

CHAPTER 6: ALTERNATIVES TO THE PROPOSED PROJECT

6.1 - Introduction

In accordance with California Environmental Quality Act (CEQA) Guidelines Section 15126.6, this Draft Environmental Impact Report (EIR) contains a comparative impact assessment of alternatives to the proposed project. The primary purpose of this section is to provide the decision makers and general public with a reasonable number of feasible project alternatives that could attain most of the basic project objectives, while avoiding or reducing any of the project's significant adverse environmental effects. Important considerations for these alternatives analyses are noted below (as stated in CEQA Guidelines § 15126.6).

- An EIR need not consider every conceivable alternative to a project;
- An EIR should identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process;
- Reasons for rejecting an alternative include:
 - Failure to meet most of the basic project objectives;
 - Infeasibility; or
 - Inability to avoid significant environmental effects.

As has been previously stated, the Antioch City Council unanimously adopted the “West Sand Creek Tree, Hillside, and Open Space Protection, Public Safety Enhancement, and Development Restriction Initiative” (the “West Sand Creek Initiative”) in July 2018. The West Sand Creek Initiative sought to amend the City's General Plan to update the Land Use Element to change the base land use designations on the Sand Creek Focus Area (project site) to restrict approximately 229.50 acres as a Restricted Development Area for Rural Residential, Agriculture, and Open Space land use designations, and allow development in a Limited Development Area with land use designations of Estate Residential, Low Density Residential, Medium Low Density Residential, Medium Density Residential, Convenience Commercial, Mixed Use, Public/Quasi Public, and Open Space. The West Sand Creek Initiative also sought to rezone the project site's Limited Development Area of approximately 322 acres from Study Area to the West Sand Creek Planned Development District. Finally, the West Sand Creek Initiative would have allowed up to 1,177 residential units in the Limited Development Area.

The West Sand Creek Initiative was invalidated by the trial court in November 2019. However, the project proponent plans to advance the land use objectives of the West Sand Creek Initiative for the proposed project.

As such, CEQA requires the City to analyze potential alternatives to the proposed project.

6.1.1 - Significant Unavoidable Impacts of the Proposed Project

The proposed project was analyzed for potentially significant impacts on each of the environmental issues discussed in Sections 3.1 through 3.14. The results of the analysis indicate that the proposed project would result in a significant unavoidable impact with respect to:

- **Impact AES-3:** The project would substantially degrade the existing visual character or quality of public views of the site and its surroundings.
- **Impact AIR-1:** The project would conflict with or obstruct implementation of the applicable air quality plan.
- **Impact AIR-2:** The project would result in a cumulatively considerable net increase of ROG for which the project region is in non-attainment under applicable air quality standards.
- **Impact GHG-1:** The project could generate direct and indirect greenhouse gas emissions that could result in a significant impact on the environment even with mitigation.
- **Impact TRANS-1:** The project could conflict with a program plan, ordinance, policy of the circulation system under Existing Plus Project traffic conditions.
- **Impact TRANS-2:** The project could conflict with a program, plan, ordinance, or policy of the circulation system under Near-term traffic conditions.
- **Impact TRANS-4:** The project would conflict with a program, plan, ordinance, or policy of the circulation system related to freeways.
- **Impact TRANS-5:** The project would be inconsistent with CEQA guidelines Section 15064.4 subdivision (b).

6.1.2 - Alternatives Considered but Rejected

As noted previously, the purpose of an alternatives analysis is to develop alternatives to the proposed project that substantially lessen at least one of the significant environmental effects identified as a result of the project, while still meeting most, if not all, of the basic project objectives. Alternatives that do not meet the basic project objectives must be rejected. The following project alternatives were considered but rejected for the reasons discussed below: (a) Off-site Alternative and (b) All Age Restricted Alternative.

The Off-site Alternative was considered but rejected mostly because the project Applicant owns the project site and purchased it to develop it in accordance with the City's existing General Plan (barring minor amendments). An Off-site Alternative was further infeasible as there is little to no developable land available within the City's Urban Limit Line that would allow for the buildout of the proposed project.

The All Age Restricted Alternative considered a development of entirely age-restricted (AR) single-family housing without any commercial development whatsoever. This alternative was considered but rejected on the grounds that it would not meet the project's proposed objectives of building out

a variety of housing types and densities, while also attempting to reduce small traffic trips that would be alleviated with the proposed Village Commercial Center.

6.1.3 - Alternatives to the Proposed Project

Pursuant to CEQA Guidelines Section 15126.6, this Draft EIR presents a range of reasonable alternatives to the proposed project for analysis and evaluation of their comparative merits. These alternatives are considered to cover the range of development alternatives that would meet the basic objectives of the project while lessening one or more of its significant impacts. CEQA Guidelines Section 15126.6(a) states that an EIR need not evaluate every conceivable alternative to a project. Information has been provided for each alternative that would allow meaningful comparison with the project. All of the alternatives analyzed in this chapter would feasibly avoid or reduce at least one of the significant impacts of the project.

CEQA requires that an EIR analyze a “no project” alternative (CEQA Guidelines § 15126.6(e)). Where, as here, this alternative means a proposed project would not proceed, the discussion “[sh]ould compare the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved” (CEQA Guidelines § 15126.6(e)(3)(B)). A “no project” alternative shall describe existing conditions at the time the Notice of Preparation is prepared, as well as what could reasonably be expected in the foreseeable future if the project is not approved, based on current plans and consistent with available infrastructure and community services.

The alternatives to the proposed project analyzed in this section are as follows:

- **Alternative 1: No Project/No Build:** Under the No Project Alternative, construction of the proposed 1,177-unit master-planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain on-site.
- **Alternative 2: Reduced Density:** Under the Reduced Density Alternative, 900 total dwelling units consisting of a maximum total of 478 single-family dwelling units and 422 AR units would be constructed on approximately 253.5 acres of the 551.50-acre site. This alternative would still include the 5.00-acre Village Center, as well as the fire station and 10.00 acres of proposed parks instead of 20.00 acres. The total amount of open space would be approximately 239.00 acres.
- **Alternative 3: Reduced Footprint:** Under the Reduced Footprint Alternative, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units would be constructed, along with a commercial center, fire station, and parks on land north of Sand Creek only. All bridges across the creek would be eliminated, as would the trail staging area and the detention basin south of the creek.
- **Alternative 4: Reduced Traffic:** Under the Reduced Traffic Alternative, 1,177 residential dwelling units would be constructed on 253.50 acres of the 551.50-acre site. This alternative would reduce the proposed low-density residential units from 543 to 218 and increase the proposed AR units from 422 to 747. The total amount of open space, parks, landscaping, the Village Center, and fire station site would remain the same as the proposed project.

6.2 - Project Objectives

As stated in Section 2, Project Description, the objectives of the proposed project are to:

- Develop a project consistent with the West Sand Creek Open Space Protection, Public Safety Enhancement, and Development Restriction Initiative.
- Establish a 551.50-acre, well-planned community that incorporates the natural, historic, and physical elements of the land and the surrounding uses.
- Design a land use plan with a mix of uses complementary to existing neighborhoods and in symmetry with the larger Antioch community.
- Provide housing opportunities responsive to the needs of Antioch, the region and market conditions, to serve a range of family incomes and household types.
- Provide a Village Center adjacent to Deer Valley Road and across from the Kaiser Permanente Antioch Medical Center, functioning as a hub of activity and source of sales tax revenue.
- Preserve and protect the hills and hillsides on-site as permanent open space.
- Preserve and protect the Sand Creek corridor as permanent open space and provide public access with perimeter trails and crossings.
- Provide a pedestrian-friendly community that 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.
- 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.
- Provide a land use plan, design standards, and guidelines consistent with the City of Antioch General Plan goals and policies, that incorporate market-acceptable design features and promotes an attractive, well-maintained community.
- Establish a land use and circulation system that promotes convenient mobility, completes the extension of Dallas Ranch Road to Deer Valley Road, and provides modes of transportation within a setting that is safe, accessible, and convenient for all modes of travel.
- Provide a comprehensive infrastructure system, including parks, open space, stormwater quality facilities, public services, roadways, and utilities infrastructure sized to serve the proposed project and properties to the east and south in the Sand Creek Focus Area that complements the existing citywide infrastructure and ensures funding for the on-going maintenance needs of such infrastructure.

6.3 - Alternative 1—No Project/No Build Alternative

CEQA Guidelines Section 15126.6(e) requires EIRs to evaluate a “No Project Alternative,” which is defined as the “circumstance under which the project does not proceed.” Under Alternative 1, No

Project Alternative, construction of the proposed 1,177-unit master-planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain on-site.

6.3.1 - Impact Analysis

Aesthetics, Light, and Glare

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. The project would result in significant and unavoidable impacts related to aesthetics. Under Alternative 1, because development of the project site would not occur, there would be no impacts related to aesthetics. Because this alternative would not result in any impacts, Alternative 1 would have fewer impacts related to aesthetics compared to the project.

Agriculture Resources and Forestry Resources

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. The project would result in less than significant impacts related to agriculture and forestry resources. Under Alternative 1, impacts related to agriculture and forestry resources would not occur, as development would not occur. Therefore, Alternative 1 would result in fewer impacts related to agriculture and forestry resources compared to the project.

Air Quality

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. Alternative 1 would not result in a change related to criteria pollutant and toxic air contaminant emissions, as there would be no associated impacts resulting from construction or operation of the project.

Biological Resources

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. Because ground disturbing activities would not occur, Alternative 1 would not result in impacts related to biological resources.

Cultural Resources and Tribal Cultural Resources

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. Because

ground disturbance resulting from the project would not occur, Alternative 1 would result in no impacts related to cultural and tribal cultural resources.

Geology and Soils

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. Alternative 1 would not result in any impacts related to geology and soils, as no construction related ground disturbance would occur.

Greenhouse Gas Emissions and Energy

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. Alternative 1 would not result in construction of the project; therefore, impacts related to greenhouse gas (GHG) emissions and energy over and above existing conditions would not occur under Alternative 1.

Hazards and Hazardous Material and Wildfire

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur and the project site would remain in its primarily undeveloped state with the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. The continued use of the site as a single-family residence and grazing land would not result in impacts to hazards or hazardous materials, however the risk of wildfire is equivalent to or higher than the project given the site is currently grassland and has no buffer between the adjacent open space, and the structures are older and without sprinkler systems.

Hydrology and Water Quality

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur. Thus, there would not be any water quality concerns regarding construction activity. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. The lack of development under this alternative would not alter drainage patterns. Similarly, the use of groundwater for purposes of watering the cattle would remain the same. Thus, Alternative 1 would not result in any impacts related to hydrology and water quality above existing conditions.

Land Use and Planning

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. Thus, Alternative 1 would result in no impacts to land use and planning.

Noise

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. Because Alternative 1 would not result in any construction or housing, no new noise generation or vibration would occur, and this alternative would not have any noise impacts.

Population and Housing

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. With the No Project/No Build Alternative, there would not be an increase in population, and therefore no impacts related to population and housing.

Public Services and Recreation

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. The two groundwater wells would remain intact and operational and no new parks or open space trails would be developed. Alternative 1 would result in no impacts to public services or recreation.

Transportation

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. Because no new construction would occur under Alternative 1, there would not be any increased construction traffic in the area (Table 6-1), and the housing and population would not increase. Therefore, no impacts to transportation would result.

Table 6-1: No Project, No Build Alternative Trip Generation

Scenario	Daily Trips	AM Peak-hour	PM Peak-hour
No Project, No Build Alternative	0	0	0
Proposed Project	10,990	713	1,083
Source: Fehr & Peers 2020.			

Utilities and Service Systems

Under Alternative 1, construction of the proposed 1,177-unit master planned community would not occur. The project site would remain in its primarily undeveloped state, and the existing single-family residence, barns, and outbuildings related to the cattle grazing operation would remain. Given no

new construction or development would occur under this alternative, no impacts to utilities, police, fire, library or park services would occur.

6.3.2 - Conclusion/Relationship to Project Objectives

Alternative 1, the No Project/No Build Alternative, would leave the project site in its existing undeveloped condition, thus avoiding impacts caused by the demolition of the single-family residence, barns, and outbuildings on-site, and the grading and construction associated with the project. However, because development of the project would not occur, Alternative 1 would not meet any of the objectives of the proposed project.

6.4 - Alternative 2—Reduced Density Alternative

Under the Reduced Density Alternative, 900 total dwelling units consisting of a maximum total of 478 single-family dwelling units and 422 AR units would be constructed on approximately 253.50 acres of the 551.50-acre site. This alternative would reduce the overall residential density of the site from 4.6 dwelling units per acre to 3.5 dwelling units per acre, but would still include the 5.00-acre commercial site, as well as the fire station and 10.00 acres of proposed parks instead of 20.00 acres. The total amount of open space would be approximately 239.00 acres (Exhibit 6-1). Alternative 2 would eliminate all medium-density dwelling units from the site plan and would require amendments to the City of Antioch General Plan and Zoning Code.

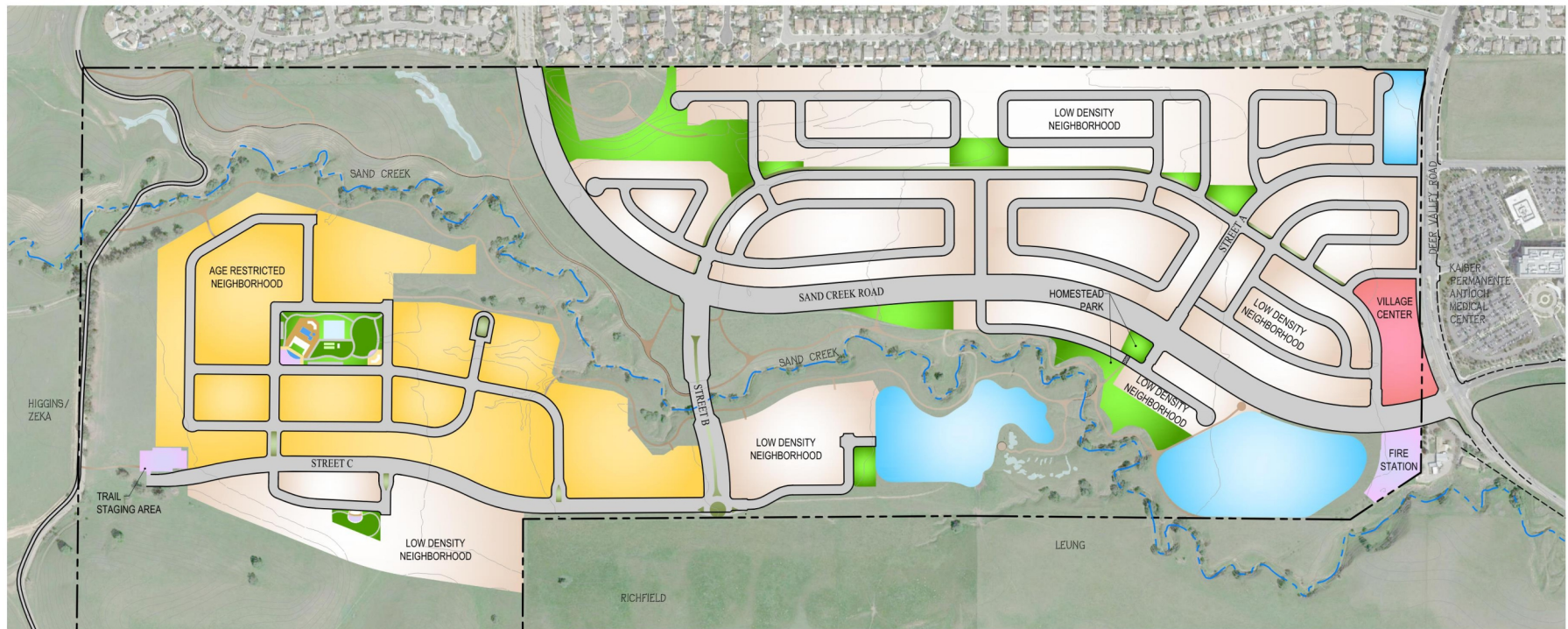
6.4.1 - Impact Analysis

Aesthetics, Light, and Glare

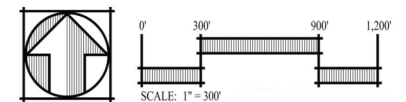
Under Alternative 2, a master planned community consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, would be constructed. Under Alternative 2, project impacts related to visual character would be significant and unavoidable, similar to the proposed project because like the proposed project, it would significantly alter the landscape from rural grazing land to suburban homes, roadways, and other infrastructure. The buildout of Alternative 2 would have similar impacts as the project related to light and glare from homes and businesses, which could be mitigated in the same way the proposed project offers.

Agriculture Resources and Forestry Resources

Under Alternative 2, a master planned community consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, would be constructed. The proposed project's impacts related to agriculture and forestry resources would be less than significant since grazing land is not a protected agricultural resource. Under Alternative 2, impacts related to agriculture and forestry resources would also be less than significant, for the same reason.



TYPE	PRODUCT OR AREA TYPE	ACREAGE	% OVERALL	% RES ACREAGE	NET DENSITY (DU/AC)	AVERAGE LOT SIZE (SF)	TARGET # UNITS	% RES UNITS
	LOW DENSITY (LD)	178.5	32.4%	70.4%	2.7	10,000	478	53.1%
	AGE RESTRICTED (AR)	75	13.6%	29.6%	5.6	5,000	422	46.9%
	MEDIUM DENSITY (MD)	0	0.0%	0.0%	0.0	4,500	0	0.0%
	RESIDENTIAL TOTAL	253.5	46.0%	100.0%	3.5		900	100.0%
	VILLAGE CENTER	5	0.9%					
	PUBLIC USE (PQ)	3	0.5%					
	• FIRE STATION (PQ-F)	2	0.4%					
	• TRAIL STAGING AREA (PQ-S)	1	0.2%					
	PARKS (P)	10.5	1.9%					
	LANDSCAPE (L)	2.5	0.5%					
	OPEN SPACE (OS)	239	43.3%					
	MAJOR ROADWAYS	38	6.9%					
	TOTAL	551.5	100%					



Source: CBG Civil Engineers, February 26, 2020.



THIS PAGE INTENTIONALLY LEFT BLANK

Air Quality

Where housing development is at issue, air quality impacts usually result from new vehicle trips associated with the development, as well as the temporary construction impacts. Under Alternative 2, a master planned community consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, would be constructed. The proposed project would have one significant and unavoidable air quality impact related to the emission of ROGs. Alternative 2 would have the same significant and unavoidable ROG emission impact despite the lower number of units proposed because while it would reduce the number of units being constructed, it would have the same construction footprint, and therefore would result in a similar level of area source emissions. The majority of operational ROG emissions from area sources is from consumer products. Specifically, the related area sources of ROG emissions include degreasers for the proposed parking lots and pesticide/fertilizers for the proposed public parks and landscaped areas.

Biological Resources

Under Alternative 2, a master planned community consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, would be constructed on the same number of acres and in the same footprint as the proposed project. The proposed project's impacts related to biological resources would be less than significant with mitigation. Under Alternative 2, impacts related to biological resources would have the same level of impacts and require the same level of regulatory permitting also be less than significant with mitigation, similar to the proposed project.

Cultural Resources and Tribal Cultural Resources

Under Alternative 2, a master planned community consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, would be constructed. The proposed project's impacts related to cultural resources and tribal cultural resources would be less than significant with mitigation. Under Alternative 2, a similar project would be developed and, the same development footprint would be disturbed. Therefore, project impacts under Alternative 2 related to cultural and tribal cultural resources would be less than significant with mitigation, similar to the proposed project.

Geology and Soils

Under Alternative 2, a master planned community consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, would be constructed. The proposed project's impacts related to geology and soils would be less than significant with mitigation. Similarly, under Alternative 2, impacts related to geology and soils would be less than significant with mitigation, since Alternative 2 would be constructed on the same project footprint.

Greenhouse Gas Emissions and Energy

Under Alternative 2, while the overall construction footprint would be relatively the same as that of the proposed project, the reduced number of dwelling units and the associated reduction in project trips would be expected to result in reduce GHG emissions compared to the emissions estimated for the proposed project. However, this reduction would not necessarily reduce overall project operational emissions in the year 2030 to below the threshold of 2.6 metric ton carbon dioxide equivalent (MT CO₂e)/year/service population and, therefore, mitigation would still be required. Mitigation Measure

(MM) GHG-1 requires the installation of solar panels, electric vehicle charging stations and the like; however, there is no guarantee these measures will reduce emissions to below the threshold. As such, this alternative's GHG impact is expected to also be significant and unavoidable.

Hazards, Hazardous Materials, and Wildfire

Under Alternative 2, a master planned community consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, would be constructed. This alternative would encompass the same footprint as the proposed project, including the same emergency vehicle access. Although it would reduce the number of housing units by 277, the usage of the site would be substantially similar to that of the project—residential and commercial in nature, using the same fertilizers, etc. The proposed project's impacts related to hazards, hazardous materials, and wildfire would be less than significant with mitigation. Under Alternative 2, project impacts related to hazards, hazardous materials, and wildfire would also be less than significant with mitigation, similar to the proposed project.

Hydrology and Water Quality

Under Alternative 2, a master planned community consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, would be constructed. Although the number of units constructed would be reduced, the project footprint would remain the same and thus, result in a substantially similar area of impervious surface. Also, Alternative 2 would still require three detention basins, with the same outfalls to Sand Creek. The proposed project's impacts related to hydrology and water quality would be less than significant. Under Alternative 2, project impacts related to hydrology and water quality would also be less than significant.

Land Use and Planning

Project impacts related to land use and planning would be less than significant. Under Alternative 2, a master planned community consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, would be constructed on the same development footprint as the project. Under Alternative 2, project impacts related to land use and planning would also be less than significant, but compared to the proposed project, Alternative 2 would not provide housing opportunities as responsive to the needs of Antioch, or the region and market conditions, to serve a range of family incomes and household types.

Noise

Under Alternative 2, a master planned community consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, would be constructed. Project impacts related to noise would be less than significant with mitigation. Under Alternative 2, project impacts related to noise would also be less than significant with mitigation, similar to the proposed project.

Population and Housing

Under Alternative 2, a master planned community consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, would be constructed.

The proposed project would include demolition of the existing single-family home and outbuildings and construction of 1,177 dwelling units of different densities, thereby increasing the City's population by 3,931 people (assuming 3.34 persons per household). Because the proposed project would provide housing in an area of the City planned for development since at least 2008, and would help alleviate the dearth of housing in the area, the proposed project's impacts related to population and housing would be less than significant. While Alternative 2 would add 900 homes, they would only be low-density single-family homes, which does not provide a full range of housing options for buyers. Nevertheless, Alternative 2 would have a less than significant impact on population and housing because it would still add homes to the area.

Public Services and Recreation

The proposed project would have significant and unavoidable impacts on public services and recreation as discussed in Chapter 3.13, Public Services and Recreation, of this Draft EIR. Under Alternative 2, a master planned community consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, a trail staging area, and 5.00 acres of commercial uses would be constructed. While this alternative would—like the proposed project—include the fire station site and the trail staging area, instead of 20.00 acres of park, 10.00 acres of park would be provided. Additionally, the connection of Sand Creek Road from the terminus of Dallas Ranch Road through to Deer Valley Road would be completed. Alternative 2 would include the trail staging and fire station site as noted above, and pay its applicable development impact fees for fire and police services. Thus, Alternative 2's impact to public services and recreation would be less than significant with mitigation, the same as the proposed project.

Transportation

The proposed project would create 10,990 new traffic trips per day, and would result in significant and unavoidable impacts on freeway on and offramps, as well as a significant and unavoidable impact to the intersection of Deer Valley Road and Balfour Road, because such intersections are within other jurisdictions (i.e., California Department of Transportation [Caltrans] and City of Brentwood).

Additionally, the proposed project would contribute to an increase in vehicle miles traveled (VMT) on a per-capita basis as the project would result in a housing development that would require residents to travel longer-than-average distances to meet their daily needs. As no feasible mitigation has been identified that would reduce the VMT generated by the project to 15 percent less than the local or regional average, this would be a significant and unavoidable impact. The proposed project would improve emergency access through the southwestern portion of Antioch with the construction of the Sand Creek Road connection.

Under Alternative 2, a master planned community on the same footprint as the proposed project, consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, trail staging area, parks, and the Sand Creek Road connection, would be constructed. With 277 fewer dwelling units (and approximately 900 fewer residents), Alternative 2 would still result in an estimated 8,370 (Table 6-2) new traffic trips per day, causing similar significant and unavoidable impacts to freeway on and offramps and VMT as the proposed project.

Table 6-2: Reduced Density Alternative Trip Generation

Scenario	Daily Trips	AM Peak-hour	PM Peak-hour
Reduced Density Alternative	8,730	508	808
Proposed Project	10,990	713	1,083
Source: Fehr & Peers 2020.			

Utilities and Service Systems

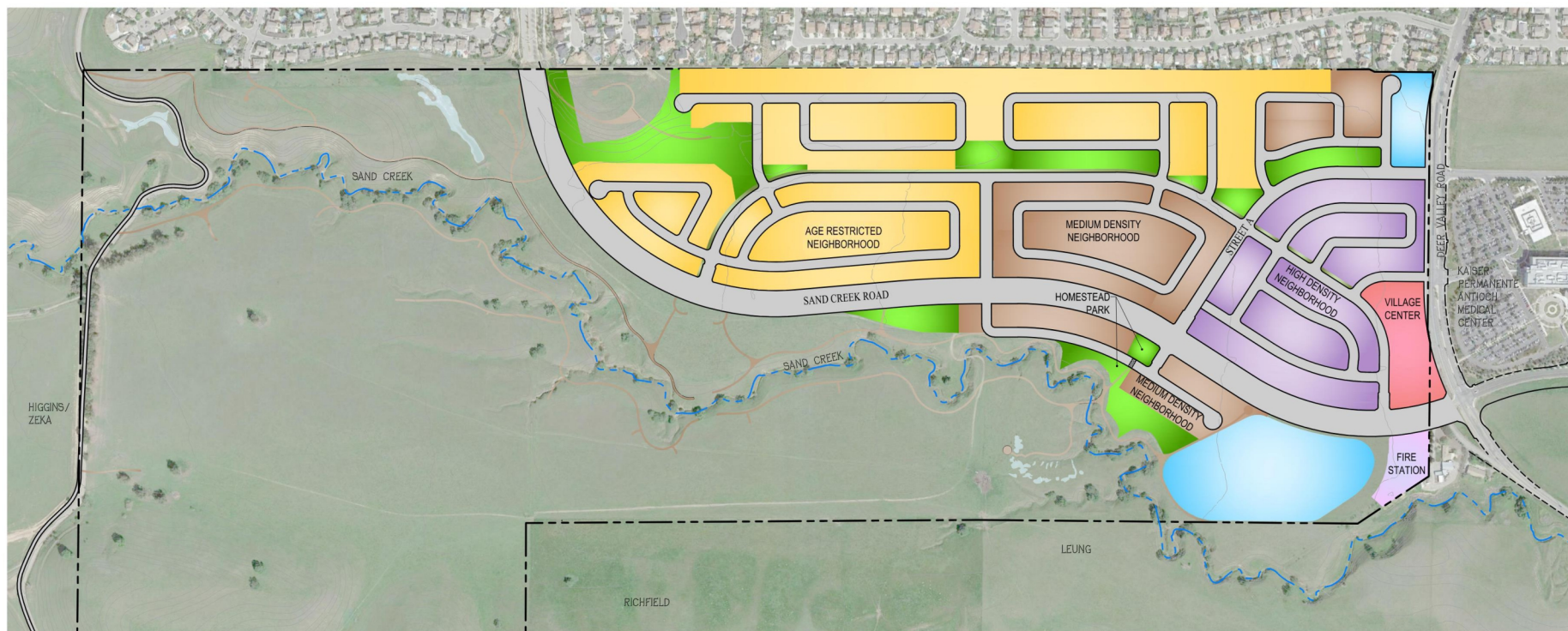
Project impacts related to utilities and service systems would be less than significant as there are sufficient electricity and natural gas supplies, water and sewer, and other services available to meet the needs of the proposed project with service providers nearby. Likewise, Under Alternative 2, a master planned community consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, would be constructed. Given there would be fewer dwelling units built and thus, fewer residents, there would be less need and usage of utilities and services under Alternative 2. As such, project impacts related to utilities and service systems under Alternative 2 would be less than significant, similar to the proposed project.

6.4.2 - Conclusion/Relationship to Project Objectives

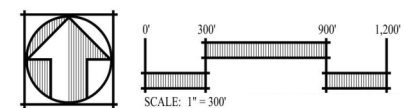
Alternative 2, the Reduced Density Alternative, would result in a master planned community consisting of up to 900 dwelling units, consisting of 478 units of low-density residential and 422 AR units, a trail staging area, fire station site, 10.00 acres of parks, and a Sand Creek Road connection. While Alternative 2 would meet the majority of the objectives of the project, due to the elimination of all medium-density dwelling units it would not provide the range of housing opportunities as the project responsive to the needs of Antioch, the region and market conditions, to serve a range of family incomes and household types. Additionally, similar to the proposed project, Alternative 2 would require amendments to the City of Antioch General Plan and Zoning Code.

6.5 - Alternative 3—Reduced Footprint Alternative

Alternative 3, the Reduced Footprint Alternative, would allow a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, along with a commercial center, fire station, and parks on land north of Sand Creek only. All bridges across the creek would be eliminated, as would the trail staging area and the detention basin south of the creek. All low-density housing would similarly be eliminated (Exhibit 6-2). This alternative would replace all of the 543 low-density residential dwelling units with high-density dwelling units and increase the overall density of the site from 4.6 dwelling units per acre to 8.8 units per acre in order to obtain the full number of units.



PRODUCT & AREA SUMMARY								
TYPE	PRODUCT OR AREA TYPE	ACREAGE	% OVERALL	% RES ACREAGE	NET DENSITY (DU/AC)	AVERAGE LOT SIZE (SF)	TARGET # UNITS	% RES UNITS
	HIGH DENSITY (HD)	28	5.1%	19.9%	20	—	543	46.1%
	AGE RESTRICTED (AR)	75	13.6%	53.2%	5.6	5,000	422	35.9%
	MEDIUM DENSITY (MD)	38	6.9%	26.9%	5.6	4,500	212	18.0%
	RESIDENTIAL TOTAL	141	25.6%	100.0%	8.8		1,177	100.0%
	VILLAGE CENTER	5	0.9%					
	PUBLIC USE (PO) * FIRE STATION (PO-F)	2 2	0.4%	0.4%				
	PARKS (P)	20	3.6%					
	LANDSCAPE (L)	2.5	0.5%					
	OPEN SPACE (OS)	356	64.5%					
	MAJOR ROADWAYS	25	4.5%					
	TOTAL	551.5	100%					



Source: CBG Civil Engineers, February 26, 2020.



THIS PAGE INTENTIONALLY LEFT BLANK

Aesthetics, Light, and Glare

Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141.00 acres of the 551.50-acre project site—only north of Sand Creek. Under this Reduced Footprint Alternative, impacts related to the visual character of the project site would be significant and unavoidable, similar to the proposed project, because it would still convert half of the project site from grasslands to development. Thus, this alternative would not reduce impacts below the proposed project's aesthetic impacts.

Agriculture Resources and Forestry Resources

The proposed project's impacts related to agriculture and forestry resources would be less than significant. Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141.00 acres of the 551.50-acre project site. Under Alternative 3, impacts related to agriculture and forestry resources would also be less than significant, similar to the proposed project.

Air Quality

Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141.00 acres of the 551.50-acre project site. Project impacts related to the emission of ROG's would be significant and unavoidable with mitigation. While this Reduced Footprint Alternative might reduce the number of acres to be graded during construction, the operation of the alternative would result in similar significant and unavoidable ROG impacts. Under Alternative 3, impacts related to ROG's would be significant and unavoidable even with mitigation, similar to the proposed project.

Biological Resources

Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141.00 acres of the 551.50-acre project site—only north of Sand Creek. The proposed project's impacts related to biological resources would be less than significant with mitigation. The Reduced Footprint Alternative would not impact any of the biological resources south of Sand Creek as no development would occur there. However, this alternative would still impact a small area of the shining navarretia population requiring mitigation of that rare plant, as well as impact the isolated drainages along Deer Valley Road on the project site's eastern boundary line. All in all, Alternative 3 would have less than significant impacts to biological resources with mitigation, but fewer than the proposed project.

Cultural Resources and Tribal Cultural Resources

Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within 141.00 acres of the 551.50-acre project site—only north of Sand Creek. The project site has archaeological and historical resources on it. There is no evidence or trace of tribal resources anywhere on the site or in the surrounding area. Alternative 3 would impact cultural resources the same as the project and any impact would be less than significant with mitigation, similar to the proposed project.

Geology and Soils

Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141.00 acres of the 551.50-acre project site. The proposed project would develop north and south of the creek, while Alternative 3 would develop only north of Sand Creek. Thus, erosion impacts under the proposed project could be more extensive. Nevertheless, the proposed project would employ MM GEO-2 to address all erosion caused by the project. Any grading work and drainage improvements installed under Alternative 3 would have similar requirements to the proposed project. Similarly, regardless of where on the site homes are built, both under the proposed project and Alternative 3, a geotechnical report recommending any special requirements for foundations will be required to be prepared and reviewed by the City's building official. Thus, Alternative 3 would have similar impacts related to geology and soils to the proposed project.

Greenhouse Gas Emissions and Energy

Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141.00 acres of the 551.50-acre project site. While the Reduced Footprint Alternative wouldn't extend to the south of Sand Creek, and may have less temporary construction impacts, 1,177 units would still be constructed, thus, introducing the same number of residents to the community. As such, this alternative's impacts with respect to operation would not be substantially different or lesser than the proposed project's GHG impacts.

Hazards, Hazardous Materials and Wildfire

Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141.00 acres of the 551.50-acre project site—on areas north of Sand Creek. This alternative would continue to provide for the extension of Sand Creek Road to connect the terminus of Dallas Ranch Road through the site to Deer Valley Road. While constructing only north of the creek might seem less of a wildfire hazard, the site would still bound a grassland open space, and further, under Alternative 3 would include substantially more open space grassland which could be a wildfire hazard. Also, given the same number of residents would occupy the area, there would be similar impacts to hazards and hazardous materials. Accordingly, the Reduced Footprint Alternative would not reduce any of the hazards/wildfire impacts below that of the proposed project.

Hydrology and Water Quality

Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141.00 acres of the 551.50-acre project site—only north of Sand Creek. The proposed project would not result in significant impacts to hydrology and water quality. While under Alternative 3, the land south of the creek would remain undeveloped, the soils in the area don't allow for substantial groundwater recharge. Similarly, erosion and water quality issues would still need to be addressed—although with one less drainage detention basin. Finally, there would not be any substantial risk of

flooding under either the project or Alternative 3. Fundamentally, impacts related to hydrology and water quality under Alternative 3 would be similar to the proposed project.

Land Use and Planning

Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141.00 acres of the 551.50-acre project site. The proposed project would allow for varied densities of housing, including executive housing, while Alternative 3 would only allow for medium and high-density housing. Both plans would include a 5.00-acre Village Center, a trail staging area, and fire station site. Both plans would require general plan and zoning amendments to ensure the exact uses would be permitted. As a result, Alternative 3, would have no fewer impacts related to land use and planning and impacts would be less than significant, similar to the proposed project.

Noise

Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141 acres of the 551.50-acre project site. Project impacts related to noise would be less than significant with mitigation. Given Alternative 3 would not substantially vary from the proposed project operationally, it would not have fewer noise impacts than the project.

Population and Housing

Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141.00 acres of the 551.50-acre project site. The Reduced Footprint Alternative would require the relocation of the current tenant and would construct the same number of units as under the proposed project—just on a smaller footprint. Thus, this alternative's impacts on population and housing would be less than significant, similar to the project.

Public Services and Recreation

Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141.00 acres of the 551.50-acre project site—but all north of the creek. Despite the fact that no development would occur south of the creek, 20.00 acres of park would still be provided as shown on the Reduced Footprint Plan. Similarly, a fire station site would be provided. Project impacts related to public services and recreation would be less than significant with the implementation of mitigation. Under Alternative 3, impacts related to public services and recreation would be the same as the proposed project.

Transportation

Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141.00 acres of the 551.50-acre project site—all north of Sand Creek. While fewer roadways would be constructed on the project site under this Reduced Footprint Alternative, the same number of

dwelling units and residents would be located at the site, generating approximately 9,830 daily vehicle trips (Table 6-3). Furthermore, the connection of Sand Creek Road from the terminus of Dallas Ranch Road through the site to Deer Valley Road would still occur to ensure proper traffic circulation throughout southwestern Antioch. Thus, the transportation impacts found to be significant and unavoidable under the proposed project, would be the same under Alternative 3.

Table 6-3: Reduced Footprint Alternative Trip Generation

Scenario	Daily Trips	AM Peak-hour	PM Peak-hour
Reduced Footprint Alternative	9,830	561	784
Proposed Project	10,990	713	1,083
Source: Fehr & Peers 2020.			

Utilities and Service Systems

Under Alternative 3, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141.00 acres of the 551.50-acre project site—north of Sand Creek. As discussed in Chapter 3.15 of this Draft EIR, the proposed project’s impacts to utilities and service systems would be less than significant. Given the number of homes and population under Alternative 3 would be the same as under the proposed project, impacts related to utilities and service systems under alternative 3 would also be less than significant, similar to the proposed project.

6.5.1 - Conclusion/Relationship to Project Objectives

Under Alternative 3, the Reduced Footprint Alternative, a total of 1,177 units consisting of 543 high-density and 212 medium-density single-family dwelling units and 422 AR units, would be constructed within approximately 141.00 acres of the 551.50-acre project site. Under this Reduced Footprint Alternative, impacts related to the visual character of the project site would be significant and unavoidable, similar to the proposed project, because it would still convert half of the project site from grasslands to development. Likewise, because the same number of housing units and residents would be introduced to the area, impacts to air, GHGs, hazards, noise, traffic, and utilities would be the same as the project’s impacts. Impacts related to public services would be less than the proposed project. However, because the development footprint would be reduced, impacts to biological resources and open space would be less than the proposed project. Nevertheless, Alternative 3 would meet only some the objectives of the project, because it would eliminate the trail staging area, and thus not facilitate visitor access to natural and historical experiences both on- and off-site in the East Bay Regional Parks system. Further, it would not provide low-density, executive housing options.

6.6 - Alternative 4—Reduced Traffic Alternative

Alternative 4, the Reduced Traffic Alternative, 1,177 residential dwelling units would be constructed on 253.50 acres of the 551.50-acre site. This alternative would reduce the proposed low-density

residential units from 543 to 218 and increase the proposed AR units from 422 to 747. The overall density of the site would remain 4.6 dwelling units per acre. The total amount of open space, parks, landscaping, the Village Center, and fire station site would remain the same as the proposed project (Exhibit 6-3).

Aesthetics, Light, and Glare

Under Alternative 4, a total of 1,177 units consisting of 218 low-density, 212 medium-density, and 747 AR dwelling units would be constructed within the 551.50-acre project site. The proposed project's impacts related to visual character of the site would be significant and unavoidable as it would convert the site from undeveloped grasslands to suburban development. Alternative 4 would include the same project footprint and develop the same number of parks, homes, and amenities. Thus, this alternative's impacts related to aesthetics, light and glare would be significant and unavoidable, similar to the proposed project.

Agriculture Resources and Forestry Resources

Under Alternative 4, a total of 1,177 units consisting of 218 low-density, 212 medium-density, and 747 AR dwelling units would be constructed within the 551.50-acre project site. Project impacts related to agriculture and forestry resources would be less than significant for the reasons outlined in Chapter 3.2 of this Draft EIR. Similar to the proposed project, Alternative 4 would have less than significant impacts related to agriculture and forestry resources.

Air Quality

Under Alternative 4, a total of 1,177 units consisting of 218 low-density, 212 medium-density, and 747 AR dwelling units would be constructed within the 551.50-acre project site. As discussed in Chapter 3.3, the proposed project would have significant and unavoidable air quality impacts related to ROG emissions from construction and operation of the proposed project. Under Alternative 4, it is anticipated that increasing the AR units by 325 could result in lower traffic, and thus, associated emissions. However, Alternative 4 would be expected to have the same significant and unavoidable ROG emission impact because it would have relatively the same construction footprint and therefore would result in a similar level of area source emissions. The majority of operational ROG emissions from area sources is from consumer products. Specifically, the related area sources of ROG emissions include degreasers for the proposed parking lots and pesticide/fertilizers for the proposed public parks and landscaped areas.

Biological Resources

Under Alternative 4, a total of 1,177 units consisting of 218 low-density, 212 medium-density, and 747 AR dwelling units would be constructed within the 551.50-acre site. Project impacts related to biological resources would be less than significant with mitigation. Because Alternative 4 would be built out with the same footprint as the proposed project, it would have the same biological resource impacts as the proposed project.

Cultural Resources and Tribal Cultural Resources

Under Alternative 4, a total of 1,177 units consisting of 218 low-density, 212 medium-density, and 747 AR dwelling units would be constructed within the 551.50-acre project site. Project impacts related to cultural and tribal cultural resources would be less than significant with mitigation. Because Alternative 4 would be built out with the same footprint as the proposed project, it would have the same cultural and tribal resource impacts as the proposed project.

Geology and Soils

Under Alternative 4, a total of 1,177 units consisting of 218 low-density, 212 medium-density, and 747 AR dwelling units would be constructed within the 551.50-acre site. As discussed in Chapter 3. 6, the proposed project would have less than significant impacts (with mitigation) related to soils and geology. Because Alternative 4 would be built out with the same footprint as the proposed project, it would have the same geology and soils resource impacts as the proposed project.

Greenhouse Gas Emissions and Energy

Under Alternative 4, the overall construction footprint would be relatively the same as that of the proposed project. Furthermore, the reduced number of dwelling units and the associated reduction in project trips would be minimal and would be expected to result in a minimal reduction in GHG emissions compared to the emissions estimated for the proposed project. Any reduction would not be expected to reduce overall project operational emissions in the year 2030 to below the threshold of 2.6 MT CO₂e/year/service population and, therefore, mitigation would still be required. Mitigation measure GHG-1 requires the installation of solar panels, electric vehicle charging stations and the like; however, there is no guarantee these measures will reduce emissions to below the threshold. As such, this alternative's GHG impact is expected to also be significant and unavoidable.

Hazards and Hazardous Material and Wildfire

Under Alternative 4, a total of 1,177 units consisting of 218 low-density, 212 medium-density, and 747 AR dwelling units would be constructed within the 551.50-acre project site on the same footprint as the proposed project. Project related impacts to hazards, hazardous materials, and wildfire would be less than significant with mitigation. Because Alternative 4 would be built out with the same footprint and have the same number of units, it would have the impacts related to hazards, hazardous materials, and wildfire as the proposed project.

Hydrology and Water Quality

Under Alternative 4, a total of 1,177 units consisting of 218 low-density, 212 medium-density, and 747 AR dwelling units would be constructed within the 551.50-acre project site on the same footprint and with the same number of units, parks, fire station site and commercial center. Project related impacts to hydrology and water quality would be less than significant. Because Alternative 4 would be built out with the same footprint with the same impervious areas and number of units, it would have the same less than significant hydrological and water quality impacts, similar to the proposed project.

Land Use and Planning

Under Alternative 4, a total of 1,177 units consisting of 218 low-density, 212 medium-density, and 747 AR dwelling units would be constructed within the 551.50-acre project site on the same footprint and with the same number of units, parks, fire station site and commercial center. Project impacts related to land use and planning would be less than significant. Because Alternative 4 would be built out with almost identical land uses as the proposed project, it would have the same less than significant land use and planning impacts, similar to the proposed project.

Noise

Under Alternative 4, a total of 1,177 units consisting of 218 low-density, 212 medium, and 747 AR dwelling units would be constructed within the 551.50-acre project site. As discussed in Chapter 3.11, the proposed project's impacts related to noise would be less than significant with mitigation. Under Alternative 4, impacts related to noise would not substantially vary from those considered under the proposed project and would be less than significant with mitigation, similar to the proposed project.

Population and Housing

As discussed in Chapter 3.12, the proposed project's related impacts to population and housing would be less than significant as it would not displace a substantial number of residents, demolish existing housing or result in unplanned population growth. Under Alternative 4, a total of 1,177 units consisting of 218 low-density, 212 medium-density, and 747 AR dwelling units would be constructed within the 551.50-acre project site. Because the same number of housing units would be constructed under Alternative 4, impacts related to population and housing would be less than significant, similar to the proposed project.

Public Services and Recreation

Under Alternative 4, a total of 1,177 units consisting of 218 low-density, 212 medium-density, and 747 AR dwelling units would be constructed within the 551.50-acre project site. A fire station site and Village Center area would also be provided. Project impacts related to public services and recreation would be less than significant with the implementation of mitigation. While there would be 325 more AR units built under Alternative 4, impacts related to police services and parks would likely be less than the proposed project, and the same or slightly higher with regard to fire services.

Transportation

The proposed project would result in significant and unavoidable impacts to freeway on and offramps and intersections outside of Antioch due to approximately 10,990 vehicle trips per day. It would also result in significant and unavoidable VMT given commutes for working adults.

Alternative 4 proposes a total of 1,177 units consisting of 218 low-density, 212 medium-density, and 747 AR dwelling units. The purpose of this alternative was to attempt to reduce traffic impacts while still reaching a feasible number of dwelling units to support the necessary infrastructure for the project. With a majority of the housing being age-restricted, it is anticipated that vehicle trips would be reduced to 9,310 trips per day from 10,990 trips per day under the proposed project, approximately 1,680 fewer trips (Table 6-4). This level of trip reduction and change in housing types would not reduce

the significant transportation impacts expected to occur with the project to a less-than-significant level.

Table 6-4: Reduced Traffic Alternative Trip Generation

Scenario	Daily Trips	AM Peak-hour	PM Peak-hour
No Project, No Development Alternative	9,310	550	858
Proposed Project	10,990	713	1,083
Source: Fehr & Peers 2020.			

Utilities and Service Systems

Under Alternative 4, a total of 1,177 units consisting of 218 low-density, 212 medium-density, and 747 AR dwelling units would be constructed within the 551.50-acre project site. The 5.00-acre commercial site and fire station site would also be included in this alternative. Project impacts related to utilities and service systems would be less than significant. Under Alternative 4, a majority of the housing in the development would be for seniors aged 55 and older. Typically, these households contain fewer people and use less water, wastewater, energy, and the like. Thus, this alternative would have the same or fewer impacts related to utilities and service systems than the proposed project.

6.6.1 - Conclusion

Under Alternative 4, the Reduced Traffic Alternative, a total of 1,177 units consisting of 218 low-density, 212 medium-density, and 747 AR dwelling units would be constructed within the 551.50-acre site. Because additional AR units would be added under this alternative, impacts such as traffic, police services, and wastewater needs would be less than the proposed project. Additionally, impacts related to public services and recreation would be less than significant with mitigation. However, Alternative 4 would not meet all objectives of the project because it would not provide housing opportunities responsive to the needs of Antioch, the region and market conditions, to serve a range of family incomes and household types.



Source: CBG Civil Engineers, February 26, 2020.

FIRSTCARBON
SOLUTIONS™



Exhibit 6-3 Alternative 4: Reduced Traffic Alternative

THIS PAGE INTENTIONALLY LEFT BLANK

6.7 - Environmentally Superior Alternative

CEQA Guidelines Section 15126(e)(2) requires identification of an environmentally superior alternative. If the No Project Alternative is environmentally superior, CEQA requires selection of the “environmentally superior alternative other than the No Project Alternative” from among the proposed project and the alternatives evaluated.

To identify the environmentally superior alternative in accordance with the CEQA Guidelines, Table 6-5 presents a comparison of the impacts related to the alternatives. As shown in Table 6-5, the No Project/No Build Alternative would result in no impacts caused by the construction and operation of the proposed project and would be the environmentally superior alternative. However, the No Project/No Build Alternative does not meet any of the project objectives. Thus, another environmentally alternative must be selected.

Alternative 2, the Reduced Density Alternative, would involve the construction of 900 residential dwelling units consisting of a maximum total of 478 single-family dwelling units and 422 AR units on approximately 253.5 acres of the 551.50-acre site. This alternative would reduce the overall residential density of the site from 4.6 dwelling units per acre to 3.5 dwelling units per acre by eliminating all medium-density dwelling units from the site plan. Alternative 2 would meet some, but not all, of the proposed project objectives because it would not provide the range of housing opportunities as the project and would not be as responsive to the needs of Antioch, the region and market conditions, to serve a range of family incomes and household types.

Alternative 3, the Reduced Footprint Alternative, would involve the construction of 1,177 residential dwelling units on approximately 141 acres of the 551.50-acre site. This alternative would replace all of the proposed project’s 543 low-density residential dwelling units with high-density dwelling units and increase the overall density of the site from 4.6 dwelling units per acre to 8.8 units per acre. Development of the Reduced Footprint Alternative would occur north of Sand Creek on approximately 195.5 acres and protect approximately 356 acres as open space in comparison with approximately 229.5 acres of open space in the proposed project. It would, therefore, reduce impacts to biological resources and some cultural resources. Alternative 3 would meet some, but not all objectives of the project, because it would eliminate the trail staging area and thus not facilitate visitor access to natural and historical experiences both on- and off-site in the East Bay Regional Parks system.

Alternative 4, the Reduced Traffic Alternative, would involve the construction of 1,177 residential dwelling units on 253.5 acres of the 551.50-acre site. This alternative would reduce the proposed low-density residential units from 543 to 218 and increase the proposed AR units from 422 to 747. The overall density of the site would remain 4.6 dwelling units per acre. While this alternative would reduce traffic trips by 1,680 trips per day, and thus, also reduce air and noise impacts, off-site traffic impacts would remain significant and unavoidable due to the fact that they would require the same improvements outside the jurisdiction of the City of Antioch. Alternative 4 would meet some, but not all objectives of the project, because it would not provide housing opportunities responsive to the needs of Antioch, the region and market conditions, to serve a range of family incomes and household types.

The environmentally superior alternative is Alternative 3, the Reduced Footprint Alternative, because this alternative would reduce biological and cultural resource impacts compared to the proposed project, while also meeting most of the project objectives, as shown in Table 6-6.

Table 6-5: Summary of Alternatives

Environmental Topic Area	Project	Alternative 1 No Project	Alternative 2 Reduced Density	Alternative 3 Reduced Footprint	Alternative 4 Reduced Traffic
Aesthetics, Light, and Glare	SU	NI	SU	SU	SU
Agriculture Resources and Forestry Resources	LTS	NI	LTS	LTS	LTS
Air Quality	SUM	SUM	SUM	SUM	SUM
Biological Resources	LTSM	NI	LTSM	LTSM	LTSM
Cultural Resources and Tribal Cultural Resources	LTSM	NI	LTSM	LTSM	LTSM
Geology and Soils	LTSM	NI	LTSM	LTSM	LTSM
Greenhouse Gas Emissions and Energy	SUM	NI	SUM	SUM	SUM
Hazards and Hazardous Materials and Wildfire	LTSM	NI	LTSM	LTSM	LTSM
Hydrology and Water Quality	LTS	NI	LTS	LTS	LTS
Land Use and Planning	LTS	NI	LTS	LTS	LTS
Noise	LTSM	NI	LTSM	LTSM	LTSM
Transportation	SUM	NI	SUM	SUM	SUM
Population and Housing	LTS	NI	LTS	LTS	LTS
Public Services and Recreation	LTSM	NI	LTSM	LTSM	LTSM
Utilities and Service Systems	LTS	NI	LTS	LTS	LTS
Notes: NI= No Impact LTS = less than significant LTSM = less than significant with mitigation incorporated SU = significant and unavoidable SUM = significant and unavoidable with mitigation incorporated Source: Compiled by FCS in 2019.					

Table 6-6: Summary of Alternative’s Meeting of Project Objectives

Objective	Project	No Project Alternative	Reduced Density Alternative	Reduced Footprint Alternative	Reduced Traffic Alternative
Develop a project consistent with the West Sand Creek Open Space Protection, Public Safety Enhancement, and Development Restriction Initiative.	All	None	Some	Some	Some
Establish a 551.50-acre, well-planned community, which incorporates the natural, historic, and physical elements of the land and the surrounding uses.	All	None	Some	Some	Some
Design a land use plan with a mix of uses complementary to existing neighborhoods and in symmetry with the larger Antioch community.	All	None	Some	Some	Some
Provide housing opportunities responsive to the needs of Antioch, the region and market conditions, to serve a range of family incomes and household types.	All	None	Some	Some	Some
Provide a Village Center adjacent to Deer Valley Road and across from the Kaiser Permanente Antioch Medical Center, functioning as a hub of activity and source of sales tax revenue.	All	None	Some	Some	Some
Preserve and protect the hills and hillsides on-site as permanent open space.	All	None	Some	Some	Some
Preserve and protect the Sand Creek corridor as permanent open space and provide public access with perimeter trails and crossings.	All	None	Some	Some	Some
Provide a pedestrian-friendly community that 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.	All	None	Some	Some	Some
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.	All	None	Some	Some	Some
Provide a land use plan, design standards, and guidelines consistent with the City of Antioch General Plan goals and policies, that incorporate market-acceptable design features and promotes an attractive, well-maintained community.	All	None	Some	Some	Some

Table 6-6 (cont.): Summary of Alternative’s Meeting of Project Objectives

Objective	Project	No Project Alternative	Reduced Density Alternative	Reduced Footprint Alternative	Reduced Traffic Alternative
Establish a land use and circulation system that promotes convenient mobility, completes the extension of Dallas Ranch Road to Deer Valley Road, and provides modes of transportation within a setting that is safe, accessible, and convenient for all modes of travel.	All	None	Some	Some	Some
Provide a comprehensive infrastructure system, including parks, open space, stormwater quality facilities, public services, roadways, and utilities infrastructure sized to serve the proposed project and properties to the east and south in the Sand Creek Focus Area that complements the existing citywide infrastructure and ensures funding for the on-going maintenance needs of such infrastructure.	All	None	Some	Some	Some
Source: City of Antioch, 2019.					