facility for MSI. Potentially significant impacts associated with inadvertent damage to Native American resources, other archaeological resources, or onsite architectural or historic resources could be mitigated to less-than-significant levels with the implementation of measures K.1 and K.2

identified for the proposed project. Thus, development of this alternative would similarly result in less-than-significant impacts related to cultural resources.

UTILITIES AND SERVICE SYSTEMS

This alternative would result in less overall development on the site and would not likely create a greater demand for utilities and service systems than the proposed project. This alternative would result in a projected sewer demand of approximately 46,200 gpd, which would be about 41,500 gpd less than the proposed project. This alternative would likely result in the generation of approximately 538,000 pounds of non-hazardous solid waste per year, about 400,000 pounds fewer per year than proposed by the project. Projected energy use would be approximately 36,500 therms per year of natural gas and approximately 10,950 megawatts per hour of electricity. With implementation of the measures identified under Mitigation Measures L1 through L.11 for the project, the potential effects to utilities and service systems, including the Seaport Center Sewer System (sanitary sewer), Ox Mountain Sanitary Landfill (solid waste disposal), Pacific Gas and Electric (energy), and AT&T and SBC (telecommunications service providers) would be less than would occur under the proposed project. Projected water use would be approximately 64,000 gpd, which would be about 58,500 gpd less than proposed under the project. However, because of the uncertainty of future water sources and the effectiveness of mitigation measure L1.a, impacts related to water supply would still be considered significant and unavoidable under this alternative.

POPULATION, JOBS, AND HOUSING

The employment growth associated with the IP Zoning District Alternative would represent about 17 percent of the job growth projected for Redwood City from 2000 through 2010, and eight percent of the total job growth (about 590 jobs compared to about 1,036 jobs attributable to the proposed project) projected for the city through 2020, a beneficial impact, yet at a level less than that associated with the proposed project. This alternative would offer job opportunities in a range of occupations and skill levels. In the short-term, this alternative would provide employment options for some who have lost their jobs in the recent economic downturn that has affected the technology sector so severely. This amount and type of economic activity is consistent with the longer-term regional forecast for growth in Redwood City, San Mateo County, and the rest of the Bay Area. The type of development and associated economic activity and employment represented by this alternative are part of the economic base that underlies assumptions about continued economic growth and employment growth in the Bay Area.

In the near term, it is likely that many of the jobs associated with development under this alternative would be filled by people in the local labor market currently unemployed or underemployed. Over the longer term, the jobs associated with this alternative would attract some new residents to the area, but the numbers would be small in the context of the local housing market.

ALTERNATIVE 3: REDUCED HEIGHT ALTERNATIVE

LAND USE AND PLANNING

New land uses would be introduced to the project site under the Reduced Height Alternative, which, similar to the project, would constitute a substantial change to the project site because this alternative would develop a mostly-vacant site with approximately 541,000 sf of R&D, manufacturing, administrative, office and warehousing uses. With respect to land use, this alternative would construct buildings that would be consistent with the 75-foot height limit for the IR Zoning District. Thus, the Phase 2 and Phase 3 buildings would be approximately 9 feet lower than under project conditions. The reduction in building height would result in onsite buildings having a slightly larger footprint (i.e., more site coverage) compared to the proposed project. As shown in Figure V-2, the building footprints would reduce the amount of internal onsite open space, resulting in a reduction in the distance between the Phase 2 and 3 buildings (from a distance of 100 linear feet to 90 linear feet) and reduction in the overall size of the site's central quad area (from 515 linear feet to 475 linear feet), which would result in an approximately 92,625 sf of internal open space in the central quad compared to about 110,000 sf included as part of the proposed project. Additionally, the Phase 1 building would be setback approximately 75 feet from the site's northern (publicly accessible) shoreline under this alternative instead of 100 feet under the proposed project.

This alternative would not result in adverse land use impacts, and because it would develop the site with a mix of uses similar to those in the surrounding area and it would neither divide nor disrupt the existing neighborhood. Moreover, development of this alternative would be consistent with the General Plan's Light Industrial (Research and Development) designation for the site, and the alternative would also meet the IR Zoning Ordinance's height limit requirements. Although this alternative would result in buildings with slightly larger footprints, it is expected that it would result in similar, hence less than significant, effects related to land use and planning consistency given its consistency with the Zoning Ordinance's height limits.

GEOLOGY, SOILS, AND SEISMIC SAFETY

This alternative would increase population on the site and develop new onsite uses, and would therefore have similar potentially significant (but mitigable) effects from seismic groundshaking, and potential geologic hazards resulting from soil erosion, corrosion, and differential settlement that could occur under the proposed project. Implementation of measures B.1 through B.4, as well as the recommendations in the project's geotechnical report would ensure that effects related to geology, soils and seismicity would be less than significant.

HYDROLOGY AND WATER QUALITY

Under the Reduced Height Alternative, the project site would be developed with uses similar to the proposed project, and therefore no additional sources of surface or groundwater contaminants would be expected following construction. However, this alternative would have a slightly larger increase in the amount of impermeable surface area on the site (i.e., larger building footprints), in comparison with the preferred project, and therefore would cause slight increases in storm water

runoff volumes. Implementation of measures C.1 through C.4 for the proposed project would ensure that effects related to construction impacts, flooding, storm water runoff, and water quality would be less than significant.

TRAFFIC, TRANSPORTATION, CIRCULATION AND PARKING

Given that the Reduced Height Alternative would construct the same amount of square footage (541,077 sf) and consist primarily of the same mix of uses as the proposed project, the Reduced Height Alternative would be expected to result in the same trip generation, trip distribution and trip assignment characteristics as the proposed project. As such, impacts (near-term and cumulative) at area intersections, on freeway ramps and mainline segments, on transit, pedestrian and bicycle conditions, and parking, as well as temporary construction impacts, would be the same as with the proposed project.

AIR QUALITY

Construction impacts for the Reduced Height Alternative would be similar to those for the proposed project, and would be considered less than significant with the implementation of the dust abatement measures identified under Mitigation Measure E.1 for the proposed project.

Operational impacts of the alternatives were analyzed by comparing trip generation estimates for this alternative to the proposed project. The Reduced Height Alternative would generate the same number of trips as the proposed project resulting in a similar, albeit less than significant air quality impact as the proposed project. The Reduced Height Alternative is also expected to have the same trip generation characteristics as the proposed project and is therefore expected to have the same carbon monoxide impacts (less than significant) as those identified for the proposed project.

NOISE

Construction impacts related to noise for the Reduced Height Alternative would be similar to those of the proposed project. Construction noise impacts would also be considered less than significant with the implementation of measures identified under Mitigation Measures F.1a, F.1b, F.2a, and F.2b identified for the proposed project. Moreover, should the applicant pursue a construction schedule which could entail pile driving around the clock, the applicant would be required to implement Mitigation Measure F.2c identified by this EIR to reduce construction noise resulting from 24-hour pile driving activities to less-than-significant levels.

The Reduced Height Alternative is expected to have the same trip generation characteristics as the proposed project and is therefore expected to have the same traffic noise impacts (less than significant) as those identified for the proposed project.

AESTHETICS AND VISUAL QUALITY

Development of the Reduced Height Alternative would constitute a change to the visual character of the site because this alternative would develop a mostly-vacant, former industrial site with

manufacturing, office and light industrial uses. Similar to the project, this alternative would not adversely impact the visual quality of the site because it would construct uses similar to those in the immediate vicinity with consistent architectural themes, though at a slightly larger scale and intensity than buildings in the surrounding neighborhood. The FAR for the Reduced Height Alternative, similar to the proposed project, would be 70% compared to an FAR of 33% in the Seaport Center, and an FAR of 66% at Seaport Plaza.

Although the Phase 2 and Phase 3 buildings would be 9 feet shorter than those of the proposed project, effects related to views and potential view obstruction would continue to be similar (or slightly less than) to the proposed project. As in the project, views of Redwood Creek and Bair Island to the north would still be available from public viewpoints along the shoreline band on the eastern side of the site, and as under project conditions, views would be partially or completely blocked from public viewpoints from Cardinal Way to the site's west. However, because of the existing state of the former industrial site with low visual quality, implementation of this alternative and mitigation measures G.1, G.2 and G.4 would, similar to the proposed project, result in less-than-significant (i.e., beneficial) impacts to aesthetics and visual quality.

BIOLOGICAL RESOURCES

Impacts to biological resources resulting from construction noise and pollutants (including contaminated sediments or stormwater runoff), and operational effects of this alternative and increased human activity on the site, would likely be similar to those under the proposed project (less than significant). Accordingly, these impacts could be mitigated to less-than-significant levels by implementing Mitigation Measures C.1a-C.3d and BMPs related to stormwater runoff included in the project.

HAZARDS AND HAZARDOUS MATERIALS

This alternative would involve new construction, and therefore, would have impacts (albeit less than significant) associated with the potential transportation, handling or storage of hazardous materials used during project construction (and potentially project operation), similar to those which would occur with the proposed project. This would also include implementing the project's Mitigation Measure I.1 which would require the sponsor to include area evacuation and business evacuation plans as a part of its business plan and to conduct onsite hazardous materials training and orientation to hazardous conditions at least every 18 months.

PUBLIC SERVICES

This alternative would result in approximately the same level of development on the site. Under this alternative, there would be same number of new jobs as proposed by the project and the increase in Redwood City residents would also stay the same. The total number of K-12 public school students would be approximately the same as proposed under the project. This alternative would generate the demand for approximately the same amount of additional parkland due to the increase in resident population. Thus, with implementation of the measures identified under Mitigation Measures J.1 through J.7 for the project, the potential effects to public services,

including police services, fire and emergency medical services, parks and recreation, schools, and child care would be similarly less than significant.

CULTURAL RESOURCES

This alternative would result in the demolition of onsite structures, the removal of the portable facilities occupied by the Marine Science Institute, site grading, and construction of a coordinated, master-planned campus consisting of approximately 541,000 sf of administrative office, R&D and manufacturing uses, as well as an approximately 10,000-sf replacement facility for MSI. Potentially significant impacts associated with inadvertent damage to Native American resources, other archaeological resources, or onsite architectural or historic resources could be mitigated to less-than-significant levels with the implementation of measures K.1 and K.2 for the proposed project. Thus, development of this alternative would similarly result in less-than-significant impacts related to cultural resources.

UTILITIES AND SERVICE SYSTEMS

This alternative would result in approximately the same level of development on the site. Projected sewer demand would therefore be approximately 88,037 gpd. This alternative would likely result in the generation of approximately the same amount of non-hazardous solid waste per year as proposed by the project. Projected energy use would also be about the same as proposed by the project. Thus, with implementation of the measures identified under Mitigation Measures L1 through L.11 for the project, the potential effects to utilities and service systems, including sanitary sewer, solid waste disposal, energy, and telecommunications service providers would be similar to the proposed project. Projected water use would be approximately 122,551 gpd and, because of the uncertainty of future water sources and the effectiveness of mitigation measure L1.a, impacts related to water supply would still be considered significant and unavoidable under this alternative.

POPULATION, JOBS, AND HOUSING

This alternative would result in the same amount and type of development as the proposed project. The amount and type of jobs accommodated on the project site would be the same as the proposed project, namely, this alternative would result in 1,531 net new employees in Redwood City at buildout. Therefore, the impacts and mitigation measures M.4a and M.4b identified for the proposed project would also apply under this alternative.

ALTERNATIVE 4: SPLIT-SITE ALTERNATIVE

LAND USE AND PLANNING

As with the project, new land uses would be introduced to the project site under this alternative, which would constitute a substantial change to the project site because this alternative would develop a mostly-vacant site with approximately 200,000 sf of manufacturing and limited R&D and administrative uses in two buildings along the site's northern boundary, and would result in approximately 370,000 sf less development compared to the project. Two surface parking lots consisting of space for 660 automobiles would be constructed on the site's western and eastern sides (see Figure V-3).

While the introduction of manufacturing, R&D, and administrative uses on the site would constitute a change in land use on the site, this change is considered to be less than significant because the uses proposed as part of the Split-Site Alternative are located in the immediate vicinity of the project site, and the uses proposed under this alternative also appear to be consistent with the site's General Plan designation and the provisions of the site's GI Zoning District. As such, this alternative would not require a Zoning Text or Zoning Map Amendment because the project site would retain its current GI Zoning designation. Therefore, the land uses proposed under this alternative would not disrupt or divide the existing neighborhood, and similar to the project, development of this alternative would result in less than significant land use impacts.

GEOLOGY, SOILS, AND SEISMIC SAFETY

This alternative would result in substantially less development than under the proposed project, but would nonetheless increase population on the site and develop new onsite uses, and therefore would have similar potentially significant (but mitigable) effects from seismic groundshaking, and potential geologic hazards resulting from soil erosion, corrosion, and differential settlement that could occur under the proposed project. Implementation of measure B.1 through B.4, as well as the recommendations in the project's geotechnical report would ensure that effects related to geology, soils and seismicity would be less than significant.

HYDROLOGY AND WATER QUALITY

This alternative would develop considerably less building square footage that would also result in less impervious surface area on the site (about 1.36 acres less than the proposed project), thus the increase in volume of stormwater runoff caused by this alternative would be comparatively less than the project. Implementation of Mitigation Measure C.1 identified in the project would ensure that construction-related effects to water quality would remain less than significant.

This alternative would develop two surface parking lots on a total of approximately five acres on the site. Contaminants from cars could be carried by storm runoff to the storm drain system, and eventually Redwood Creek. This potential for contaminated runoff would thus be greater in this alternative than under the proposed project, which proposes a covered parking structure. However, implementation of mechanical storm water filtration equipment or structural Best

Management Practices identified in Section IV.C, Hydrology and Water Quality would provide filtration of storm water runoff, and similar to the proposed project, would ensure that impacts to hydrology and water quality remain at less-than-significant levels.

TRAFFIC, TRANSPORTATION, CIRCULATION AND PARKING

The Split-Site Alternative is estimated to generate about 1,530 daily vehicle trips, with about 114 and 204 trips during the AM and PM peak hour, respectively, which would be about 60 percent fewer daily and peak-hour vehicle trips at the project site than the proposed project. The remaining portion of the proposed project's trip generation would occur off-site at a location to be determined (as described above). The near-term project impact at intersections in proximity to the project site could be reduced to a less-than-significant level under this alternative, because the 60 percent fewer trips would markedly exceed the threshold established for the level of trip reduction required to be achieved by enhanced Travel Demand Management (TDM) measures to eliminate impacts of the proposed project. As explained on page V-7, the portion of the proposed project not on the project site could be located off-site at Pacific Shores, or in a similar office park setting in Redwood City or other Bay Area location. Occupancy of currently unoccupied space in an approved office or R&D development (e.g., at Pacific Shores or 500 Arguello) would generate vehicle trips that were already accounted for in the Background conditions for this EIR (see Appendix E), the total net new trip generation (for the onsite and off-site locations) would be less than for the proposed project. Similar to the proposed project, this alternative would contribute to the potential safety impact at the Veterans Boulevard / Woodside Road intersection [#14] (significant unavoidable); its increase in traffic volumes on freeway ramps (less than significant) and on study area freeway segments (significant unavoidable); its effect on transit, pedestrian and bicycle conditions (less than significant); and its increase demand for parking (less than significant).

This alternative would result in significant impacts identified under cumulative conditions (like the proposed project) because it would also add traffic to the surrounding roadway system (albeit to a lesser degree than the proposed project), which would result in either degraded levels of service, or increases in average delay of more than five seconds, at study area intersections; except for mitigation measures D.9b and D.9c, mitigation measures D.9a-D.9f identified in this report would be mitigated to less-than-significant levels (although implementation of mitigation measures D.9d-D.9f would require approval by agencies other than the City of Redwood City). This alternative would also result in increased traffic volumes on area freeways in cumulative conditions (like the proposed project), but unlike the proposed project, the reduced trip generation for this alternative would cause less-than-significant impacts.

Construction of this alternative would also result in temporary, short-term potentially significant construction impacts. Because this alternative would require considerably less construction than the proposed project, potentially significant but mitigable construction-related traffic impacts would accordingly be less than with the proposed project. The resultant construction effects could be mitigated to less-than-significant levels with implementation of mitigation measure D.7 identified by this EIR. It should be noted that similar to the proposed project, this alternative would be required to implement a Travel Demand Management program to aggressively reduce

the overall impact that this alternative would have on traffic, transportation and circulation effects.

AIR QUALITY

Construction air quality impacts for the Split-Site Alternative would be similar to (and slightly less than) those for the proposed project, although the duration of construction would be shorter for this given the overall less intensive development proposed under this alternative than in the proposed project. Construction air impacts would be considered less than significant with the implementation of the dust abatement measures identified under Mitigation Measure E.1 for the proposed project. Moreover, as the number of daily trips generated in this alternative would be about 60 percent lower than the proposed project, the associated air quality impacts would also be lower than the proposed project. Thus, the operational impacts of this alternative on regional air quality would be less than significant.

Since this alternative is expected to have a lower trip generation than the proposed project during the AM and PM peak hours, carbon monoxide impacts for project and cumulative conditions would be proportionally lower than those estimated for the proposed project and would be well below the state and national ambient air quality standards for carbon monoxide. Therefore similar to the project, this impact would be less than significant for the Split-Site Alternative.

NOISE

Construction impacts on noise for the Split-Site Alternative would be similar to those for the proposed project, although the duration of construction noise would be substantially less than under project conditions given the less intensive building program proposed by this alternative. Therefore, the duration of the impact on nearby noise-sensitive receptors would be shorter. The impacts would be considered less than significant with the implementation of the measures identified under Mitigation Measures F.1a, F.1b, F.2a, and F.2b for the proposed project. Moreover, should the applicant pursue a construction schedule which could entail pile driving around the clock, the applicant would be required to implement Mitigation Measure F.2c proposed as part of the project to reduce construction noise to less-than-significant levels.

Since this alternative is expected to generate substantially less of the proposed project's trip generation during the AM and PM peak hours, the associated roadside noise impacts for project and cumulative conditions would be proportionally lower than those estimated for the proposed project and similar to the project, this alternative would result in less than significant impacts on roadside noise levels. Other operational impacts from stationary noise sources such as HVAC equipment and truck loading/unloading would be similar to or less than the proposed project and hence, less than significant.

AESTHETICS AND VISUAL QUALITY

Development of this alternative would constitute a change to the visual character of the site because the Split-Site Alternative would develop a mostly-vacant site with 200,000 sf of manufacturing, office and light industrial uses. However, because this alternative would result in

approximately 370,000 sf less development than the project, the site would appear less densely developed and contain more onsite open space. Due to this alternative's reduced building program, more views of and through the site would be available than compared to the proposed project. Views from public viewpoints along Cardinal Way and from locations within Seaport Center to the east would be available across the site to Redwood Creek and the municipal marina. Views would be essentially the same as the project looking north along the site's eastern shoreline, which would be landscaped and developed into a publicly accessible park.

Because this alternative assumes that the project's subsequent phases (i.e., Phase 2 and Phase 3) would be developed at some other location off site, a large amount of the site would remain undeveloped, and, because this alternative does not include a parking structure, a substantial amount of this alternative's onsite open space not occupied by building mass would be paved to provide surface parking uses. However, the approximately 5-acres of surface parking on the site would provide little visual amenity because it would be located in the middle of the site. Views of and through the site to the east from Cardinal Way would be of the proposed Perclose and manufacturing buildings along the site's northern boundary and MSI at the southeastern corner of the site. The majority of the viewshed in the center of the site would be of parked cars and lightstands and likely some landscaping in the surface parking lots. The site plan could be redesigned to mitigate these impacts. In fact, it could have more public open space.

This alternative would have less beneficial effects in enhancing the visual character of the area because it would not develop a campus with a unified design theme and it would develop a substantial portion of the site with visually monotonous surface parking uses. Although this alternative would result in less beneficial visual and aesthetic effects compared to the project, its effects would still be less than significant.

BIOLOGICAL RESOURCES

Since this alternative would develop less site area than the proposed project, impacts to biological resources resulting from construction noise and pollutants (including contaminated sediments or stormwater runoff) and increased human activity on the site, would likely be less than under the proposed project. Accordingly, these impacts could be mitigated to less-than-significant levels by implementing Mitigation Measures C.3a-C.3d and BMPs related to stormwater runoff included in the project.

HAZARDS AND HAZARDOUS MATERIALS

This alternative would involve new construction at a lower intensity than under the proposed project, and would have impacts (albeit less than significant) associated with the potential transportation, handling or storage of hazardous materials used during project construction (and potentially project operation), less than those which would occur with the proposed project. This alternative would also be required to implement the project's Mitigation Measure I.1 which would require the sponsor to include area evacuation and business evacuation plans as a part of its business plan and to conduct onsite hazardous materials training and orientation to hazardous conditions at least every 18 months.

PUBLIC SERVICES

This alternative would result in a substantially lower level of development on the site compared to the proposed project. This alternative would result in approximately 800 total jobs on the project site and an increase of approximately 96 new Redwood City residents. The total number of K-12 public school students would be approximately 54 to 108; about 94 to 187 students less than proposed under the project. This alternative would generate the demand for approximately 0.165 acres of additional parkland due to the increase in resident population. This alternative's provision of publicly accessible open space would offset this additional demand. Thus, with implementation of the measures identified under Mitigation Measures J.1 through J.7 for the project, the potential effects to public services, police services, fire and emergency medical services, parks and recreation, schools, and child care would be similarly less than significant.

CULTURAL RESOURCES

This alternative would result in the demolition of onsite structures, the removal of the portable facilities occupied by the Marine Science Institute, site grading, and construction of a coordinated, master-planned campus consisting of approximately 200,000 sf of administrative office, R&D and manufacturing uses and an approximately 10,000-sf replacement facility for MSI. Potentially significant impacts associated with inadvertent damage to Native American resources, other archaeological resources, or onsite architectural or historic resources could be mitigated to less-than-significant levels with the implementation of measures K.1 and K.2 for the proposed project. Thus, development of this alternative would similarly result in less-than-significant impacts related to cultural resources.

UTILITIES AND SERVICE SYSTEMS

This alternative would result in less overall development on the site and would not likely create a greater demand for utilities and service systems than the proposed project. Projected sewer demand would be approximately 25,000 gpd to 28,000 gpd; about 57,000 gpd to 60,000 gpd less than proposed by the project. This alternative would likely result in the generation of approximately 345,000 pounds per year of non-hazardous solid waste per year; about 580,000 pounds per year less than proposed by the project. Projected energy use would be approximately 23,680 therms per year of natural gas and approximately 7,100 megawatts per hour of electricity. With implementation of the measures identified under Mitigation Measures L1 through L.11 for the project, the potential effects to utilities and service systems, including sanitary sewer, solid waste disposal, energy, and telecommunications service providers would be less than would occur under the proposed project. Projected water use would be approximately 36,000 gpd to 39,000 gpd; although this would be about 83,000 gpd to 87,000 gpd less than proposed under the project. However, because of the uncertainty of future water sources and the effectiveness of mitigation measure L1.a, impacts related to water supply would still be considered significant and unavoidable under this alternative.

POPULATION, JOBS, AND HOUSING

Under the Split-Site Alternative, about 800 jobs would be located on the project site, and the other 740 jobs associated with Phases 2 and 3 of the proposed project would be located elsewhere in Redwood City, but the amount and type of jobs accommodated in the Split-Site Alternative would be the same as under the proposed project. Therefore, generally the impacts identified for the proposed project would also apply to the Split-Site Alternative. Splitting the development potential over more than one site would result some differences in impacts over the longer term, however.

In the long-term under the existing General Plan, the Split-Site Alternative would result in somewhat less overall employment growth in Redwood City than would be the case under the proposed project, since another site with potential to generate employment would instead be deserted to the Abbott Laboratories use. Under this alternative, the project area would be developed to accommodate 800 jobs—740 less than would be the case under the proposed project. In the short-term, those 740 jobs would be accommodated elsewhere in Redwood City, in existing vacant space or some other development. However, the long-term, buildout development capacity of the City would be reduced by this number of jobs. The difference in employment represents about five percent of the employment growth forecast for Redwood City through 2020 and 2025 and less than one percent of total employment forecast for the city through that long-term time horizon. The total amount of employment that could be accommodated with buildout of existing General Plan zoning is likely larger than this amount. For these reasons, the impact is determined to be less than significant.

E. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The California Environmental Quality Act requires that an EIR identify an environmentally superior alternative. If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines, Section 15126.6(e)(2)).

The significant unavoidable effects of the proposed project are related to project-specific and cumulative transportation and water consumption impacts. Implementation of any of the project alternatives would result in the same uses on the project site, although at different levels of development intensity. Because the Split-Site Zoning Alternative would generate about 60 percent less traffic than the proposed project and would reduce the near-term project-related vehicle delay impact at nearby intersections to less-than-significant levels, the Split-Site Alternative is considered to be the environmentally superior alternative. It should however be noted that the Split-Site Alternative would still contribute to significant cumulative traffic impacts as identified for the project, although at a lesser magnitude. The Split-Site Alternative would also result in significant unavoidable impacts to water consumption.

F. SELECTED ALTERNATIVES CONSIDERED BUT REJECTED AS INFEASIBLE

MILLION SQUARE-FOOT ALTERNATIVE

As part of its original submittal in December 2001, Abbott Laboratories proposed to develop a West Coast Research Center on the project site that would have had approximately 1,000,000 sf of R&D, office, manufacturing and warehouse uses. Because development of such a size and intensity would conflict with the goals and policies in the Redwood City Strategic Plan and Zoning Ordinance, the applicant withdrew its original application. The applicant determined that the preferred project, which more closely conforms to the requirements of the General Plan and Zoning Ordinance, would also meet its basic objective of providing an expanded Redwood City manufacturing center for Perclose/Abbott Laboratories for the design and manufacturing of lifesaving vascular devices.

HOUSING ALTERNATIVE

As discussed in Chapter IV.A, Land Use and Planning Consistency, existing and planned residential uses are located in the vicinity of the project site. Nearby residential uses include the Villas at Bair Island and Pete’s Harbor, as well as planned residential use at the Marina Shores Village site. Residential use is not considered to be a viable alternative use on the site however, because the General Plan designates the site for light industrial (research and development) use. The site is also surrounded generally by office, warehousing or light industrial uses, which could potentially result in land use conflicts with residential uses. Moreover, development of residential use on the project site would not meet any of the project sponsor’s goals and objectives which seek to construct a “world class West Coast center for R&D of pharmaceutical, nutritional, and hospital products” as well as to increase the diversified job force in the Redwood City/San Mateo County economy.

CONTINUED SALT STACK AND STOCKPILING ALTERNATIVE

The former owner and site occupant, Cargill Salt, used the site for stacking and stockpiling unrefined salt. Previously, Cargill sold unrefined salt, used mainly in heavy industrial and manufacturing processes, to the commodity market. Cargill has recently begun to expand its market share in refined salt products, which is used primarily in the food and pharmaceutical industries. Cargill refines salt at its South Bay location in Newark. Because of Cargill’s recent concentration on refined salt markets— and notwithstanding the continued bittern operations as granted in Cargill’s easement through the year 2010— the project site in Redwood City has been determined by Cargill to be no longer viable to its ongoing and future business needs (Personal communication, Lorrie Johnson, Public Affairs Officer, Cargill Salt, March 28, 2003).

REFERENCES – Alternatives

(The references cited below are available at the Redwood City Planning Services Department, 1017 Middlefield Road, Redwood City, California, unless specified otherwise below.)

Abbott Laboratories, Incorporated, project site plans prepared by Gensler Architecture, Design and Planning, various dates.

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