6 ALTERNATIVES ANALYSIS

6.1 INTRODUCTION

The Alternatives Analysis chapter of the EIR includes consideration and discussion of a range of reasonable alternatives to the proposed project, as required per CEQA Guidelines Section 15126.6. Generally, the chapter includes discussions of the following: the purpose of an alternatives analysis; alternatives considered but dismissed; reasonable range of project alternatives and their associated impacts in comparison to the proposed project's impacts; and the environmentally superior alternative.

6.2 PURPOSE OF ALTERNATIVES

The primary intent of the alternatives evaluation in an EIR, as stated in Section 15126.6(a) of the CEQA Guidelines, is to "[…] describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." In the context of CEQA Guidelines Section 21061.1, "feasible" is defined as:

> ...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Section 15126.6(f) of CEQA Guidelines states, "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." Section 15126.6(f) of CEQA Guidelines further states:

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

In addition, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

The CEQA Guidelines provide the following guidance for discussing alternatives to a proposed project:

- An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but

would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6[a]).

- Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly (CEQA Guidelines Section 15126.6[b]).
- The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination […] Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts (CEQA Guidelines Section 15126.6[c]).
- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison (CEQA Guidelines Section 15126.6[d]).
- If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed (CEQA Guidelines Section 15126.6[d]).
- The specific alternative of "no project" shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (CEQA Guidelines Section 15126.6[e][1]).
- If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6[e][2]).

Project Objectives

Based on the above, reasonable alternatives to the project must be capable of feasibly attaining most of the basic objectives of the project. The proposed project is being pursued with the following objectives:

1. Establish a 551.5-acre, well-planned community, which incorporates the natural, historic and physical elements of the land and the surrounding uses.
2. Design a land use plan with a mix of uses complementary to existing neighborhoods and in symmetry with the larger Antioch community.
3. Provide housing opportunities responsive to the needs of Antioch, the region and market conditions, to serve a range of family incomes and household types.

4. Provide a Village Center adjacent to Deer Valley Road and across from the Kaiser Medical Center, functioning as a hub of activity and source of sales tax revenue.
5. Preserve and protect the Sand Creek corridor as permanent open space and provide public access with perimeter trails and crossings.
6. Provide a pedestrian-friendly community which focuses on open space, parks, and trails to facilitate resident and visitor access to natural and historical experiences both on- and off-site in the East Bay Regional Parks system.
7. Provide a land use plan with a balance of uses and density that results in an adequate tax base which, at project build-out, generates financial resources to pay for public services and infrastructure without financial burden to existing residents.
8. Provide a land use plan, design standards, and guidelines consistent with Antioch General Plan goals and policies, incorporate market-acceptable design features, and foster an attractive, well-maintained community.
9. Establish a land use and circulation system that promotes convenient mobility, completes the extension of Dallas Ranch Road to Deer Valley Road, and provides various modes of transportation within a setting that is safe, accessible, and convenient for all modes of travel.
10. Provide a comprehensive infrastructure system, including parks, open space, storm water quality facilities, public services, roadways, and utilities infrastructure sized to serve the project and adjacent properties in the Sand Creek Focus Area, which complements the existing city-wide infrastructure and ensures funding for the on-going maintenance needs of such infrastructure.

Significant Impacts Identified in the EIR

In addition to attaining the majority of project objectives, reasonable alternatives to the project must be capable of reducing the magnitude of, or avoiding, identified significant environmental impacts of the proposed project. Significant environmental impacts of the proposed project that have been identified as requiring mitigation measures imposed by the City to ensure that the level of significance is ultimately less than significant include the following:

- ***Aesthetics.*** Impacts related to the creation of new sources of substantial light or glare that would adversely affect day or nighttime views in the area were identified as less than significant with mitigation incorporated.

- ***Biological Resources.*** Impacts related to the following were identified as less than significant with mitigation incorporated: special-status plants; valley elderberry longhorn beetle; vernal pool fairy shrimp and vernal pool tadpole shrimp; California red-legged frog; California tiger salamander; foothill yellow-legged frog; Alameda whipsnake; Blainville's horned lizard; northwestern pond turtle; silvery legless lizard; burrowing owl; Swainson's hawk and other nesting raptors; nesting special-status bird species and nesting common bird species; American badger; San Joaquin kit fox; ringtail; pallid bat, Townsend's big-eared bat, greater mastiff bat, and western red bat; waters of the U.S. and/or State; Department of Fish and Wildlife (CDFW) Fish and Game Code Section 1602 jurisdictional areas; and protected trees under the City of Antioch's Tree Preservation and Regulation Ordinance.

- ***Cultural Resources.*** Impacts related to the following were identified as less than significant with mitigation incorporated: a substantial adverse change in the significance of a historical resource as defined in Section 15064.5; a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15604.5; direct or indirect destruction of a unique paleontological resource or unique geologic features; disturbance of any human remains, including those interred outside of formal cemeteries; and cumulative loss of cultural and tribal resources.

- ***Geology, Soils, and Mineral Resources.*** Impacts related to the following were identified as less than significant with mitigation incorporated: risks to people and structures associated with seismic activity, including ground shaking and ground failure, such as liquefaction or landslides; risks to people and structures associated with expansive soils or a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, or collapse; and risks associated with substantial erosion or loss of topsoil.

- ***Hazards and Hazardous Materials.*** Impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, particularly related to asbestos-containing materials and lead-based paint associated with the existing on-site structures, an existing petroleum pipeline, and an existing water well, were identified as less than significant with mitigation incorporated.

- ***Hydrology and Water Quality.*** Impacts related to the following were identified as less than significant with mitigation incorporated: placing housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or flood hazard delineation map, or placing within a 100-year floodplain structures which would impede or redirect flood flows, specifically related to the proposed pedestrian bridge and sewer line across Sand Creek; and cumulative impacts to hydrology and water quality.

- ***Noise.*** Impacts related to the following were identified as less than significant with mitigation incorporated: transportation noise at new sensitive receptors; a substantial temporary or periodic increase in ambient noise levels in the project vicinity; and cumulative impacts on noise-sensitive receptors.

- ***Transportation and Circulation.*** Impacts related to conflicts with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system during construction were identified as less than significant with mitigation incorporated.

Significant environmental impacts of the proposed project that have been identified as significant and unavoidable, even with implementation of all feasible mitigation measures, include the following:

- ***Aesthetics.*** Impacts related to the following were identified as significant and unavoidable: substantially degrading the existing visual character or quality of the project site and/or the site's surroundings; and long-term changes in visual character of the region associated with cumulative development of the proposed project in combination with future buildout in the City of Antioch.

- ***Air Quality and Greenhouse Gas Emissions***. Impacts related to the following were identified as significant and unavoidable: generation of long-term operational criteria air pollutant emissions and a conflict with or obstruction of implementation of regional air quality plans; generation of a cumulatively considerable contribution to criteria air pollutant emissions; and generation of a cumulatively considerable contribution to greenhouse gas (GHG) emissions.

- ***Noise***. Impacts related to operational noise from activities on-site post development were identified as significant and unavoidable.

- ***Transportation and Circulation.*** Impacts related to the following were identified as significant and unavoidable: study intersections under the Existing Plus Project Condition; study freeway facilities under the Existing Plus Project Condition; study intersections under the Near-Term Plus Project Condition; study freeway facilities under Near-Term Plus Project Conditions; study intersections under the Cumulative Plus Project Condition; and study freeway facilities under Cumulative Plus Project Conditions.

6.3 SELECTION AND ANALYSIS OF ALTERNATIVES

Consistent with CEQA, primary consideration was given to alternatives that could reduce significant impacts, while still meeting most of the basic project objectives.

As stated in Guidelines Section 15126.6(c), among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are:

- failure to meet most of the basic project objectives;
- infeasibility; or
- inability to avoid significant environmental impacts.

Regarding infeasibility, among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). Not one of these factors establishes a fixed limit on the scope of reasonable alternatives.

Alternatives Considered But Dismissed From Further Analysis

Consistent with CEQA, primary consideration was given to alternatives that could reduce significant impacts, while still meeting the basic project objective. Any alternative that would have impacts identical to or more severe than the proposed project, and/or that would not meet any or most of the project objectives were dismissed from further consideration. Two alternatives, an Off-site Alternative and a Reduced Density Alternative, were considered but dismissed from further analysis in this EIR. The major characteristics of the Off-Site Alternative and Reduced Density Alternative are summarized below.

Off-Site Alternative

Section 15126.6(f)(2)(B) of the CEQA Guidelines states, "If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reason in the EIR." A feasible location for the proposed project that would result in substantially reduced impacts does not exist.

The CEQA Guidelines Section 15126.6(b) requires that only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR. The Off-Site Alternative would involve the construction of the proposed project on an alternative location, within the vicinity of the proposed project site. However, much of the vacant land in the vicinity of the project site is not available to develop due to existing development applications and/or planned developments. For example, the Vineyards at Sand Creek project, located to the east of the proposed project site, and the Aviano Farms project, located further east of the proposed project site, have been recently approved by the City.

In addition, the CEQA Guidelines state that, by definition, an alternative should avoid or substantially lessen one or more of the environmental effects of the project. Alternative locations within the City would generally contain characteristics similar to the proposed project site. Development of the project on another similar site would result in an similar area being graded and, therefore, similar physical environmental impacts would occur related to land disturbance activities. Development of the same land uses would result in traffic, air quality, and noise impacts that would likely be very similar to the proposed project. The potential for impacts to be worse than the proposed project also exists. For example, the potential for traffic, air quality, and noise impacts may be worse than the proposed project, depending on site accessibility. Furthermore, the proposed project site contains a portion of Sand Creek and moderate to steep slopes in the western portion of the site. A comparable off-site property could contain a larger portion of Sand Creek and/or be located on steeper slopes, thereby resulting in potentially greater impacts related to biological resources and geology and soils.

Therefore, development of the project at an alternative location in the City of Antioch would be expected to result in the same impacts, or worse, when compared to the proposed project. As a result, an environmentally feasible off-site location that would meet the requirements of CEQA, as well as meet the basic objectives of the project, does not exist.

Reduced Density Alternative

A Reduced Density Alternative would involve buildout similar to that of the proposed project, with the exception of the residential units. Rather than the mix of densities proposed for both of the development scenarios of the proposed project, the Reduced Density Alternative would involve buildout consistent with the Executive Estate Residential land use designation, which has an allowable density of 2.0 dwelling units per acre. Accordingly, a Reduced Density Alternative would involve the construction of 484 single-family, detached dwelling units, which would not include senior housing opportunities. A Reduced Density Alternative would not be expected to include development within the southwestern portion of the site, south of Street C, where moderate to steep slopes are present. That area would likely be preserved as open space under a Reduced Density Alternative. However, development of South Creek would still occur with a Reduced Density Alternative.

A Reduced Density Alternative would involve fewer residential units, which would subsequently result in overall fewer impacts than anticipated for the proposed project related to all resources areas analyzed within this EIR, with the exception of agricultural resources, which would have similar impacts. The reduction in impacts associated with the aforementioned resource areas would primarily be a result of a reduction in population (i.e., fewer vehicle trips, less energy consumption, less water consumption, less wastewater generation, and less solid waste), smaller development footprint (i.e., smaller overall area of disturbance and preservation of a larger portion of the site as open space), reduced intensity of buildout (i.e., reduction in intensity of construction activities and new light and glare sources).

While a Reduced Density Alternative would be capable of reducing impacts identified for the proposed project, a Reduced Density Alternative would not meet a number of the proposed project's objectives. For example, a Reduced Density Alternative would not establish a 551.5-acre community and would not involve a mix of uses to the same level intended by the project objectives. A Reduced Density Alternative would not include an option for senior housing opportunities, which the City originally intended for a portion of the site per the existing General Plan designations. As such, a Reduced Density Alternative would not be capable of providing housing opportunities responsive to the needs of Antioch, the region, and market conditions, such as to serve a range of family incomes and household types. A Reduced Density Alternative would not provide a density capable of resulting in an adequate tax base to generate funding for the public services and infrastructure necessary to serve the site. Accordingly, funding for the ongoing maintenance of such infrastructure would not be readily ensured under a Reduced Density Alternative. Furthermore, the costs of developing a Reduced Density Alternative would exceed the project revenue. The costs to develop the land (finished lot costs) would be approximately $615,000 per acre, which would include the cost to develop the property, construct off-site infrastructure, and pay development impact fees. The value of the improved land (finished lots) in a Reduced Density Alternative would be approximately $560,000 per acre. Therefore, the revenue expected at buildout of a Reduced Density Alternative would not be sufficient to cover margin costs, let alone development costs, and would not be considered economically feasible to develop.

Therefore, while a Reduced Density Alternative would be capable of reducing impacts identified for the proposed project, such an alternative would not be considered a feasible alternative to the proposed project.

Alternatives Considered in this EIR

The following alternatives are considered and evaluated for the proposed project:

- No Project (No Build) Alternative;
- No Project (Existing General Plan) Alternative;
- Reduced Footprint Alternative; and
- Reduced Intensity/Reduced Intensity/Senior Housing Alternative.

Each of the project alternatives is described in detail below, with a corresponding analysis of each alternative's impacts in comparison to the proposed project. As described and analyzed throughout this EIR, the proposed project includes the following two scenarios: a Multi-Generational Plan and a Traditional Plan. The following comparative analysis discussions are applicable for both scenarios, unless otherwise stated (i.e., where impacts would differ between the two development scenarios). While an effort has been made to include quantitative data for certain analytical topics, where possible, qualitative comparisons of the various alternatives to the project are primarily provided. Such an approach to the analysis is appropriate as evidenced by CEQA Guidelines Section 15126.6[d], which states that the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. The analysis evaluates impacts that would occur with the alternatives relative to the significant impacts identified for the proposed project. The following terminology is used:

- "Fewer" = Less than Proposed Project;
- "Similar" = Similar to Proposed Project; and
- "Greater" = Greater than Proposed Project.

When the term "fewer" is used, the reader should not necessarily equate this to elimination of significant impacts identified for the proposed project. For example, in many cases, an alternative would reduce the relative intensity of a significant impact identified for the proposed project, but the impact would still be expected to remain significant under the alternative, thereby requiring mitigation. In other cases, the use of the term "fewer" may mean the actual elimination of an impact identified for the proposed project altogether.

No Project (No Build) Alternative

CEQA requires the evaluation of the comparative impacts of the "No Project" alternative (CEQA Guidelines Section 15126.6[e]). Analysis of the No Project Alternative "… shall discuss […] existing conditions […] as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." (*Id.*, subd. [e][2]) "If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the 'no project'

alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in the property's existing state versus environmental effects that would occur if the project were approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this 'no project' consequence should be discussed. In certain instances, the no project alternative means 'no build,' wherein the existing environmental setting is maintained. However, where failure to proceed with the project would not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment." (*Id.*, subd. [e][3][B]).

Per the requirements of the CEQA Guidelines, the City has decided to evaluate a No Project (No Build) Alternative. The No Project (No Build) Alternative is defined in this section as the continuation of the existing conditions of the project site, which is 551.5 acres of primarily undeveloped land. Currently, the project site has a cattle-grazing operation, a single-family residence, and various barns and outbuildings located on the eastern portion of the site. Sand Creek, a tributary of Marsh Creek, flows west to east through the proposed project site. The topography of the site is varied, ranging from relatively level areas in the eastern and central portions of the site, gently-sloping hills immediately north and south of Sand Creek, and moderate to steep slopes in the western portion of the site. A large stockpile of soil and large boulders is situated on the northern portion of the proposed project site, near the terminus of Dallas Ranch Road.

The No Project (No Build) Alternative would not meet any of the project objectives. Because development of the site would not occur, land disturbance and any associated physical environmental impacts would not occur as a result of the No Project (No Build) Alternative. For example, transportation and circulation in the project vicinity would not be modified under the No Project (No Build) Alternative; thus, all associated impacts such as increased vehicle traffic on area roadways, increase in mobile air pollutant emissions, and traffic-related noise increases would not occur. Therefore, impacts related to air quality and climate change, noise, and transportation and circulation would be fewer than anticipated for the proposed project.

Because land disturbance would not occur under the No Project (No Build) Alternative, impacts to any potential biological resources on-site or in the project vicinity would not occur. Similarly, a conversion of agricultural or forest land to non-agricultural or non-forest uses would not occur. For the same reason, a potential to affect any cultural resources on-site or in the project vicinity would not occur. Thus, impacts related to biological and cultural resources would not occur.

Because the site would not introduce any new structures or buildings on the site under the No Project (No Build) Alternative, modifications to the existing visual character or quality of the site or surroundings, creation of any new sources of light or glare, changes to views of or from scenic vistas, or changes to scenic resources would not occur. Similarly, impacts related to structures being affected by geology and soils would not occur, and on-site construction personnel or future residents would not be exposed to any potential hazardous materials on-site. Because known mineral resources do not exist in the project area, impacts related to such would not occur.

The No Project (No Build) Alternative would not alter the existing drainage pattern of the site or surrounding area and would not create or contribute an increase in runoff water that would exceed existing or planned stormwater drainage system capacity or violate water quality standards. Groundwater recharge would not be affected by the No Project (No Build) Alternative. Placement of housing or structures within a floodplain and any associated risks would not occur with the No Project (No Build) Alternative. Therefore, impacts related to hydrology and water quality would be fewer than that of the proposed project.

The No Project (No Build) Alternative would not involve the creation of housing and would not directly increase population or employment in the area. Accordingly, modifications to the population and/or housing in the area would not occur, and an associated increase in demand for public services and utilities would not occur. It should be noted, however, that the No Project (No Build) Alternative could result in potentially greater impacts than the proposed project related to land use and planning associated with compatibility issues and consistency with the Antioch General Plan, as the No Project (No Build) Alternative would result in the ongoing vacancy on a site that includes portions of land currently designated for development. Under the No Project (No Build) Alternative, the site would not buildout per the City's General Plan, which could allow the site to continue to be primarily vacant land. However, the site is immediately adjacent to currently developed areas with existing residential development and proposed future residential development. Thus, if the site continues to be vacant, compatibility with the surrounding land uses could potentially become an issue as the City of Antioch continues to grow.

Because implementation of the No Project (No Build) Alternative would result in the site remaining under current conditions, physical environmental impacts would not occur. Therefore, implementation of the No Project (No Build) Alternative would result in fewer overall impacts compared to that of the proposed project.

The following areas would result in no impact if the No Project (No Build) Alternative were selected:

- Aesthetics;
- Agricultural Resources;
- Air Quality and GHG Emissions;
- Biological Resources;
- Cultural Resources;
- Geology, Soils, and Mineral Resources;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Noise;
- Public Services, Recreation, and Utilities; and
- Transportation and Circulation.

No Project (Existing General Plan) Alternative

In addition to the No Project (No Build) Alternative described above, the City has decided to evaluate a No Project (Existing General Plan) Alternative as well. Per the City of Antioch General Plan, the proposed project site is located within the Sand Creek Focus Area, and is designated Golf Course Community/Senior Housing/Open Space, Hillside and Estate Residential, and Public/Quasi Public. The City currently assumes that the golf course would occupy approximately 212 acres on the project site, but the location of the golf course, whether on hillsides, flat areas, etc., is speculative.

The same acreage as the proposed project for Public/Quasi Public uses of 3.5 acres is assumed for the No Project (Existing General Plan) Alternative. In addition, the same acreage of 36 acres for major roadways is assumed for the No Project (Existing General Plan) Alternative. The maximum single-family density envisioned for the Sand Creek Focus Area is 4.0 dwelling units per acre, and the allowable density for the Hillside and Estate Residential designation is 2.7 to 4.0 dwelling units per acre. For the No Project (Existing General Plan) Alternative, the lowest density of the proposed project of 3.4 dwelling units per acre is assumed for the remaining 300 acres, which would be consistent with the maximum density envisioned for the Sand Creek Focus Area and the allowable density for Hillside and Estate Residential uses. Thus, a total of approximately 1,020 dwelling units is assumed for the No Project (Existing General Plan) Alternative, which would include senior housing opportunities. For analysis purposes, approximately 38 percent of the total residences (i.e., 388 dwelling units) under the No Project (Existing General Plan) Alternative would be age-restricted for seniors. A summary of the No Project (Existing General Plan) Alternative compared to the two development scenarios of the proposed project is presented in Table 6-1.

Table 6-1
Proposed Project vs. No Project (Existing General Plan) Alternative

Land Use	Multi-Generational Plan (Dwelling Units or Acres)	Traditional Plan (Dwelling Units or Acres)	No Project (Existing General Plan) Alternative (Dwelling Units or Acres)
Dwelling Units	1,307	1,137	1,020
Village Center	5	5	0
Public/Quasi Public	3.5	3.5	3.5
Parks	22	17.5	0
Landscape	2.5	3	0
Open Space	194.5	199.5	212 (golf course)
Major Roadways	36	36	36

The No Project (Existing General Plan) Alternative would be capable of achieving the majority of the proposed project's objectives.

Aesthetics

The No Project (Existing General Plan) Alternative would still result in the conversion of portions of the project site to residential development. Thus, the No Project (Existing General Plan) Alternative would still result in an alteration of the existing visual character and quality of the site and the site's surroundings, and would introduce new sources of light and glare to the area. However, the No Project (Existing General Plan) Alternative would involve a lower density of units and fewer dwelling units than both of the development scenarios of the proposed project and would maintain a larger portion of the site as open space associated with the golf course. As such, the intensity and scale of development on the site would be less than the proposed project, which would allow for reduced effects to views associated with the alteration of the existing visual character and quality of the site. In addition, the No Project (Existing General Plan) Alternative would be subject to the Citywide Design Guidelines requirements, including design consistency, building materials, and lighting requirements, which would ensure implementation of the highest level of design quality.

Overall, impacts associated with aesthetics, including potential cumulative impacts, would be expected to be fewer under the No Project (Existing General Plan) Alternative than the proposed project.

Agricultural Resources

As discussed in the Agricultural Resources chapter of the EIR, the project site is not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. In addition, the site is not under a Williamson Act contract, zoned for agricultural uses per the Antioch General Plan, considered forest land or timberland, or zoned Timberland Production. Thus, for the same reasons as the proposed project, the No Project (Existing General Plan) Alternative would not result in any significant impacts associated with agricultural resources.

Overall, impacts associated with agricultural resources, including potential cumulative impacts, would be expected to be similar under the No Project (Existing General Plan) Alternative to the proposed project.

Air Quality and GHG Emissions

The No Project (Existing General Plan) Alternative would involve fewer dwelling units than both of the development scenarios of the proposed project and would maintain a larger portion of the site as open space associated with the golf course. While development of the golf course would still involve some ground-disturbing activities, the intensity of such activities would be much less than what would be expected to occur for the proposed project. Accordingly, construction-related impacts associated with air quality and GHG emissions would be fewer than the proposed project.

Because the No Project (Existing General Plan) Alternative would involve fewer residential units than both of the development scenarios of the proposed project and would not involve development of a Village Center, the Alternative would generate a smaller population to the area. Accordingly, the number of vehicle trips, amount of energy consumption, water consumption, and wastewater

generation associated with the site would be less under the No Project (Existing General Plan) Alternative. It should be noted that while the Village Center would not be included in the No Project (Existing General Plan) Alternative, the golf course under the Alternative would involve associated vehicle trips, as well as energy and water consumption; however, the amount of such would be less than what would be associated with the Village Center of the proposed project. For example, as discussed in further detail below and presented in Table 6-3, the No Project (Existing General Plan) Alternative would result in fewer daily, AM, and PM vehicle trips than the proposed project. Accordingly, criteria air pollutant and GHG emissions associated with the No Project (Existing General Plan) Alternative would be expected to be less than that of the proposed project.

In order to determine whether the emissions under the No Project (Existing General Plan) Alternative would be below the applicable thresholds of significance, thereby removing a significant and unavoidable impact identified for the proposed project, the California Emissions Estimator Model (CalEEMod) version 2016.3.2 software was used to estimate the No Project (Existing General Plan) Alternative operational emissions. The CalEEMod results are presented in Table 6-2.

Table 6-2
Unmitigated No Project (Existing General Plan) Alternative Emissions

Pollutant	Multi-Generational Plan	Traditional Plan	No Project (Existing General Plan) Alternative	BAAQMD Thresholds of Significance
OPERATIONAL (lbs/day)				
ROG	78.07	70.64	60.07	54
NO_X	78.17	80.12	59.11	54
PM_{10}	54.77	60.39	41.49	82
$PM_{2.5}$	16.85	18.11	12.81	54
CUMULATIVE (tons/yr)				
ROG	13.33	12.03	10.24	10
NO_X	11.00	11.76	8.15	10
PM_{10}	9.32	10.34	6.95	15
$PM_{2.5}$	2.68	2.94	2.00	10
GHG ($MTCO_2e$/yr)				
Operational GHG Emissions	12,399.03	12,665.98	9,514.62	-
Total Annual GHG Emissions[1]	13,174.03	13,440.98	10,289.62	-
Service Population[2]	4,258	3,723	3,269	-
Total Annual GHG Emissions Per Service Population	**3.09**	**3.61**	**3.15**	**4.6 (AB 32) 2.76 (SB 32)**

Notes:
[1] Includes operational emissions plus construction emissions. To provide a conservative analysis of GHG emissions, the emissions from the most intensive year of construction out of both development scenarios under the proposed project (i.e., 775 $MTCO_2e$/yr) were assumed for the Alternative. However, construction emissions would be expected to be less under the No Project (Existing General Plan) Alternative than the proposed project.
[2] Service population calculated based on City of Antioch's average household size of 3.15 and employee generation rate for golf course of 0.25 employees per acre. In addition, according to the Contra Costa County Fire Protection District, the future fire station would support one engine company comprised of three personnel.

Source: CalEEMod, December 2017.

As shown in the table, the No Project (Existing General Plan) Alternative would result in fewer overall operational emissions, as anticipated, including daily and annual criteria air pollutant emissions. Therefore, impacts related to air quality and GHG emissions would be fewer under the No Project (Existing General Plan) Alternative than the proposed project. However, operational emissions would still exceed the applicable thresholds of significance at project-level for ROG and NO_x, as well as cumulatively for ROG. Thus, the same mitigation measures would be required, and the associated significant and unavoidable impacts would remain.

Similarly, while the No Project (Existing General Plan) Alternative would, like the proposed project, be below the applicable threshold of significance for GHG emissions associated with compliance with Assembly Bill (AB) 32, the emissions would still exceed the applicable threshold of significance for GHG emissions associated with compliance with Senate Bill (SB) 32. The same mitigation measure would be required and the associated significant and unavoidable impact would remain.

Because the No Project (Existing General Plan) Alternative would result in fewer trips than the proposed project, the alternative would result in less traffic on area roadways and, thus, a decreased contribution to localized carbon monoxide (CO) concentrations at surrounding intersections. As the No Project (Existing General Plan) Alternative would consist of buildout on the same site in the same location as the proposed project with similar land uses, the effects of the project associated with sources of TACs would be similar to that of the proposed project.

Overall, the No Project (Existing General Plan) Alternative would result in fewer impacts than the proposed project related to air quality and GHG emissions; however, all of the significant and unavoidable impacts identified for the proposed project associated with air quality and GHG emissions would remain.

Biological Resources

The No Project (Existing General Plan) Alternative would result in the conversion of a similar acreage as the proposed project from predominantly undeveloped land to urban uses and would be developed on the same site as the proposed project. As such, the same potential exists for the No Project (Existing General Plan) Alternative to directly or indirectly effect special-status plant and wildlife species and/or their habitats. In addition, the same potential exists for the No Project (Existing General Plan) Alternative to result in impacts related to waters of the U.S. and/or State and CDFW jurisdictional areas, as well as to protected trees under the City of Antioch's Tree Preservation and Regulation Ordinance. Therefore, impacts related to biological resources would be similar under the No Project (Existing General Plan) Alternative to the proposed project.

Cultural Resources

Because the No Project (Existing General Plan) Alternative would be developed on the same site as the proposed project, the same potential exists for a substantial adverse change in the significance of a known historical resource and for damage to or destruction of previously unknown cultural resources or human remains during ground-disturbing activities. The same mitigation measures would be required under the No Project (Existing General Plan) Alternative

as for the proposed project in order to reduce potentially significant impacts to less-than-significant levels. Therefore, the overall impacts related to cultural resources would be similar under the No Project (Existing General Plan) Alternative as compared to the proposed project.

Geology, Soils, and Mineral Resources

Development of the No Project (Existing General Plan) Alternative would result in similar site disturbance as the proposed project, but would consist of buildout of fewer residential units. Because hazards related to geology and soils, such as earthquakes, landslides, soil erosion, soil stability, and expansive soil, are site-specific, the same potential for such hazards to occur under the No Project (Existing General Plan) Alternative would exist. However, because the No Project (Existing General Plan) Alternative would reduce the number of residential units, the likelihood for homes and residents to be exposed to the aforementioned potential geological hazards would be slightly less than the proposed project. Because known mineral resources do not exist in the project area, impacts related to such would not occur under the proposed project or the No Project (Existing General Plan) Alternative.

Overall, the No Project (Existing General Plan) Alternative would result in slightly fewer impacts associated with geology, soils, and mineral resources compared to the proposed project.

Hazards and Hazardous Materials

The No Project (Existing General Plan) Alternative would involve similar site disturbance as the proposed project. Therefore, impacts related to exposure to existing on-site hazards or hazardous materials, such as asbestos-containing materials and lead-based paint associated with the existing on-site structures, an existing petroleum pipeline, and an existing water well, would be similar under the No Project (Existing General Plan) Alternative to the proposed project. As the No Project (Existing General Plan) Alternative would consist of fewer residences and would not include any commercial uses, the amount of typical household and general commercial hazardous materials such as cleaning agents, batteries, used oil and filters, paints, and pesticides would be less than what would likely occur under the proposed project. Accordingly, impacts related to the creation of hazards to the public or the environment related to the routine transport, use, or disposal of hazardous materials would be slightly less than that of the proposed project. Because fewer residents would be introduced to the area under the No Project (Existing General Plan) Alternative, the effects of wildfire and conflicts with emergency access and evacuation plans would be slightly less than that of the proposed project.

Overall, the No Project (Existing General Plan) Alternative would result in slightly fewer impacts associated with hazards and hazardous materials than the proposed project.

Hydrology and Water Quality

Similar project improvements would be assumed to occur under the No Project (Existing General Plan) Alternative as the proposed project, including the bridges and utility lines across Sand Creek. As such, the same potential would occur for construction of such improvements to change the 100-year flood zone and lead to areas identified for residential development being redesignated as

within a 100-year flood zone. The same mitigation measures related to such would be required under the No Project (Existing General Plan) Alternative as for the proposed project in order to reduce potentially significant impacts to less-than-significant levels.

The No Project (Existing General Plan) Alternative would involve a similar land disturbance and would alter the existing drainage pattern of the site. Accordingly, the No Project (Existing General Plan) Alternative would result in similar impacts as the proposed project related to potential water quality and erosion issues. The No Project (Existing General Plan) Alternative would involve the construction of residential uses on a similar area of disturbance as the proposed project. As such, the amount of impervious surfaces under the No Project (Existing General Plan) Alternative would be expected to be similar to that of the proposed project.

Overall, the No Project (Existing General Plan) Alternative would result in similar hydrology and water quality related impacts, as compared to the proposed project.

Land Use and Planning/Population and Housing

Unlike the proposed project, the No Project (Existing General Plan) Alternative would not require General Plan text or map amendments of the Sand Creek Focus Area. The No Project (Existing General Plan) Alternative would be consistent with the existing City General Plan designations for the site. Therefore, impacts related to land use consistency would be fewer than that of the proposed project.

Both the proposed project and the No Project (Existing General Plan) Alternative would involve demolition of the existing on-site structures, including one existing single-family residence. Accordingly, the No Project (Existing General Plan) Alternative would involve a similar displacement of existing housing and people as the proposed project. However, the No Project (Existing General Plan) Alternative would involve fewer new homes, thereby resulting in less of a population growth in the area than the proposed project. Thus, the No Project (Existing General Plan) Alternative would result in slightly fewer impacts than the proposed project related to population and housing.

Overall, the No Project (Existing General Plan) Alternative would result in fewer impacts than the proposed project related to land use and planning, and population and housing.

Noise

Because the No Project (Existing General Plan) Alternative would involve a similar overall area of disturbance as the proposed project, construction-related noise and vibration would likely be similar to what would be expected for the proposed project.

The No Project (Existing General Plan) Alternative would involve fewer dwelling units than both of the development scenarios of the proposed project and would not involve development of a Village Center. Consequently, the Alternative would generate a smaller population to the area, which, in turn, would result in fewer vehicle trips associated with the site. The reduction of vehicle trips would result in less traffic on area roadways and, thus, a decrease in traffic-related noise

levels. In addition, noise associated with the Village Center, such as noise related to parking lot activities, delivery trucks, and HVAC equipment, that would occur under the proposed project would not occur under the No Project (Existing General Plan) Alternative. As a result, the significant and unavoidable impact identified for the proposed project related to such would not occur under the Alternative.

Overall, the No Project (Existing General Plan) Alternative would result in fewer noise-related impacts than that of the proposed project.

Public Services, Recreation, and Utilities

As discussed in Chapter 4.11, Public Services, Recreation, and Utilities, of this EIR, the proposed project would not result in impacts related to water or wastewater supplies or infrastructure, solid waste, law enforcement or fire protection services, school capacities, parks and recreational facilities, or other governmental services, including library, electricity, and natural gas services. Because the No Project (Existing General Plan) Alternative would involve fewer residential units than both of the development scenarios of the proposed project and would not involve development of a Village Center, the Alternative would generate a smaller population to the area. Accordingly, the amount of water consumption and wastewater generation, solid waste generation, demand for public services and facilities, including law enforcement, fire protection, schools, parks and recreational facilities, and libraries, and energy consumption associated with the site would be less under the No Project (Existing General Plan) Alternative. Therefore, development of the No Project (Existing General Plan) Alternative would result in fewer impacts related to public services, recreation, and utilities than that of the proposed project.

Transportation and Circulation

The No Project (Existing General Plan) Alternative would involve 212 acres of golf course uses and 1,020 residential dwelling units, 388 of which are assumed to be age-restricted for seniors. Based on trip generation rates from Fehr & Peers and the Institute of Transportation Engineers (ITE) Trip Generation Manual, the No Project (Existing General Plan) Alternative would result in 8,514 average daily trips, which include 1,069 daily trips related to the golf course, 1,428 daily trips related to the age-restricted units, and 6,017 daily trips related to the market-rate units. The average daily trips, as well as AM and PM peak hour trips, associated with the No Project (Existing General Plan) Alternative in comparison to the two development scenarios of the proposed project are presented in Table 6-3.

Table 6-3
Proposed Project vs. No Project (Existing General Plan) Alternative Trip Generation

Duration	Multi-Generational Plan	Traditional Plan	No Project (Existing General Plan) Alternative
Daily	11,830	13,130	8,514
AM Peak Hour	767	905	605
PM Peak Hour	1,142	1,337	801

As shown in Table 6-3, the No Project (Existing General Plan) Alternative would involve fewer daily, AM, and PM peak hour trips than the proposed project. While the No Project (Existing General Plan) Alternative would still increase traffic on surrounding intersections and roadways, because fewer vehicle trips would be generated than the proposed project, the intensity of traffic-related impacts would be decreased, as compared to the proposed project. Implementation of similar mitigation measures would be required under the No Project (Existing General Plan) Alternative; however, for the same reasons as the proposed project (i.e., impacted intersections/roadways are outside of City's jurisdiction), impacts would be expected to remain significant and unavoidable.

Overall, development of the No Project (Existing General Plan) Alternative would result in fewer impacts related to transportation and circulation than that of the proposed project, but impacts would be expected to remain significant and unavoidable, even with mitigation.

Reduced Footprint Alternative

The Reduced Footprint Alternative would involve buildout similar to that of the proposed project, with the exception of the overall substantially reduced development footprint. The Reduced Footprint Alternative would still involve a mix of densities similar to the development scenarios of the proposed project; however, the Reduced Footprint Alternative would not include development within the southern portion of the site, south of Sand Creek Road, where moderate to steep slopes are present. All portions of the site south of Sand Creek, a tributary of Marsh Creek, would be preserved in perpetuity through a conservation easement, or other similar legal mechanism, as open space under the Reduced Footprint Alternative. Accordingly, the Reduced Footprint Alternative would not include the bridges over Sand Creek that are anticipated as part of the proposed project. An amendment to the Circulation Element of the General Plan would be required for the Alternative, similar to the proposed project.

The Reduced Footprint Alternative would involve a total of 1,300 single-family, detached and attached, dwelling units, which could include senior housing opportunities. The units would be composed of 82 acres (820 units) of Medium Density (10 dwelling units per acre) and 80 acres (480 units) of Medium Low Density (six dwelling units per acre) residential units. Accordingly, the Reduced Footprint Alternative would require a General Plan Amendment to the Land Use Map and text modifications to the Sand Creek Focus Area of the General Plan to create a Medium Low Density and a Medium Density designation in the Sand Creek Focus Area that is consistent with the General Plan designations.

The Reduced Footprint Alternative would continue Dallas Ranch Road as Sand Creek Road through Deer Valley Road, with ultimate buildout of two lanes each way, along with a landscaped median. A trail system along the northern side of Sand Creek would be included in the Reduced Footprint Alternative, which would provide interconnectivity through neighborhoods. A summary of the Reduced Footprint Alternative compared to the two development scenarios of the proposed project is presented in Table 6-4.

Table 6-4 Proposed Project vs. Reduced Footprint Alternative			
Land Use	**Multi-Generational Plan (Dwelling Units or Acres)**	**Traditional Plan (Dwelling Units or Acres)**	**Reduced Footprint Alternative (Dwelling Units or Acres)**
Dwelling Units	1,307	1,137	1,300 (162 acres)
Village Center	5	5	5
Public/Quasi Public	3.5	3.5	2
Parks	22	17.5	15
Landscape	2.5	3	3
Open Space	194.5	199.5	328.5
Major Roadways	36	36	36

The Reduced Footprint Alternative would still be capable of achieving some of the proposed project's objectives.

Aesthetics

The Reduced Footprint Alternative would involve development of a similar number of units as the proposed project, but over a substantially smaller development footprint (only 162 acres of residential development). The Alternative would preserve the Sand Creek area, as well as the hillside area in the southwestern portion of the site. Focusing development in the northeastern portion of the site would disturb less land area and would be less visible from some areas outside of the project site. Both the proposed project and Reduced Footprint Alternative would alter the existing visual character and quality of the site and the site's surroundings and introduce new sources of light and glare. However, because the Reduced Footprint Alternative would result in development of a smaller portion of the site, the Alternative would have a reduced potential to degrade the visual character and quality of the site and surroundings as compared with the proposed project. Nonetheless, the Reduced Footprint Alternative would still obscure views of distant topographical features, including Mt. Diablo and the surrounding ridgelines, for sensitive viewers to the east of the site, and the same mitigation measure as required for the proposed project would be necessary for the Alternative. Similarly, while the Reduced Footprint Alternative would still introduce new sources of light and glare to the area, due to the substantial reduction in the overall development footprint compared to both of the development scenarios of the proposed project and preservation of a much larger portion of the site as open space, the potential for the new light and glare in the area to affect areas outside of the project site would be less than that of the proposed project. Similar to the proposed project, the Reduced Footprint Alternative would include development standards and design guidelines that would help to guide future development within the project site and would address neighborhood identity, consistency with future surrounding development, and architectural design.

Overall, impacts associated with aesthetics would be expected to be slightly fewer under the Reduced Footprint Alternative than the proposed project.

Agricultural Resources

As discussed in the Agricultural Resources chapter of the EIR, the project site is not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. In addition, the site is not under a Williamson Act contract, zoned for agricultural uses per the Antioch General Plan, considered forest land or timberland, or zoned Timberland Production. Thus, for the same reasons as the proposed project, the Reduced Footprint Alternative would not result in any significant impacts associated with agricultural resources.

Overall, impacts associated with agricultural resources, including potential cumulative impacts, would be expected to be similar under the Reduced Footprint Alternative to the proposed project.

Air Quality and GHG Emissions

The Reduced Footprint Alternative would substantially reduce the overall development footprint compared to both of the development scenarios of the proposed project. Due to the substantial reduction of the total area of development, the Reduced Footprint Alternative would involve a smaller overall area of disturbance than the proposed project, and construction-related emissions would be fewer than what is expected for the proposed project. Accordingly, construction-related impacts associated with air quality and GHG emissions would be fewer than the proposed project.

The Reduced Footprint Alternative would involve a comparable number of dwelling units constructed on the project site compared to the proposed project. As such, the Reduced Footprint Alternative may or may not generate a smaller population to the area. Accordingly, the amount of energy consumption, water consumption, and wastewater generation associated with the site would likely be comparable to the proposed projectunder the Reduced Footprint Alternative. As discussed in further detail below and presented in Table 6-6, the Reduced Footprint Alternative could result in greater daily, AM, and PM vehicle trips than the proposed project. Accordingly, criteria air pollutant and GHG emissions associated with the Reduced Footprint Alternative would similarly be expected to be greater than that of the proposed project.

In order to determine whether the emissions under the Reduced Footprint Alternative would be below the applicable thresholds of significance, CalEEMod was used to estimate the Reduced Footprint Alternative operational emissions. The CalEEMod results are presented in Table 6-5.

As shown in Table 6-5, the Reduced Footprint Alternative would result in greater overall operational emissions, as anticipated, including daily and annual criteria air pollutant emissions. Therefore, impacts related to air quality and GHG emissions would be greater under the Reduced Footprint Alternative than the proposed project. Operational emissions would still exceed the applicable thresholds of significance at project-level for ROG and NO_x, as well as cumulatively for ROG. Thus, the same mitigation measures would be required, and the associated significant and unavoidable impacts related to criteria air pollutants would remain.

Table 6-5
Unmitigated Reduced Footprint Alternative Emissions

Pollutant	Multi-Generational Plan	Traditional Plan	Reduced Footprint Alternative	BAAQMD Thresholds of Significance
OPERATIONAL (lbs/day)				
ROG	78.07	70.64	77.77	54
NO_X	78.17	80.12	90.28	54
PM_{10}	54.77	60.39	67.86	82
$PM_{2.5}$	16.85	18.11	20.38	54
CUMULATIVE (tons/yr)				
ROG	13.33	12.03	13.57	10
NO_X	11.00	11.76	13.21	10
PM_{10}	9.32	10.34	11.61	15
$PM_{2.5}$	2.68	2.94	3.30	10
GHG ($MTCO_2e$/yr)				
Operational GHG Emissions	12,399.03	12,665.98	14,275.83	-
Total Annual GHG Emissions[1]	13,174.03	13,440.98	15,050.83	-
Service Population[2]	4,258	3,723	4,095	-
Total Annual GHG Emissions Per Service Population	**3.09**	**3.61**	**3.68**	**4.6 (AB 32) 2.76 (SB 32)**

Notes:
[1] Includes operational emissions plus construction emissions. To provide a conservative analysis of GHG emissions, the emissions from the most intensive year of construction out of both development scenarios under the proposed project (i.e., 775 $MTCO_2e$/yr) were assumed for the Alternative. However, construction emissions would be expected to be less under the Reduced Footprint Alternative than the proposed project.
[2] Service population calculated based on City of Antioch's average household size of 3.15 and employee generation rate for general commercial of one employee per 383 square feet. According to the Contra Costa County Fire Protection District, the future fire station would support one engine company comprised of three personnel.

Source: CalEEMod, March 2018.

Although, as shown in Table 6-5, the total GHG emissions per service population would be greater than the proposed project, the emissions would still, like the proposed project, be below the applicable threshold of significance for GHG emissions associated with compliance with AB 32. However, the GHG emissions would still exceed the applicable threshold of significance for GHG emissions associated with compliance with SB 32. Thus, the same mitigation measure as the proposed project would be required and the associated significant and unavoidable impact would remain. It should be noted that the service population for the Reduced Footprint Alternative could be lower than the average household size due to the potential for senior housing opportunities. A lesser population generated by the Alternative would likely result in greater GHG emissions per service population than what is presented in Table 6-8. Nonetheless, the Reduced Footprint Alternative would still be considered to conflict with SB 32.

Because the Reduced Footprint Alternative would result in greater trips than the proposed project, the Alternative would result in more traffic on area roadways and, thus, an increased contribution to localized CO concentrations at surrounding intersections. As the Reduced Footprint Alternative

would consist of buildout of the same land uses, the effects of the project associated with sources of TACs would be similar to that of the proposed project.

Overall, the Reduced Footprint Alternative would result in greater impacts than the proposed project related to air quality and GHG emissions and the significant and unavoidable impacts identified for the proposed project would remain.

Biological Resources

The Reduced Footprint Alternative would maintain a much larger portion of the site as open space, as the Alternative would not include development south of Sand Creek Road and would preserve the area in perpetuity through a conservation easement, or other similar legal mechanism. As such, impacts associated with biological resources identified in the southwestern area of the site would not occur under the Reduced Footprint Alternative, such as impacts associated with wetland drainage, ephemeral drainage, and ephemeral tributaries located in that potion of the site. In addition, due to the reduced area of disturbance under the Reduced Footprint Alternative, the potential to effect any on-site special-status plant or wildlife species would be reduced compared to the proposed project. Similarly, potential effects on protected trees under the City of Antioch's Tree Preservation and Regulation Ordinance would be reduced under the Reduced Footprint Alternative. However, because the Reduced Footprint Alternative would still include the same off-site improvement areas, the same potential exists for the Reduced Footprint Alternative to result in associated impacts related to waters of the U.S. and/or State and CDFW jurisdictional areas.

Overall, impacts related to biological resources would be fewer under the Reduced Footprint Alternative than the proposed project.

Cultural Resources

The Reduced Footprint Alternative would maintain a larger portion of the site as open space, as the Alternative would not include development south of Sand Creek Road and would preserve that southwest portion of the site in perpetuity through a conservation easement, or other similar legal mechanism . Due to the reduced area of disturbance under the Reduced Footprint Alternative, the potential for damage to or destruction of previously unknown cultural resources or human remains during ground-disturbing activities would be reduced compared to the proposed project. Although the Reduced Footprint Alternative would avoid impacts to the Judsonville town site (P-07-000008), the same potential exists for a substantial adverse change in the significance of a known historical resource, as development of the Reduced Footprint Alternative would still involve development in areas identified as having portions of known historic resources. Similar mitigation would be required under the Reduced Footprint Alternative as for the proposed project.

Overall, impacts related to cultural resources would be slightly fewer under the Reduced Footprint Alternative as compared to the proposed project.

Geology, Soils, and Mineral Resources

Hazards related to geology and soils, such as earthquakes, landslides, soil erosion, soil stability, and expansive soil, are site-specific. Thus, the majority of the potential hazards related to geology and soils, such as earthquakes, soil stability, and expansive soil associated with development of the site would be similar to the proposed project under the Reduced Footprint Alternative. However, the Reduced Footprint Alternative would not include development within the southwestern portion of the site, south of Sand Creek Road, which has the most substantial on-site slopes that have a higher potential for landslides and erosion. Accordingly, potential hazards associated with such would be less under the Reduced Footprint Alternative compared to the proposed project. Because known mineral resources do not exist in the project area, impacts related to such would not occur under the proposed project or the Reduced Footprint Alternative.

Overall, the Reduced Footprint Alternative would result in fewer impacts associated with geology, soils, and mineral resources compared to the proposed project.

Hazards and Hazardous Materials

The Reduced Footprint Alternative would involve a similar number of dwelling units to both of the development scenarios of the proposed project, but would maintain a larger portion of the site as open space, as the Alternative would not include development within the southwestern portion of the site, south of Sand Creek Road. Nonetheless, because demolition of existing on-site structures would still occur under the Alternative and due to the location of the existing petroleum pipeline and water well, impacts related to exposure to existing on-site hazards or hazardous materials associated with such (e.g., asbestos-containing materials and lead-based paint associated with the existing on-site structures), would be similar under the Reduced Footprint Alternative to the proposed project. In addition, the amount of typical household hazardous materials such as cleaning agents, batteries, used oil and filters, paints, and pesticides would be comparable to what would likely occur under the proposed project. Accordingly, impacts related to the creation of hazards to the public or the environment related to the routine transport, use, or disposal of hazardous materials would be similar to that of the proposed project. Because a similar number of residents would be introduced to the area under the Reduced Footprint Alternative, the effects of wildfire and conflicts with emergency access and evacuation plans would be similar to that of the proposed project.

Overall, the Reduced Footprint Alternative would result in similar impacts associated with hazards and hazardous materials than the proposed project.

Hydrology and Water Quality

Because the Reduced Footprint Alternative would not involve development of the southwestern portion of the project site, south of Sand Creek Road, the Alternative would not include the proposed bridges and utility lines across Sand Creek. As such, impacts associated with construction of such improvements and their potential to change the 100-year flood zone would not occur. Accordingly, the mitigation measures related to such would not be required under the Reduced Footprint Alternative.

Although the Reduced Footprint Alternative would involve a smaller area of disturbance than the proposed project due to the preservation of the southwestern portion of the site, land disturbance would still occur during construction activities. Accordingly, the Reduced Footprint Alternative would result in similar impacts related to potential short-term, construction-related water quality and erosion issues.

Due to the reduction in overall development footprint under the Reduced Footprint Alternative, the amount of impervious surfaces under the Alternative would be less than that of the proposed project. Therefore, development of the Reduced Footprint Alternative would result in fewer impacts than that of the proposed project related to the effects on stormwater drainage systems, contaminated runoff, and groundwater recharge.

Overall, the Reduced Footprint Alternative would result in fewer hydrology and water quality related impacts, as compared to the proposed project.

Land Use and Planning/Population and Housing

The Reduced Footprint Alternative would require a General Plan Amendment to the Land Use Map and text modifications to the Sand Creek Focus Area of the General Plan to create a Medium Low Density and a Medium Density designation in the Sand Creek Focus Area that is consistent with the General Plan designations. An amendment to the Circulation Element of the General Plan would be required for the Alternative, similar to the proposed project. In addition to the changes included as part of the proposed project (i.e., to shift the proposed alignment of Dallas Ranch Road and its connection to Sand Creek Road north of Sand Creek), the Alternative would not include roadways and bridges across Sand Creek that are located in the southern portion of the project site, which are currently shown in the General Plan. However, the lack of inclusion of the roadways and bridges would not preclude any future development south of the project site from creating those future roadway connections. Overall, because, similar to the proposed project, the Reduced Footprint Alternative would require General Plan text and map amendments of the Sand Creek Focus Area and amendments to the Circulation Element of the General Plan, impacts related to land use consistency would be similar to that of the proposed project. The Reduced Footprint Alternative could include an option for senior housing opportunities, which the City originally intended for a portion of the site per the existing General Plan designations. In addition, because the Reduced Footprint Alternative would preserve the hillside area within the southwestern portion of the site, the Alternative has less potential to conflict with the City's Hillside Design policies. Nonetheless, because the Reduced Footprint Alternative would still require General Plan amendments, overall similar impacts related to land use would occur.

Both the proposed project and the Reduced Footprint Alternative would involve demolition of the existing on-site structures, including one existing single-family residence. Accordingly, the Reduced Footprint Alternative would involve a similar displacement of existing housing and people as the proposed project. Thus, the Reduced Footprint Alternative would result in similar impacts than the proposed project related to population and housing.

Overall, the Reduced Footprint Alternative would result in similar impacts as the proposed project related to land use and planning, and population and housing.

Noise

The Reduced Footprint Alternative would involve a similar number of dwelling units as the proposed project, which would result in similar construction-related noise generation. Although the Alternative would involve a substantially smaller development footprint overall than the proposed project, as the Alternative would not include development within the southwestern portion of the site, south of Sand Creek Road, the portion of the site that would be developed would still be located closest to existing noise-sensitive land uses. Thus, construction-related noise and vibration impacts would likely be similar to what would be expected for the proposed project.

As discussed in further detail below and presented in Table 6-6, the Reduced Footprint Alternative would result in greater daily, AM, and PM vehicle trips than the proposed project. The increase in vehicle trips would result in more traffic on area roadways and, thus, an increase in traffic-related noise levels. In addition, the Reduced Footprint Alternative would still involve a Village Center; thus, noise associated with the operation of such would still occur under the Alternative. Accordingly, the significant and unavoidable impact identified for the proposed project related to such would remain under the Reduced Footprint Alternative.

Overall, the Reduced Footprint Alternative would result in greater noise-related impacts than that of the proposed project.

Public Services, Recreation, and Utilities

As discussed in Chapter 4.11, Public Services, Recreation, and Utilities, of this EIR, the proposed project would not result in impacts related to water or wastewater supplies or infrastructure, solid waste, law enforcement or fire protection services, school capacities, parks and recreational facilities, or other governmental services, including library, electricity, and natural gas services. Because the Reduced Footprint Alternative would involve a similar number of residential units as the proposed project, the Alternative would generate a similar population to the area. Accordingly, the amount of water consumption and wastewater generation, solid waste generation, demand for public services and facilities, including law enforcement, fire protection, schools, parks and recreational facilities, and libraries, and energy consumption associated with the site would be similar under the Reduced Footprint Alternative. Therefore, development of the Reduced Footprint Alternative would result in similar impacts related to public services, recreation, and utilities to that of the proposed project.

Transportation and Circulation

The Reduced Footprint Alternative would involve similar land uses as the proposed project, but over a substantially smaller development footprint. Based on trip generation rates from Fehr & Peers, the Reduced Footprint Alternative would result in average daily and AM and PM peak hour trips as presented in Table 6-6. The table also presents the average daily and AM and PM peak hour trips associated with the two development scenarios of the proposed project for comparison purposes. Although the Reduced Footprint Alternative could include senior housing opportunities, the trip generation estimate conservatively assumes all market-rate units for the Reduced Footprint

Alternative, as the trip generation rate for market-rate single-family homes is higher than that for age-restricted single-family homes.

As shown in the table, the Reduced Footprint Alternative would involve greater daily, AM, and PM peak hour trips than the proposed project. As such, the Reduced Footprint Alternative would increase traffic on surrounding intersections and roadways, which could increase the intensity of traffic-related impacts, as compared to the proposed project. Implementation of similar mitigation measures would still be required under the Reduced Footprint Alternative, and for the same reasons as the proposed project (i.e., impacted intersections/roadways are outside of City's jurisdiction), impacts would remain significant and unavoidable.

Table 6-6
Proposed Project vs. Reduced Footprint Alternative Trip Generation

Duration	Multi-Generational Plan	Traditional Plan	Reduced Footprint Alternative
Daily	11,830	13,130	14,682
AM Peak Hour	767	905	1,028
PM Peak Hour	1,142	1,337	1,500

Overall, development of the Reduced Footprint Alternative would result in greater impacts related to transportation and circulation than that of the proposed project, and impacts would remain significant and unavoidable, even with mitigation.

Reduced Intensity/Senior Housing Alternative

The Reduced Intensity/Senior Housing Alternative would involve buildout similar to that of the proposed project, with the exception of the residential units. Rather than the mix of densities proposed for both of the development scenarios of the proposed project, the Reduced Intensity/Senior Housing Alternative would be built out with only age-restricted senior housing. The Reduced Intensity/Senior Housing Alternative assumes the units would be consistent with the maximum allowable density envisioned for the Sand Creek Focus Area of 4.0 dwelling units per acre. The Reduced Intensity/Senior Housing Alternative would not include development within the southwestern portion of the site, south of Street C, where moderate to steep slopes are present. That area would be preserved as open space under the Reduced Intensity/Senior Housing Alternative. Accordingly, the Reduced Intensity/Senior Housing Alternative would involve a total of 968 age-restricted, single-family, detached dwelling units. Although the Reduced Intensity/Senior Housing Alternative would be developed in accordance with maximum densities envisioned for the Sand Creek Focus Area, the Reduced Intensity/Senior Housing Alternative would not include the golf course use anticipated for the Sand Creek Focus Area. A summary of the Reduced Intensity/Senior Housing Alternative compared to the two development scenarios of the proposed project is presented in Table 6-7.

Table 6-7 Proposed Project vs. Reduced Intensity/Senior Housing Alternative			
Land Use	**Multi-Generational Plan (Dwelling Units or Acres)**	**Traditional Plan (Dwelling Units or Acres)**	**Reduced Intensity/Senior Housing Alternative (Dwelling Units or Acres)**
Dwelling Units	1,307	1,137	968 (242 acres)
Village Center	5	5	5
Public/Quasi Public	3.5	3.5	3.5
Parks	22	17.5	17.5
Landscape	2.5	3	3
Open Space	194.5	199.5	244.5
Major Roadways	36	36	36

The Reduced Intensity/Senior Housing Alternative would still be capable of achieving the majority of the proposed project's objectives.

Aesthetics

The Reduced Intensity/Senior Housing Alternative would involve similar development on the site as the proposed project, but with fewer residential units, available to seniors only. In addition, the Alternative would preserve the hillside area in the southwestern portion of the site. Thus, although the Reduced Intensity/Senior Housing Alternative would still result in the conversion of the majority of the project site to urban development, which would still result in an alteration of the existing visual character and quality of the site and the site's surroundings, the intensity of the alteration would be much less than that of the proposed project. Similarly, while the Reduced Intensity/Senior Housing Alternative would still introduce new sources of light and glare to the area, due to fewer dwelling units than both of the development scenarios of the proposed project and preservation of a larger portion of the site as open space, the intensity of the new light and glare in the area would be less than that of the proposed project. Similar to the proposed project, the Reduced Intensity/Senior Housing Alternative would include development standards and design guidelines that would help to guide future development within the project site and would address neighborhood identity, consistency with future surrounding development, and architectural design.

Overall, impacts associated with aesthetics would be expected to be fewer under the Reduced Intensity/Senior Housing Alternative than the proposed project.

Agricultural Resources

As discussed in the Agricultural Resources chapter of the EIR, the project site is not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. In addition, the site is not under a Williamson Act contract, zoned for agricultural uses per the Antioch General Plan, considered forest land or timberland, or zoned Timberland Production. Thus, for the same reasons

as the proposed project, the Reduced Intensity/Senior Housing Alternative would not result in any significant impacts associated with agricultural resources.

Overall, impacts associated with agricultural resources, including potential cumulative impacts, would be expected to be similar under the Reduced Intensity/Senior Housing Alternative to the proposed project.

Air Quality and GHG Emissions

The Reduced Intensity/Senior Housing Alternative would reduce the total number of dwelling units constructed on the project site compared to both of the development scenarios of the proposed project, and would restrict all of the units for seniors only. In addition, buildout of the site per the Reduced Intensity/Senior Housing Alternative would result in a smaller development footprint than the proposed project, as the Alternative would not include development within the southwestern portion of the site. Because the Reduced Intensity/Senior Housing Alternative would involve the construction of fewer residences and a smaller overall area of disturbance than the proposed project, construction-related emissions would be fewer to what is expected for the proposed project. Accordingly, construction-related impacts associated with air quality and GHG emissions would be fewer than the proposed project.

Because the Reduced Intensity/Senior Housing Alternative would involve fewer residential units than both of the development scenarios of the proposed project, the Alternative would generate a smaller population to the area. Accordingly, the number of vehicle trips, amount of energy consumption, water consumption, and wastewater generation associated with the site would be less under the Reduced Intensity/Senior Housing Alternative. As discussed in further detail below and presented in Table 6-9, the Reduced Intensity/Senior Housing Alternative would result in fewer daily, AM, and PM vehicle trips than the proposed project, related both to the reduced number of units and the restriction of the units for seniors only, as trips generated by senior housing are much less than what is associated with market-rate housing. Accordingly, criteria air pollutant and GHG emissions associated with the Reduced Intensity/Senior Housing Alternative would be expected to be less than that of the proposed project.

In order to determine whether the emissions under the Reduced Intensity/Senior Housing Alternative would be below the applicable thresholds of significance, thereby removing a significant and unavoidable impact identified for the proposed project, CalEEMod was used to estimate the Reduced Intensity/Senior Housing Alternative operational emissions. The CalEEMod results are presented in Table 6-8.

As shown in the table, the Reduced Intensity/Senior Housing Alternative would result in fewer overall operational emissions, as anticipated, including daily and annual criteria air pollutant emissions. Therefore, impacts related to air quality and GHG emissions would be fewer under the Reduced Intensity/Senior Housing Alternative than the proposed project. Operational emissions would be reduced to below the applicable thresholds of significance at the cumulative level for all criteria air pollutants under the Reduced Intensity/Senior Housing Alternative. Thus, the associated mitigation measure would not be required, and the significant and unavoidable impact related to a cumulatively considerable contribution to criteria air pollutant emissions would not occur.

Table 6-8
Unmitigated Reduced Intensity/Senior Housing Alternative Emissions

Pollutant	Multi-Generational Plan	Traditional Plan	Reduced Intensity/Senior Housing Alternative	BAAQMD Thresholds of Significance
OPERATIONAL (lbs/day)				
ROG	78.07	70.64	55.79	54
NO_X	78.17	80.12	44.75	54
PM_{10}	54.77	60.39	26.72	82
$PM_{2.5}$	16.85	18.11	8.73	54
CUMULATIVE (tons/yr)				
ROG	13.33	12.03	9.57	10
NO_X	11.00	11.76	5.89	10
PM_{10}	9.32	10.34	4.48	15
$PM_{2.5}$	2.68	2.94	1.32	10
GHG ($MTCO_2e$/yr)				
Operational GHG Emissions	12,399.03	12,665.98	7,214.83	-
Total Annual GHG Emissions[1]	13,174.03	13,440.98	7,989.83	-
Service Population[2]	4,258	3,723	3,193.20	-
Total Annual GHG Emissions Per Service Population	**3.09**	**3.61**	**2.50**	**4.6 (AB 32) 2.76 (SB 32)**

Notes:
[1] Includes operational emissions plus construction emissions. To provide a conservative analysis of GHG emissions, the emissions from the most intensive year of construction out of both development scenarios under the proposed project (i.e., 775 $MTCO_2e$/yr) were assumed for the Alternative. However, construction emissions would be expected to be less under the Reduced Intensity/Senior Housing Alternative than the proposed project.
[2] Service population calculated based on City of Antioch's average household size of 3.15 and employee generation rate for general commercial of one employee per 383 square feet. According to the Contra Costa County Fire Protection District, the future fire station would support one engine company comprised of three personnel.

Source: CalEEMod, December 2017.

Similarly, the Reduced Intensity/Senior Housing Alternative would, like the proposed project, be below the applicable threshold of significance for GHG emissions associated with compliance with AB 32 and would additionally reduce the GHG emissions such that the applicable threshold of significance for GHG emissions associated with compliance with SB 32 would not be exceeded. Accordingly, the associated mitigation measure would not be required, and the significant and unavoidable impact related to GHG emissions would not occur. It should be noted that the service population for the Reduced Intensity/Senior Housing Alternative could be lower than the average household size. A lesser population generated by the Alternative would cause the GHG emissions per service population to be greater than what is presented in Table 6-8. Nonetheless, the overall GHG emissions associated with the Reduced Intensity/Senior Housing Alternative would be much less than what would occur under the proposed project.

However, operational emissions would still exceed the applicable thresholds of significance at project-level for ROG only. Thus, the same mitigation measure would be required, and the associated significant and unavoidable impact would remain.

Because the Reduced Intensity/Senior Housing Alternative would result in fewer trips than the proposed project, the alternative would result in less traffic on area roadways and, thus, a decreased contribution to localized CO concentrations at surrounding intersections. As the Reduced Intensity/Senior Housing Alternative would consist of buildout in the same general location as the proposed project with the same land uses, the effects of the project associated with sources of TACs would be similar to that of the proposed project.

Overall, the Reduced Intensity/Senior Housing Alternative would result in fewer impacts than the proposed project related to air quality and GHG emissions and would reduce two significant and unavoidable impacts identified for the proposed project to less-than-significant levels; however, one significant and unavoidable impact identified for the proposed project would remain under the Alternative.

Biological Resources

The Reduced Intensity/Senior Housing Alternative would involve fewer dwelling units than both of the development scenarios of the proposed project and would maintain a larger portion of the site as open space, as the Alternative would not include development within the southwestern portion of the site. Due to the reduced area of disturbance under the Reduced Intensity/Senior Housing Alternative, the potential to effect any on-site special-status plant or wildlife species would be slightly reduced compared to the proposed project. Similarly, potential effects on protected trees under the City of Antioch's Tree Preservation and Regulation Ordinance would be slightly reduced under the Reduced Intensity/Senior Housing Alternative. However, because the Reduced Intensity/Senior Housing Alternative site would still include portions of Sand Creek and the same off-site improvement areas, the same potential exists for the Reduced Intensity/Senior Housing Alternative to result in impacts related to waters of the U.S. and/or State and CDFW jurisdictional areas.

Overall, impacts related to biological resources would be slightly fewer under the Reduced Intensity/Senior Housing Alternative than the proposed project.

Cultural Resources

The Reduced Intensity/Senior Housing Alternative would involve fewer dwelling units than both of the development scenarios of the proposed project and would maintain a larger portion of the site as open space, as the Alternative would not include development within the southwestern portion of the site. Due to the reduced area of disturbance under the Reduced Intensity/Senior Housing Alternative, the potential for damage to or destruction of previously unknown cultural resources or human remains during ground-disturbing activities would be slightly reduced compared to the proposed project. However, the same potential exists for a substantial adverse change in the significance of a known historical resource, as development of the Reduced Intensity/Senior Housing Alternative would still involve development in areas identified as having portions of known historic resources. The same mitigation measures would be required under the Reduced Intensity/Senior Housing Alternative as for the proposed project.

Overall, impacts related to cultural resources would be similar under the Reduced Intensity/Senior Housing Alternative as compared to the proposed project.

Geology, Soils, and Mineral Resources

Hazards related to geology and soils, such as earthquakes, landslides, soil erosion, soil stability, and expansive soil, are site-specific. Thus, the majority of the potential hazards related to geology and soils, such as earthquakes, soil stability, and expansive soil associated with development of the site would be similar to the proposed project under the Reduced Intensity/Senior Housing Alternative. However, the Reduced Intensity/Senior Housing Alternative would not include development within the southwestern portion of the site, which has the most substantial on-site slopes that have a higher potential for landslides and erosion. Accordingly, potential hazards associated with such would be less under the Reduced Intensity/Senior Housing Alternative compared to the proposed project. In addition, because the Reduced Intensity/Senior Housing Alternative would reduce the number of residential units, the likelihood for homes and residents to be exposed to the aforementioned potential geological hazards would be slightly less than the proposed project. Because known mineral resources do not exist in the project area, impacts related to such would not occur under the proposed project or the Reduced Intensity/Senior Housing Alternative.

Overall, the Reduced Intensity/Senior Housing Alternative would result in fewer impacts associated with geology, soils, and mineral resources compared to the proposed project.

Hazards and Hazardous Materials

The Reduced Intensity/Senior Housing Alternative would involve fewer dwelling units than both of the development scenarios of the proposed project and would maintain a larger portion of the site as open space, as the Alternative would not include development within the southwestern portion of the site. Nonetheless, because demolition of existing on-site structures would still occur under the Alternative and due to the location of the existing petroleum pipeline and water well, impacts related to exposure to existing on-site hazards or hazardous materials associated with such (e.g., asbestos-containing materials and lead-based paint associated with the existing on-site structures), would be similar under the Reduced Intensity/Senior Housing Alternative to the proposed project. However, because the Reduced Intensity/Senior Housing Alternative would consist of fewer residences and would be restricted to seniors only, the amount of typical household hazardous materials such as cleaning agents, batteries, used oil and filters, paints, and pesticides would be less than what would likely occur under the proposed project. Accordingly, impacts related to the creation of hazards to the public or the environment related to the routine transport, use, or disposal of hazardous materials would be slightly fewer than that of the proposed project. Because fewer residents would be introduced to the area under the Reduced Intensity/Senior Housing Alternative, the effects of wildfire and conflicts with emergency access and evacuation plans would be slightly less than that of the proposed project.

Overall, the Reduced Intensity/Senior Housing Alternative would result in fewer impacts associated with hazards and hazardous materials than the proposed project.

Hydrology and Water Quality

The Reduced Intensity/Senior Housing Alternative would still involve development of the proposed bridges and utility lines across Sand Creek. As such, the same potential would occur for construction of such improvements to change the 100-year flood zone and lead to areas identified for residential development being redesignated as within a 100-year flood zone. The same mitigation measures related to such would be required under the Reduced Intensity/Senior Housing Alternative as for the proposed project in order to reduce potentially significant impacts to less-than-significant levels.

Although the Reduced Intensity/Senior Housing Alternative would involve a smaller area of disturbance than the proposed project, due to the preservation of the southwestern portion of the site, and would involve the construction of fewer residential units than the proposed project, land disturbance would still occur during construction activities. Accordingly, the Reduced Intensity/Senior Housing Alternative would result in similar impacts related to potential short-term, construction-related water quality and erosion issues.

Due to the reduction in the number of residential units on the site under the Reduced Intensity/Senior Housing Alternative, the amount of impervious surfaces under the Alternative would be expected to be less than that of the proposed project. Therefore, development of the Reduced Intensity/Senior Housing Alternative would result in fewer impacts than that of the proposed project related to the effects on stormwater drainage systems, contaminated runoff, and groundwater recharge.

Overall, the Reduced Intensity/Senior Housing Alternative would result in fewer hydrology and water quality related impacts, as compared to the proposed project.

Land Use and Planning/Population and Housing

Similar to the proposed project, the Reduced Intensity/Senior Housing Alternative would require General Plan text and map amendments of the Sand Creek Focus Area. Therefore, impacts related to land use consistency would be similar to that of the proposed project. However, because the Reduced Intensity/Senior Housing Alternative would preserve the hillside area within the southwestern portion of the site, the Alternative has less potential to conflict with the City's Hillside Design policies.

Both the proposed project and the Reduced Intensity/Senior Housing Alternative would involve demolition of the existing on-site structures, including one existing single-family residence. Accordingly, the Reduced Intensity/Senior Housing Alternative would involve a similar displacement of existing housing and people as the proposed project. However, the Reduced Intensity/Senior Housing Alternative would involve fewer new homes, thereby resulting in less of a population growth in the area than the proposed project. Thus, the Reduced Intensity/Senior Housing Alternative would result in slightly fewer impacts than the proposed project related to population and housing.

Overall, the Reduced Intensity/Senior Housing Alternative would result in fewer impacts than the proposed project related to land use and planning, and population and housing.

Noise

The Reduced Intensity/Senior Housing Alternative would reduce the total number of dwelling units constructed on the project site compared to both of the development scenarios of the proposed project. In addition, buildout of the site per the Reduced Intensity/Senior Housing Alternative would result in a smaller development footprint than the proposed project, as the Alternative would not include development within the southwestern portion of the site. Because the Reduced Intensity/Senior Housing Alternative would involve the construction of fewer residences and a smaller overall area of disturbance than the proposed project, construction-related noise and vibration would likely be less than what would be expected for the proposed project.

Due to the reduction of dwelling units from that of the proposed project, the Reduced Intensity/Senior Housing Alternative would generate a smaller population to the area, which, in turn, would result in fewer vehicle trips associated with the site. The reduction of vehicle trips is not only related to the reduced number of units, but also to the restriction of the units for seniors only, as trips generated by senior housing are much less than what is associated with market-rate housing. The reduced vehicle trips associated with the site would result in less traffic on area roadways and, thus, a decrease in traffic-related noise levels. It should be noted, however, that because the Reduced Intensity/Senior Housing Alternative would still involve a Village Center, noise associated with the operation of such would still occur under the Alternative. Accordingly, the significant and unavoidable impact identified for the proposed project related to such would remain under the Reduced Intensity/Senior Housing Alternative.

Overall, the Reduced Intensity/Senior Housing Alternative would result in fewer noise-related impacts than that of the proposed project.

Public Services, Recreation, and Utilities

As discussed in Chapter 4.11, Public Services, Recreation, and Utilities, of this EIR, the proposed project would not result in impacts related to water or wastewater supplies or infrastructure, solid waste, law enforcement or fire protection services, school capacities, parks and recreational facilities, or other governmental services, including library, electricity, and natural gas services. Because the Reduced Intensity/Senior Housing Alternative would involve fewer residential units than both of the development scenarios of the proposed project, the Alternative would generate a smaller population to the area. Accordingly, the amount of water consumption and wastewater generation, solid waste generation, demand for public services and facilities, including law enforcement, fire protection, schools, parks and recreational facilities, and libraries, and energy consumption associated with the site would be less under the Reduced Intensity/Senior Housing Alternative. Therefore, development of the Reduced Intensity/Senior Housing Alternative would result in fewer impacts related to public services, recreation, and utilities than that of the proposed project.

Transportation and Circulation

The Reduced Intensity/Senior Housing Alternative would involve similar land uses as the proposed project, but with the entire residential portion of the project being restricted for senior adults only. Based on trip generation rates from Fehr & Peers, the Reduced Intensity/Senior Housing Alternative would result in average daily and AM and PM peak hour trips as presented in Table 6-9. The table also presents the average daily and AM and PM peak hour trips associated with the two development scenarios of the proposed project for comparison purposes.

As shown in the table, the Reduced Intensity/Senior Housing Alternative would involve over half of the daily, AM, and PM peak hour trips of what is anticipated for the proposed project. While the Reduced Intensity/Senior Housing Alternative would still increase traffic on surrounding intersections and roadways, because substantially fewer vehicle trips would be generated compared to the proposed project, the intensity of traffic-related impacts would similar be decreased. Nonetheless, implementation of similar mitigation measures would be expected to be required under the Reduced Intensity/Senior Housing Alternative; however, for the same reasons as the proposed project (i.e., impacted intersections/roadways are outside of City's jurisdiction), impacts would be expected to remain significant and unavoidable.

Table 6-9
Proposed Project vs. Reduced Intensity/Senior Housing Alternative Trip Generation

Duration	Multi-Generational Plan	Traditional Plan	Reduced Intensity/Senior Housing Alternative
Daily	11,830	13,130	5,873
AM Peak Hour	767	905	265
PM Peak Hour	1,142	1,337	462

Overall, development of the Reduced Intensity/Senior Housing Alternative would result in fewer impacts related to transportation and circulation than that of the proposed project, but impacts would be expected to remain significant and unavoidable, even with mitigation.

6.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

Designating a superior alternative depends in large part on what environmental effects one considers most important. This EIR does not presume to make this determination; rather, the determinations of which impacts are more important are left to the reader and the decision makers. Generally, the environmentally superior alternative is the one that would result in the fewest environmental impacts as a result of project implementation. However, it should be noted that the environmental considerations are one portion of the factors that must be considered by the public

and the decisionmakers in deliberations on the proposed project and the alternatives. Other factors of importance include urban design, economics, social factors, and fiscal considerations. In addition, the superior alternative would, ideally, still provide opportunities to achieve the project objectives.

Aside from the No Project (No Build) Alternative, the development alternatives would be capable of meeting the majority of the proposed project's objectives. A comparison of the impacts that would occur under each of the alternatives, as discussed in detail above, to those anticipated for the proposed project is illustrated in Table 6-10 below. As shown in Table 6-10, all of the significant impacts identified for the proposed project would not occur or would be fewer under the No Project (No Build) Alternative. In addition, the No Project (Existing General Plan) Alternative would reduce a number of significant impacts identified for the proposed project, and would reduce a significant and unavoidable impact identified for the proposed project related to noise. However, given that a "no project" alternative shall not be selected as the environmentally superior alternative, neither the No Project (No Build) Alternative nor the No Project (Existing General Plan) Alternative may be chosen as the environmentally superior alternative.

As shown in the table, the Reduced Intensity/Senior Housing Alternative would reduce the most impacts in comparison to the proposed project. In addition, the Reduced Intensity/Senior Housing Alternative would reduce two of the significant and unavoidable impacts identified for the proposed project to less-than-significant levels, both related to air quality and GHG emissions. Because a "no project" alternative shall not be selected as the environmentally superior alternative, and because Reduced Intensity/Senior Housing Alternative would result in the fewest impacts in the most resource areas than the proposed project in comparison to all other development alternatives, the Reduced Intensity/Senior Housing Alternative would be considered the Environmentally Superior Alternative.

Table 6-10
Alternative Environmental Impacts Comparison

Resource Area	Multi-Generational Plan / Traditional Plan[1]	No Project (No Build) Alternative	No Project (Existing General Plan) Alternative	Reduced Footprint Alternative	Reduced Intensity/Senior Housing Alternative
Aesthetics	Significant and Unavoidable	None	Fewer*	Fewer*	Fewer*
Agricultural Resources	Less-Than-Significant	None	Similar	Similar	Similar
Air Quality and GHG Emissions	Significant and Unavoidable	None	Fewer*	Greater*	Fewer*
Biological Resources	Less-Than-Significant with Mitigation	None	Similar	Fewer	Fewer
Cultural Resources	Less-Than-Significant with Mitigation	None	Similar	Fewer	Similar
Geology, Soils, and Mineral Resources	Less-Than-Significant with Mitigation	None	Fewer	Fewer	Fewer
Hazards and Hazardous Materials	Less-Than-Significant with Mitigation	None	Fewer	Similar	Fewer
Hydrology and Water Quality	Less-Than-Significant with Mitigation	None	Similar	Fewer	Fewer
Land Use and Planning/Population and Housing	Less-Than-Significant	Greater	Fewer	Similar	Fewer
Noise	Significant and Unavoidable	None	Fewer	Greater*	Fewer*
Public Services, Recreation, and Utilities	Less-Than-Significant	None	Fewer	Similar	Fewer
Transportation and Circulation	Significant and Unavoidable	None	Fewer*	Greater*	Fewer*

Notes:
No Impact = "None"
Less than Proposed Project = "Fewer"
Similar to Proposed Project = "Similar"
Greater than Proposed Project = "Greater"
* Significant and unavoidable impacts identified for the proposed project would remain.

[1] Where impact significance would differ between the two development scenarios, the impact significance for each is presented. Otherwise, the impact significance was determined to be the same under either scenario.