

6.0 ALTERNATIVES

INTRODUCTION

The California Environmental Quality Act (CEQA) requires that an EIR evaluate a range of reasonable alternatives to the project or to the location of the project that could feasibly avoid or lessen significant environmental impacts while substantially attaining the basic objectives of the proposed project. An EIR should also evaluate the comparative merits of the alternatives. This chapter sets forth potential alternatives to the proposed project and evaluates them, as required by CEQA.

Key provisions of the *State CEQA Guidelines*¹ pertaining to the alternatives analysis are summarized below:

- The discussion of alternatives shall focus on alternatives to the project or its location that 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.
- The range of alternatives required in an EIR is governed by a “rule of reason.” Therefore, the EIR must evaluate only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.
- The No Project alternative shall be evaluated along with its impact. The No Project analysis shall discuss the existing conditions at the time the notice of preparation is published. Additionally, the analysis shall discuss what would be reasonably expected to occur at the project site in the foreseeable future based on current plans and consistent with available infrastructure and community services if the project were not approved.
- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.
- An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.

The range of feasible alternatives is to be selected and discussed in a manner intended to foster meaningful public participation and informed decision making. Among the factors that may be taken into account when addressing the feasibility of alternatives are environmental impacts, site suitability, economic viability, availability of infrastructure, general plan consistency, regulatory limitations,

¹ California Code of Regulations, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15126.6.

jurisdictional boundaries, and whether the applicant could reasonably acquire, control, or otherwise have access to an alternative site.²

PROJECT OBJECTIVES

The primary objectives of the proposed project are to:

- Provide additional moderate income housing opportunities within the community, consistent with General Plan goals, through development of a high end, high quality single-family detached subdivision with large lots; and
- Conserve open space by creating a “greenwall” (defined as open space with no water or sewer services passing through) on the southern 20 percent of the main project site.

ALTERNATIVES EVALUATED IN DETAIL

An EIR must briefly describe the rationale for selection and rejection of alternatives. The lead agency may make an initial determination as to which alternatives are feasible, and therefore merit in-depth evaluation, and which are infeasible. Alternatives considered for detailed evaluation in this EIR include potential alternate projects that meet most of the project’s objectives while eliminating or reducing significant environmental impacts identified in **Chapter 5.0, Environmental Setting, Impacts, and Mitigation Measures**.

Alternatives considered in this EIR for detailed evaluation include:

- No Project/No Development Alternative
- Existing General Plan and Pre-Zoning Designations Alternative
- Reduced Density Alternative
- Ridgeline Preservation Alternative

ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

Alternatives that are remote or speculative, or have effects that cannot be reasonably predicted, need not be considered.³ One alternative was considered by the City of Pittsburg but eliminated from further

² California Code of Regulations, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15126.6(f)(1).

³ California Public Resources Code, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15126.6(f)(3).

consideration because it was found to be infeasible. The alternative is described below along with a brief explanation of the reasons for its exclusion.

Alternate Location

The possibility of placing the proposed project on an alternative site within the City of Pittsburg was determined by the City to be infeasible given that neither the developer nor the City owns or controls any other property in the vicinity of the site that is of sufficient size to accommodate the project. Therefore, the ability of the developer to find and purchase an alternative site to develop the project is considered speculative. In addition, the development of the same number of residential uses at a different location would result in similar visual character and construction air quality impacts. Thus, placing the proposed development at an alternative site would not avoid the significant impacts of the proposed project.

ALTERNATIVE IMPACT ANALYSIS

This subsection presents an analysis of the project alternatives, including:

- No Project/No Development Alternative
- Existing General Plan and Pre-Zoning Designations Alternative
- Reduced Density Alternative
- Ridgeline Preservation Alternative

Alternative 1: No Project/No Development Alternative

Description and Analysis

Section 15126.6(e)(1) of the 2013 *State CEQA Guidelines*, states that, “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.” Under this alternative, no grading or new construction would occur on the project site and the present use of the site for grazing would likely continue until a new development application is submitted and approved. County zoning for the main project site would permit all types of commercial, agricultural production, including general farming, wholesale horticulture and floriculture, livestock production, aviaries, apiaries, forestry and similar agricultural uses. If a future development application were to request annexation to the City of Pittsburg, then the existing Pittsburg General Plan and zoning regulations would apply (see Alternative 2 below). For the purposes of this “No Project” analysis, the site is considered to remain undeveloped.

Aesthetics

The visual appearance of the project site would not be altered if the site were to remain undeveloped.

Air Quality

This alternative would avoid grading, construction and operational related air quality impacts of the proposed project. Sporadic emissions would continue to occur from infrequent truck traffic associated with ongoing site maintenance activities.

Biological Resources

Sensitive biological or wetland resources would not be affected under this alternative, as the site would not be developed with any urban uses. In addition, no construction or grading activities would occur on the site. As a result, no biological resources would be negatively affected.

Geology and Soils

Under this alternative, the site would continue to serve as grazing land, wildlife habitat and watershed land. Certain areas within the project site would continue to erode and, in exceptionally wet winter storms, portions of the existing landslide hazard areas may be mobilized and slides may occur on oversteepened slopes. However, these natural geologic processes would occur away from existing homes and development to the north and would therefore not result in significant impacts to people or property.

Greenhouse Gas Emissions

As stated under the **Air Quality** Subsection, above, this alternative would avoid grading, construction and operational related greenhouse gas emissions. Sporadic emissions would continue to occur from infrequent truck traffic associated with ongoing site maintenance activities.

Public Services – Fire Protection

With no new development on the main project site, there would be no impacts on existing public services. However, the threat of wildland fires is generally greater for undeveloped land versus developed land because there is more open space area that could catch fire.

Transportation and Traffic

Under this alternative, no new vehicle trips would be generated from the main project site and traffic conditions would match those described in the baseline conditions, contained in **Section 5.7**,

Transportation and Traffic. Over time, traffic from approved projects and cumulative development would continue to be added to the road network. The James Donlon Boulevard Extension would still be warranted whether or not the proposed project is built, although the exact location of the intersection with Kirker Pass Road would be dictated by other considerations.

Conclusion and Relationship to Project Objectives

The No Project/No Development Alternative would generally result in no impacts for all resource areas, as no grading, construction or development would occur on the site. However, this alternative would not meet the project objectives as described above, nor would it be consistent with the City's General Plan.

Alternative 2: Existing General Plan and Pre-Zoning Designations Alternative

Description and Analysis

The Existing General Plan and Pre-Zoning Designations Alternative (Alternative 2), proposes development of the main project site consistent with existing Pittsburg General Plan and Pre-Zoning designations for the site. The City of Pittsburg General Plan designates the main project site for Low Density Residential and Open Space uses. The Low Density Residential designation permits a density of 1 to 7 units per acre while the Open Space designation is intended to set aside land for greenbelts and/or urban buffer areas that may be designated in the future. The Pittsburg Zoning Code designates the main project site for Hillside Planned Development (HPD). The base residential density allowed under the HPD designation is determined in accordance with the average, natural ground slope of the land. Based on an average slope density of approximately 33 percent for the main project site, the HPD designation for the main project site would allow approximately 1.2 units per acre. Based on the land use designations described above, a total of approximately 178 residential units would be allowed on the main project site, which is 50 percent less than the proposed project. In addition, as this alternative would only construct 50 percent of the units proposed under the proposed project, only 50 percent of the land set aside for residential use under the proposed project would be disturbed. These units would be clustered on the eastern portion of the main project site near Kirker Pass Road. The remaining 50 percent of the land set aside for residential use under the proposed project would be set aside for open space on the western portion of the main project site.

Alternative 2 would also include a partially buried water tank at the top of the hill on the northern boundary of the main site (Parcel A), the greenwall on the southern approximate 20 percent of the main project site (Parcel B), two storm retention basins on the eastern portion of the main site (Parcels C and D), and an open space area in the northeast corner of the main project site (Parcel E). The off-site storm retention basin on the off-site parcel would not be required as no homes would be constructed in

the northwestern portion of the main project site. In addition, this alternative would still involve the grading of the interior portions of the hillsides in the central portion of the main project site. Finally, development under this alternative would be set back from Kirker Pass Road in order to preserve the 0.002-acre ephemeral creek located at the easternmost edge of the main project site.

Development under Alternative 2 would also require an HPD permit. The permit would govern density, grading, lot size, yards and building heights, transitional design between different land uses, landscaping, landscape and site development, maintenance, trash, lighting, noise, common areas, parking, street design, storm drain design, and retaining walls associated with this alternative.

This alternative would be constructed in four overlapping phases. Each phase would last approximately 18 months. For the purposes of this analysis, it was assumed that construction of the first phase could begin in spring 2015 and construction of the second phase would start in October 2016. Overall, approximately 68 acres⁴ on the project site would be disturbed under this alternative, which is about 45 percent less land than what would be disturbed under the proposed project.

Aesthetics

Physical development of the project site under Alternative 2 is anticipated to be less extensive than envisioned under the proposed project as it would result in an overall reduced density. Views of the project site are anticipated to be comparable to that of the proposed project, although impacts to views under this alternative would be reduced compared to the proposed project as only half the number of residential units would be constructed. However, mitigation to reduce potentially significant impacts to scenic views of adjacent hillsides would still be required, similar to the project.

Physical development of the project site under Alternative 2 would also substantially alter the visual character of the project site. While the change in character is anticipated to be comparable to that of the proposed project, the nature of the change would be reduced, compared to the proposed project as only half the number of residential units would be constructed. While mitigation requiring the developer to hydro-seed all disturbed, yet undeveloped, slopes to encourage the growth of vegetation on the disturbed hillside (see **Mitigation Measure MM AES-2**) would reduce potentially significant impacts associated with the visual change to the hillside facing existing development to the north, development under this alternative would still result in a substantial change to the visual character of the site as this alternative would disturb approximately 68 acres of the project site and still require grading of the northern ridgeline to accommodate the water tank which would still be needed to serve the project. As a result,

⁴ This figure includes Parcels A, C, D and E, which would be graded and then set aside as open space.

development of Alternative 2 would result in a significant and unavoidable impact to visual character, similar to the proposed project.

With regards to light and glare, although half as many residential units would be built on the main project site, Alternative 2 would still result in generally similar light and glare impacts. This alternative would be required to adhere to the same mitigation as the proposed project, after which the light and glare impacts would be reduced to a less than significant level. Overall, aesthetic impacts under this alternative would be reduced compared to the proposed project, yet the significant and unavoidable impact on visual character would not be avoided.

Air Quality

Construction associated with the proposed project would result in short-term increases in criteria pollutant emissions from construction equipment, grading and trenching activities, worker trips, and on-road diesel trucks. These emissions would exceed construction thresholds of significance for reactive organic gases (ROG) and oxides of nitrogen (NO_x). Construction under Alternative 2 would also result in increased criteria pollutant emissions from construction activities. However, as indicated in **Table 6.0-1, Alternative 2: Existing General Plan and Zoning Designations – Estimated Construction Emissions**, only emissions of NO_x would exceed the construction significance threshold as 45 percent less land would be disturbed under this alternative compared to the proposed project. For this reason, construction air quality impacts would be reduced under this alternative. However, development of this alternative would still result in significant and unavoidable air quality impacts during construction, similar to the proposed project, because available mitigation would not be capable of reducing the alternative's NO_x emissions to a level below the significance threshold.

**Table 6.0-1
Alternative 2: Existing General Plan and Zoning Designations – Estimated Construction Emissions**

Construction Year	Average Emissions in Pounds per Day							
	ROG	NO _x	CO	SO _x	PM10 (exhaust)	PM10 (total)	PM2.5 (exhaust)	PM2.5 (total)
2015	8.70	78.90	69.06	0.07	3.79	130.68	3.49	16.97
2016	34.87	154.25	124.85	0.13	8.42	177.90	7.81	25.87
2017	34.50	83.61	61.41	0.08	5.21	47.86	4.86	9.46
2018	8.33	8.26	5.62	0.01	0.58	0.64	0.55	0.56
Thresholds	54	54	—	—	82	—	54	—
Exceeds Threshold?	NO	YES	—	—	NO	—	NO	—

Source: Impact Sciences, Inc. Detailed CalEEMod emissions calculations are provided in **Appendix 5.2**.

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

Thresholds for respirable particulate matter (PM10) and fine particulate matter (PM2.5) apply only to vehicle exhaust.

Construction associated with the proposed project would result in short-term fugitive dust emissions from grading and trenching activities. However, short-term emissions of fugitive dust associated with the proposed project would not exceed the threshold of significance, and this impact is considered less than significant. In addition, mitigation measures have been proposed for the project that would reduce the short-term emissions of fugitive dust by up to 90 percent. Construction under Alternative 2 would also result in short-term emissions of fugitive dust from grading and trenching activities. However, the amount of fugitive dust emitted per day would be lower, as 45 percent less land would be disturbed under this alternative compared to the proposed project. Nonetheless, mitigation to reduce the amount of fugitive dust emitted on a daily basis would still be required. With mitigation, the impacts associated with fugitive dust under Alternative 2 during construction would be less than significant, similar to the proposed project.

Buildout of the proposed project would add mobile, stationary, and area sources to the main project site that would result in long-term increases in criteria pollutants emissions. However, these emissions would not exceed operational thresholds of significance. Operation under Alternative 2 would also result in increased criteria pollutant emissions from mobile, stationary, and area sources. However, development under this alternative would result in lower emissions from traffic due to a smaller increase in daily trips (1,668 trips) compared to the proposed project (3,448 trips). In addition, criteria pollutant emissions from stationary and area sources under Alternative 2 would be reduced, as 50 percent fewer housing units would be constructed. For these reasons, the proposed project's less than significant air quality impacts during operation would be further reduced under Alternative 2.

The Bay Area Air Quality Management District (BAAQMD) *CEQA Air Quality Guidelines* include guidance on evaluating the potential health effects from the emissions of toxic air contaminants (TACs) from construction activities associated with a proposed project. The primary TAC of concern associated with construction is Diesel Particulate Matter (DPM) which is emitted in equipment and vehicle exhaust in the form of fine particulate matter (PM2.5) emissions. The Guidelines include thresholds for the evaluation of an increase in cancer risk, or the potential for acute and chronic health effects from exposure to construction TACs. The Guidelines also include a concentration-based threshold for total PM2.5 emitted during construction, including PM2.5 from equipment and vehicle exhaust and PM2.5 from dust, tire wear, and other sources. Due to the short duration of construction activities, limited emissions of DPM, prevailing wind direction to the east, and the fact that the majority of the project's construction activity would take place at a considerable distance from the sensitive receptors to the north, exposure of nearby sensitive receptors to TACs would be limited. Therefore, the project's construction activities would not result in significant effects related to increased cancer risk, or non-cancer (acute and chronic) health hazards. However, the scale of earthmoving activities associated with the proposed project

combined with the relative close proximity of some receptors to the areas where these activities would occur make it highly probable that concentrations of PM_{2.5} would exceed the PM_{2.5} threshold at some locations to the north of the project site. Even with available mitigation, this impact of the proposed project would remain significant and unavoidable. The scale of earthmoving activities associated with Alternative 2 combined with the relative close proximity of some receptors to the areas where these activities would occur also make it highly probable that concentrations of PM_{2.5} would exceed the PM_{2.5} threshold at some locations to the north of the project site. Although the amount of PM_{2.5} emitted per day would be lower, as 45 percent less land would be disturbed under this alternative compared to the proposed project, the reduction would likely not be adequate to avoid the impact, and even with the implementation of available mitigation, the impact associated with PM_{2.5} emitted during the construction of Alternative 2 would likely remain significant and unavoidable, similar to the proposed project.

Construction activities associated with the proposed project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is nonattainment under the federal and state ambient air quality standard, as the proposed project's emissions would exceed significance threshold for NO_x during construction, even after mitigation. While development under Alternative 2 would result in 50 percent fewer units than the proposed project, the construction emissions under this alternative would still exceed significance thresholds for NO_x during construction. As a result, development of Alternative 2 would still result in a cumulative net increase of a criteria pollutant, similar to the proposed project.

Biological Resources

As discussed in **Section 5.3, Biological Resources**, several special-status wildlife species have the potential to occur on the project site: Swainson's hawk, burrowing owl, San Joaquin kit fox, vernal pool fairy shrimp, Conservancy fairy shrimp, longhorn fairy shrimp, and vernal pool tadpole shrimp. Other species covered by the Migratory Bird Act (MBTA) may also utilize the project site for foraging and nesting. Implementation of the proposed project could have a substantial adverse effect on these special-status species as construction associated with the proposed project could disturb active nests or dens and would result in the loss of seasonal wetlands. However, conformance with the proposed mitigation that requires the implementation of avoidance and mitigation measures listed in the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) would reduce impacts to a less than significant level. In addition, the proposed project would be required to pay fees required by the HCP/NCCP to fund the creation of habitat preserves within East Contra Costa County that would offset impacts of new development. Development on the project site under Alternative 2 would also have a substantial adverse effect on special-status wildlife species, as construction could also

disturb active nests or dens and would result in the loss of seasonal wetlands, even though the extent of disturbance would not be as great, as 45 percent less land would be disturbed under this alternative compared to the proposed project. As a result, impacts related to biological resources under this alternative would be reduced compared to the proposed project, but would still be significant. Development under Alternative 2 would be required to implement the same mitigation measures as the proposed project, and thus impacts would be reduced to a less than significant level.

The proposed project would result in the loss of waters under federal and State jurisdiction. The proposed project would result in the filling of a 0.002-acre ephemeral creek located at the easternmost edge of the main project site and determined to be jurisdictional by the United States Army Corps of Engineers (USACE), and waters totaling 0.126 acre that are located in the central portion of the main project site and that are assumed to fall under State jurisdiction. The loss of jurisdictional waters on the main project site represents a potentially significant impact. However, implementation of proposed mitigation that requires the payment of fees required by the HCP/NCCP to fund the preservation of wetlands in other areas within eastern Contra Costa County would reduce the impact to a less than significant level. Development on the main project site under Alternative 2 would preserve the 0.002-acre ephemeral creek that falls under federal jurisdiction, but would still result in the loss of waters that are assumed to fall under state jurisdiction. As a result, impacts to wetlands under this alternative would be reduced compared to the proposed project, but would still be significant. Development under Alternative 2 would be required to implement the same mitigation measures as the proposed project, and thus impacts would be reduced to a less than significant level.

Geology and Soils

Development under the proposed project could expose people and structures on the main project site to significant adverse effects associated with seismic-related ground failure, including landslides. In addition, the proposed project could result in substantial soil erosion or the loss of topsoil, and could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site landslides or slope failure. Finally, the proposed project could be located on expansive soils, thus creating substantial risks to life and property. However, with implementation of mitigation, these impacts would be reduced to a less than significant level. Fewer residential units would be constructed under Alternative 2 and therefore fewer people and structures would be exposed to geologic hazards under this alternative. However, impacts under this alternative would still be significant. The same mitigation would be required for any construction occurring under this alternative and impacts would be reduced to a less than significant level.

Greenhouse Gas Emissions

Construction associated with the proposed project would generate greenhouse gas (GHG) emissions, both directly and indirectly. However, as shown by the analysis in **Section 5.5, Greenhouse Gas Emissions**, the construction emissions would be small and would result in a less than significant effect. Construction associated with Alternative 2 would also generate GHG emissions. However, these emissions would be lower as 45 percent less land would be disturbed under this alternative and fewer residential units would be built on the site compared to the proposed project. As a result, the impact from construction emissions under this alternative would be less than significant, similar to the proposed project.

Operation of the proposed project would generate GHG emissions, both directly and indirectly. However, as shown by the analysis in **Section 5.5**, the emissions would be lower than the significance threshold and the impact would be less than significant. Alternative 2 would result in 50 percent less development than the proposed project. As a result, this alternative would result in reduced GHG emissions as well as a 50 percent smaller on-site population. Therefore, GHG impacts under this alternative would be similar compared to the impact of the proposed project and the impact would be less than significant.

Public Services – Fire Protection

Implementation of the proposed project would increase the demand for fire protection services. As discussed in **Section 5.6, Public Services**, while the Contra Costa County Fire Department has indicated that implementation of the proposed project would not require a new or expanded fire station, the project would still conflict with location and response time standards established by the City, and this impact is considered potentially significant. While the proposed project would be required to implement mitigation requiring that the developer pay a Fire Facility Impact Fee and implement various other fire prevention measures, the conflict with existing policies would remain. As a result this impact is considered significant and unavoidable.

Demand for fire protection services would be reduced under Alternative 2, as 178 fewer residential units would be constructed compared to the proposed project. However, development under Alternative 2 would still conflict with location and response time standards established by the City. Development under Alternative 2 would be required to implement the same mitigation as the proposed project. However, even with mitigation, the conflict with existing policies would remain. Therefore, development of Alternative 2 would result in a significant and unavoidable impact to fire protection services, similar to the proposed project.

Transportation and Traffic

Implementation of the proposed project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system under existing plus project conditions, baseline plus project conditions with and without the James Donlon Boulevard Extension, and cumulative plus project conditions with and without the James Donlon Boulevard Extension. As a result, impacts to the local transportation system would be less than significant. Implementation of Alternative 2 would result in 50 percent fewer daily trips (1,668 trips) compared to the proposed project (3,448 trips), and thus would reduce the overall traffic impacts of the proposed project. This alternative would result in less than significant impacts to the local transportation system, similar to the proposed project.

The proposed project currently conflicts with General Plan Policy 7-P-33, which requires that development proposals provide mitigation if they fail to provide adequate access for pedestrians and bicycles; General Plan Policy 7-P-34, which requires that safe and contiguous routes for pedestrians and bicyclists are provided within new development projects; and General Plan Policy 7-P-38, which requires the development of a series of continuous pedestrian systems within Downtown and residential neighborhoods, connecting major activity centers and trails with City and County open space areas, as current project plans do not show a pedestrian connection to existing retail uses or parks located to the north of the site. However, mitigation is proposed that requires the developer to construct a pedestrian access route, connecting the main project site to the nearest existing sidewalk to the north, thereby reducing the impact to a less than significant level. Alternative 2 would also conflict with General Plan Policies 7-P-33, 7-P-34, and 7-P-38 for the same reasons as the proposed project, and mitigation to install a sidewalk or pathway connecting the project to the nearest existing sidewalk to the north would still be required, similar to the project. Therefore, the less than significant impact associated with this conflict for Alternative 2, would be the same as the proposed project.

Conclusion and Relationship to Project Objectives

Alternative 2 would reduce some impacts as they relate to aesthetics, air quality, biological resources, geology and soils, GHG emissions and transportation/traffic, but the same significant and unavoidable impacts associated with the proposed project would not be reduced to less than significant levels under this alternative.

By adhering to the General Plan and pre-zoning designations for the project site, this alternative would be able to achieve the project objectives.

Alternative 3: Reduced Density Alternative

Description and Analysis

The Reduced Density Alternative (Alternative 3) considers development of the main project site at approximately 75 percent of the residential units planned under the proposed project. This alternative was formulated in an attempt to reduce the significant and unavoidable impacts of the proposed project by reducing the amount of development on the main project site. Under this alternative, only 267 homes would be constructed. In addition, as this alternative would only construct 75 percent of the residential units proposed under the proposed project, only 75 percent of the land set aside for residential use under the proposed project would be disturbed. These units would be clustered on the eastern portion of the main project site near Kirker Pass Road. The remaining 25 percent of the land set aside for residential use under the proposed project would be set aside for open space on the western portion of the main project site.

Alternative 3 would also include a partially buried water tank at the top of the hill on the northern boundary of the main site (Parcel A), the greenwall on the southern approximate 20 percent of the main project site (Parcel B), two storm retention basins on the eastern portion of the main site (Parcels C and D), and an open space area in the northeast corner of the main project site (Parcel E). The off-site storm retention basin would not be required as no homes would be constructed in the northwestern portion of the main project site. In addition, this alternative would still involve the grading of the interior portions of the hillsides in the central portion of the main project site. Finally, development under this alternative would be set back from Kirker Pass Road in order to preserve the 0.002-acre ephemeral creek located at the easternmost edge of the main project site that falls under federal jurisdiction.

This alternative would be constructed in four overlapping phases. Each phase would last approximately 18 months. For the purposes of this analysis, it was assumed that construction of the first phase would begin in spring 2015 with construction of the last phase starting in spring 2016. Overall, approximately 87 acres⁵ on the project site would be disturbed under this alternative, which is about 29 percent less land that would be disturbed than under the proposed project.

Aesthetics

Physical development of the project site under Alternative 3 is anticipated to be less extensive than envisioned under the proposed project. Views of the project site are anticipated to be comparable to that of the proposed project, although impacts to views under this alternative would be reduced compared to

⁵ This figure includes Parcels A, C, D, and E, which would be graded and then set aside as open space.

the proposed project as 25 percent fewer residential units would be constructed. However, similar to the project, mitigation to reduce potentially significant impacts associated with scenic views of adjacent hillsides would still be required.

Physical development of the project site under Alternative 3 would also substantially alter the visual character of the project site. While the change in character is anticipated to be comparable to that of the proposed project, the change would be reduced compared to the proposed project as 25 percent fewer residential units would be constructed. While mitigation requiring the developer to hydro-seed all disturbed, yet undeveloped, slopes to encourage the growth of vegetation on the disturbed hillsides would still be required, development under this alternative would still result in a substantial change to the visual character of the site, as this alternative would still disturb approximately 87 acres of the project site and still require grading of the northern ridgeline to accommodate the water tank which would still be needed to serve the project. As a result, development of Alternative 3 would result in a significant and unavoidable impact to visual character, similar to the proposed project.

With regards to light and glare, although 75 percent of the residential units would be built on the main project site, Alternative 3 would still result in generally similar light and glare impacts. This alternative would be required to adhere to the same mitigation as the proposed project, after which light and glare impacts would be reduced to a less than significant level. Overall, aesthetic impacts under this alternative would be reduced compared to the proposed project, yet the significant and unavoidable impact on visual character would not be avoided.

Air Quality

Construction associated with the proposed project would result in short-term increases in criteria pollutants emissions from construction equipment, grading and trenching activities, worker trips, and on-road diesel trucks. These emissions would exceed construction thresholds of significance for ROG and NO_x. Construction activities under Alternative 3 would also result in increased criteria pollutant emissions for the duration of construction. As indicated in **Table 6.0-2, Alternative 3: Reduced Density – Estimated Construction Emissions**, only emissions of NO_x would exceed the construction significance threshold as 29 percent less land would be disturbed under this alternative compared to the proposed project. However, development of this alternative would result in significant and unavoidable air quality impacts during construction, similar to the proposed project, because available mitigation would not be capable of reducing the alternative's NO_x emissions to a level below the significance threshold.

Table 6.0-2
Alternative 3: Reduced Density – Estimated Construction Emissions

Construction Year	Average Emissions in Pounds per Day							
	ROG	NO _x	CO	SO _x	PM10 (exhaust)	PM10 (total)	PM2.5 (exhaust)	PM2.5 (total)
2015	9.22	80.52	74.88	0.07	3.80	165.61	3.51	20.48
2016	44.08	156.80	132.68	0.14	8.43	224.63	7.85	30.60
2017	46.77	84.61	63.45	0.08	5.22	59.69	4.89	10.68
2018	11.91	8.33	5.65	0.01	0.58	0.67	0.55	0.57
Thresholds	54	54	–	–	82	–	54	–
Exceeds Threshold?	NO	YES	–	–	NO	–	NO	–

Source: Impact Sciences, Inc. Detailed CalEEMod emissions calculations are provided in *Appendix 5.2*.

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

Thresholds for PM10 and PM2.5 apply only to vehicle exhaust.

Construction associated with the proposed project would result in short-term fugitive dust emissions from grading and trenching activities. However, short-term emissions of fugitive dust associated with the proposed project would not exceed the threshold of significance, and this impact is considered less than significant. In addition, mitigation measures have been proposed for the project that would reduce the short-term emissions of fugitive dust by up to 90 percent. Construction under Alternative 3 would also result in short-term emissions of fugitive dust from grading and trenching activities. However, the amount of fugitive dust emitted per day would be lower as 29 percent less land would be disturbed under this alternative compared to the proposed project. Nonetheless, mitigation to reduce the amount of fugitive dust emitted on a daily basis would still be required. For these reasons, the impacts associated with fugitive dust under Alternative 3 during construction would be less than significant, similar to the proposed project.

Buildout of the proposed project would add mobile, stationary, and area sources to the main project site that would result in long-term increases in criteria pollutants emissions. However, these emissions would not exceed operational thresholds of significance. Operation under Alternative 3 would also result in increased criteria pollutant emissions from mobile, stationary, and area sources. However, development under this alternative would result in lower emissions from traffic due to a smaller increase in daily trips (2,502 trips) compared to the proposed project (3,448 trips). In addition, criteria pollutant emissions from stationary and area sources under Alternative 3 would be reduced, as 25 percent fewer housing units would be constructed. For these reasons, the proposed project's less than significant air quality impacts during operation would be further reduced under Alternative 3.

As discussed above under Alternative 2, while the proposed project's construction activities would not result in significant effects related to increased cancer risk, or non-cancer (acute and chronic) health hazards, the scale of earthmoving activity within close proximity to sensitive receptors would make it highly probable that concentrations of PM_{2.5} would exceed the PM_{2.5} threshold at some locations to the north of the project site. Even with available mitigation, this impact of the proposed project would remain significant and unavoidable. The scale of earthmoving activities associated with Alternative 3 combined with the relative close proximity of some receptors to the areas where these activities would occur also make it highly probable that concentrations of PM_{2.5} would exceed the PM_{2.5} threshold at some locations to the north of the project site. Although the amount of PM_{2.5} emitted per day would be lower, as 29 percent less land would be disturbed under this alternative compared to the proposed project, the reduction would likely not be adequate to avoid the impact, and even with the implementation of available mitigation, the impact associated with PM_{2.5} emitted during the construction of Alternative 3 would likely remain significant and unavoidable, similar to the proposed project.

Construction activities associated with the proposed project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is nonattainment under the federal and state ambient air quality standard as the proposed project's construction emissions would exceed significance thresholds for NO_x even after mitigation. While development under Alternative 3 would result in 25 percent fewer units than the proposed project, this alternative would also exceed significance thresholds for NO_x during construction. As a result, development of the Alternative 3 would still result in a cumulatively net increase of a criteria pollutant, similar to the proposed project.

Biological Resources

As discussed in **Section 5.3, Biological Resources**, several special-status wildlife species have the potential to occur on the project site: Swainson's hawk, burrowing owl, San Joaquin kit fox, vernal pool fairy shrimp, Conservancy fairy shrimp, longhorn fairy shrimp, and vernal pool tadpole shrimp. Other species covered by the MBTA could also utilize the project site for foraging and nesting. Implementation of the proposed project could have a substantial adverse effect on these special-status species as construction associated with the proposed project could disturb active nests or dens and would result in the loss of seasonal wetlands. However, compliance with proposed mitigation that requires the implementation of avoidance and mitigation measure listed in the HCP/NCCP would reduce impacts to a less than significant level. In addition, the proposed project would be required to pay fees required by the HCP/NCCP to fund the creation of habitat preserves within East Contra Costa County that would offset impacts of new development. Development on the project site under Alternative 3 would also have a substantial adverse effect on special-status wildlife species, as construction could also disturb active nests or dens and would result in the loss of seasonal wetlands, even though the extent of disturbance would

not be as great, as 29 percent less land would be disturbed under this alternative compared to the proposed project. As a result, impacts related to biological resources under this alternative would be reduced compared to the proposed project, but would still be significant. Development under Alternative 3 would be required to implement the same mitigation measures as the proposed project, and thus impacts would be reduced to a less than significant level.

The proposed project would result in the loss of waters under federal and state jurisdiction. The proposed project would result in the filling of a 0.002-acre ephemeral creek located at the easternmost edge of the main project site and delineated to be jurisdictional by the USACE and waters totaling 0.126 acre that are located in the central portion of the main project site and that are assumed to fall under state jurisdiction. The loss of jurisdictional and other waters on the main project site represents a potentially significant impact. However, implementation of proposed mitigation that requires the payment of fees required by the HCP/NCCP to fund the preservation of wetlands in other areas within eastern Contra Costa County, which would reduce the impact to a less than significant level. Development on the main project site under Alternative 3 would preserve the 0.002-acre ephemeral creek that falls under federal jurisdiction, but would still result in the loss of waters that are assumed to fall under state jurisdiction. As a result, impacts to wetlands under this alternative would be reduced compared to the proposed project, but would still be significant. Development under Alternative 3 would be required to implement the same mitigation measures as the proposed project, and thus impacts would be reduced to a less than significant level.

Geology and Soils

Development under the proposed project could expose people and structures on the main project site to significant adverse effects associated with seismic-related ground failure, including landslides. In addition, the proposed project could result in substantial soil erosion or the loss of topsoil, and could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site landslides or slope failure. Finally, the proposed project could be located on expansive soils, thus creating substantial risks to life and property. However, with implementation of mitigation, these impacts would be reduced to a less than significant level. Fewer residential units would be constructed under Alternative 3 and therefore fewer people and structures would be exposed to geologic hazards under this alternative. However, impacts under this alternative would still be significant. The same mitigation would be required for any construction occurring under this alternative and impacts would be reduced to a less than significant level.

Greenhouse Gas Emissions

Construction associated with the proposed project would generate GHG emissions, both directly and indirectly. However, as shown by the analysis in **Section 5.5, Greenhouse Gas Emissions**, the construction emissions would be small and would result in a less than significant effect. Construction associated with Alternative 3 would also generate GHG emissions. However, these emissions would be lower as 29 percent less land would be disturbed under this alternative and fewer residences would be constructed compared to the proposed project. As a result, the impact from construction emissions under this alternative would be less than significant, similar to the proposed project.

The operation of the proposed project would generate GHG emissions, both directly and indirectly. However, as shown by the analysis in **Section 5.5**, the emissions would be lower than the significance threshold and the impact would be less than significant. Alternative 3 would result in 25 percent less development than the proposed project. As a result, this alternative would result in reduced GHG emissions and reduced on-site population. Therefore, GHG impacts under this alternative would be similar to the impact of the proposed project. The impact would be less than significant.

Public Services – Fire Protection

Implementation of the proposed project would increase the demand for fire protection services. As discussed in **Section 5.6, Public Services**, while the Contra Costa County Fire Department has indicated that implementation of the proposed project would not require a new or expanded fire station, the project would still conflict with location and response time standards established by the City, and this impact is considered potentially significant. While the proposed project would be required to implement mitigation requiring that the developer pay a Fire Facility Impact Fee and implement various other fire prevention measures, the conflict with existing policies would remain. As a result this impact is considered significant and unavoidable.

Demand for fire protection services would be reduced under Alternative 3, as 89 fewer residential units would be constructed compared to the proposed project. However, development under Alternative 3 would still conflict with location and response time standards established by the City. Development under Alternative 3 would be required to implement the same mitigation as the proposed project. However, even with mitigation, the conflict with existing policies would remain. Therefore, development of Alternative 3 would result in a significant and unavoidable impact to fire protection services, similar to the proposed project.

Transportation and Traffic

Implementation of the proposed project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system under existing plus project conditions, baseline plus project conditions with and without the James Donlon Boulevard Extension, and cumulative plus project conditions with and without the James Donlon Boulevard Extension. As a result, impacts to the local transportation system would be less than significant. Implementation of Alternative 3 would result in 25 percent fewer daily trips (2,502 trips) compared to the proposed project (3,448 trips), and thus would reduce the overall traffic impacts of the proposed project. This alternative would result in less than significant impacts to the local transportation system, similar to the proposed project.

The proposed project conflicts with General Plan Policy 7-P-33, which requires that development proposals provide mitigation if they fail to provide adequate access for pedestrians and bicycles; General Plan Policy 7-P-34, which requires that safe and contiguous routes for pedestrians and bicyclists are provided within new development projects; and General Plan Policy 7-P-38, which requires the development of a series of continuous pedestrian systems within Downtown and residential neighborhoods, connecting major activity centers and trails with City and County open space areas, as current project plans do not show a pedestrian connection to existing retail uses or parks located to the north of the main project site. However, mitigation is proposed that requires the developer to construct a pedestrian access route, connecting the main project site to the nearest existing sidewalk to the north. As a result, this impact would be reduced to a less than significant level. Alternative 3 would also conflict with General Plan Policies 7-P-33, 7-P-34, and 7-P-38 for the same reasons as the proposed project, and mitigation to install a sidewalk or pathway connecting the project to the nearest existing sidewalk to the north would still be required, similar to the project. Therefore, the impact associated with this conflict would also be reduced to a less than significant level under this alternative.

Conclusion and Relationship to Project Objectives

Alternative 3 would reduce some impacts as they relate to aesthetics, air quality, biological resources, geology and soils, GHG emissions and transportation/traffic, but the same significant and unavoidable impacts associated with the proposed project would not be reduced to less than significant levels under this alternative.

This alternative would achieve all of the key objectives of the proposed project.

Alternative 4: Ridgeline Preservation Alternative

Description and Analysis

The Ridgeline Preservation Alternative (Alternative 4) would preserve the ridgeline along the northeast edge of the main project site. The purpose of this alternative is to lessen impacts to views of the main project site for drivers traveling along Kirker Pass Road. Under this alternative a total of 25 units currently planned in the northeastern corner of the main project site would be eliminated. Overall, Alternative 4 would construct 331 residential units, or 93 percent of the units planned under the proposed project. In addition, as this alternative would only construct 93 percent of the units proposed under the proposed project, only 93 percent of the land set aside for residential uses under the proposed project would be disturbed. The remaining 7 percent of the land set aside for residential use under the proposed project, which consists of the northeastern ridgeline to be preserved, would be set aside for open space under this alternative.

Alternative 4 would include a partially buried water tank at the top of the hill on the northern boundary of the main project site (Parcel A), the greenwall on the southern approximate 20 percent of the main project site (Parcel B), two storm retention basins on the eastern portion of the main project site (Parcels C and D), and an open space area in the northeast corner of the main project site (Parcel E). An off-site stormwater retention basin would also be required under this alternative and would be located in the same location on the off-site parcel as it is for the proposed project. In addition, this alternative would still involve the grading of the interior portions of the hillsides in the central portion of the main project site.

This alternative would be constructed in four overlapping phases, similar to the proposed project. Each phase would last approximately 18 months. For the purposes of this analysis, it was assumed that construction of the first phase would begin in spring 2015 with construction of the last phase starting in October 2016. Overall, approximately 101 acres⁶ on the main project site would be graded and 16.8 acres located on the off-site parcel would be graded for a total of about 118 acres disturbed under this alternative, which is about 4 percent less land that would be disturbed than under the proposed project.

Aesthetics

Physical development of the project site under Alternative 4 would be slightly less extensive than envisioned under the proposed project, as only 118 total acres would be disturbed compared to 123 acres for the proposed project; however, the existing visual character of the site would still be substantially altered under Alternative 4. Regarding impacts to views of the site, impacts to views from Kirker Pass

⁶ This figure includes Parcels A, C, D, and E, which would be graded and then set aside as open space.

Road to the north would be reduced under this alternative, as 25 fewer units would be built on the main project site and the ridgeline in the northeast corner of the main project site would be preserved. This particular ridgeline sits at a higher elevation than the proposed development that would be located immediately to the south and southwest of the ridge, so preservation of the ridge would not only preserve views of the main site in its natural state, but would also provide an additional screening mechanism to block views of the development from Kirker Pass Road to the north. In addition, views of rock outcrops along the ridgeline would be preserved. Even though impacts to views of the project site would be reduced under Alternative 4, the impacts would still be comparable to the proposed project as the interior portions of the hillsides in the central portion of the main project site would still be graded. As a result, mitigation to reduce potentially significant impacts to scenic views of adjacent hillsides would still be required, similar to the project.

Physical development of the project site under Alternative 4 would also substantially alter the visual character of the project site. While the change in character is anticipated to be comparable to that of the proposed project, the nature of the change would be slightly reduced as the ridgeline and rock outcrops in the northeast corner of the main project site would be preserved. While mitigation requiring the developer to hydro-seed all disturbed, yet undeveloped, slopes to encourage the growth of vegetation on the disturbed hillsides would still be required, development under this alternative would still result in a substantial change to visual character as this alternative would disturb approximately 118 acres of the project site and still require grading of the northern ridgeline to accommodate the water tank which would still be needed to serve the project. As a result, development of the Ridgeline Preservation Alternative would result in a significant and unavoidable impact to visual character, similar to the proposed project.

Regarding light and glare, Alternative 4 would result in generally similar light and glare impacts compared to the proposed project, as this alternative would only result in 7 percent fewer residential units. As a result, this alternative would be required to adhere to the same mitigation as the proposed project, and thus light and glare impacts would be reduced to a less than significant level. Overall, aesthetic impacts under this alternative would be reduced compared to the proposed project, yet the significant and unavoidable impact on visual character would not be avoided.

Air Quality

Construction associated with the proposed project would result in short-term increases in criteria pollutants emissions from construction equipment, grading and trenching activities, worker trips, and on-road diesel trucks. These emissions would exceed construction thresholds of significance for ROG and NOx. Construction under Alternative 4 would also result in increased criteria pollutant emissions from

construction activities. As indicated in **Table 6.0-3, Alternative 4: Ridgeline Preservation – Estimated Construction Emissions**, emissions generated during the construction of this alternative would also exceed construction thresholds of significance for ROG and NO_x, although emission levels would be slightly lower as 4 percent less land would be disturbed under this alternative compared to the proposed project. For this reason, development under Alternative 4 would result in significant and unavoidable air quality impacts during construction, similar to the proposed project, because available mitigation would adequately reduce the alternative's ROG emissions but would not be capable of reducing the alternative's NO_x emissions to a level below the significance threshold.

**Table 6.0-3
Alternative 4: Ridgeline Preservation – Estimated Construction Emissions**

Construction Year	Average Emissions in Pounds per Day							
	ROG	NO _x	CO	SO _x	PM10 (exhaust)	PM10 (total)	PM2.5 (exhaust)	PM2.5 (total)
2015	10.00	83.04	84.43	0.07	3.82	220.76	3.53	26.00
2016	51.32	160.53	147.46	0.14	8.48	298.26	7.88	37.98
2017	55.83	85.89	69.05	0.08	5.24	78.19	4.91	12.56
2018	14.51	8.40	6.02	0.01	0.59	0.68	0.55	0.58
Thresholds	54	54	—	—	82	—	54	—
Exceeds Threshold?	YES	YES	—	—	NO	—	NO	—

Source: Impact Sciences, Inc. Detailed CalEEMod emissions calculations are provided in Appendix 5.2.

Totals in table may not appear to add exactly due to rounding in the computer model calculations.

Thresholds for PM10 and PM2.5 apply only to vehicle exhaust.

Construction associated with the proposed project would result in short-term fugitive dust emissions from grading and trenching activities. However, short term emissions of fugitive dust associated with the proposed project would not exceed the threshold of significance, and this impact is considered less than significant. In addition, mitigation measures have been proposed for the project that would reduce the short-term emissions of fugitive dust by up to 90 percent. Construction under Alternative 4 would also result in short-term emissions of fugitive dust from grading and trenching activities. However, the amount of fugitive dust emitted per day would only be slightly lower, as only 4 percent less land would be disturbed under this alternative compared to the proposed project. Mitigation to reduce the amount of fugitive dust emitted on a daily basis would still be required. For these reasons, the impacts associated with fugitive dust under Alternative 4 during construction would be less than significant, similar to the proposed project.

Buildout of the proposed project would add mobile, stationary, and area sources to the main project site that would result in long-term increases in criteria pollutant emissions. However, these emissions would not exceed operational thresholds of significance. Operation under Alternative 4 would also result in increased criteria pollutant emissions from mobile, stationary, and area sources. However, development under this alternative would result in slightly lower emissions from traffic due to a slightly smaller increase in daily trips (3,101 trips), compared to the proposed project (3,448 trips). In addition, criteria pollutant emissions from stationary and area sources under Alternative 4 would be slightly reduced, as 25 fewer units would be constructed under this alternative. For these reasons, the proposed project's less than significant air quality impacts during operation would be slightly reduced under Alternative 4.

As discussed above under Alternative 2, while the proposed project's construction activities would not result in significant effects related to increased cancer risk, or non-cancer (acute and chronic) health hazards, the scale of earthmoving activity within close proximity to sensitive receptors would make it highly probable that concentrations of PM_{2.5} would exceed the PM_{2.5} threshold at some locations to the north of the project site. Even with available mitigation, this impact of the proposed project would remain significant and unavoidable. The scale of earthmoving activities associated with Alternative 4 combined with the relative close proximity of some receptors to the areas where these activities would occur also make it highly probable that concentrations of PM_{2.5} would exceed the PM_{2.5} threshold at some locations to the north of the project site. Although the amount of PM_{2.5} emitted per day would be slightly lower, as 4 percent less land would be disturbed under this alternative compared to the proposed project, the reduction would likely not be adequate to avoid the impact, and even with the implementation of available mitigation, the impact associated with PM_{2.5} emitted during the construction of Alternative 4 would likely remain significant and unavoidable, similar to the proposed project.

Construction activities associated with the proposed project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is nonattainment under the federal and state ambient air quality standard, as even after mitigation, the proposed project's emissions would exceed significance thresholds for NO_x during construction. Development under Alternative 4 would also exceed significance thresholds for ROG and NO_x during construction, as only 25 fewer units would be constructed, and while ROG emissions would be adequately reduced by mitigation, the alternative's NO_x emissions would still exceed the threshold. As a result, development under this alternative would result in a cumulative net increase of a criteria pollutant, similar to the proposed project.

Biological Resources

As discussed in **Section 5.3, Biological Resources**, several special-status wildlife species have the potential to occur on the project site: Swainson's hawk, burrowing owl, San Joaquin kit fox, vernal pool

fairy shrimp, Conservancy fairy shrimp, longhorn fairy shrimp, and vernal pool tadpole shrimp. Other species covered by the MBTA could also utilize the project site for foraging and nesting. Implementation of the proposed project could have a substantial adverse effect on these special-status species as construction associated with the proposed project could disturb active nests or dens and would result in the loss of seasonal wetlands. However, conformance with the proposed mitigation that requires the implementation of avoidance and mitigation measure listed in the HCP/NCCP would reduce impacts to a less than significant level. In addition, the proposed project would be required to pay fees required by the HCP/NCCP to fund the creation of habitat preserves within eastern Contra Costa County that would offset impacts of new development. Development on the project site under Alternative 4 would also have a substantial adverse effect on special-status wildlife species, as construction could also disturb active nests or dens and would result in the loss of seasonal wetlands, even though the extent of disturbance would not be as great as 4 percent less land would be disturbed under this alternative compared to the proposed project. However, impacts related to biological resources under this alternative would still be significant. Development under Alternative 4 would be required to implement the same mitigation measures as the proposed project, and thus impacts would be reduced to a less than significant level.

The proposed project would result in the loss of waters under federal and state jurisdiction. The proposed project would result in the filling of a 0.002-acre ephemeral creek located at the easternmost edge of the main project site and determined to be jurisdictional by USACE, and waters totaling 0.126 acre that are located in the central portion of the main project site and that are assumed to fall under state jurisdiction. The loss of jurisdictional waters on the main project site represents a potentially significant impact. However, implementation of proposed mitigation that requires the payment of fees required by the HCP/NCCP to fund the preservation of wetlands in other areas within eastern Contra Costa County would reduce the impact to a less than significant level. Development on the main project site under Alternative 4 would result in the loss of waters under both federal and state jurisdiction. As a result, impacts to wetlands under this alternative would be comparable to the proposed project and would be significant. Development under Alternative 4 would be required to implement the same mitigation measures as the proposed project, and thus impacts would be reduced to a less than significant level.

Geology and Soils

Development under the proposed project could expose people and structures on the main project site to significant adverse effects associated with seismic-related ground failure, including landslides. In addition, the proposed project could result in substantial soil erosion or the loss of topsoil, and could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site landslides or slope failure. Finally, the proposed project could be located on expansive soils, thus creating substantial risks to life and property. However, with implementation of

mitigation, these impacts would be reduced to a less than significant level. Fewer residential units would be constructed under Alternative 4 and therefore fewer people and structures would be exposed to geologic hazards under this alternative. However, impacts under this alternative would still be significant. The same mitigation would be required for any construction occurring under this alternative and impacts would be reduced to a less than significant level.

Greenhouse Gas Emissions

Construction associated with the proposed project would generate GHG emissions, both directly and indirectly. However, as shown by the analysis in **Section 5.5, Greenhouse Gas Emissions**, the construction emissions would be small and would result in a less than significant effect. Construction associated with Alternative 4 would also generate GHG emissions. However, these emissions would be slightly lower as 4 percent less land would be disturbed and 25 fewer residences would be constructed under this alternative. As a result, the impact from construction emissions under this alternative would be less than significant, similar to the proposed project.

Operation of the proposed project would generate GHG emissions, both directly and indirectly. However, as shown by the analysis in **Section 5.5**, the emissions would be lower than the significance threshold established and the impact would be less than significant. Alternative 4 would result in 25 fewer residential units than the proposed project. As a result, this alternative would result in slightly reduced GHG emissions, as well as a 7 percent smaller on-site population. Therefore, GHG impacts under this alternative would be similar compared to the impact of the proposed project. The impact would be less than significant.

Public Services – Fire Protection

Implementation of the proposed project would increase the demand for fire protection services. As discussed in **Section 5.6, Public Services**, while the Contra Costa County Fire Department has indicated that implementation of the proposed project would not require a new or expanded fire station, the project would still conflict with location and response time standards established by the City, and this impact is considered potentially significant. While the proposed project would be required to implement mitigation requiring that the developer pay a Fire Facility Impact Fee and implement various other fire prevention measures, the conflict with existing policies would remain. As a result this impact is considered significant and unavoidable.

Demand for fire protection services would be reduced under Alternative 4 as 25 fewer residential units would be constructed compared to the proposed project. However, development under Alternative 4 would still conflict with location and response time standards established by the City. Development

under Alternative 4 would be required to implement the same mitigation as the proposed project. However, even with mitigation, the conflict with existing policies would remain. Therefore, development of Alternative 4 would result in a significant and unavoidable impact to fire protection services, similar to the proposed project.

Transportation and Traffic

Implementation of the proposed project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system under existing plus project conditions, baseline plus project conditions with and without the James Donlon Boulevard Extension, and cumulative plus project conditions with and without the James Donlon Boulevard Extension. As a result impacts to the local transportation system would be less than significant. Implementation of Alternative 4 would result in slightly fewer daily trips (3,101 trips) compared to the proposed project (3,448 trips), and thus would slightly reduce the overall traffic impact of the proposed project. This alternative would result in less than significant impacts to the local transportation system, similar to the proposed project.

The proposed project would conflict with General Plan Policy 7-P-33, which requires that development proposals provide mitigation if they fail to provide adequate access for pedestrians and bicycles; General Plan Policy 7-P-34, which requires that safe and contiguous routes for pedestrians and bicyclists are provided within new development projects; and General Plan Policy 7-P-38, which requires the development of a series of continuous pedestrian systems within Downtown and residential neighborhoods, connecting major activity centers and trails with City and County open space areas, as current project plans do not show a pedestrian connection to existing retail uses or parks located to the north of the main site. However, mitigation is proposed that requires the developer to construct a pedestrian access route, connecting the main project site to the nearest existing sidewalk to the north. As a result, this impact would be reduced to a less than significant level. Alternative 4 would also conflict with General Plan Policies 7-P-33, 7-P-34, 7-P-38 for the same reasons as the proposed project, and mitigation to install a sidewalk or pathway connecting to the nearest existing sidewalk to the north would still be required, similar to the project. Therefore, the impact associated with this conflict would also be reduced to a less than significant level under this alternative.

Conclusion and Relationship to Project Objectives

Alternative 4 would reduce some impacts as they relate to aesthetics, air quality, biological resources, geology and soils, GHG emissions and transportation/traffic, but the same significant and unavoidable

impacts associated with the proposed project would not be reduced to less than significant levels under this alternative.

This alternative would achieve all of the key objectives of the proposed project.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The findings of the alternatives impact analysis discussed above are summarized in **Table 6.0-4, Comparison of Alternatives to the Proposed Project**. The *State CEQA Guidelines* require that an environmentally superior alternative be identified among the selected alternatives.⁷ Of the alternatives analyzed in this document, Alternative 1, the No Project/No Development Alternative, would be the environmentally superior alternative, as it would retain the project site in its current natural state, and thus all the environmental effects of a residential development would be avoided. However, the main project site has been designated by the Pittsburg General Plan for a combination of Low Density Residential (1 to 7 units per acre) and Open Space uses. The No Project Alternative would represent an interim use of the main project site that would not only be inconsistent with the designated long-range plan set forth by the City of Pittsburg for Residential and Open Space uses, but it would also be inconsistent with the project objectives, which are stated above and in **Chapter 3.0, Project Description**.

According to the *State CEQA Guidelines*, Section 15126.6(e)(2), if the No Project Alternative is determined to be the environmentally superior alternative, another environmentally superior alternative must be identified among the remaining alternatives.

The range of alternatives required in an EIR is governed by the “rule of reason” which requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. Because of this, the EIR need not consider every conceivable alternative to a project. Rather, the alternatives must be limited to ones that would meet the project’s objectives and are ostensibly feasible, and would avoid or substantially lessen at least one of the significant environmental effects of the project. The alternatives presented above and in **Table 6.0-4** below, all fall under a broad classification of “reduced density” alternatives. They are all alternatives that would construct single-family subdivisions on the site, since the main project site is designated by the Pittsburg General Plan as such, and are designated as follows:

- .Alternative 2: Existing General Plan and Zoning Designations Alternative – 178 Units
- Alternative 3: Reduced Density Alternative – 267 Units
- Alternative 4: Ridgeline Preservation Alternative – 331 Units

⁷ California Public Resources Code, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15125.6(e)(2).

Each of these alternatives responds to several of the identified environmental impacts. For example, all three reduce the overall lot yield, so the traffic impacts, air quality impacts, GHG emissions, and demand for public services would be reduced. In evaluating the remaining alternatives, Alternative 2: Existing General Plan and Zoning Alternative Designations, would be the next environmentally superior alternative, after the No Project Alternative, as it would result in the fewest number of units and the smallest amount of total area to be graded/disturbed, thereby reducing impacts related to the proposed project. However, while this alternative would meet the objectives of the proposed project, many development costs are fixed, and due to the location of the project in a hillside area and the necessity for construction of a partially buried water tank and implementation of major off-site water and sewer utility improvements to this area just south of the existing City limits, development costs for infrastructure are substantial. Because of this, the 178-unit alternative may not be economically feasible.

**Table 6.0-4
Comparison of Alternatives to the Proposed Project**

Environmental Issue Area	Proposed Project	Alt. 1 -No Project/No Development Alternative	Alt. 2 –Existing General Plan and Zoning Designations Alternative	Alt. 3 – Reduced Density Alternative	Alt. 4 –Ridgeline Preservation Alternative
5.1 Aesthetics					
Impact AES-1: Implementation of the proposed project could have a substantial adverse effect on a scenic vista.	LSM	N	LSM (-)	LSM (-)	LSM (-)
Impact AES-2: Implementation of the proposed project could substantially degrade the existing visual character or quality of the project site and its surroundings.	SU	N	SU (-)	SU (-)	SU (-)
Impact AES-3: Implementation of the proposed project would create a new source of substantial light or glare which could adversely affect day or nighttime views in the area.	LSM	N	LSM (-)	LSM (-)	LSM (-)
Impact AES-4: The proposed project could combine with other existing and future development in the cities of Pittsburg and Antioch to result in a significant cumulative impact with regard to visual character.	LSM	N	LSM (-)	LSM (-)	LSM (-)
Impact AES-5: The proposed project could combine with other existing and future development in the cities of Pittsburg and Antioch to result in a significant cumulative impact with regard to light and glare.	LSM	N	LSM (-)	LSM (-)	LSM (-)
5.2 Air Quality					
Impact AQ-1: The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.	LS	N	LS (-)	LS (-)	LS (-)
Impact AQ-2: Construction and operation of the proposed project would violate an air quality standard or contribute substantially to an existing or projected air quality violation.	SU	N	SU (-)	SU (-)	SU (-)
Impact AQ-3: Development of the proposed project would expose nearby sensitive receptors to substantial concentrations of toxic air contaminants.	SU	N	SU (-)	SU (-)	SU (-)

Environmental Issue Area	Proposed Project	Alt. 1 -No Project/No Development Alternative	Alt. 2 –Existing General Plan and Zoning Designations Alternative	Alt. 3 – Reduced Density Alternative	Alt. 4 –Ridgeline Preservation Alternative
Impact AQ-4: Development of the proposed project would not create objectionable odors affecting a substantial number of people.	LS	N	LS (-)	LS (-)	LS (-)
Impact AQ-5: Construction activities associated with the proposed project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is nonattainment under the federal and state ambient air quality standard.	SU	N	SU (-)	SU (-)	SU (-)
Impact AQ-6: Construction emissions generated by the proposed project in combination with construction emissions from the James Donlon Boulevard Extension Project would be unlikely to result in significant localized cumulative impacts.	LS	N	LS (-)	LS (-)	LS (-)
5.3 Biological Resources					
Impact BIO-1: Implementation of the proposed project could result in substantial adverse effects, either directly or through habitat modifications, on some candidate, sensitive, or special-status wildlife species due to the loss of potential habitat.	LSM	N	LSM (-)	LSM (-)	LSM (-)
Impact BIO-2: Implementation of the proposed project could have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	LSM	N	LSM (-)	LSM (-)	LSM (-)
Impact BIO-3: Implementation of the proposed project could interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	LSM	N	LSM (-)	LSM (-)	LSM (-)
Impact BIO-4: Implementation of the proposed project could conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.	LSM	N	LSM (-)	LSM (-)	LSM (-)

Environmental Issue Area	Proposed Project	Alt. 1 -No Project/No Development Alternative	Alt. 2 –Existing General Plan and Zoning Designations Alternative	Alt. 3 – Reduced Density Alternative	Alt. 4 –Ridgeline Preservation Alternative
Impact BIO-5: Implementation of the proposed project would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	LS	LS (-)	LS (-)	LS (-)	LS (-)
Impact BIO-6: The proposed project could combine with other existing and future development in the cities of Pittsburg and Antioch to result in a significant cumulative impact with regard to biological resources, including special-status plant and wildlife species.	LSM	N	LSM (-)	LSM (-)	LSM (-)
5.4 Geology And Soils					
Impact GEO-1: Implementation of the proposed project could expose people or structures to risks associated with seismic-related ground failure, including landslides.	LSM	N	LSM (-)	LSM (-)	LSM (-)
Impact GEO-2: The proposed project could result in substantial soil erosion or the loss of topsoil.	LSM	N	LSM (-)	LSM (-)	LSM (-)
Impact GEO-3: The proposed project could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site landslides or slope failure.	LSM	N	LSM (-)	LSM (-)	LSM (-)
Impact GEO-4: The proposed project could be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life and property	LSM	N	LSM (-)	LSM (-)	LSM (-)
Impact GEO-5: The proposed project along with other existing and future development in the cities of Pittsburg and Antioch would not result in a significant cumulative impact related to geologic risks.	LS	N	LS (-)	LS (-)	LS (-)
5.5 Greenhouse Gas Emissions					
Impact GHG-1: The proposed development would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	LS	LS (-)	LS (-)	LS (-)	LS (-)
Impact GHG-2: The development would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.	LS	LS (-)	LS (-)	LS (-)	LS (-)

Environmental Issue Area	Proposed Project	Alt. 1 -No Project/No Development Alternative	Alt. 2 –Existing General Plan and Zoning Designations Alternative	Alt. 3 – Reduced Density Alternative	Alt. 4 –Ridgeline Preservation Alternative
Impact GHG-3: The proposed development would not generate GHG emissions, either directly or indirectly, that may have a cumulatively significant impact on the environment.	LS	LS (-)	LS (-)	LS (-)	LS (-)
5.6 Public Services					
Impact PS-1: The proposed project would be located outside the 1.5-mile response radius of an existing or planned fire station and would not meet the response time guideline of 6 minutes 90 percent of the time.	SU	N	SU (-)	SU (-)	SU (-)
Impact PS-2: Future development in the cities of Pittsburg and Antioch could require new or physically altered fire facilities, the construction of which could cause significant environmental impacts. However, the project's contribution to the cumulative impact would not be cumulatively considerable, as the Contra Costa County Fire Protection District has indicated that no new facilities would need to be constructed in order to serve the proposed project.	LS	N	LS (-)	LS (-)	LS (-)
5.7 Transportation And Traffic					
Impact TRA-1: Implementation of the proposed project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system under Baseline plus Project conditions with and without the James Donlon Boulevard Extension and under Existing plus Project conditions.	LS	N	LS (-)	LS (-)	LS (-)
Impact TRA-2: Implementation of the proposed project would not conflict with an applicable congestion management program.	LS	N	LS (-)	LS (-)	LS (-)
Impact TRA-3: Implementation of the proposed project has the potential to conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.	LSM	N	LSM (=)	LSM (=)	LSM (=)

Environmental Issue Area	Proposed Project	Alt. 1 -No Project/No Development Alternative	Alt. 2 –Existing General Plan and Zoning Designations Alternative	Alt. 3 – Reduced Density Alternative	Alt. 4 –Ridgeline Preservation Alternative
Impact TRA-4: Implementation of the proposed project, in conjunction with other reasonably foreseeable future development, would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system under Cumulative (2035) plus Project conditions with or without the James Donlon Boulevard Extension.	LS	N	LS (-)	LS (-)	LS (-)

Notes: N = No impact; LS=Less than significant or negligible impact, no mitigation required; LSM = Less than significant impact after mitigation; SU = Significant and unavoidable impact after mitigation;(+/-) = impact is more severe or less severe than project impact after mitigation; and (=) = impact is similar to project impact after mitigation.