

V. ALTERNATIVES

The *CEQA Guidelines* require the analysis of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the project's basic objectives and avoid or substantially lessen any of the significant effects of the project. The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.¹ CEQA states that an EIR should not consider alternatives "whose effect cannot be ascertained and whose implementation is remote and speculative."

The proposed project has been described and analyzed in the previous chapters, with an emphasis on significant impacts resulting from the project and recommended mitigation measures to avoid these impacts. The following discussion is intended to inform the public and decision-makers of the relative impacts of three potentially feasible alternatives to the proposed project. A discussion of the environmentally superior alternative is also provided.

The following project objectives were initially listed in Chapter III, Project Description of this EIR and are repeated here to help inform this evaluation of project alternatives. The main objective of the project applicant is to develop a commercial project that is economically feasible and meets future anticipated market demand in Menlo Park for retail and office space. The other project objectives are:

- Redevelop an underutilized site to create a vibrant development that complements the immediate neighborhood and downtown Menlo Park;
- Create development that enhances the visual and community character of the neighborhood;
- Create a commercial development that encourages the use of public transportation by virtue of its proximity to the Menlo Park Caltrain station; and
- Provide opportunities for local-serving retail and office activity.

The three alternatives to the proposed project discussed in this chapter include the following:

- The **No Project alternative**, which assumes re-occupancy of the currently vacant site with an automobile dealership. The existing buildings and infrastructure would remain with minimal building upgrades.
- The **Mixed Use alternative**, which assumes that the site would be developed with a mixed use development containing 36 residential units (for-sale or rental); 58,700 square feet of office space; 14,000 square feet of restaurant uses (including, for the purpose of this analysis, a 3,200-square-foot fast food restaurant and a 10,800-square-foot high-turnover restaurant with trip generation characteristics defined by the Institute of Transportation Engineers), 8,895 square feet of general retail uses; and 415 on-site parking spaces. The alternative would consist of two connected buildings: a two-story (above-grade) building along El Camino Real containing

¹ *CEQA Guidelines*, 2007. Section 15126.6.

retail/restaurant and office uses on the ground floor, and office uses on the second floor, and a three-story (above-grade) building along Garwood Way containing the residential uses. The alternative would include 415 parking spaces accommodated in sub-grade and surface parking lots.

- The **Maximum Residential alternative**, which assumes that the site would be built to its maximum permitted residential density. The remaining permitted floor area ratio (FAR) on the site would be developed with commercial uses. The alternative would include 62 residential units, 14,655 square feet of retail space, 14,655 square feet of non-medical office space, and at least 246 parking spaces. These uses would be accommodated in buildings similar in scale to those that would be constructed as part of the Mixed Use alternative.

Following is a discussion of each alternative, and an analysis of the anticipated environmental impacts of each alternative. This analysis compares the anticipated impacts of each alternative to the impacts associated with the proposed project, and includes a determination as to whether or not each alternative would reduce, eliminate, or create new significant impacts.

The level of detail of description and analysis provided for the Mixed Use alternative is greater than that provided for the other two alternatives to allow for potential adoption of the Mixed Use alternative without a substantial amount of additional environmental review.

A. NO PROJECT ALTERNATIVE

1. Principal Characteristics

The No Project alternative assumes that the site would not be subject to redevelopment and would generally remain in its existing condition. Minimal improvements to landscaping and building façades would be undertaken to refurbish the site but no buildings would be demolished or constructed. A new auto dealership (including maintenance facility) could lease or purchase the site; however, in the near-term, the site would likely remain unoccupied. The zoning of the project site and the surrounding area would remain unchanged.

The No Project alternative would not achieve any of the objectives of the proposed project. The project site would not undergo redevelopment to create a transit-oriented development that enhances the community and visual character of the site and its surroundings. In addition, the alternative would not provide new opportunities for local-serving retail and office activity.

2. Analysis of the No Project Alternative

The No Project alternative is evaluated for each environmental topic listed below.

- a. Land Use and Planning Policy.** Implementation of the No Project alternative would result in the continuation of existing land uses within the project site. The alternative would not disrupt or divide the physical arrangement of an established community, and the existing structures would remain on the site. The type and intensity of land use on the project site would not be altered in a manner that would cause it to be substantially incompatible with surrounding land uses or the overall character of surrounding neighborhoods. The No Project alternative would not realize many of the beneficial land use impacts of the proposed project, including: the development of new, more

efficient land uses that are compatible with uses in downtown Menlo Park and surrounding residential neighborhoods; the enhancement of neighborhood activity and vibrancy; and the development of new jobs and shopping opportunities near downtown Menlo Park and within walking distance of the Menlo Park Caltrain station. In addition, the No Project alternative would not fulfill several land use-related General Plan policies, which promote the strengthening of the relationship between downtown and the El Camino Real corridor, and the intensification of uses around transit corridors. However, the No Project alternative would comply with land use policy 1-E-3 of the General Plan, which supports the retention and expansion of auto dealerships.

b. Population, Employment and Housing. Implementation of the No Project alternative would not result in direct population growth within the project site or the City. The alternative, which would result in reoccupation of the existing auto dealership buildings on the site, would slightly increase the number of jobs (and employees) in Menlo Park. Even if a portion of these employees moves to Menlo Park, the alternative would not result in a substantial population increase in the City. Like the proposed project, the alternative would not remove existing housing.

c. Hydrology and Water Quality. Similar to the proposed project, the No Project alternative would not: contribute to the depletion of groundwater supplies or reduce the amount or quality of water available for public water supplies; or substantially alter a natural water course or the amount of impervious surfaces on the project site. Operations associated with the new dealership utilizing commercially-available hazardous materials (e.g., oil and gas) could affect surface and ground water quality, but would be subject to federal, State, and local regulations, similar to the proposed project, which would mitigate such impacts. Unlike the proposed project, mitigation measures would not be necessary to address impacts associated with construction activities or exacerbation of existing drainage problems.

d. Geology, Soils and Seismicity. Because the No Project alternative would not require ground disturbance, it would not result in soil erosion. However, employees and customers of the dealership would still be subject to seismic hazards. Because existing buildings were constructed in the 1960s and did not utilize up-to-date seismic-strengthening techniques, the No Project alternative could expose persons within the project site to a higher degree of seismic hazards than the proposed project. Existing buildings within the site would continue to be subject to expansive soils and the settlement of non-engineered fill soils.

e. Transportation, Circulation and Parking. Implementation of the No Project alternative would generate approximately 1,000 daily trips, including 62 trips in the AM peak hour and 79 trips in the PM peak hour. This trip generation represents 17 percent as many daily trips and 16 to 24 percent as many near-term scenario peak hour trips as the proposed project. As such, this alternative would have fewer traffic impacts than the proposed project. The No Project alternative would not cause any significant impacts to State-controlled, City-controlled, or Town of Atherton intersections with the exception of Alma Street and Oak Grove Avenue in the PM peak hour. The alternative would result in a 1.2 second increase in average delay at this intersection, a significant impact. Since the impact is similar to the one that would result from the proposed project, the same mitigation is also appropriate for the No Project alternative. The recommended mitigation requires the submittal of a Transportation Demand Management (TDM) program accepted and approved by the City of Menlo Park and the City/County Association of Governments (C/CAG) of San Mateo County based on C/CAG standards. In addition, a traffic impact mitigation fee is also required. Unlike the No Project

alternative, the proposed project would have a significant adverse impact on seven roadway segments and nine intersections. Like the proposed project, the No Project Alternative would result in less-than-significant impacts related to traffic hazards, pedestrian and bicycle circulation, and public transit.

f. Air Quality. Implementation of the No Project alternative would not result in substantial construction activity within the project site and, like the proposed project, is not expected to generate a number of vehicle trips that would result in significant emissions impacts. The No Project alternative would not require mitigation measures to address significant air quality impacts associated with demolition and construction activities, as would occur under the proposed project. This alternative would not violate the BAAQMD's air quality standards, expose the public to objectionable odors, or substantially increase public exposure to toxic air contaminants in excess of established standards.

g. Noise. Because implementation of the No Project alternative would not result in substantial construction activities, the alternative would not expose persons around the project site to excessive levels of construction-related noise. Under the No Project alternative, auto dealership uses within the project site would continue to be exposed to excessive noise levels resulting from future roadway traffic and existing train traffic. In addition, operation of the auto dealership, which would include the use of mechanical equipment, could expose residential uses surrounding the site (including the senior residential uses to the west of the site) to unacceptable noise levels.

h. Hazards. Although the underground storage tanks and the hazardous materials/waste formerly stored on-site have been removed, implementation of the No Project alternative would likely require operations involving waste oil, batteries, oil filters, car parts, paint, antifreeze/coolant, and solvents. The degree to which such hazardous materials would be used on-site would depend upon the type of services provided by the dealership. The dealership would be required to comply with standards and regulations for storage, transport and use of hazardous materials. Therefore, similar to the proposed project, the No Project alternative would not generate hazardous emissions that would affect sensitive receptors in the vicinity of the project site. Because the project site would not be subject to substantial excavation or other ground-disturbing activities, construction workers and occupants of the project site would not be directly exposed to contaminated soil or groundwater. However, buildings that are likely to contain lead and asbestos would remain within the project site; future disturbance of these materials could represent an adverse human health risk.

i. Public Utilities and Services. The No Project alternative would incrementally increase demand for public services, including police, and fire, and utilities services. Similar to the proposed project, this increase in demand for services would not result in physical impacts. Unlike the proposed project, which may have significant impacts if the capacity of the sewer line serving the project site is not increased, the No Project alternative would not require new utility infrastructure to be built.

j. Cultural and Paleontological Resources. Because no substantial ground-disturbing activities would occur as part of the No Project alternative, subsurface archaeological, and paleontological resources that may exist within the project site would not be disturbed. Additionally, the alternative would not remove existing buildings. This alternative would also avoid removal of heritage trees, which are considered a cultural resource.

k. Aesthetic Resources. Implementation of the No Project alternative would not have a substantial adverse effect on scenic vistas, as no designated vistas are located within or close to the

project site. The alternative would maintain all heritage trees within the project site (although the removal of these trees would not constitute a significant impact on scenic resources after compliance with the City's heritage tree regulations). The visual character of the site would generally remain unchanged and the alternative would not enhance the vibrancy of the project site or create a visual link between downtown, the El Camino Real corridor, and less-dense residential neighborhoods to the north and west of the project site. Like the proposed project, lighting associated with this alternative could create light and glare in the area, adversely affecting nighttime views.

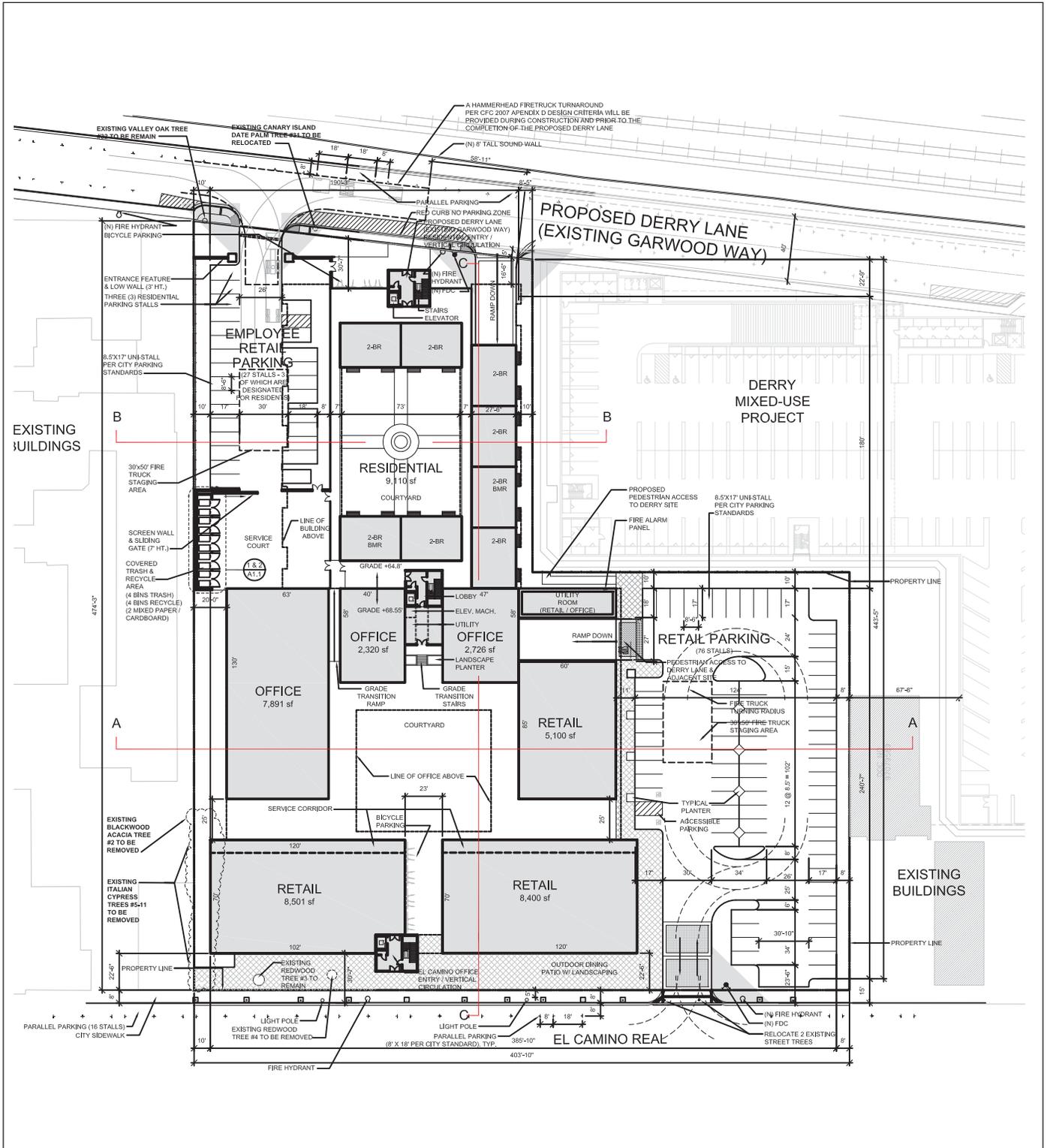
I. Global Climate Change. The No Project alternative, which would result in reoccupation of the existing auto dealership buildings on the site, would avoid emissions associated with project construction activities. However, operation of auto dealership uses on the site – including the vehicle trips of employees and customers – would generate greenhouse gas emissions that could conflict with the implementation of greenhouse gas reduction goals under Assembly Bill (AB) 32 or other State regulations. Detailed site plans have not been developed for the No Project alternative, but based on a conceptual understanding of the alternative, reoccupation of the existing auto dealership would be expected to generate approximately 1,600 metric tons of carbon dioxide equivalent emissions (approximately 20 percent of the carbon dioxide equivalent emissions that would be generated by the project).

B. MIXED USE ALTERNATIVE

1. Description of Alternative

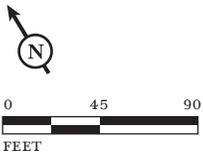
As noted above, the Mixed Use alternative is described and analyzed at a greater level of detail than the other two alternatives to allow for potential adoption of the alternative without a substantial amount of additional environmental review. The Mixed Use alternative would involve demolition of all structures currently on the project site and construction of two new buildings, a sub-grade parking structure, and a courtyard. The buildings would contain 36 residential units, office space, fast food and high turnover restaurant space, and retail space. The building complex on the south side of the site, adjacent to El Camino Real, would be two stories above-grade, and would contain fast food, restaurant, retail, and office uses at the ground level, with office space above. The building complex on the north side of the site, adjacent to Garwood Way, would be three stories above-grade and would contain only residential uses. Open space developed as part of the Mixed Use alternative would include an outdoor dining patio with landscaping, adjacent to El Camino Real, and an interior courtyard in the residential building. The following subsections include a more detailed description of the alternative. Figures V-1a through V-1c show plans for the ground level, second level, and third level of the project site; Figure V-2 shows representative building elevations; Figure V-3 shows representative building sections; and Figure V-4 shows a preliminary landscape plan.

Commercial Uses. The alternative would include 58,700 square feet of office space, 3,200 square feet of fast food restaurant uses, 10,800 square feet of high turnover restaurant uses, and 8,895 square feet of retail space. All commercial space would be accommodated within the building complex closest to El Camino Real. The restaurant, retail, and a portion of the office space would be located on the ground floor, with pedestrian and vehicle access off El Camino Real. Additional office space would be located on the second level.



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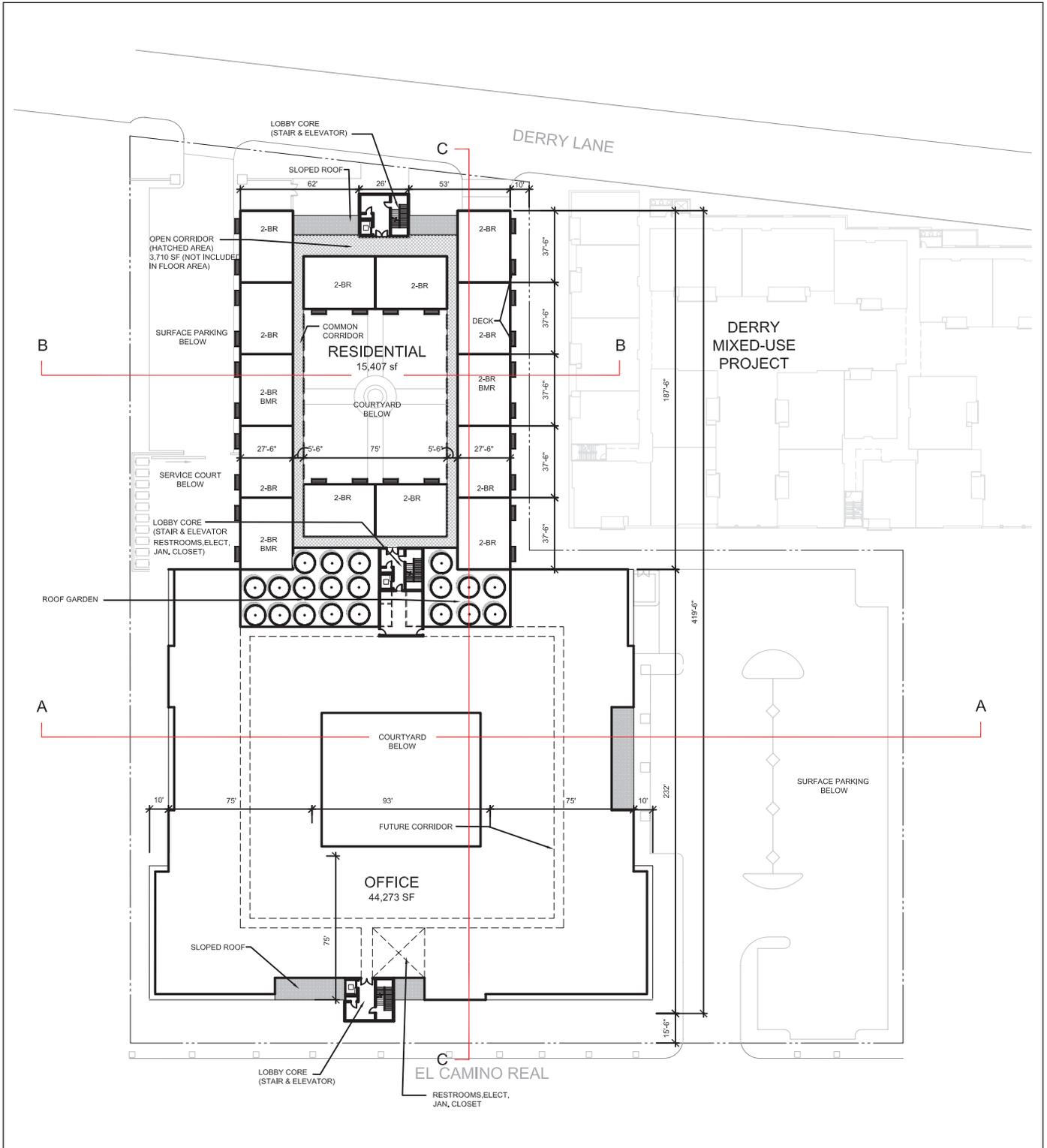
FIGURE V-1a



1300 El Camino Real Project EIR
 Site Plan - Ground Level
 (Mixed Use Alternative)

SOURCE: KENNETH RODRIGUES & PARTNERS, INC., 2009.

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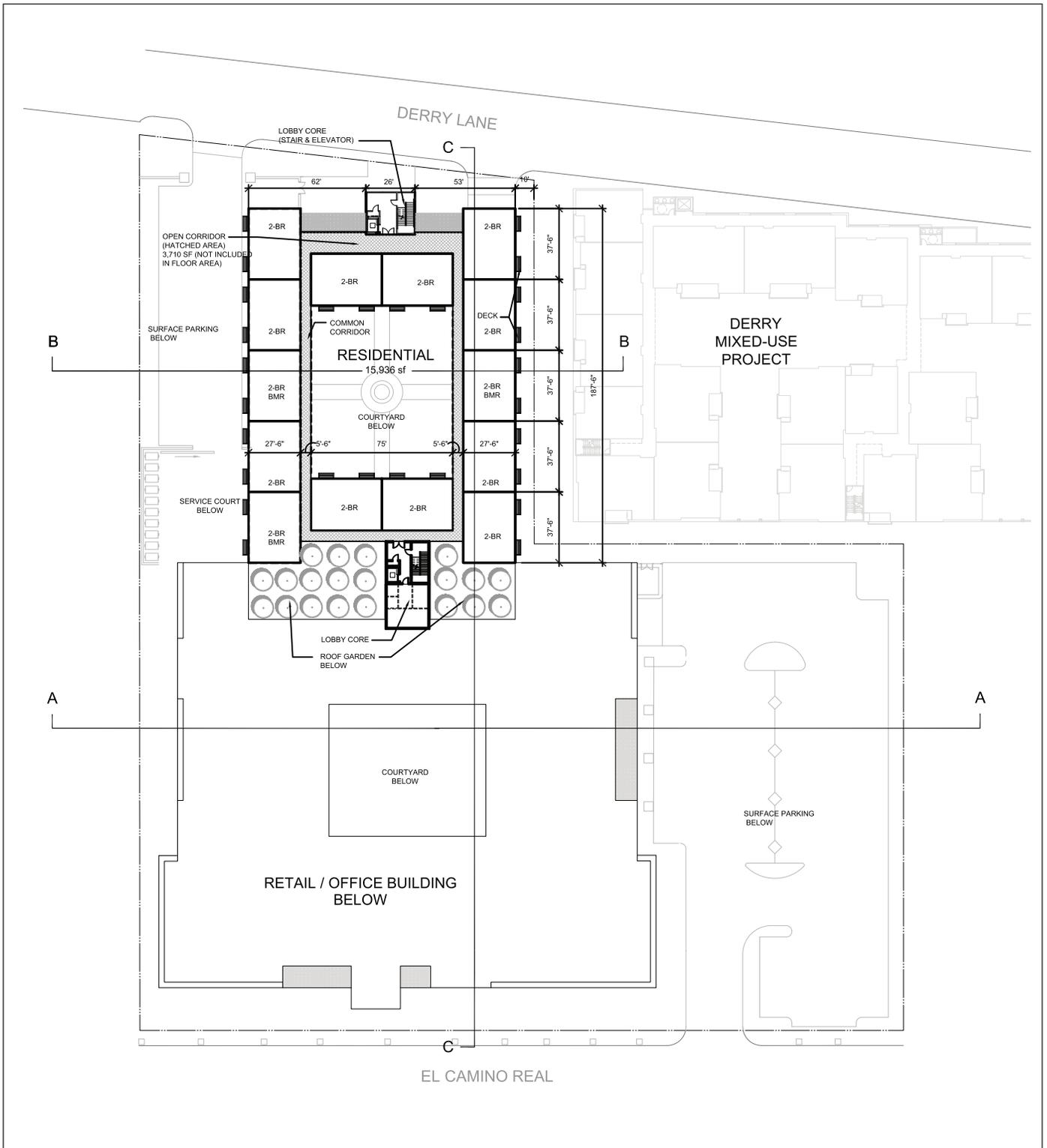
FIGURE V-1b



1300 El Camino Real Project EIR
 Site Plan - Second Level
 (Mixed Use Alternative)

SOURCE: KENNETH RODRIGUES & PARTNERS, INC., 2008.

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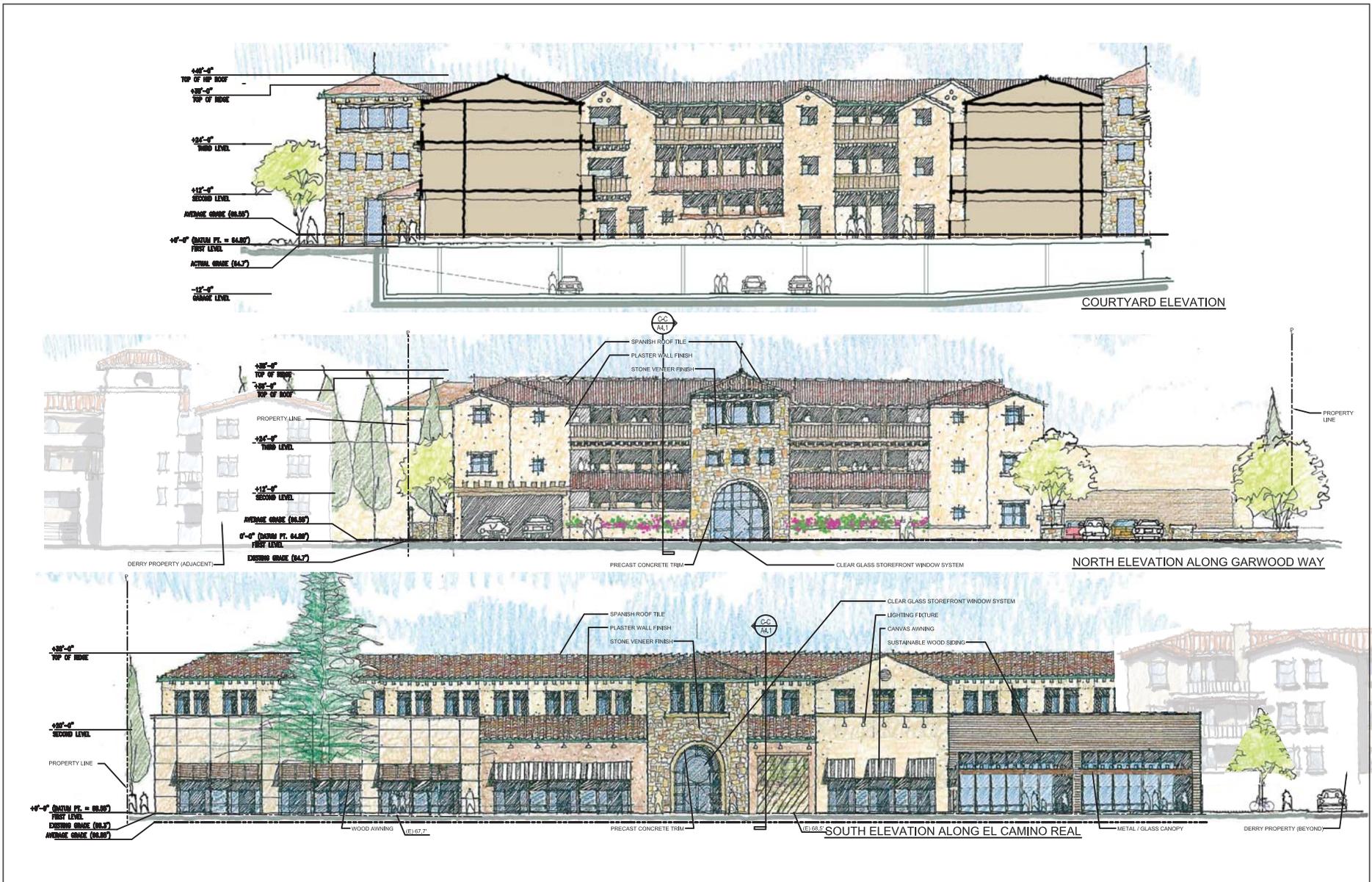
FIGURE V-1c



1300 El Camino Real Project EIR
 Site Plan - Third Level
 (Mixed Use Alternative)

SOURCE: KENNETH RODRIGUES & PARTNERS, INC., 2008.

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FIGURE V-2

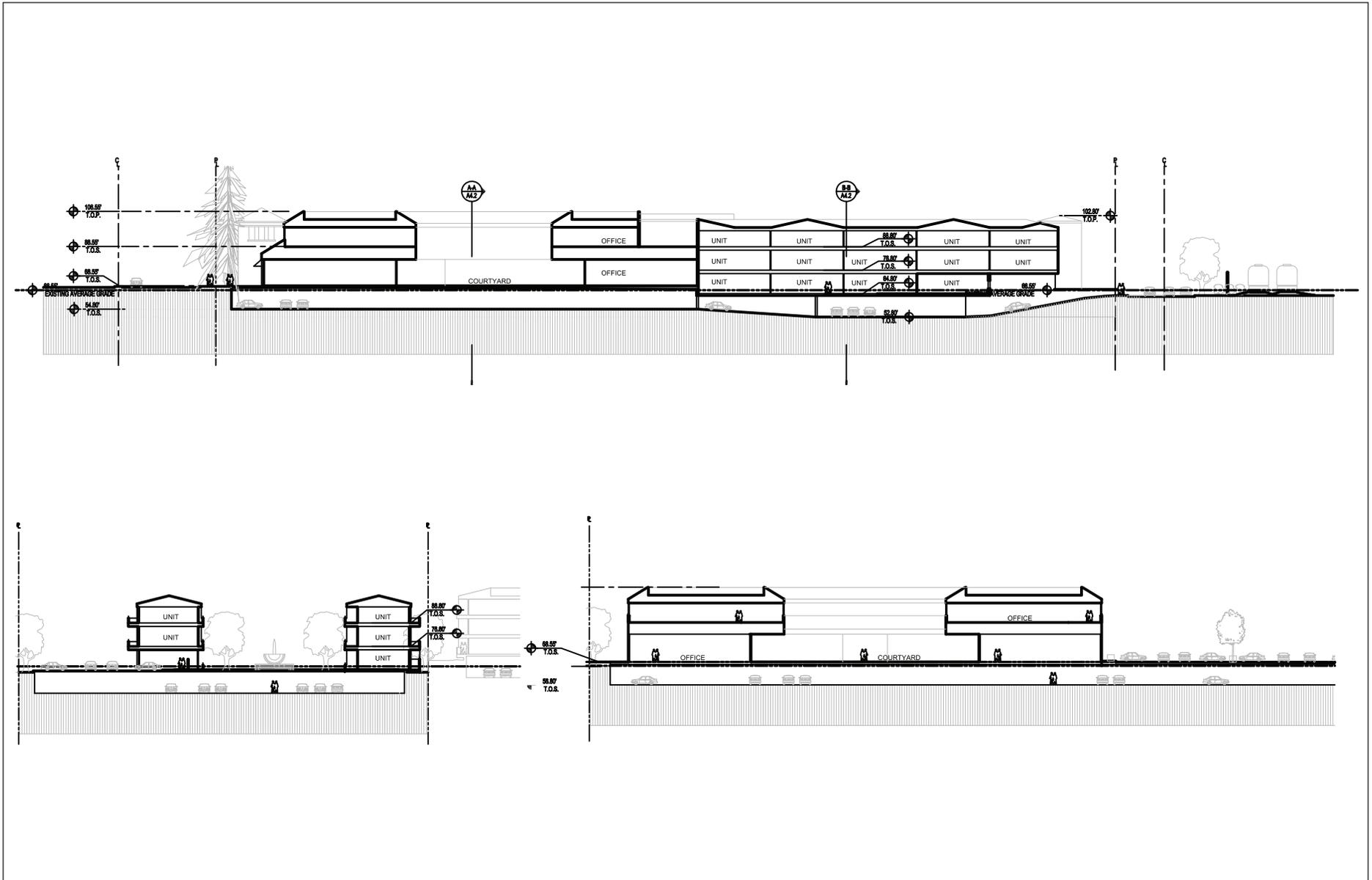


1300 El Camino Real Project EIR

Building Elevations
(Mixed Use Alternative)

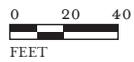
SOURCE: KENNETH RODRIGUES & PARTNERS, INC., SEPTEMBER 2008

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FIGURE V-3

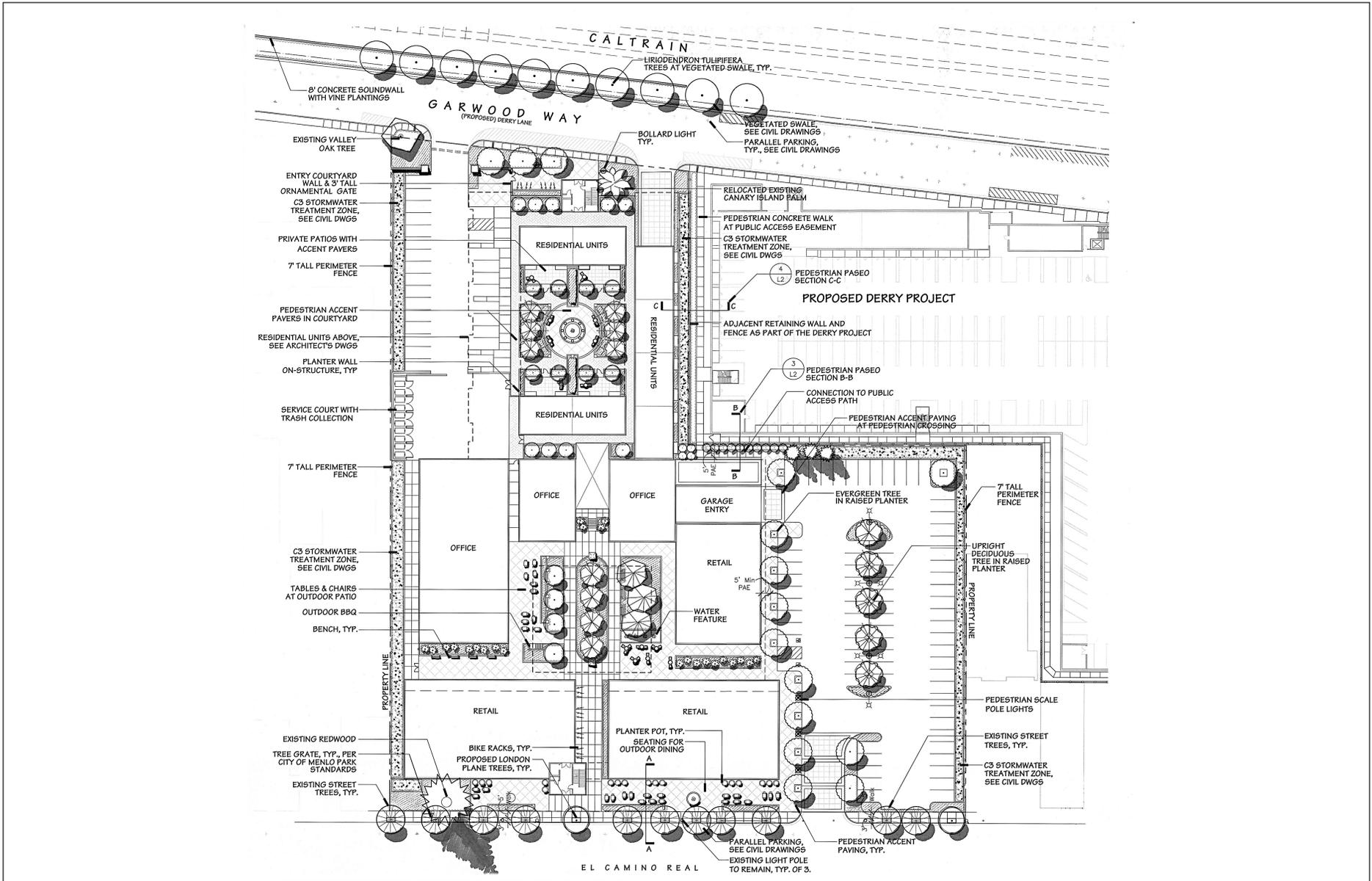


1300 El Camino Real Project EIR

Building Sections
(Mixed Use Alternative)

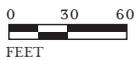
SOURCE: KENNETH RODRIGUES & PARTNERS, INC., SEPTEMBER 2008

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FIGURE V-4



1300 El Camino Real Project EIR
Preliminary Landscape Plan
(Mixed Use Alternative)

SOURCE: THE GUZZARDO PARTNERSHIP, INC., SEPTEMBER 2008

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Residential Uses. The alternative would include the development of 36 residential units, all of which would be located in the building complex in the northern portion of the site. All residential units would be two-bedroom units. The 36 units would include eight units priced at below market rate (BMR units), and 28 units priced at market rates. The BMR units would be distributed throughout each of the three floors of the residential structure (two units on the ground floor, three units on the second floor, and three units on the third floor). The average residential unit would be approximately 1,070 square feet.

Outdoor Space. Open space in the site would include an outdoor patio with landscaping adjacent to the retail space along El Camino Real, a courtyard within the commercial building complex in the south of the site, and a courtyard in the residential building complex. Based on current plans, the patio could be used for outdoor dining. The alternative would remove and preserve the same trees as the proposed project.

Architecture and Materials. The two building complexes – even though one would contain two above-grade levels and the other three above-grade levels – would be approximately the same height, a maximum of 40 feet. The architecture of the alternative would be similar to that proposed as part of the project. The buildings would feature red tiled roofs, stucco and stone finish, and a gently sloping roofline. The façade of the retail space (including restaurant uses) would include wood siding, plaster and stone veneer finishes, clear glass store-front windows, canvas awnings, and pre-cast concrete trim.

Entitlements. Entitlements that would be requested as part of the Mixed Use alternative are summarized below:

- *Rezoning.* Similar to the proposed project, the site would be rezoned from General Commercial Applicable to El Camino Real (C-4(ECR)) to Planned Development (P-D). The P-D zone would allow for the establishment of specific development regulations and architectural design for the alternative, and would permit the alternative to depart from the development regulations of the existing zoning district, with the exception of density and intensity regulations.
- *Planned Development Permit.* The Planned Development Permit would establish specific development and architectural regulations for the alternative.
- *Subdivision.* A subdivision would allow for the merger of the legal parcels comprising the site and subdivision of the site into new condominium units.
- *BMR Agreement.* The BMR agreement would require the construction of eight BMR units on the site as part of the alternative.
- *Heritage Tree Removal Permit.* Heritage tree removal permits would be required for two on-site trees and three trees within the Garwood Way right-of-way. The trees would be replaced, in accordance with the Menlo Park Heritage Tree Ordinance, at a 2:1 ratio.

Utilities and Construction. This alternative would require the same utilities as the proposed project. In addition, the alternative would result in the installation of the same water and sanitary sewer infrastructure as the proposed project. Like the proposed project, construction of the alternative would result in the demolition of all structures on the site and the removal of all foundations, paving, and utilities. The construction period would last approximately 18 months.

2. Analysis of the Mixed Use Alternative

The Mixed Use alternative is evaluated below. Refer to Chapter IV., Setting, Impacts, and Mitigation Measures, for information about existing conditions pertaining to the environmental topics discussed in the following section.

a. Land Use and Planning Policy. Similar to the proposed project, the Mixed Use alternative would not result in any significant land use or planning policy impacts. The less-than-significant impacts of the alternative are discussed below.

Community Integrity. The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. Implementation of the Mixed Use alternative would result in the development of mixed uses, including residential, office, restaurant, retail, and open space uses within a site that is currently characterized by vacant structures and parking lots. The street-front edge of the site is predominately a large surface parking lot that has a brick wall separating the lot from the remaining site. A show-room with large glass windows is located close to the property line at the western edge of the site. Barbed wire fencing cordons off the site along the northwestern border adjacent to the senior apartment buildings and along the Garwood Way project site boundary.

Implementation of the Mixed Use alternative would result in the demolition of all structures within the project site and redevelopment of the entire site. This redevelopment would not represent a substantial adverse affect on the physical arrangement of the community and would not be considered a significant environmental impact. Similar to the proposed project, the Mixed-Use alternative would not result in the development of a barrier within the site that would impede access. Pedestrian connections would be developed between the site and the Derry Lane project as part of the alternative, improving access and connectivity compared to existing conditions.

The introduction into the site of more intensive uses and a residential population (approximately 87 persons, based on an average household size of 2.43 persons) would increase round-the-clock activity within the site. Proposed uses would make the project site more compatible with downtown Menlo Park and the commercial district on both sides of El Camino Real, districts that are characterized by moderate to high levels of pedestrian use. The development of residential uses within the site would also create a transition between downtown Menlo Park and the residential neighborhoods north and west of the project site. Therefore, the Mixed Use alternative, like the proposed project, would enhance community integrity.

Compatibility with Surrounding Land Uses. Implementation of the Mixed Use alternative would not result in the development of uses that would be intrinsically incompatible with surrounding land uses (e.g., a power plant, factory, or other noise-, air pollution-, or hazard-generating land use). The mixed use development would not permanently interfere with the daily operations of surrounding land uses, including senior residential uses west of the site, the Caltrain tracks to the north of the site, the commercial and proposed multi-family residential uses (Derry Lane project) planned to the east of the site, or the commercial uses south of the site, across El Camino Real.

In addition, from a land use perspective, none of the uses surrounding the site are intrinsically incompatible with uses that would be developed as part of the alternative. Residential and mixed use projects generally benefit from a mixture of surrounding land uses, especially in places (such as the vicinity of the project site) where residents and employees have easy access to downtown commercial services and transit. The gas station and restaurant to the east of the project site are land uses that are typical of many urban mixed use environments and would be compatible with residential, office, retail, and restaurant uses proposed as part of the alternative.

The placement of residential and commercial uses next to railroad tracks does not constitute an inherent land use conflict. Residential neighborhoods have been built adjacent to railroad tracks and railroad stations as far back as the 1860s. Some of the most desirable urban and suburban neighborhoods in American cities such as New York, Chicago, Philadelphia, and Portland, Oregon are located immediately adjacent to elevated railroad tracks and commuter/light rail lines. In addition, new housing has recently been built adjacent to Bay Area Rapid Transit (BART) tracks in communities throughout the Bay Area. Transit-oriented developments (TODs), which are endorsed by most planning organizations in the Bay Area as an important means of sustainable development, are by definition located in close proximity to transit infrastructure, such as railroad tracks. In addition, residential uses are located adjacent to the Caltrain right-of-way throughout much of the San Francisco Peninsula, including to the north of the project site.

Intensification of uses within the site as part of the alternative would benefit surrounding neighborhoods by: creating a transition between the downtown commercial district and lower-density predominantly residential neighborhoods to the north and west of the site; introducing a permanent residential population to the site; and increasing neighborhood activity and vibrancy. In addition, the development of mixed uses and higher-density housing in and around downtown areas and transit hubs would be an environmentally responsible way to accommodate growth in metropolitan areas. The site, which is in close proximity to the Caltrain station and downtown Menlo Park, is thus an appropriate location for higher-density land uses. Concentrating traffic-generating uses near transit nodes has the potential to minimize vehicle travel along minor roadways through established neighborhoods. The Mixed Use alternative could enhance the physical relationship of the site with surrounding areas.

Consistency with Applicable Policies. The Mixed Use alternative is consistent with the existing El Camino Real – Professional/Retail Commercial designation in the General Plan, which permits retail services, professional offices, residential uses, and public and quasi-public uses. The alternative, like the proposed project, would require the rezoning of the project site from General Commercial Applicable to El Camino Real (C-4) to Planned Development (P-D). This rezoning would allow for the consolidation of parcels on the site and the development of customized development controls that would allow for comprehensive development of the site and efficient use of land. The density of residential uses on the site (11 units/acre), the intensity of retail uses (FAR of 15.5 percent), and the intensity of office uses (FAR of 39.6 percent) on the site would be within the maximums permitted in the pre-existing zoning designation (C-4), taking into account a density bonus subject to approval by the City per section 16.96.04 of the Municipal Code.

The Mixed Use alternative would also be generally consistent with land use policies in the City General Plan, which seek to: promote urban development within the El Camino Real professional and

commercial district; improve the stability and character of existing neighborhoods; and develop transit-oriented uses in the City.

Like the proposed project, the alternative would not comply with land use Policy I-E-3, which seeks to promote the retention and expansion of auto dealerships in the City and develop new auto dealerships at suitable locations. The former auto dealership on the site was closed in 2005 and the buildings have remained vacant since that time.

The alternative is consistent with General Plan policies supporting the development of retail and office uses along El Camino Real, and with transportation-related policies which seek to strengthen the relationship between the transportation center, downtown, and El Camino Real, and place as many activities as possible near transit. The alternative, which would have internal courtyards and an outdoor dining/patio area along El Camino Real, is also consistent with the City Open Space and Conservation Element and Land Use Element, which seek to provide landscaping and plazas in areas with high levels of pedestrian activity. In addition, the alternative would be developed in accordance with the City Subdivision Ordinance. Therefore, similar to the proposed project, the Mixed Use alternative would not conflict with land use-related policies adopted for the purpose of mitigating an environmental effect.

b. Population, Employment and Housing. The Mixed Use alternative, like the proposed project, would not result in significant impacts relating to population, employment, and housing. However, the alternative would result in direct population growth. In the context of redevelopment activities in Menlo Park, and the location of the project site, this growth would be considered beneficial.

Population Growth. Based on an average household size of 2.43 persons, implementation of the Mixed Use alternative would add approximately 87 persons to the City's population. The two-bedroom units that would be built as part of the proposed project are expected to be utilized more by couples and small families than large families.

The anticipated population growth that would result from the alternative represents approximately 0.2 percent of the City's current population, and is well within the growth projected by ABAG for the City over the next 10 years. Therefore, the alternative would not directly result in substantial population growth beyond that expected for Menlo Park.

In addition, the Mixed Use alternative would constitute infill development within an already-developed neighborhood adjacent to downtown Menlo Park. The site is within walking distance of downtown's retail and service district, the Menlo Park Caltrain station, and numerous transit routes. As such, the site is well-served by urban infrastructure, services, and transit. The development of higher density projects on infill sites near downtown areas is an environmentally sound way to add housing to growing metropolitan regions. The housing that would be constructed as part of the alternative would also nominally reduce the City's job/housing imbalance (characterized by more jobs than housing). Thus the construction of housing as part of the alternative would be considered a beneficial environmental effect of the project. Because the site is located in an infill setting, no infrastructure would be extended to undeveloped areas; therefore, the alternative would not result in substantial indirect population growth in outlying areas.

Employment Growth. The Mixed Use alternative would result in the construction of approximately 58,700 square feet of office space and 22,895 square feet of retail and restaurant space. Based on an average employee generation rate of one office job per 300 square feet and one retail job per 500 square feet, the alternative would generate approximately 242 employees. This job growth represents approximately 1 percent of the number of employed residents in the City in 2005 and is not considered an adverse impact. Although a select number of new employees employed by retail or office uses within the site that do not currently live in Menlo Park could decide to live within the City, this would not cause substantial indirect population growth.

Housing Displacement. There is no residential housing or residential population within the site. Therefore, the Mixed Use alternative would not displace existing housing or population.

Affordable Housing. Implementation of the Mixed Use alternative would result in the development of eight BMR residential units (22 percent of the total). The first 15 percent of residential units, or 5.4 units, would fulfill BMR requirements for the residential component of the alternative. The last 2.7 affordable units would be provided to fulfill the requirements for the commercial component of the project. The City permits BMR requirements to be fulfilled by the payment of in-lieu fees for the development of affordable housing but prefers that actual BMR units be provided by the project sponsor.² As part of the Mixed Use alternative, eight units would be developed on-site and in-lieu fees would be paid for the remaining 0.1 units. The residential units constructed as part of the alternative would assist the City in meeting its regional housing needs allocation. The alternative would increase the overall quantity of affordable (and market-rate) housing in the City, a beneficial environmental impact.

Policy Consistency. The alternative would be consistent with the housing-related policies in the City General Plan. These policies specifically seek to achieve the following: 1) promote medium and higher density mixed-use developments in and around downtown Menlo Park, as well as near major transportation corridors and public transit opportunities and 2) increase the City's supply of both affordable and market-rate housing. The alternative, which would result in the construction of 28 market-rate residential units, 8 BMR units, 58,700 square feet of office space, and 22,895 square feet of retail and restaurant space within an infill site near downtown and the Menlo Park Caltrain Station, is consistent with these policies.

c. Hydrology and Water Quality. The Mixed Use alternative would result in hydrology and water quality impacts that are almost identical to those that would result from the proposed project, as discussed below. Like the proposed project, the alternative would not use local groundwater supplies, substantially increase the amount of impervious surfaces on the site (like the project, the alternative would reduce impervious surfaces), alter a natural water course, or expose people to catastrophic flooding. Because the site is already paved (and is served by hardened storm water conveyance channels), the alternative would result in the same hydromodification impacts as the proposed project, and would not result in significant erosion or sedimentation.

The alternative would result in the following significant hydrology and water quality impacts, which are the same as those that would result from the proposed project. Recommended mitigation measures

² One below market rate unit must be constructed for each 20,600 square feet of office or 37,800 square feet of non-office commercial space.

to reduce the significance of these impacts are also identical. Refer to Section IV.C, Hydrology and Water Quality, for more detail.

Impact HYD-1: Construction-period activities and operation-period activities could result in degradation of water quality in the Bay by reducing the quality of storm water runoff. (S)

Demolition, excavation, grading and construction on the site would require temporary disturbance of surface soils, removal of vegetative cover, and accidental release of hazardous substances used for construction. During the construction period, excavation and grading activities would result in exposure of soil to runoff, potentially causing erosion and entrainment of sediment in the runoff, and increasing the potential for localized flooding or ponding. New construction and intensified land uses at the site would result in increased vehicle use and potential discharge of associated pollutants, resulting in potential long-term degradation of water quality. Implementation of Mitigation Measure HYD-1a and Mitigation Measure HYD-1b (see Section IV.C) would reduce the alternative's impacts to storm water quality to a less-than-significant level.

Impact HYD-2: Redevelopment of the project site could exacerbate drainage and localized flooding problems. (S)

The site is served by an aging, undersized storm drainage system. Based on hydrologic modeling, during wet weather, excess water could pond in Garwood Way on the west side of the railroad tracks until it reaches an elevation high enough to overtop the tracks. Atherton Channel typically floods when storm events (with large amounts of precipitation) coincide with high tides in San Francisco Bay. The alternative would be developed with a storm water management scheme that is similar to the one proposed as part of the project. Therefore, it is expected that the alternative would result in less storm water discharge from the 10-year storm than occurs under existing conditions. However, the efficacy of on-site storm water retention would need to be verified prior to development of the alternative. Implementation of Mitigation Measure HYD-2 (see Section IV.C) would reduce impacts associated with downstream flooding to a less-than-significant level.

d. Geology, Soils and Seismicity. Because the site of the Mixed Use alternative would be graded and developed in a similar manner as the proposed project, the significant impacts identified for the proposed project in Section IV.D, Geology, Soils and Seismicity, would also occur with this alternative. Recommended mitigation measures would be identical. Refer to Section IV.D for more detail.

Similar to the proposed project, the alternative would not be affected by slope instability, and would not be expected to contribute to regional subsidence or long-term erosion hazards. The alternative would result in the same two significant geology-related impacts that would result from the project, as discussed below.

Impact GEO-1: Site occupants would be subject to seismic hazards. (S)

The alternative, like the proposed project and all other development projects in the Bay Area, could be subject to structural and non-structural damage as a result of earthquakes. Very strong to violent ground shaking is expected at the site during predicted earthquakes on the San Andreas Fault and other active regional faults. Implementation of Mitigation Measure GEO-1 (see Section IV.D) would reduce impacts associated with earthquake damage to a less-than-significant level.

Impact GEO-2: Damage to structures or property related to shrink-swell soils and/or settlement of non-engineered fill soils could occur. (S)

The geotechnical report prepared for the site indicates that, based on one plasticity test of representative near-surface soils, site soils have a moderate shrink-swell potential. In addition, non-engineered near-surface fills have been identified in soil borings associated with the site-specific geotechnical investigation. Like the project, the Mixed Use alternative could be subject to structural damage, warping, and cracking of roads, driveways, parking areas and sidewalks, and rupture of utility lines if the potential expansive soils and the nature of the imported fill are not considered during design and construction of improvements. Implementation of Mitigation Measure GEO-2 (see Section IV.D) would reduce this impact to a less-than-significant level.

e. Transportation, Circulation and Parking. This section discusses the estimated trip generation of the Mixed Use alternative and compares the expected impacts of the alternative to those that would result from the project.

(1) Trip Generation. The traffic that would be added to the roadway system by the Mixed Use alternative was estimated by multiplying the applicable trip generation rates by the size of the development. Trip generation rates were taken from the Institute of Transportation Engineers (ITE) *Trip Generation*, Seventh Edition, 2003. The trips generated by the residential, office, retail, and restaurant components of the Mixed Use alternative were estimated separately based on the size of each use.

In accordance with the ITE *Trip Generation Handbook* 2004, the trip generation estimates for the restaurant and retail space were reduced by 43 percent and 34 percent, respectively, to account for pass-by-trips. Pass-by-trips are trips that would already be on the adjacent roadways (and are therefore counted as part of the background traffic in the area) but would turn into the site while passing by. The fast food pass-by reduction of 40 percent was based on ITE rates for fast food restaurants with a drive-through. The ITE handbook cites a figure of 49 percent and 50 percent for pass-by trips at fast food restaurants with a drive-through in the AM and PM peak hour, respectively. Since the project's fast food component does not contain a drive-through, the pass-by rate was reduced to 40 percent, in accordance with professional engineering judgment. There are no pass-by data reported for fast food restaurants without a drive-through. This estimated pass-by rate is also comparable to the ITE pass-by rate of 43 percent for restaurant uses.

The trip generation estimates for the Mixed Use alternative are presented in Table V-1. It is estimated that the Mixed Use alternative would generate 272 trips during the AM peak hour and 247 trips during the PM peak hour.

These trip estimates do not reflect any reduction for transit usage. The project site is located less than ¼-mile from the Menlo Park Caltrain station. Due to the site's close proximity to commuter rail service, the mix of land uses, and the pedestrian and bicycle facilities included in the Mixed Use alternative, it is likely that the Mixed Use alternative would generate vehicular traffic at a rate that is lower than the average rate published in ITE's *Trip Generation*. Based on recent studies of Transit-Oriented Developments (TOD) throughout California, including several residential developments within ¼-mile of a Caltrain station, it can be concluded that the trip estimates for the residential uses

Table V-1: Mixed Use Alternative Trip Generation

Land Use	Size	Daily		AM Peak Hour			PM Peak Hour				
		Rate ^a	Trips	Rate ^a	In	Out	Total	Rate ^a	In	Out	Total
Proposed Uses											
Residential	36 units	6.59	237	0.46	4	13	17	0.58	14	7	21
Office	58,700 sf	11.01	646	1.55	80	11	91	1.49	15	72	87
Fast Food	3,200 sf	350.00	1,120	43.87	84	56	140	26.15	43	41	84
<i>Pass-By Trip Reduction^b</i>					-34	-22	-56		-17	-16	-34
High Turnover Restaurant	10,800 sf	127.15	1,373	11.52	64	60	124	10.92	72	46	118
<i>Pass-By Trip Reduction^c</i>					-28	-26	-53		-31	-20	-51
Retail	8,895 sf	42.94	382	1.03	5	4	9	3.75	16	17	33
<i>Pass-By Trip Reduction^c</i>									-5	-6	-11
Total Trips			3,759		176	96	272		106	141	247

^a Peak hour trip generation rates based on ITE *Trip Generation*, Seventh Edition, 2003.

^b Pass-by rates based on engineering judgment.

^c Pass-by rates based on ITE *Trip Generation Handbook*, Second Edition, 2004.

Source: Hexagon Transportation Consultants, Inc., 2009.

presented in Table V-1 may overstate the actual vehicle trip generation by approximately 12 percent.³ Similarly, based on published data on office workers at TOD sites throughout California, including Caltrain station-area workers, the trip estimates in Table V-1 may overstate office trips by approximately 4 percent.⁴ In order to conservatively identify all potential impacts, the trip estimates for the residential and office uses contained in the Mixed Use alternative were not reduced to account for the higher-than-average transit usage that is expected at this site. Because the site has been vacant for more than 1 year, the trip generation estimates for the alternative do not include any credits for the trips generated by the auto dealership that previously occupied the site.

Compared to the trip estimates prepared for the proposed project, the Mixed Use alternative is expected to generate 14 more vehicle trips during the AM peak hour and 243 fewer vehicle trips during the PM peak hour. Similar to the project, the Mixed Use alternative would result in less-than-significant impacts to transit, bike, and pedestrian facilities, and would not result in on- or off-site circulation hazards.

(2) Near-Term and Long-Range Traffic Conditions. The analysis of the traffic effects of the Mixed Use alternative was conducted by assigning the peak hour project trips presented in Table V-1 to the study intersections based on the project traffic distribution pattern. The trips were assigned assuming both with the completion of the Garwood Way extension and no development of the Garwood Way extension.

Intersection Level of Service Analysis. The results of the level of service analysis under near-term and long-range conditions for the Mixed Use Alternative project are compared to the level of service results for the proposed project in Table V-2 and Table V-3. For clarity, the tables show levels of service only for intersections that would be subject to a significant impact under project conditions. The level of service calculation sheets are included in Appendix D.

³ Lund, H., R. Cervero and R. Willson, 2003. *Travel Characteristics of Transit-Oriented Development in California*. Funded by Caltrans Transportation Grant—"Statewide Planning Studies"—FTA Section 5313 (b).

⁴ R. Cervero, 1993. *Ridership Impacts of Transit-Focused Development in California*. Berkeley, California: Institute of Urban and Regional Development, University of California at Berkeley.

Table V-2: Levels of Service at City-Controlled Intersections

City/Intersection	Type of Control	LOS Standard ^a	Near-Term Project without Garwood Extension				Near-Term Project with Garwood Extension				Near-Term Project Mixed Use Alternative without Garwood Extension				Near-Term Project Mixed Use Alternative with Garwood Extension											
			LOS ^b	Avg. Delay ^c	Critical Delay ^d	Increase in Critical Delay	LOS ^b	Avg. Delay ^c	Critical Delay ^d	Increase in Critical Delay	LOS ^b	Avg. Delay ^c	Critical Delay ^d	Increase in Critical Delay	LOS ^b	Avg. Delay ^c	Critical Delay ^d	Increase in Critical Delay								
Menlo Park																										
17. Alma Street and Oak Grove Avenue	2-way stop	C	C	23.8	NA	NA	C	24.6	NA	NA	D	27.7	NA	NA	D	29.3	NA	NA								
			D	31.8	NA	NA	E	39.8	NA	NA	D	31.5	NA	NA	E	37.3	NA	NA								
19. Garwood Way/Merrill Street and Oak Grove Ave	2-way stop	C	C	24.6	NA	NA	D	27.8	NA	NA	D	26.4	NA	NA	D	32.0	NA	NA								
			D	28.5	NA	NA	F	> 90	NA	NA	D	28.5	NA	NA	F	57.5	NA	NA								
Atherton																										
21. Middlefield Road and Marsh Road	Signal	D	E	61.5	> 90	3.1	E	61.5	> 90	3.1	E	61.6	> 90	3.3	E	61.6	> 90	3.3								
			F	> 90	> 90	7.7	F	> 90	> 90	7.8	F	> 90	> 90	4.4	F	> 90	> 90	4.4								
22. Middlefield Road and Glenwood Avenue	2-way stop	D	F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA								
			F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA								
27. Middlefield Road and Encinal Avenue	2-way stop	D	F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA								
			F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA								
Long-Range Project																										
Without Garwood Extension									With Garwood Extension									Long-Range Project Mixed Use Alternative								
Without Garwood Extension									With Garwood Extension									Without Garwood Extension				With Garwood Extension				
Menlo Park																										
14. Middlefield Road and Ravenswood Avenue	Signal	D	E	67.0	> 90	5.3	E	67.0	> 90	5.3	E	67.8	> 90	6.3	E	67.8	> 90	6.3								
			E	55.5	79.0	9.1	E	55.5	79.0	9.1	D	53.6	76.1	6.2	D	53.6	76.1	6.2								
17. Alma Street and Oak Grove Avenue	2-way stop	C	D	27.7	NA	NA	D	28.9	NA	NA	E	36.2	NA	NA	E	38.8	NA	NA								
			E	40.4	NA	NA	F	52.8	NA	NA	E	41.5	NA	NA	F	51.3	NA	NA								
19. Garwood Way/Merrill Street and Oak Grove Ave	2-way stop	C	D	27.4	NA	NA	D	32.0	NA	NA	D	30.9	NA	NA	E	40.1	NA	NA								
			D	32.7	NA	NA	F	> 90	NA	NA	D	33.5	NA	NA	F	81.6	NA	NA								
Atherton																										
20. Middlefield Road and Oak Grove Avenue	Signal	D	E	69.2	> 90	> 90	E	69.2	> 90	> 90	E	68.7	> 90	> 90	E	68.7	> 90	> 90								
			C	28.5	32.9	1.4	C	28.5	32.9	1.4	C	28.7	77.8	46.3	C	28.7	77.8	46.3								
21. Middlefield Road and Marsh Road	Signal	D	E	> 90	> 90	3.5	E	> 90	> 90	3.5	E	> 90	> 90	3.8	E	> 90	> 90	3.8								
			F	> 90	> 90	7.9	F	> 90	> 90	7.9	F	> 90	> 90	4.5	F	> 90	> 90	4.5								
22. Middlefield Road and Glenwood Avenue	2-way stop	D	F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA								
			F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA								
27. Middlefield Road and Encinal Avenue	2-way stop	D	F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA								
			F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA	F	> 90	NA	NA								

Note: Shading = Vehicle delays that would be significantly adversely affected by the proposed project or Mixed Use alternative.

^a Level of Service Standard. At intersections involving two collector streets, the City of Menlo Park's standard is LOS C. At intersections involving an arterial street, the City of Menlo Park's standard is LOS D. The City of Menlo Park's level of service standards were applied to intersections in the Town of Atherton, which has not designated a minimum acceptable level of service.

^b Level of service (based on average delay).

^c Average control delay (seconds per vehicle) including all movements for intersections controlled by a signal or four-way stop. At intersections under two-way stop control, average delay is reported for the worst-performing controlled lane group.

^d Average control delay (seconds per vehicle) for the critical movements only.

Source: Hexagon Transportation Consultants, Inc., 2009.

Table V-3: Levels of Service at State-Controlled Intersections

Approach	Peak Hour	Near-Term Project Without Garwood Extension				Near-Term Project With Garwood Extension				Near Term Project Mixed Use Alternative Without Garwood Extension				Near Term Project Mixed Use Alternative With Garwood Extension			
		LOS ^a	Average Delay ^b	Critical Delay ^c	Increase in Critical Delay	LOS ^a	Average Delay ^b	Critical Delay ^c	Increase in Critical Delay	LOS ^a	Average Delay ^b	Critical Delay ^c	Increase in Critical Delay	LOS ^a	Average Delay ^b	Critical Delay ^c	Increase in Critical Delay
5. Menlo/Ravenswood and El Camino Real	AM	D	48.6	54.8	1.5	D	48.6	54.8	1.5	D	48.8	55.3	2.0	D	48.8	55.3	2.0
	PM	F	81.1	> 90	8.9	F	81.1	> 90	7.4	E	77.8	> 90	3.4	E	77.8	> 90	3.4
Eastbound Menlo	AM	D	46.9	46.9	0.7	D	46.9	46.9	0.7	D	46.9	46.9	0.7	D	46.9	46.9	0.7
	PM	E	57.6	57.6	2.4	E	57.6	57.6	2.4	E	56.1	56.1	0.9	E	56.1	56.1	0.9
Westbound Ravenswood	AM	D	49.0	52.2	0.0	D	49.0	52.2	0.0	D	49.0	52.2	0.0	D	49.0	52.2	0.0
	PM	E	72.1	> 90	0.0	E	72.1	> 90	0.0	E	72.1	> 90	0.0	E	72.1	> 90	0.0
		Long-Range Project								Long-Range Project Mixed Use Alternative							
		Without Garwood Extension				With Garwood Extension				Without Garwood Extension				With Garwood Extension			
2. Valparaiso/Glenwood and El Camino Real	AM	F	> 90	> 90	25.8	F	> 90	> 90	10.9	F	> 90	> 90	45.8	F	> 90	> 90	30.2
	PM	E	61.2	71.5	12.5	D	54.8	60.2	1.2	D	54.2	59.6	0.6	D	52.1	59.6	0.6
Eastbound Valparaiso	AM	D	42.8	45.3	0.3	D	43.0	45.3	0.3	D	42.5	45.3	0.3	D	42.6	45.3	0.3
	PM	E	55.0	60.5	0.9	E	55.5	60.5	0.9	E	55.2	60.0	0.4	E	55.5	60.0	0.4
Westbound Glenwood	AM	D	48.1	50.9	0.5	D	48.1	50.9	0.5	D	48.1	50.9	0.5	D	48.1	50.9	0.5
	PM	E	59.5	64.5	4.0	E	59.5	64.5	4.0	E	58.0	62.5	2.0	E	58.0	62.5	2.0
5. Menlo/Ravenswood and El Camino Real	AM	E	56.6	66.4	2.0	E	56.6	66.4	2.0	E	56.9	67.0	2.6	E	56.9	67.0	2.6
	PM	F	> 90	> 90	8.0	F	> 90	> 90	8.0	F	> 90	> 90	3.7	F	> 90	> 90	3.7
Eastbound Menlo	AM	D	48.6	48.6	0.9	D	48.6	48.6	0.9	D	48.5	48.5	0.8	D	48.5	48.5	0.8
	PM	E	61.5	61.5	3.5	E	61.5	61.5	3.5	E	59.3	59.3	1.3	E	59.3	59.3	1.3
Westbound Ravenswood	AM	D	52.1	56.2	0.0	D	52.1	56.2	0.0	D	52.1	56.2	0.0	D	52.1	56.2	0.0
	PM	E	79.0	> 90	0.0	E	79.0	> 90	0.0	E	79.0	> 90	0.0	E	79.0	> 90	0.0

Note: Shading = Vehicle delays that would be significantly adversely affected by the proposed project or Mixed Use alternative.

^a Level of service (based on average delay for the subject intersection/approach).

^b Average control delay (seconds per vehicle) including all movements on the subject intersection/approach.

^c Average control delay (seconds per vehicle) for the critical movement on the subject intersection/approach.

Source: Hexagon Transportation Consultants, Inc., 2009.

The LOS results show that, with implementation of the Mixed Use alternative, the study intersections would operate similar to the proposed project (both with and without the Garwood Way extension) under near-term and long-range conditions with the exception of the Valparaiso Avenue/Glenwood Avenue and El Camino Real intersection. Under the Mixed Use alternative, the State-controlled intersection of Valparaiso Avenue/Glenwood Avenue and El Camino Real would not have any significant impacts under long-range conditions. Thus, no mitigation measures would be required for this intersection. The remaining mitigation measures identified for the proposed project would be required for the Mixed Use alternative (and no additional mitigation measures beyond those identified for the proposed project would be required). The mitigation measures are listed in Table V-4.

f. Air Quality. Like the proposed project, the Mixed Use alternative would not substantially increase pollutant or odor concentrations, and would not conflict with the Bay Area 2005 Ozone Strategy or BAAQMD standards. Regional emissions for the Mixed Use alternative are shown in Table V-5 (supporting data are included in Appendix B). The air quality and noise data in this section and the following section were prepared for a slightly different Mixed Use alternative that would generate more vehicle trips than the current alternative; therefore the air pollutant emissions and noise levels reported in these sections are slightly higher than what would result from the alternative as it is currently envisioned.

A comparison of near-term and long-term CO concentrations at intersections in the site vicinity associated with the Mixed Use alternative and the project is shown in Table V-6. Results of the regional emission modeling and a CO hot spot analysis indicate that impacts associated with the Mixed Use alternative would be less than significant. Similar to the proposed project, no further mitigation would be required.

However, the alternative would result in the following significant air quality impacts. The first two impacts are the same as those that would result from the proposed project. Recommended mitigation measures are also identical (refer to Section IV.F, Air Quality, for more detail). However, the third significant and unavoidable impact (exposure of residential occupants of the site to toxic air contaminants associated with the railroad) would result from implementation of the Mixed Use alternative, but not the proposed project.

Impact AIR-1: Demolition and construction-period activities would generate significant dust, exhaust, and organic emissions. (S)

Implementation of Mitigation Measure AIR-1 would reduce this construction period impact to a less-than-significant level.

Impact AIR-2: The Mixed Use alternative would exacerbate the nonattainment of air quality standards for PM₁₀, PM_{2.5}, and ozone within the subregion and Basin and contribute to cumulative adverse air quality impacts. (S)

Similar to the proposed project, the Mixed Use alternative would exacerbate nonattainment of air quality standards within the subregion and Basin and contribute to adverse cumulative air quality impacts. Implementation of Mitigation Measure AIR-2 (which requires the implementation of Mitigation Measure AIR-1) would reduce the overall contribution of the alternative to cumulative air quality impacts to a less-than-significant level.

Table V-4: Summary of Potential Intersection Mitigation Measures

#	Intersection Description	Significant Impact?		Potential Mitigation	Jurisdiction	Fully Mitigates Impact?	Feasible?	Additional Right of Way?	Loss of On-Street Parking?
		Near-Term	Long-Range						
2	Valparaiso Avenue/Glenwood Avenue and El Camino Real	No	No ^a	Implement WB right-turn lane	Caltrans	No	No	Yes	No
				OR Eliminate split phase control and add protected left-turn phase for E and W legs. Convert EB shared left/through lane to 2 nd left-turn lane and convert EB right-turn lane to shared through/right-turn lane.	Caltrans	Yes	No	No	No
				OR Convert NB right-turn lane to 3 rd through lane	Caltrans	Yes	No	No	Yes -25 spaces
5	Menlo Avenue/Ravenswood Avenue and El Camino Real	Yes	Yes	Convert NB right-turn lane to 3rd through lane and add NB right-turn lane. EB right-turn lane not feasible.	Caltrans	Yes	Yes	Yes	No
14	Middlefield Road and Ravenswood Avenue	No	Yes	SB right-turn lane	Atherton	Yes	No	Yes	No
				OR NB left-turn lane	Atherton	Yes	No	Yes	No
				OR Implement adaptive signal timing	Menlo Park	No	No	No	No
17	Alma Street and Oak Grove Avenue	Yes	Yes	Implement NB left-turn lane (signalization is not feasible)	Menlo Park	No	No	No	Yes -5 spaces
				OR Prohibit NB left-turn (peak hours only)	Menlo Park	Yes	No	No	No
19	Garwood Way/Merrill Street and Oak Grove Avenue	Yes	Yes	Implement SB right-turn lane (signalization not feasible)	Menlo Park	No	Yes	No ^b	No
				OR Prohibit NB and SB left-turn (peak hours only)	Menlo Park	Yes	No	No	No
20	Middlefield Road and Oak Grove Avenue	No	Yes	Implement NB/SB protected left-turn phases and extend turn pocket length	Atherton	Yes	No	No	No
21	Middlefield Road and Marsh Road	Yes	Yes	Implement 2nd SB left-turn lane	Atherton	Yes	No	No	No
22	Middlefield Road and Glenwood Avenue	Yes	Yes	Signalize Middlefield Road/Encinal Avenue	Atherton	Yes	Yes	No	No
27	Middlefield Road and Encinal Avenue	Yes	Yes	Signalize Middlefield Road/Encinal Avenue	Atherton	Yes	Yes	No	No

^a Significant impact would result if the Garwood Way extension is not constructed.

^b To be constructed within planned ROW as part of Derry Lane Mixed-Use Project.

NB=Northbound; EB = Eastbound; SB=Southbound; WB=Westbound

Source: Hexagon Transportation Consultants, Inc., 2009.

Table V-5: Mixed Use Alternative Regional Emissions in Pounds Per Day Compared to the Proposed Project

	Reactive Organic Gases		Nitrogen Oxides		PM ₁₀	
	Proposed Project	Mixed Use Alternative	Proposed Project	Mixed Use Alternative	Proposed Project	Mixed Use Alternative
Regional Emissions	47.0	46.4	74.0	73.2	75.0	75.0
BAAQMD Threshold	80.0	80.0	80.0	80.0	80.0	80.0
Exceed?	No	No	No	No	No	No

Source: LSA Associates, Inc., 2009.

Impact AIR-3: Existing railroad operations would have a significant impact on air quality and would expose future residents of the Mixed Use alternative to toxic air contaminants. (S)

The site is adjacent to a functioning rail line that produces various air emissions. A screening health risk assessment was conducted in order to evaluate the impact of diesel exhaust from trains operating on existing tracks near the project site. The analysis was performed according to BAAQMD's Health Risk Screening Analysis Guidelines. The existing rail lines are located along the northern boundary of the project site. The railroad tracks currently carry approximately 98 Caltrain passenger trains per day and one to four unscheduled freight trains. A screening analysis using the U.S. EPA TSCREEN model supplied with EPA emission factors for existing trains⁵ predicts health risks as shown in Table V-7. Idling train exhaust is associated with trains stopped at the station. The model incorporates the assumption that four trains would stop each hour at the Menlo Park Caltrain station, and that each train would stop for approximately 5 minutes.

Table V-7 shows the calculated values of the acute and chronic non-cancer health hazard index and carcinogenic risk associated with train activity near the site. These results are based on the TSCREEN results, which are very protective of human health. As shown, the inhalation cancer risk for future residents exposed to air emissions from train sources would be 55.9 in a million. Exposure from this single source would be several times greater than the ten in a million threshold. Because no feasible mitigation measures exist to reduce residents' long-term inhalation cancer risk due to exposure to train emissions to below-threshold levels, the impact on the site from train exhaust would be significant and unavoidable. Although Caltrain is considering electrification of its train service (which would eliminate hazardous diesel exhaust emissions), implementation of such a project is expected to occur at least several years in the future. Implementation of Mitigation Measure AIR-3 would reduce the cancer risk of future residents on the site to the maximum practicable extent. However, the impact would remain significant and unavoidable.

⁵ U.S. EPA Emission Factors for Locomotives, EPA-420-F-97-051, December 1997.

Table V-6: Worst-Case CO Concentrations Near Selected Intersections (in Parts Per Million (PPM))^a

Intersection	Near-Term + Project		Near-Term + Alternative		Change		Long-Term + Project		Long-Term + Alternative		Change	
	1-hr	8-hr	1-hr	8-hr	1-hr	8-hr	1-hr	8-hr	1-hr	8-hr	1-hr	8-hr
El Camino Real & Menlo	7.01	4.41	7.01	4.41	0.00	0.00	7.17	4.57	7.17	4.57	0.00	0.00
El Camino Real & Glenwood	7.12	4.52	7.15	4.55	0.03	0.03	7.12	4.52	7.31	4.71	0.19	0.19
El Camino Real & Oak Grove	7.17	4.57	7.18	4.58	0.01	0.01	7.31	4.71	7.33	4.73	0.02	0.02
El Camino Real & Santa Cruz	6.99	4.39	6.99	4.39	0.00	0.00	7.13	4.53	7.13	4.53	0.00	0.00
El Camino Real & Menlo	7.62	5.02	7.62	5.02	0.00	0.00	7.80	5.20	7.80	5.20	0.00	0.00
El Camino Real & Robel	7.62	5.02	7.62	5.02	0.00	0.00	7.80	5.20	7.80	5.20	0.00	0.00
El Camino Real & Middle Ave.	7.59	4.99	7.59	4.99	0.00	0.00	7.76	5.16	7.76	5.16	0.00	0.00
El Camino Real & Cambridge	7.67	5.07	7.66	5.06	-0.01	-0.01	7.85	5.25	7.85	5.25	0.00	0.00
Valparaiso & University	5.56	2.96	5.56	2.96	0.00	0.00	5.61	3.01	5.61	3.01	0.00	0.00
Ravenswood & Alma Street	5.11	2.51	5.10	2.50	-0.01	-0.01	5.13	2.53	5.12	2.52	-0.01	-0.01
Oak Grove & Alma Street	5.35	2.75	5.35	2.75	0.00	0.00	5.39	2.79	5.38	2.78	-0.01	-0.01
Glenwood & Garwood	5.44	2.84	5.40	2.80	-0.04	-0.04	5.48	2.88	5.44	2.84	-0.04	-0.04
Oak Grove & Garwood	6.12	3.52	6.01	3.41	-0.11	-0.11	6.08	3.48	6.08	3.48	0.00	0.00
Glenwood & Laurel	5.17	2.57	5.16	2.56	-0.01	-0.01	5.19	2.59	5.18	2.58	-0.01	-0.01
Oak Grove & Laurel	5.35	2.75	5.35	2.75	0.00	0.00	5.39	2.79	5.38	2.78	-0.01	-0.01
Ravenswood & Laurel	5.89	3.29	5.89	3.29	0.00	0.00	5.95	3.35	5.95	3.35	0.00	0.00
Middlefield & Willow Road	6.13	3.53	6.13	3.53	0.00	0.00	6.23	3.63	6.23	3.63	0.00	0.00
Middlefield & Ridgewood	5.91	3.31	5.91	3.31	0.00	0.00	6.00	3.40	6.00	3.40	0.00	0.00
Middlefield Road & Ravenswood	5.92	3.32	5.92	3.32	0.00	0.00	6.02	3.42	6.01	3.41	-0.01	-0.01
Middlefield Road & Oak Grove Road	6.05	3.45	6.04	3.44	-0.01	-0.01	6.14	3.54	6.14	3.54	0.00	0.00
Middlefield Road & Glenwood Ave.	6.16	3.56	6.15	3.55	-0.01	-0.01	6.26	3.66	6.26	3.66	0.00	0.00
Middlefield Road & Marsh Road	6.20	3.60	6.20	3.60	0.00	0.00	6.31	3.71	6.30	3.70	-0.01	-0.01
Most Stringent Standard	20.0	9.0	20.0	9.0	--	--	20.0	9.0	20.0	9.0	--	--
Exceed Standard?	No	No	No	No	--	--	No	No	No	No	--	--

^a Includes ambient 1-hour concentration of 4.4 ppm and ambient 8-hour concentration of 2.2 ppm. Measured at the 897 Barron Ave., Redwood City, CA, AQ Station (San Mateo County). Source: www.epa.gov/air/data

Source: LSA Associates, Inc., 2009.

The health hazard index for future residents would be 0.2, which is less than the threshold of 1.0. A value less than 1.0 indicates that the air emissions would not cause non-cancer health effects.

Mitigation Measure AIR-3: All residences constructed on the site shall be equipped with a ventilation system that will filter the indoor air to a filtration efficiency of at least 90 percent and the ability to remove particulate matter with diameters equal to or greater than 0.5 micron. (SU)

Table V-7: Inhalation Health Risks from Train Sources

Nearest Future Residence (Feet)	Carcinogenic Inhalation Health Risk	Chronic Inhalation Health Index
300	55.9 in a million	0.2
Threshold	10 in a million	1.0

Source: LSA Associates, Inc., 2009.

g. Noise and Vibration. Noise and vibration impacts related to the Mixed Use alternative would not differ substantially from those associated with the proposed project. Groundborne vibration levels from railroad sources would be well within the limits set by the FTA guidelines for structures exposed to frequent groundborne vibration: 72 VdB for residential uses and 75 VdB for commercial uses. No significant vibration-related impact would result.

The alternative would, however, result in the following significant noise impacts, which are the same as those that would result from the proposed project. Recommended mitigation measures to reduce the significance of these impacts are also identical. Refer to Section IV.G, Noise, for more detail.

Impact NOISE-1: During construction of the Mixed Use alternative, noise levels from construction activities may range up to 91 dBA L_{max} at the nearest land uses to the site for a limited time period. (S)

Short-term construction-related impacts would be similar to those associated with the proposed project. Implementation of Mitigation Measure NOISE-1 would reduce construction related noise impacts to a less-than-significant level.

Impact NOISE-2: Local traffic and rail operations would generate long-term noise levels exceeding 60 dBA CNEL. (S)

The modeled traffic noise levels for the Mixed Use alternative are shown in Table V-8 (with supporting data in Appendix C). The results show that, overall, the alternative would result in lower traffic-related noise levels along certain roadway segments compared to the proposed project. Unlike the proposed project, the Mixed Use alternative would include residential units, which have a lower threshold than commercial uses for acceptable noise levels. According to the City's land use compatibility standards, environments with noise levels up to 60 dBA CNEL are considered normally acceptable for new residential development. Taking into account construction of the proposed commercial building complex adjacent to El Camino Real and the distance of the proposed residential building complex from other adjacent roadways, the predicted traffic noise levels at the residential units would be below 60 dBA CNEL.

Traffic noise impacts to the commercial and office land uses would remain the same as the proposed project, as described in Section IV.G.

Table V-8: Mixed Use Alternative Traffic Noise Levels ^a

Roadway Segment	Near Term			Long Term		
	Proposed Project (dBA)	Mixed Use Alternative (dBA)	Change (dBA)	Proposed Project (dBA)	Mixed Use Alternative (dBA)	Change (dBA)
El Camino Real North of Glenwood Avenue	69.8	69.8	0.0	70.1	70.1	0.0
El Camino Real between Glenwood Avenue and Oak Grove Avenue	69.6	69.7	0.1	69.9	69.9	0.0
El Camino Real South of Oak Grove Avenue	69.8	69.8	0.0	70.1	70.1	0.0
Garwood Way North of Glenwood Avenue	47.1	47.1	0.0	48.3	48.3	0.0
Garwood Way South of Glenwood Avenue	54.6	54.3	-0.3	54.6	54.3	-0.3
Merrill Street South of Oak Grove Avenue	53.8	54.0	0.2	54.0	54.2	0.2
Alma Street South of Oak Grove Avenue	59.3	58.9	-0.4	59.6	59.2	-0.4
Laurel Street North of Glenwood Avenue	57.3	57.1	-0.2	57.5	57.5	0.0
Laurel Street between Glenwood Avenue and Oak Grove Avenue	59.8	59.7	-0.1	60.0	59.9	-0.1
Laurel Street South of Oak Grove Avenue	60.3	60.3	0.0	60.5	60.5	0.0
Oak Grove Avenue West of El Camino Real	59.4	59.4	0.0	59.7	59.7	0.0
Oak Grove Avenue between El Camino Real and Alma Street	61.8	61.8	0.0	62.1	62.0	-0.1
Oak Grove Avenue between Alma Street and Laurel Street	62.9	62.7	-0.2	63.1	62.9	-0.2
Oak Grove Avenue East of Laurel Street	61.8	61.7	-0.1	62.0	62.0	0.0
Glenwood Avenue West of El Camino Real	64.7	64.7	0.0	65.0	65.0	0.0
Glenwood Avenue between El Camino Real and Garwood Way	61.7	61.7	0.0	62.0	62.0	0.0
Glenwood Avenue between Garwood Way and Laurel Street	61.6	61.5	-0.1	61.8	61.7	-0.1
Glenwood Avenue East of Laurel Street	60.4	60.4	0.0	60.7	60.7	0.0

^a Data provided indicates CNEL (dBA) 50 feet from Centerline of Outermost Travel Lane.
Source: LSA Associates, Inc., 2009.

Railroad noise and ground-borne vibration impacts would be identical to those associated with the proposed project. Railroad noise levels would be 72 dBA CNEL at the residential building, which is within the City’s normally unacceptable range for new residential development. However, the General Plan standards pertain specifically to interior noise; as such, a detailed analysis of noise reduction requirements would be required prior to development of the alternative, along with the identification of adequate noise insulation features. Implementation of Mitigation Measure NOISE-2, and the installation of insulated windows, would ensure that the interior noise standard of 45 dBA CNEL is achieved for all noise-sensitive structures within the site and that traffic- and railroad-related noise and vibration impacts would be reduced to less-than-significant levels.

Impact NOISE-3: Long-term stationary noise sources on the project site could generate noise levels in excess of the thresholds set in Section 8.06.030 of the City’s Noise Ordinance. (S)

Stationary and operational noise impacts associated with implementation of the Mixed Use alternative would remain the same as those identified for the proposed project. Implementation of Mitigation Measure NOISE-3 would ensure that stationary and operational noise impacts would be reduced to a less-than-significant level. Implementation of Mitigation Measures NOISE-1 through NOISE-3

would reduce the noise and vibration impacts associated with the Mixed Use alternative to a less-than-significant level.

h. Hazards. Hazardous materials concerns on the site are mainly associated with past land uses and demolition of the existing buildings. Therefore, the Mixed Use alternative would result in hazards-related impacts that are almost identical to those that would result from the proposed project, as discussed below. Refer to Section IV.H, Hazards, for additional detail.

Following construction, the alternative would not result in significant impacts from the routine transport, use, or disposal of significant quantities of hazardous materials, namely because street front retail, restaurant, office, and residential uses are not typically associated with the use of large volumes of hazardous materials. Any hazardous materials (pesticides, herbicides, fertilizers, fuels) used for the maintenance of open space/landscaped areas would be brought onto the site for immediate use and would not be stored on-site. Other potentially-hazardous materials used by the retail, office, and residential tenants of the alternative would be subject to existing hazardous materials regulations and would not be expected to result in a significant risk to people or the environment. Although the site is listed on one of the databases that comprise the State Cortese List of known hazardous materials sites, remediation activities on the site have been completed. Similar to the project, the alternative would not interfere with emergency evacuation plans (because it would not change access to roads around the project site) and would include appropriate fire prevention/fighting features.

The alternative would result in the same significant hazards-related impacts as the project.

Impact HAZ-1: Development of the Mixed Use alternative could expose construction workers to contaminants in soils and structures formerly containing hazardous materials at the site. (S)

Environmental investigations completed at the site have identified contaminants related to former operation of Underground Storage Tanks (USTs) and other structures associated with the car dealership and maintenance facilities from 1967 to approximately 1995. Case closure was granted by the County in August 2004 following the removal of four USTs and associated fuel lines and pump islands. Residual contamination was permitted to be left in place following closure. Past investigation of hazardous materials on the site revealed residual contamination, but uncertainties remain about contamination in several places in the site, including near or under all of the hydraulic lifts, under the sumps, and beneath the oil-water separators. In addition, it is unknown whether releases or improper disposal on the site associated with previous uses may have contributed to subsurface contamination.

Future construction workers would have direct contact with potentially contaminated soils and subsurface structures formerly containing hazardous materials during site preparation and excavation of soils. As assumed for the proposed project, on-site construction workers are not expected to have contact with groundwater since groundwater was not encountered on-site and at a neighboring site to a depth of about 35 to 50 feet below the ground surface during previous sampling efforts. Implementation of Mitigation Measure HAZ-1 (see Section IV.H) would reduce impacts to human and environmental health associated with possible residual contamination on the site to a less-than-significant level.

Impact HAZ-2: Improper use or transport of hazardous materials during construction activities could result in releases affecting construction workers and the general public. (S)

Construction activities that would occur with implementation of the alternative may involve use, transport, and accidental release of hazardous materials. Releases of these materials could pose a risk to the public, occupants of the site, and the environment. Implementation of Mitigation Measure HAZ-2 (see Section IV.H) would reduce this potential impact to a less-than-significant level.

Impact HAZ-3: Demolition of any structures containing lead-based paint and/or asbestos-containing building materials could release airborne lead and asbestos particles, which may adversely affect construction workers and the public. (S)

Historical records reviewed for the Phase I investigation indicate that the buildings on the site were constructed in the 1960s, when asbestos-containing materials were still commonly used in building materials. A lead-based paint survey of the structures planned for demolition has not been completed. If lead-based paint and/or asbestos-containing materials are present in structures on the site, demolition of these structures could expose construction workers and nearby residents and workers to asbestos fibers and lead-based paint dust, resulting in potential adverse health effects. Workers could also come into contact with other hazardous building materials during demolition activities, possibly resulting in adverse health effects. Implementation of Mitigation Measure HAZ-3 (see Section IV.H) would reduce this impact to a less-than-significant level.

i. Public Utilities and Services. Similar to the proposed project, the Mixed Use alternative would increase demand for public services such as police, fire, parks, and utility services. Unlike the proposed project, the alternative would also increase demand for schools because the residential development on the site would likely generate new students, some of whom could attend area public schools. The alternative's potential impacts to public utilities and services are discussed below. Refer to Section IV.I, Public Services and Utilities, for additional detail.

Police Services. Like the proposed project, implementation of the alternative would result in a less-than-significant impact on the Menlo Park Police Department. The Menlo Park Police Department currently has an adequate number of police officers to serve the alternative. The primary concerns for law enforcement in Menlo Park are retail theft and increased traffic and parking demand in an already-congested area. Retail theft is dependent upon many factors, including the type of retail stores which occupy the site; larger stores generally have greater theft issues than smaller retail stores. Because the retail space constructed as part of the alternative would be divided up into smaller spaces compared to the project, the associated demands on police services would be incrementally lower. The residential uses would generate a less-than-significant demand on police services.

Fire Services. The alternative would also result in a less-than-significant impact on fire services. Like the proposed project, the alternative would create a small increase in demand for fire and emergency services within the City of Menlo Park. However, the increase in demand for these services would not be likely to exceed the physical and financial capabilities of the providers. The buildings constructed as part of the alternative would be required to meet Department standards related to fire hydrants, water fire flow requirements, spacing of hydrants, and other fire code requirements. Similar to the project, Fire Department response times to the site could be delayed due to train activity. However, such delay would not be considered significant.

Parks and Recreation. The alternative would increase the current population of Menlo Park by 87 persons. Although new site residents could use local parks and recreational facilities, any increase in

use is not expected to result in physical deterioration of community facilities. The 236 acres of City-owned open space and recreational facilities would be sufficient to serve residents and employees occupying the site. Therefore, the Mixed Use alternative, like the proposed project, would result in a less-than-significant impact on parks and recreation facilities.

Schools. The Menlo Park City School District uses a single-family residential unit student yield factor of 0.5 students per dwelling unit for kindergarten through 8th grade. Based on this factor, the alternative would generate approximately 18 students in kindergarten through 8th grade. These students would comprise less than 1 percent of the District's current enrollment. Although new classrooms and teaching staff are needed in the District to accommodate projected growth, the construction of new facilities is not expected to result in significant unavoidable impacts. However, new school projects have been and would continue to be subject to independent environmental review.

Sequoia Union High School District uses a student generation rate of 0.357 students per residential unit. Using this rate, 13 students would be generated by the proposed project. Menlo-Atherton High School has capacity for these students, based on current enrollment. However, the school facilities would have to undergo changes to accommodate new classroom arrangements and additional classrooms might be needed to accommodate students. There is no room on the school site for portable classrooms.

In order to address the additional demand placed on both school districts by the project, the developer of the Mixed Use alternative would pay the required development fee to the District. As of 2009, the school impact/mitigation fee was \$2.97 per square foot for residential development, and \$0.47 per square foot for commercial space. The Menlo Park City School District would receive approximately 60 percent of this fee, and the Sequoia Union High School District would receive the remaining 40 percent.

Although many of the schools that serve the site are at or near capacity, the Mixed Use alternative would not have significant impacts on the provision of school services. The number of students generated by the alternative would be anticipated to be below projected estimates because of the relatively small unit sizes (two-bedroom) and the location of the project near the downtown area. The residential units are expected to be occupied primarily by singles and couples, as opposed to families with children. Developer's fees would offset any potential impact of the alternative. The ultimate expansion of school facilities that is anticipated by the two districts serving the site would require environmental review at the time the expansion is planned. Therefore, the alternative would not cause substantial adverse physical impacts associated with the provision of new or physically altered schools, or a need for new or physically altered schools.

Water Service. The Bear Gulch District of Cal Water provides water service to the project site and receives its water allocation from the San Francisco Public Utilities Commission. The Bear Gulch District has adequate water supplies to serve the Mixed Use alternative. Water demand from the Mixed Use alternative would be approximately 12,816 gallons per day (gpd) (the project would generate a demand of 6,604 gpd), as shown in Table V-9. While the site has been vacant for several years, previous uses on the site generated demand for water. Because the Mixed Use alternative, like the project, is an infill project, the District estimates that much of the demand that would result from the alternative has been accounted for and would not be considered new demand.

Table V-9: Estimated Water Demand Calculations

Description	Units	Floor Area (sf)	Consumption Rate	Average Daily Demand (gpd)
Retail	NA	22,895	0.06 gpd/sf	1,374
Office	NA	58,700	0.06 gpd/sf	3,522
Residential	36	NA	220 gpd/unit	7,920
Total Projected Demand				12,816

Source: BFK Engineers.

The alternative, like the proposed project, would require the placement of a new 8-inch water line. The District requires that new water lines do not contain “dead-ends” but instead loop into existing lines because dead-end lines tend to diminish water quality. The proposed water line would connect with the Glenwood Avenue main to the west and a line along Oak Grove Avenue and thus would not be a dead-end line. This change in infrastructure would not be considered a significant impact in and of itself.

Wastewater. The alternative would generate an average daily wastewater flow approximately equivalent to existing water demand on the site (12,816 gpd compared to 6,604 gpd for the project), and a peak flow of 38,484 gpd (compared to 19,812 gpd for the project). Projected average and peak wastewater generation rates are shown in Table V-10. According to West Bay Sanitary District, there is capacity within the system to treat the wastewater that would be generated by the alternative.

Table V-10: Proposed Estimated Sewage Generation Rates

Description	Units	Floor Area (sf)	Generation Rate	Average Daily Flow (gpd)	Peaking Factor	Peak Flow (gpd)
Retail	N/A	22,895	0.06 gpd/sf	1,374	3	4,122
Office	N/A	58,700	0.06 gpd/sf	3,522	3	10,566
Residential	36	N/A	220 gpd/unit	7,920	3	23,760
Total Projected Demand				12,816		38,448

Source: BKF Engineers, 2009.

The wastewater lines around the site do not have adequate capacity to transport the amount of wastewater generated by the Mixed Use alternative. According to the West Bay Sanitary District, the existing sanitary sewer line on Garwood Way, is near maximum capacity, and the existing sewer connection may not be adequate to serve the project site. Therefore, the Mixed Use alternative would result in the same impact to wastewater infrastructure that would result from the proposed project.

Impact PUB-1: The increased wastewater demand generated by the Mixed Use alternative may exceed the capacity of the existing sanitary sewer main on Garwood Way. (S)

Implementation of Mitigation Measure PUB-1 (see Section IV.I, Public Services and Utilities, for more detail) would reduce this impact to a less-than-significant level.

Solid Waste. According to the California Integrated Waste Management Board, the average employee in Menlo Park generates approximately 4.2 pounds of waste per day and the average household generates approximately 6.05 pounds of waste per day. Based on these rates, the Mixed Use alternative would generate approximately 1,234 pounds of waste per day, slightly less than the project (which would generate 1,256 pounds per day). Similar to the project, the waste generated by the Mixed Use alternative would not substantially reduce the capacity of an existing landfill or violate applicable solid waste regulations.

j. Cultural and Paleontological Resources. The Mixed Use alternative would result in impacts to cultural resources that are identical to those that would result from the proposed project. The five buildings of the former Cadillac dealership, all of which are less than 50 years old, are proposed for demolition as part of the alternative. None of the buildings meet the definition of a historical resource pursuant to *CEQA Guidelines* Section 15064.5, and as such the Mixed Use alternative would result in no direct impacts to historical buildings. In addition, the alternative, which would feature design and architecture similar to that of the project, would not affect the integrity of the historic Park Theater across El Camino Real from the project site. Like the proposed project, the Mixed Use alternative would result in the removal of two on-site heritage trees and three heritage trees in the Garwood Way right-of-way. If the applicant secures the necessary permits to remove the heritage trees, then the removal would not result in a significant impact under CEQA.

The alternatives would result in the same significant impacts to cultural and paleontological resources that are expected to result from the project, as described below. Refer to Section IV.J, Cultural and Paleontological Resources, for more detail.

Impact CULT-1: Ground-disturbing activities associated with site preparation and the construction of building foundations and underground utilities could adversely affect archaeological cultural resources. (S)

Because the site was the location of historical uses, it is highly sensitive for historical archaeological deposits that may meet the definition of historical resources under CEQA. Subsurface disturbance that would occur as part of the alternative may result in damage to such deposits, which may result in a significant impact to cultural resources. Implementation of Mitigation Measure CULT-1 (see Section IV.J) would reduce this impact to a less-than-significant level.

Impact CULT-2: Ground-disturbing activities associated with site preparation and the construction of building foundations and underground utilities could adversely affect paleontological resources. (S)

There is a high potential that ground-disturbing construction in the site could encounter paleontological resources. Implementation of Mitigation Measure CULT-2 (see Section IV.J) would reduce this impact to a less-than-significant level.

Impact CULT-3: Ground-disturbing activities associated with site preparation and the construction of building foundations and underground utilities could disturb human remains, including those interred outside of formal cemeteries. (S)

Construction of the Mixed Use alternative would require soil excavation and grading for building foundations and utilities. This project activity has the potential to disturb human remains, in the unlikely event that such remains occur on the site. Implementation of Mitigation Measure CULT-3 (see Section IV.J) would reduce this potential impact to a less-than-significant level.

k. Aesthetic Resources. Similar to the proposed project, the Mixed Use alternative would not have a substantial adverse effect on scenic vistas, as no designated vistas are located near the site. The alternative would result in the removal of two on-site heritage trees and three heritage trees in the Garwood Way right-of-way, but these trees would be replaced pursuant to the City's Heritage Tree Ordinance. Therefore, the removal of these trees would not result in an adverse impact to visual character. The Mixed Use alternative, which includes residential uses, could add a small amount of night-time street life to El Camino Real, compared to the proposed project. This would represent a slight benefit to visual character compared to the previous project.

The buildings that would be constructed as part of the Mixed Use alternative are approximately the same height as those that would be constructed as part of the proposed project (40 feet). Because the buildings proposed as part of the alternative would also have approximately the same footprint as the project buildings, associated shadow coverage would also be the same. The most extensive shadow coverage outside the site would occur during morning hours throughout the year, and in the winter in the late afternoon.

The alternative, like the proposed project, would cast new morning shadow on the windows of the senior residential complex. In addition, a few private balconies would be subject to shadow from the proposed alternative. In mornings around the winter solstice, when the sun is lowest in the sky, new shadow from the alternative would extend approximately 100 feet into the senior residential complex site. However, it should be noted that much of the senior residential site is shadowed during the morning hours under existing conditions. Therefore, although the alternative would incrementally reduce morning sunshine on the senior residential site, this impact would not be considered significant. In late December, afternoon shadows would extend from the project site across the railroad tracks, but would not extend into the residential neighborhood on the south side of Mills Street. In addition, shadows cast by the alternative would not interfere with the beneficial use of existing parks or solar collectors.

Like the proposed project, lighting installed within the site (including along interior pedestrian circulation routes) as part of the Mixed Use alternative could create new light and glare in the area, adversely affecting nighttime views.

Impact AES-1: The proposed project could increase the amount of light and glare in Menlo Park. (S)

This impact would be reduced to a less-than-significant level with implementation of Mitigation Measure AES-1 (see Section IV.K).

l. Global Climate Change. Similar to the proposed project, water and energy use, and solid waste generation associated with the Mixed Use alternative would generate new greenhouse gas emissions on the site. In addition, vehicle trips associated with the alternative would emit greenhouse gases. As shown in Table V-11, the alternative would generate approximately 5,233 metric tons of

Table V-11: Mixed Use Alternative Greenhouse Gas Emissions

Emission Source	Emissions (metric tons per year)				Percent of Total
	CO ₂	CH ₄	N ₂ O	CO ₂ e	
Vehicles ^a	4,385	0.3100	0.4700	4,533	86.6%
Electricity Production	470	0.0052	0.0029	471	9.0%
Natural Gas Combustion ^a	179	0.0048	0.0046	180	3.4%
Solid Waste	--	--	--	30	0.6%
Other Area Sources ^b	18	--	--	18	0.4%
Total Annual Emissions	5,053	0.3200	0.4775	5,233	100.0%

^a CO₂ emissions for Vehicles and Natural Gas input from URBEMIS 2007 outputs.

^b Includes emissions from landscaping equipment.

Note: Numbers in table may not appear to add up correctly due to rounding of all numbers to two significant digits.

Source: LSA Associates, Inc., 2009.

carbon dioxide equivalent emissions per year. This amount of emissions represents approximately 64 percent of the total emissions that would be generated by the project. However, even though the alternative would result in relatively fewer greenhouse gas emissions, it would still make a cumulative contribution to global climate change and could conflict with State and other efforts to reduce greenhouse gas emissions.

Impact GCC-1: Implementation of the Mixed Use alternative could conflict with implementation of the greenhouse gas reduction goals under AB 32 or other State regulations. (S)

Implementation of Mitigation Measure GCC-1 (refer to Section IV.L for additional detail) would reduce this impact to a less-than-significant level.

C. MAXIMUM RESIDENTIAL ALTERNATIVE

1. Principal Characteristics

The Maximum Residential alternative would be a mixed use development that contains the maximum permitted residential density on the site (18.5 residential units per acre). The alternative would include 62 two-bedroom residential units with an average per-unit size of approximately 1,300 square feet. At least 10 units would be BMR units. The remaining allowable floor area ratio (FAR) on the site would allow for the development of 29,310 square feet of commercial space. For the purposes of this analysis, half of this commercial space (14,655 square feet) would be used for retail uses and half the space (14,655 square feet) would be used for non-medical office uses. The retail uses would likely comprise one or two tenants. No density bonus would be sought for this alternative. At least 246 parking spaces would be provided on the site, and would be accommodated in a sub-grade parking garage and small surface lots, similar to the proposed project. Commercial uses would be located in the ground floor of a building adjacent to El Camino Real; residential uses would be located on the second floor of the building adjacent to El Camino Real and in a building adjacent to Garwood Way.

The total amount of building space that would be developed as part of this alternative (110,065 square feet) is slightly smaller than the square footage that would be developed as part of the Mixed Use alternative. Therefore, the Maximum Residential alternative would be accommodated in buildings similar in scale to those that would be built as part of the Mixed Use alternative (a two-story structure adjacent to El Camino Real and a three-story structure adjacent to Garwood Way, both with a

maximum height of 40 feet). Other features of the alternative, including the landscaped courtyards and the sub-grade parking structure, would be similar to those that would be developed as part of the Mixed Use alternative. Similar to the proposed project and the Mixed Use alternative, the site would be rezoned to Planned Development (P-D) to allow for development of the alternative.

2. Analysis of Maximum Residential Alternative

The Maximum Residential alternative is evaluated below.

a. Land Use and Planning Policy. Similar to the proposed project, the Maximum Residential alternative would not result in any significant land use impacts. This alternative would be different from the project in terms of the type and overall square footage of retail uses, and in the provision of housing. Smaller retail shops would have a different influence on the character of the neighborhood than a major large retail tenant, such as the grocery store/market/major retail tenant that would be constructed as part of the proposed project. However, the differences in tenant composition and amount of commercial space between the alternative and the proposed project would not result in substantially different adverse land use impacts. Implementation of the Maximum Residential alternative would not physically divide an established community and would not conflict with surrounding land uses. This alternative would be consistent with applicable policies which seek to develop transit-oriented uses near transit nodes and improve the stability and character of existing neighborhoods.

The rezoning from General Commercial Applicable to El Camino Real (C-4) to Planned Development Overlay (P-D) would be similar to the proposed project and would support General Plan policies that seek to develop residential uses adjacent to downtown and enhance the physical relationship between the Caltrain Station, downtown Menlo Park, and the El Camino Real corridor. Out of all the alternatives, the Maximum Residential alternative would result in the most substantial population increase in Menlo Park. The introduction into the site of a relatively large residential population (approximately 151 persons, based on an average household size of 2.43 persons) would increase round-the-clock activity within the site. Proposed uses would make the project site more compatible with downtown Menlo Park and the commercial district on both sides of El Camino Real, districts that are characterized by high levels of pedestrian use. The development of residential uses within the site would also create a transition between downtown Menlo Park and the residential neighborhoods north and east of the project site. Therefore, the alternative, like the proposed project, would enhance community integrity.

b. Population, Employment and Housing. Out of all the alternatives, the Maximum Residential alternative would result in the greatest population increase on the site: the 62 housing units that would be developed on the site would be expected to increase Menlo Park's population by approximately 151 persons, based on an average household size of 2.43 persons. The site is an appropriate place for a residential population because it is located near downtown Menlo Park and the Caltrain Station. The population increase that would result from the alternative is within the population projections of regional agencies and would be considered a beneficial impact. The alternative would also provide at least 10 BMR units, which would represent a substantial increase in the City's affordable housing supply. This, too, would be considered a beneficial impact of the alternative. Based on an average job generation rate of one office job per 300 square feet and one retail job per 500 square feet, the alternative would generate approximately 78 employees (about 26 percent of the employees that would be generated by the project). This job growth is not substantial in the context of projected employment growth in Menlo Park and Silicon Valley. No housing or residential population exists

within the project site (and would not be displaced by the alternative). This alternative would improve the jobs/housing balance in Menlo Park.

c. Hydrology and Water Quality. The Maximum Residential alternative would have hydrology and water quality impacts that are similar to those of the project. This alternative would not contribute to the depletion of groundwater supplies or reduce the amount or quality of water available for public water supplies. This alternative, like the proposed project, would result in substantial construction activities and would increase vehicle use during the operational period. It would also increase the efficiency of storm water delivery, possibly to the same extent as the proposed project. Therefore, the Maximum Residential alternative could also result in the degradation of water quality in the Bay and the exacerbation of drainage and localized flooding problems. These impacts would be reduced to a less-than-significant level with implementation of the same mitigation measures recommended for the project.

d. Geology, Soils and Seismicity. The project site is flat and is in an earthquake-prone region. The geology, soils, and seismicity impacts associated with the Maximum Residential alternative would be the same as those of the proposed project. The alternative would not be affected by slope instability, regional subsidence, or long-term erosion hazards. The alternative, like the proposed project, would expose building occupants and structures within the site to seismic hazards, shrink-swell soils, and settlement of non-engineered fill soils. However, associated impacts would be reduced to a less-than-significant level with implementation of recommended mitigation measures.

e. Transportation, Circulation and Parking. Residential and general commercial land uses generate substantially fewer vehicle trips than grocery store/market/major retail tenant uses per unit area of floor space. Therefore, the Maximum Residential alternative would generate less traffic than the proposed project. Based on the ITE trip generation rates for general office, and shopping center uses (which are similar to the uses that would be developed as part of the Maximum Residential alternative), the alternative would generate a total of 1,154 vehicle trips per day as shown in Table V-12. This trip generation equates to approximately 20 percent of the trips per day that would be generated by the proposed project (peak hour trips would likely decrease by approximately 75 to 81 percent, compared to the proposed project). Because the Maximum Residential alternative would generate substantially fewer trips, there would be fewer significant impacts on intersections and roadway segments than under the proposed project.

Table V-12: Maximum Residential Alternative Trip Generation

Land Use	Size	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	Total
Proposed Uses								
Condominiums ^a	62 d.u.	5	22	27	21	11	32	363
Office ^b	14,655 sf	20	3	23	4	18	22	161
Commercial Retail ^c	14,655 sf	9	6	15	26	29	55	629
Pass-By Trip Reduction		0	0	0	-7	-7	-14	
Total Net Trips		34	31	65	44	51	95	1,154

^a ITE Code 230, Residential Condominium/Townhouse.

^b ITE Code 710, General Office Building.

^c ITE Code 820, Shopping Center.

Source: ITE *Trip Generation*, Seventh Edition, 2003; Hexagon Transportation Consultants, Inc., 2009.

f. Air Quality. Similar to the proposed project, the Maximum Residential alternative would not generate localized carbon monoxide emissions in excess of established standards, result in vehicle-related emissions that would exceed BAAQMD thresholds of significance, or expose persons to objectionable odors. However, both the alternative and the proposed project would exacerbate the nonattainment of air quality standards for PM₁₀, PM_{2.5}, and ozone, and contribute to cumulative adverse air quality in the air basin. The operational period air quality impacts (associated with vehicle emissions) that would result from the Maximum Residential alternative would be incrementally less than the proposed project because the alternative would result in approximately 20 percent of the daily car trips that would result from the proposed project (and proportionally reduced emissions of pollutants associated with combustion). Unlike the project (but similar to the Mixed Use alternative), the Maximum Residential alternative would expose residential occupants of the site to toxic air contaminants associated with train emissions. A screening health risk assessment of the site conducted in accordance with BAAQMD's Health Risk Screening Analysis Guidelines indicates that residents on the site would be exposed to an inhalation cancer risk of 55.9 in a million due to train activity on the tracks north of the site. Exposure from this single source would be several times greater than the ten in a million threshold maintained by the EPA. Installation of air filtration systems would reduce exposure to pollutants, but not to a less-than-significant level. Because no feasible mitigation measures exist to reduce residents' exposure to train emissions to below-threshold levels, the impact on the site from train exhaust would be significant and unavoidable.

g. Noise. Like the proposed project, this alternative would involve the use of construction equipment and could expose individuals around the site to excessive noise levels when heavy machinery is operating on the site. In addition, residents and employees on the site would be exposed to excessive noise levels associated with stationary noise sources, traffic and the railroad. However, compared with the proposed project, the Maximum Residential alternative would result in smaller noise increases on local roadways and could result in smaller noise increases associated with the commercial spaces (since less square footage would be used for noise-generating retail uses).

h. Hazards. Because the site would be graded and developed under the Maximum Residential alternative in a similar manner as under the proposed project, the significant impacts and mitigation measures identified for the proposed project in Section IV.H, Hazards, would also occur as a result of this alternative. No new or more severe impacts related to exposure to hazardous soils or materials would result from implementation of the Maximum Residential alternative.

i. Public Utilities and Services. Similar to the proposed project, the Maximum Residential alternative would increase demand for public services such as police, fire, parks, school, and utility services, but is not expected to result in physical environmental impacts. Existing wastewater and water treatment systems and water supplies would be sufficient to serve increased demand resulting from the alternative. The alternative would not generate a substantial amount of solid waste or conflict with applicable solid waste regulations. However, similar to the proposed project, this alternative could have a significant impact on wastewater infrastructure because the sewer line serving the project site must be increased in capacity to accommodate additional wastewater flow.

Based on average student generation rates for all types of housing (i.e., multi-family and single-family housing), the Maximum Residential alternative would generate 31 Kindergarten through 8th grade students and 22 high school students, more students than would be generated by the proposed project or the Mixed Use alternative. However, these rates would likely exceed the actual student

generation of residential units on the site; according to *Projected Enrollments 2000-2015 in the Menlo Park City School District*, prepared in September 2005, new multi-family housing units in Menlo Park generate approximately one student per every eight units. A development containing residential uses on the project site was assumed as part of the *Projected Enrollments 2000-2015*. Capital improvements to schools in the District were based in part on these projections. The elementary school and middle school students that would be generated by the alternative could be accommodated by school facilities that are currently in planning or development stages. Menlo-Atherton High School has capacity for the high school students that would be generated by the alternative, based on current enrollment. However, the school facilities would have to undergo changes to accommodate new classroom arrangements and additional classrooms might be needed to accommodate students. Developer fees would be provided to the school districts that serve the project site to allow for the development of new school facilities. Therefore, the Maximum Residential alternative would not result in physical impacts related to schools.

j. Cultural and Paleontological Resources. Similar to the proposed project, the Maximum Residential alternative would result in the demolition of all structures within the project site and the removal of heritage trees. However, buildings within the project site are not considered historic resources. In addition, the City would require the replacement of heritage trees removed from the site in accordance with the Heritage Tree Ordinance. Therefore, the alternative would not result in significant impacts to historic architectural resources or heritage trees. Like the proposed project, the alternative would result in ground-disturbing activities. Therefore, it could result in the disturbance of archaeological and paleontological resources, and human remains, if such resources are present on-site. Impacts to these resources would be reduced to a less-than-significant level with implementation of recommended mitigation measures.

k. Aesthetic Resources. The physical appearance of proposed buildings under the Maximum Residential alternative would be similar to the proposed project, except for the building frontage and façade on the first-story along El Camino Real (which would contain smaller commercial spaces), and the presence of exterior residential features on both of the buildings (e.g., balconies and interior curtains). This alternative would change the visual character of El Camino Real as would occur under the proposed project; however, this block of El Camino Real would be characterized by smaller retail shops and offices, and not by a grocery store/market/major retail tenant. Similar to the proposed project, the Maximum Residential alternative would not have a substantial adverse effect on scenic vistas or scenic resources. This alternative would also have the potential to create a visual link between downtown, the El Camino Real commercial corridor, and residential neighborhoods to the east and north of the site. Shade and shadow impacts would be similar to the proposed project and would be considered less than significant. However, like the proposed project, lighting installed within the site as a result of implementation of the Maximum Residential alternative could create new light and glare in the area, adversely affecting nighttime views. The implementation of Mitigation Measure AES-1, which would require preparation and review of a lighting plan and photometric study, would reduce this impact to a less-than-significant level.

l. Global Climate Change. Similar to the proposed project, water and energy use, and solid waste generation associated with the Maximum Residential alternative would generate new greenhouse gas emissions on the site. In addition, vehicle trips associated with the alternative would emit greenhouse gases. The alternative would generate approximately 2,000 metric tons of carbon dioxide equivalent emissions (approximately 25 percent of the total emissions that would be

generated by the project and 38 percent of the total emissions that would be generated by the Mixed Use alternative). However, even though the alternative would result in relatively fewer greenhouse gas emissions, it would still make a cumulative contribution to global climate change and could conflict with State and other efforts to reduce greenhouse gas emissions. Mitigation Measure GCC-1 would reduce this impact to a less-than-significant level.

D. OTHER ALTERNATIVES CONSIDERED

No off-site alternatives were considered because the project sponsor's decision to develop the site is based on existing ownership of the site. The sponsor does not own or control other sites that could accommodate the proposed project. In addition, low-intensity residential and commercial alternatives were not considered because land values in the neighborhood call for or require a relatively high development intensity. In addition, an off-site alternative would not in and of itself be expected to reduce many of the significant impacts of the project, which are a function of project size and location in an urban area. A low-density alternative would also mismanage an important opportunity to substantially increase jobs (and housing) in close proximity to downtown Menlo Park and the Caltrain Station.

E. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that the EIR identify the environmentally superior alternative. The No Project alternative would eliminate many of the significant impacts associated with the proposed project, in that it would not result in ground-disturbing activities, new construction, or the development of new commercial uses in the site (and the generation of associated new vehicle trips). Therefore, the No Project alternative would avoid several impacts that could result from the proposed project, including: generation of polluted storm water runoff during the construction period; certain traffic impacts and congestion on local roadways; increased exposure to contaminated soil and groundwater during the construction period; destruction of archaeological and paleontological resources during ground disturbance; and less-than-significant aesthetics impacts associated with the removal of heritage trees. While the No Project alternative would be the environmentally superior alternative in the context of impact reduction, it would not meet the primary objectives of the project.

CEQA Guidelines section 15126(e)(2) requires that an additional alternative be designated as the environmentally superior alternative, if the No Project alternative is identified as the environmentally superior alternative. Significant impacts resulting from implementation of the proposed project can be generally classified into impacts resulting from: 1) construction and redevelopment on the site (hydrology, geology, hazards, air quality and cultural resource impacts); 2) the location of the site with respect to existing land uses, particularly the railroad line and El Camino Real (air quality and noise impacts); and 3) the redevelopment of the site with an increased intensity of land uses (public utilities, transportation, aesthetics, noise, and global climate change impacts).

The Mixed Use alternative and the Maximum Residential alternative would have similar impacts to the proposed project resulting from construction and redevelopment on the project site and the location of the site with respect to existing land uses. The majority of these impacts could be mitigated to a less-than-significant level under both alternatives, as well as under the proposed project. However, certain significant unavoidable transportation and air quality impacts remain under

both alternatives (including potential health effects related to exposure of residents to high levels of railroad emissions).

Differences in impacts between these two alternatives result from the relative proportions of commercial space and residential space; in general, per unit area, residential uses generate fewer vehicle trips (and less vehicle-related noise and emissions). Therefore, the Maximum Residential alternative would be superior in terms of reducing air quality, noise, and traffic impacts to surrounding neighborhoods (although it would expose more residents on the site to potentially hazardous train emissions). The housing that would be provided as part of the Mixed Use and Maximum Residential alternatives would be considered beneficial because Menlo Park and the region suffer from a shortage of housing, particularly affordable housing. In the context of this housing shortage, and in an area where there is a jobs/housing mismatch, the Maximum Residential alternative would be the environmentally superior alternative. Not only would it increase the City's market-rate and affordable housing supply compared to the proposed project, but its associated significant impacts – including traffic, air quality, and noise impacts – would be less severe than those associated with the Mixed Use alternative.

The Maximum Residential alternative would generate the most students out of all the alternatives, but due to the required payment of developer fees, some of which would be allocated to capital improvements at local schools, this increase in school enrollment would not be considered a significant impact. The Maximum Residential alternative would also realize some of the benefits of mixed use projects, including activating a segment of El Camino Real that is currently characterized by vehicle-oriented uses and underutilized parcels. The site, which is located between downtown Menlo Park and residential neighborhoods, is an appropriate place for mixed uses and a moderate-density residential population. Therefore, even though it would expose residents to unhealthy levels of railroad-related emissions, the Maximum Residential alternative is the second most environmentally superior alternative (after the No Project alternative).