

6 ALTERNATIVES

6.1 INTRODUCTION

CEQA requires the consideration and analysis of alternatives to a proposed project. According to the CEQA Guidelines, the range of alternatives “shall include those that could feasibly accomplish most of the basic purposes of the project and could avoid or substantially lessen one or more of the significant impacts” (CEQA Guidelines Section 15126.6[c]; see also CEQA Guidelines Section 15126.6[a]).

Section 15126.6(a) of the CEQA Guidelines requires that an EIR describe:

“...a range of reasonable alternatives to the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.”

In defining “feasibility,” CEQA Guidelines Section 15126.6(f)(1) states, in part:

“Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.”

Each alternative was evaluated according to the “rule of reason” and general feasibility criteria suggested by the CEQA Guidelines Section 15126.6, as follows:

The range of alternatives required in an EIR is governed by a ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making.

The inclusion of an alternative in an EIR does not necessarily mean the alternative is feasible. Rather, the inclusion of an alternative in an EIR indicates that lead agency staff has determined that the alternative is *potentially* feasible.

The CEQA Guidelines further require that the alternatives be compared to a proposed project’s environmental impacts, and that a “no project” alternative be considered (CEQA Guidelines Section 15126.6[e]). The CEQA Guidelines provide guidance on defining and analyzing alternatives. Section 15126.6[b] states:

“... the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.”

6.2 SELECTION OF ALTERNATIVES

6.2.1 CRITERIA

Alternatives were selected for evaluation in this EIR based on criteria in the CEQA Guidelines Section 15126.6. These criteria include: (1) ability of the alternative to attain most of the basic project objectives; (2) feasibility of the alternative; and (3) ability of the alternative to avoid or substantially reduce one or more significant environmental effects of the proposed project.

The City has evaluated potential alternatives relative to the objectives of the proposed project. For the purpose of alternatives analysis under CEQA, project objectives may not be defined so narrowly that the range of alternatives is unduly constrained. Alternatives that would impede to some degree the attainment of the project objectives or would be more costly may also be considered.

6.2.2 PROJECT OBJECTIVES

The City has identified the following Project Objectives to guide planning for the Project Site, as well as the analysis included within the EIR.

- ▶ Further the goals and policies of the City of Suisun City General Plan by developing land contemplated to support urban development.
- ▶ Promote economic growth through new capital investment, expansion of the tax base, and creation of new employment opportunities.
- ▶ Improve the City of Suisun City’s jobs-to-housing ratio by locating employment land uses on historically underutilized land near existing infrastructure, transportation corridors, and residential areas.
- ▶ Capitalize on the existing Interstate 80 and State Highway 12 transportation corridor, the existing rail facilities that can provide direct rail service unique to this logistics market area, and the increased demand for warehouse and distribution services in the city and region.
- ▶ Create a master planned complex of buildings to accommodate the current and future need for warehouse and distribution uses in an economically viable project with coordinated infrastructure and landscaping.
- ▶ Create opportunities to generate jobs and attract new employment-creating industries to Suisun City that generate new tax revenue and minimize demands on City services.

- ▶ Continue the orderly development of the western gateway of Suisun City and provide a visual environment that gives visitors an immediate positive first impression of Suisun City with attractive building facades and landscaping.
- ▶ Preserve and manage areas of the project site with concentrations of wetlands and other sensitive habitat for permanent open space to mitigate impacts and further regional habitat and species preservation goals.
- ▶ Implement a range of sustainability measures aimed at conserving resources, decreasing energy and water consumption, and reducing air and water pollution.
- ▶ Install circulation improvements along Pennsylvania Avenue and Cordelia Road that provide efficient ingress and egress to the proposed project, while also ensuring these facilities operate at acceptable levels.
- ▶ Design internal circulation to provide efficient ingress and egress while ensuring facilities operate at acceptable levels.
- ▶ Offer a project with the scale, location, amenities, and sustainability features necessary to create competitive advantages in attracting and retaining a variety of reputable warehousing and logistics users.

6.3 ALTERNATIVES CONSIDERED BUT REJECTED FROM DETAILED ANALYSIS

6.3.1 OFF-SITE ALTERNATIVE

Based on the lack of ability to meet the Project Objectives, the lack of available properties of a suitable size and location in Suisun City and elsewhere in Solano and Napa counties, the lack of control of other sites, and the environmental constraints on the other sites controlled by the applicant, an off-site alternative is not feasible (Colliers Northern California 2023). In addition, Plan Bay Area 2050 identifies areas north of Cordelia Road and the railroad line operated by the California Northern Railroad within the Project Site as a Priority Production Area (PPA) (ABAG/MTC 2022). PPAs are places for job growth in middle-wage industries like manufacturing, logistics or other trades. Economic Strategies in Plan Bay Area include: “EC6. Retain and invest in key industrial lands. Implement local land use policies to protect key industrial lands, identified as Priority Production Areas, while funding key infrastructure improvements in these areas” (ABAG/MTC 2021).

6.4 ALTERNATIVES CONSIDERED IN DETAIL IN THIS EIR

6.4.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

CEQA Guidelines Section 15126.6(e)(2) states that a discussion of the “No Project” alternative must consider “what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans.”

Alternative 1 assumes that the current land use designations as set forth in the Suisun City General Plan would remain unchanged. As previously described in detail in Chapter 3, “Project Description” and shown on Exhibit 6-1, the portion of the Project Site that is west of Pennsylvania Avenue and north of the California Northern

Railroad tracks is designated for Commercial Mixed-Use development in the existing City of Suisun City General Plan. The remainder of the Project Site is designated as Agriculture and Open Space under the Suisun City General Plan (City of Suisun City 2015), and as Marsh, Extensive Agriculture, and Park & Recreation under the Solano County General Plan (Solano County 2008). Alternative 1 assumes that the approximately 161 acres north of Cordelia Road and Cordelia Street within the city’s Sphere of Influence would be annexed into the city in the same way as the proposed Project. Development under Alternative 1 would be consistent with the existing Commercial Mixed Use land use designation in the area shown on Exhibit 6-1 would occur at some point in the future. The remainder of the approximately 487-acre Alternative 1 site would continue as Agriculture and Open Space within the City’s Sphere of Influence (SOI) and Marsh, Extensive Agriculture, and Parks and Recreation within the County’s jurisdiction.

Commercial mixed uses could include a shopping center, but could also include research, assembly, fabrication, storage, distribution, and processing uses; professional offices; public services and facilities; and other compatible uses, such as higher-density dwelling units (Suisun City General Plan Table 3-1). Alternative 1 assumes a mix of commercial uses, including retail and commercial services. These land use assumptions, as compared to the proposed Project, are summarized in Table 6-1.

Table 6-1. Alternative 1 Land Use Assumptions

Type of Future Development	Developed Land Area (acres)	Building Square Footage	Number of Employees	Managed Open Space (acres)
Alternative 1 (Commercial)	73	363,000	726	0
Proposed Project	93	1.28 million	1,275	389

Source: Data compiled by AECOM in 2022

As shown in Table 6-1, the developed land area and building square footage would be reduced under Alternative 1 compared to the proposed Project, with a corresponding increase in the amount of agricultural and open space land that would be assumed to continue into the future. While commercial services and retail would require a higher employment density (per square foot of building space) compared to the proposed Project, the total number of employees under Alternative 1 would decrease compared to the proposed Project.

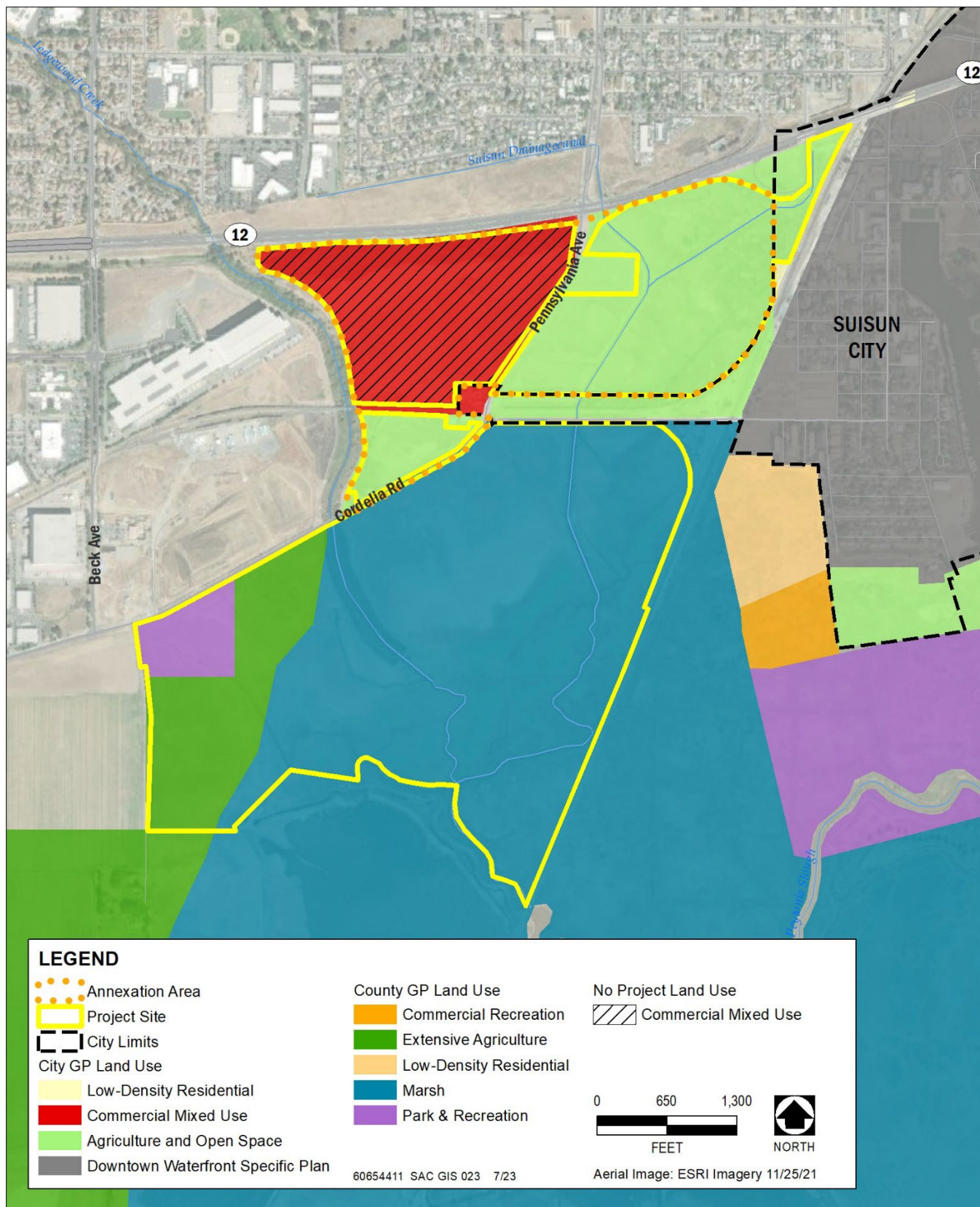
The increased number of employees and shoppers/clients under Alternative 1 would result in a corresponding increase in trip generation compared to the proposed Project. The estimated number of trips per day for potential future land uses that could be encompassed under the commercial mixed-use land use designation, as compared to the proposed Project, are shown in Table 6-2.

Table 6-2. Alternative 1 Estimated Trip Generation by Land Use Type

Type of Future Development	Estimated Number of Trips per Day
Alternative 1: Commercial Uses ¹	15,000
Proposed Project	2,310

Source: Data compiled by AECOM in 2022

¹ The land use under Alternative 1 is assumed to be “Shopping Center” as classified by the Institute for Transportation Engineers for the purpose of estimating daily vehicular trip generation.



Sources: Solano County 2008, City of Suisun City 2015, AECOM 2023

Exhibit 6-1. Alternative 1 Site and Land Use Designations

As shown in Table 6-2, Alternative 1 would involve a higher number of daily vehicular trips when compared to the proposed Project due to higher visitor and customer patronage, though Alternative would have a lower percentage of heavy-duty truck trips and a relatively higher percentage of passenger vehicle and light-duty vehicles. The uses assumed to develop under Alternative 1 would require some number of delivery vehicles, and could involve some heavy-duty trucks for delivery depending on the scale of individual commercial uses developed under this alternative.

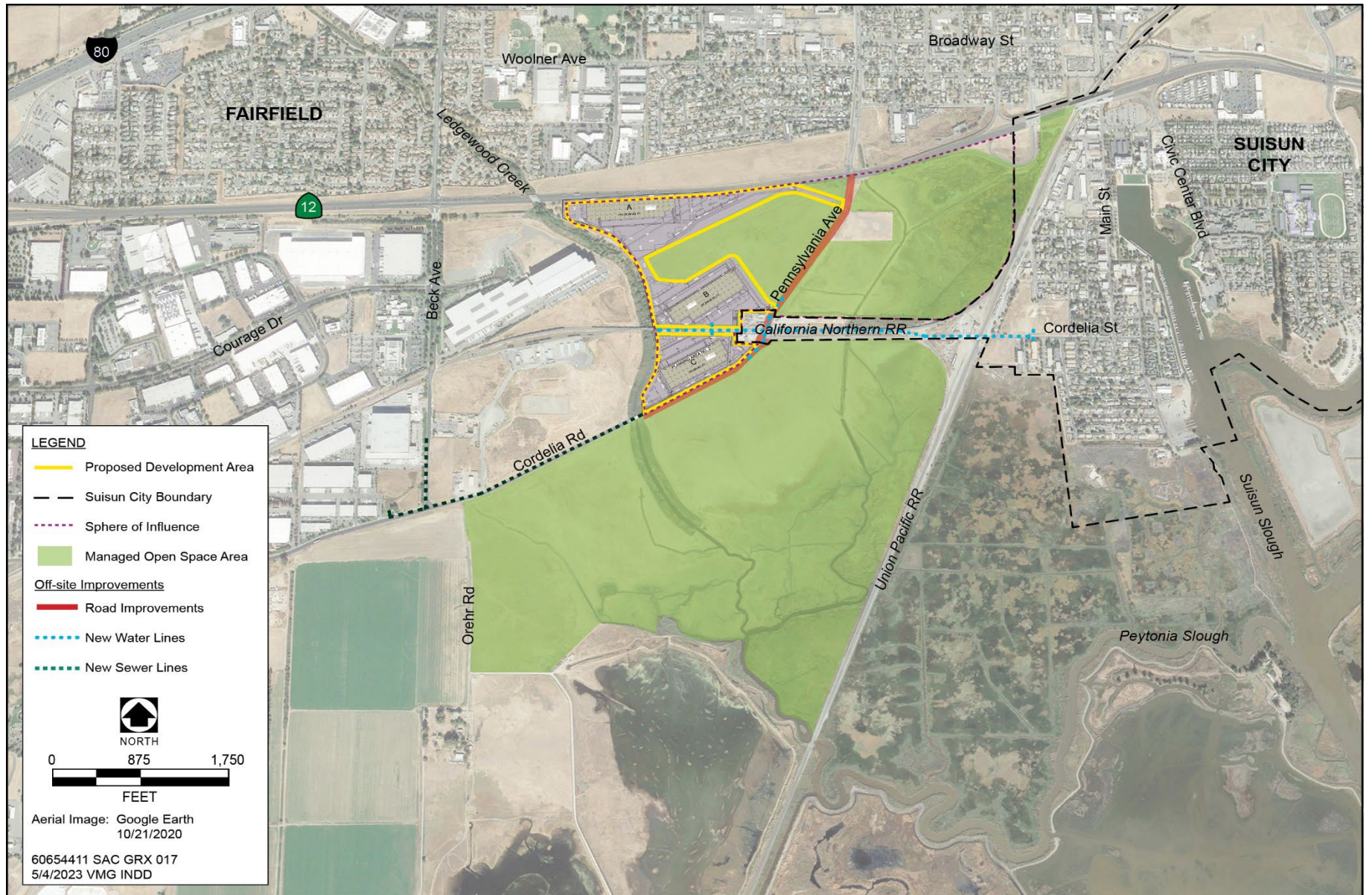
Regardless of the type and mix of commercial development that would be built under Alternative 1, as with the proposed Project, new infrastructure would be required. This infrastructure would include increased off-site sewer treatment and new on- and off-site sewer conveyance lines; increased off-site water supply and new on-site water supply pipelines; new on-site stormwater drainage facilities such as detention basins, low impact development (LID) features, and conveyance lines; off-site electrical and natural gas supply and on-site conveyance lines; and off-site roadway improvements (i.e., Pennsylvania Avenue road widening and turn lanes, and potential turn lanes on SR 12), as well as a new internal on-site circulation network.

6.4.2 ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE

Alternative 2 was developed to reduce the land area affected by development with a focus on reducing potential impacts to biological resources and reducing the number of heavy-duty truck trips and associated air pollutant emissions as compared with the proposed Project. Alternative 2 would include fewer buildings and would reduce the total building square footage added to the site, as compared with the proposed Project, and would reduce also the area affected by parking, circulation, and other impervious surfaces. While the area affected by development would be reduced under Alternative 2, the total land area proposed for Managed Open Space would be expanded. The overall acreage (approximately 487 acres) of the Alternative 2 site would not change as compared with the proposed Project site. The Alternative 2 site boundaries, with the reduced development area and increased managed open space area, are shown on Exhibit 6-2.

The necessary supporting infrastructure under Alternative 2—wastewater, water supply, stormwater, electrical and natural gas, and parking—would be reduced as compared to the proposed Project, since the area proposed for development would be reduced, and since the demand for infrastructure would be reduced (see Exhibit 6-3 and Exhibit 6-4). The locations of proposed on-site detention basins and LID features that would be implemented under Alternative 2 to detain and treat stormwater runoff are shown on Exhibit 6-3. The locations of wastewater and water supply pipelines, and electrical and natural gas supply lines, are shown on Exhibit 6-4. Off-site sewer and water conveyance pipelines would still be necessary under Alternative 2, and would be installed in the same locations as the proposed Project (see Exhibit 3-9 in Chapter 3, “Project Description”).

Under Alternative 2, the internal driveway that would be developed to access Building A would be modified by moving its location approximately 390 feet south of the SR 12/Pennsylvania Avenue intersection (see Exhibit 6-3 and Exhibit 6-4). Since the volume of truck trips would be reduced under Alternative 2, off-site roadway improvements to SR 12 would not be necessary. Furthermore, under Alternative 2, only the west side of Pennsylvania Avenue would require street frontage improvements (to accommodate an additional lane for driveway access, along with sidewalks and bicycle lanes), as compared to the proposed Project, where both the east and west sides of Pennsylvania Avenue would require street frontage improvements. Similar to the proposed Project, Alternative 2 would require roadway improvements to the north side of Cordelia Street to accommodate an additional lane, along with a sidewalk and bicycle lane on the north side of Cordelia Street.



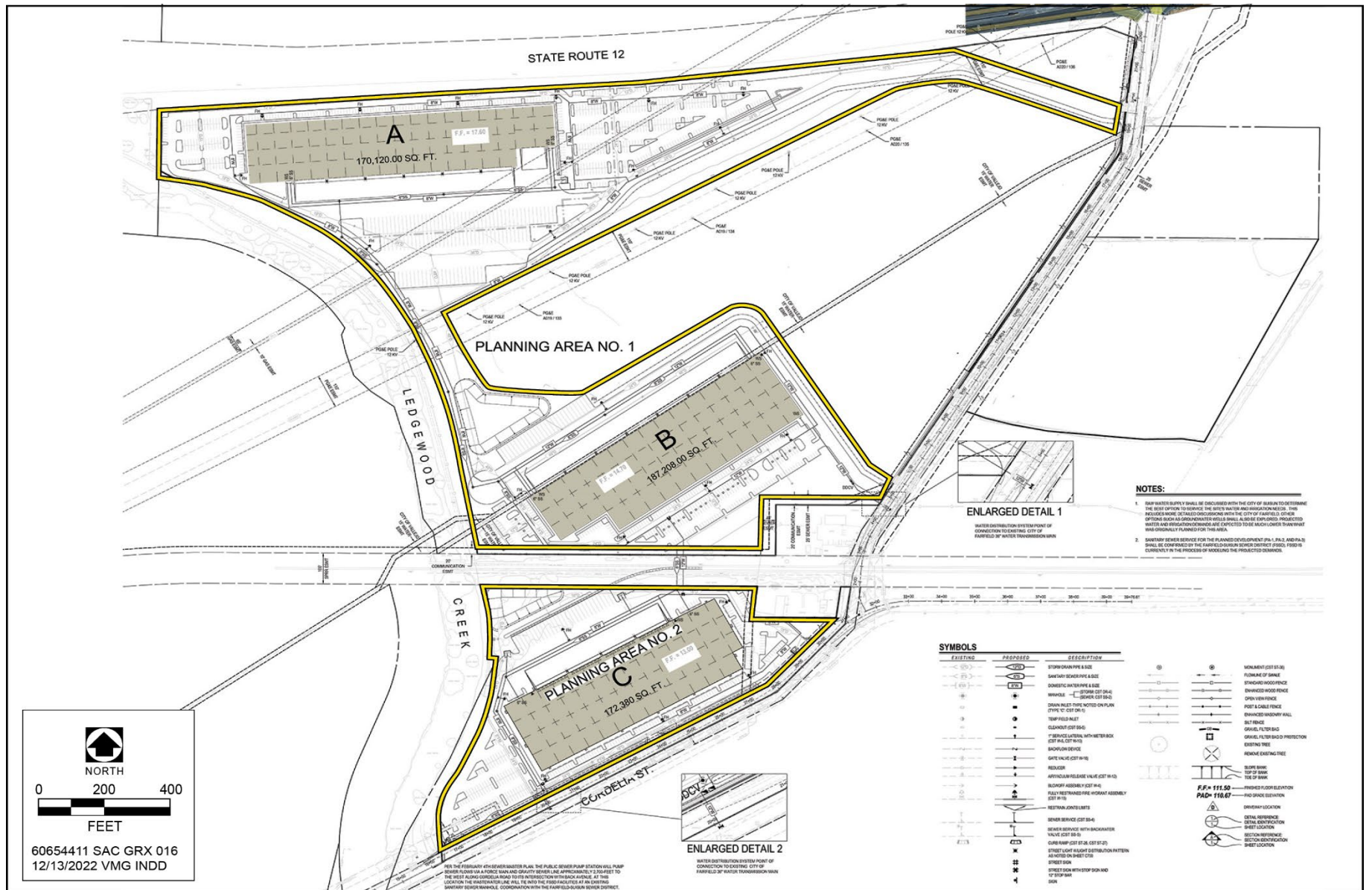
Source: AECOM 2023

Exhibit 6-2. Alternative 2 Site



Sources: Morton & Pitalo, Inc. 2022, Modified by AECOM in 2022

Exhibit 6-3. Alternative 2 Building Layout and Stormwater Drainage Plan



The Project Site and Alternative 2 site are situated within U.S. Fish and Wildlife Service (USFS)-designated critical habitat Subunit 5G for Contra Costa Goldfields (CCG) (*Lasthenia conjugens*), which is a small, yellow-flowered annual in the sunflower family. It is federally listed as endangered and is considered rare and endangered (List 1B.1) by the California Native Plant Society (CNPS). It is associated with vernal pools and seasonally saturated flats and depressions in annual grasslands (Solano County Water Agency 2012). The locations where development would occur under Alternative 2 were specifically selected to avoid a documented population of approximately 102 individual CCG plants in an approximately 0.007-acre area that would be subject to development under the proposed Project, but that would not be developed under Alternative 2 (Huffman-Broadway Group, Inc. 2022). Reducing the development footprint under Alternative 2 would also preserve an additional 42 acres of designated CCG Critical Habitat, which otherwise would be lost to development under the proposed Project (see Exhibit 6-5). Alternative 2 would also preserve approximately 32 acres of wetland habitat that would otherwise be filled due to development under the proposed Project.

The land use assumptions for Alternative 2, as compared to the proposed Project, are summarized in Table 6-3.

Table 6-3. Alternative 2 Land Use Assumptions

Type of Future Development	Developed Land Area (acres)	Building Square Footage	Number of Employees	Preserved Open Space (acres)
Alternative 2	51	529,708	528	437
Proposed Project	93	1.28 million	1,275	393

Source: Data compiled by AECOM in 2022

As shown in Table 6-3, the developed land area and building square footage would be reduced under Alternative 2, with a corresponding increase in the amount of preserved open space. The number of employees under Alternative 2 would also decrease, since the amount of development at the Alternative 2 site would decrease, as compared with the proposed Project.

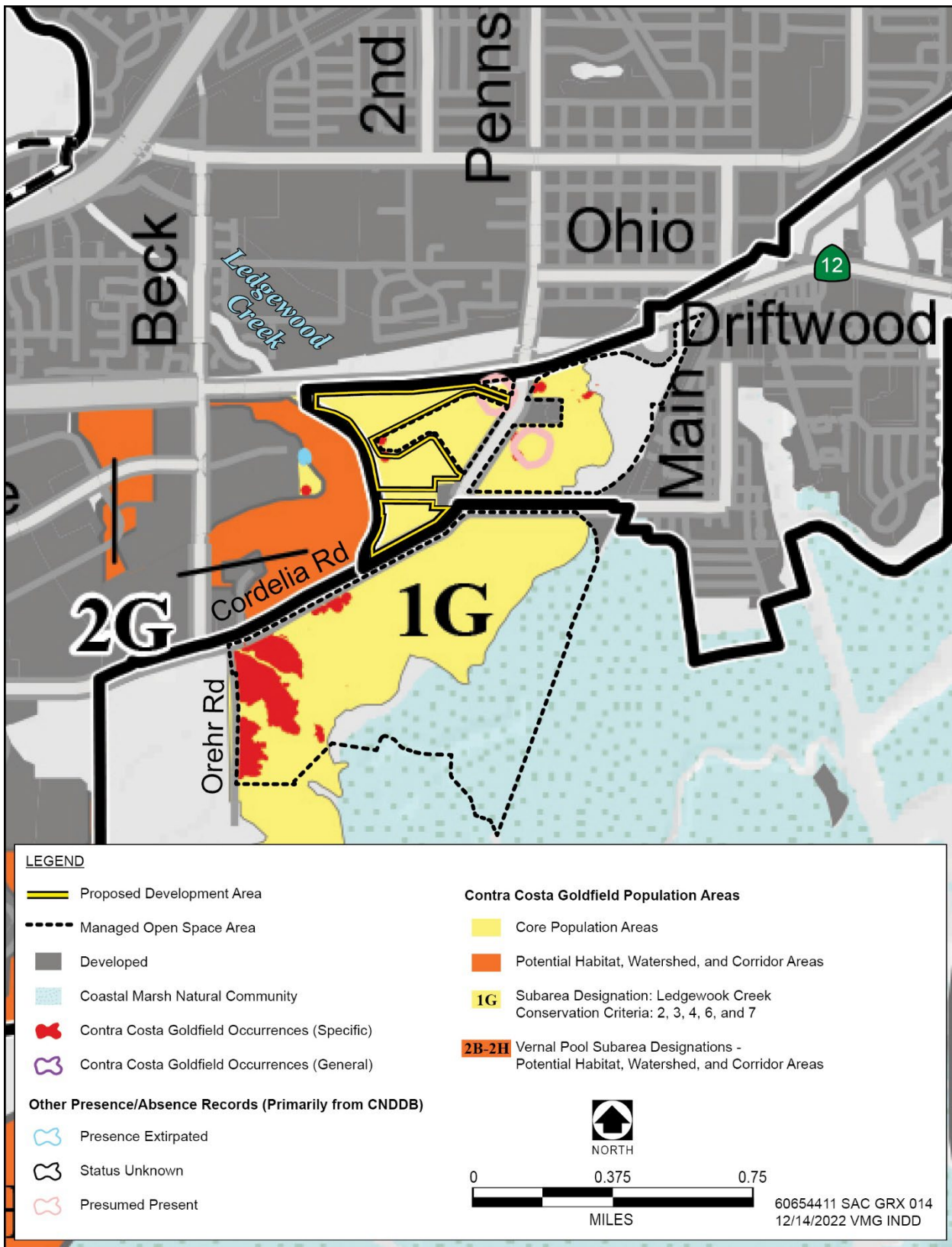
The estimated acreage, square footage, and parking associated with each Planning Area and building under Alternative 2, as compared to the proposed Project, are shown in Table 6-4.

Table 6-4. Alternative 2 Building Details

Planning Area	Developed Area ¹ (acres)	Square Footage	Proposed Parking Stalls
Alternative 2			
Planning Area A			
Building A	26	170,120	546
Building B	13	187,208	282
Planning Area B			
Building C	12	172,380	269
Total	51	529,708	1,097
Proposed Project			
Planning Area A			
Building A	19.5	152,305	418
Building B/C	30	710,488	765
Building D	10.5	56,880	183
Building E	9.0	56,880	202
Planning Area B			
Building F	12	172,380	269

Planning Area C			
Building G	12	127,303	188
Total	93	1,276,236	2,025
Total Reduction (Proposed Project Minus Alternative 2)			
Total	42	746,528	928
Percent	45%	59%	46%

¹ Includes the total acreage of all improvements associated with each building, including driveways, parking, and detention basins.
Sources: Fehr & Peers 2022: Table 1, AECOM 2022



Source: Solano County Water Agency 2012

Exhibit 6-5. Solano Habitat Conservation Plan: Contra Costa Goldfields and Alternative 2

The decreased number of employees and smaller development area under Alternative 2 would result in a corresponding decrease in trip generation. The estimated number of trips per day for Alternative 2, as compared to the proposed project, are shown in Table 6-5.

Table 6-5. Alternative 2 Estimated Trip Generation by Land Use Type

Type of Future Development	Estimated Peak Trips per Day	Estimated Total Trips per Day
Alternative 2	218	960
Proposed Project	523	2,310

Source: Fehr & Peers 2022: Table 7

As with the proposed Project, Alternative 2 would include annexation and pre-zoning of 161 acres of the approximately 487-acre site into the City of Suisun City. However, 51 acres of land area would be proposed for development as compared to approximately 93 acres of land area proposed for development under the proposed Project; the remaining 84 acres of the annexation area would be part of the managed open space area (managed open space is discussed in Chapter 3, “Project Description”). The 51 acres of developed land under Alternative 2 would be pre-zoned as Commercial Services and Fabricating (CSF) as part of the annexation process, similar to the proposed Project.

The area that would encompass the proposed Building C under Alternative 2 (on the west side of the site south of the California Northern Railroad tracks), is currently designated for Agriculture and Open Space land uses in the Suisun City General Plan. As with the proposed Project (which proposes to develop this same area as Building F), a General Plan amendment would be required to change the land use designation of this approximately 12-acre area from Agriculture and Open Space to the Commercial Mixed Use General Plan land use designation.

As with the proposed Project, under Alternative 2, no new urban development would occur within either the Primary or Secondary Management Areas of the Suisun Marsh Protection Plan; land at the site that is within the Suisun Marsh Protection Plan boundary would be contemplated for managed open space (see Exhibit 3-3 in Chapter 3, “Project Description”). Because the area affected by development would be reduced under Alternative 2, there would be a corresponding increase in the amount of land that would be retained as managed open space, as compared to the proposed Project (i.e., 437 acres under Alternative 2 compared to 393 acres under the proposed Project), as shown in Table 6-3.

Because the area proposed for development would be smaller under Alternative 2 as compared to the proposed Project (i.e., 51 acres compared to 93 acres), the construction time period would be substantially reduced. Construction of the area contemplated for development under Alternative 2 is anticipated to require approximately 18 months. Construction would typically occur 5 days per week, Monday through Friday, between the hours of 7 a.m. and 8 p.m. The same types of on-site and off-site construction activities would occur under Alternative 2 as compared to the proposed Project with similar types and numbers of equipment.

6.4.3 ALTERNATIVE 3: REDUCE CRITERIA AIR POLLUTANT AND GHG EMISSIONS AND TRANSPORTATION-RELATED ENERGY CONSUMPTION

Alternative 3 is intended to reduce potential impacts related to air pollutant emissions, greenhouse gas (GHG) emissions, vehicular travel demand (measured according to vehicle miles traveled or “VMT”), and energy use associated with transportation. Under Alternative 3, the approximately 161 acres north of Cordelia Road and

Cordelia Street within the city's Sphere of Influence would be annexed into the city in the same way as the proposed Project. Instead of logistics and warehousing uses alone, as with the proposed Project, Alternative 3 would also include office space in addition to warehousing and logistics uses. The office space provided under Alternative 3 would focus on providing local employment opportunities for local residents that are currently commuting to other cities for employment. Some of the larger variances between local jobs and occupations of local residents are in the health care and social assistance and administration and support sectors. These sectors employ relatively larger numbers of local residents, but local jobs in these sectors are relatively less available. Examining all of the sectors that would tend to provide employment in office environments (information, finance and insurance, real estate, professional, scientific, and technical services, management of companies, etc.), approximately half of the city's deficit of local jobs to match local resident occupations are in sectors that would typically occupy office space. There is also a deficit, however, for local jobs in transportation and warehousing – approximately 500 local residents are employed in the transportation and warehousing sector while there are approximately 100 jobs available in this sector in Suisun City (U.S. Census Bureau 2020). Approximately 10 percent of the local deficit in local jobs are in sectors that would typically occupy warehouse settings. Therefore, Alternative 3 would include both office space and warehousing space, keeping the same employment total as the proposed Project of 1,275, but would provide these uses in proportions that correlate with the current deficits in local employment.

Instead of the approximately 1.28 million square feet in warehousing use proposed as a part of the Project, Alternative 3 would include 203,000 square feet of warehousing space. In addition, Alternative 3 would provide 268,000 square feet of office space. Alternative 3 would provide approximately 1,100 office setting jobs and approximately 200 jobs in a warehousing, logistics, and transportation setting. The total area affected by development under Alternative 3 would be approximately 46 acres, compared with the approximately 93 acres included within the proposed Development Area under the proposed Project.

While Alternative 3 is focused on reducing air pollutant emissions, greenhouse gas emissions, transportation impacts, and transportation energy impacts, it would develop approximately the same area of land as contemplated under Alternative 2, and would focus development in the same areas as under Alternative 2 in order to reduce biological resources impacts compared with the proposed Project.

The capacity for supporting infrastructure under Alternative 3—wastewater generation, water supply, stormwater, electrical and natural gas, and parking areas—would be similar to the proposed Project since the same level of employment is anticipated, and since the demand for water, wastewater, and solid waste is largely driven by the level of employment. The demand for natural gas and electricity may increase under Alternative 3 as compared with the proposed Project with greater need for space heating and lighting. As with the proposed Project, Alternative 3 would require on-site detention and LID features. As with the proposed Project, Alternative 3 would require access from adjacent roads, internal circulation, and frontage improvements. Overall, infrastructure requirements would be similar to the proposed Project and areas affected by off-site improvements would be similar, as well.

With the reduction in space devoted to warehousing uses, the number of daily heavy duty truck trips would be reduced under Alternative 3 compared with the proposed Project, but the total number of daily trips would increase since office uses generally produce a higher number of vehicular trips per square foot of building space. While the proposed Project would attract approximately 2,310 trips per day in total, Alternative 3 would produce

an estimated 2,980 trips per day. However, while the proposed Project would produce approximately 750 truck trips per day, Alternative 3 would reduce this amount to approximately 120 trips per day.

Because the area proposed for development and the building square footage construction would be reduced under Alternative 3 as compared to the proposed Project (i.e., 46 acres compared to 93 acres), the construction time period would be substantially reduced. Construction of the area contemplated for development under Alternative 3 is anticipated to require approximately 15 months. Construction would typically occur 5 days per week, Monday through Friday, between the hours of 7 a.m. and 8 p.m. The same types of on-site and off-site construction activities would occur under Alternative 3 as compared to the proposed Project with similar types and numbers of equipment.

6.5 ALTERNATIVES ANALYSIS

6.5.1 AESTHETICS

ALTERNATIVE 1: NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

Alternative 1 would result in a smaller development area and reduced building square footage as compared to the proposed Project (i.e., 73 acres vs 93 acres, respectively). The shopping center buildings that would be implemented under Alternative 1 would result in the same permanent blockage of scenic vistas from Key Community Gateway 3 looking southwest from Pennsylvania Avenue. However, the foreground views from Key Community Gateway 2 looking northeast from Cordelia Road would be preserved, because the area south of the California Northern Railroad tracks would not be developed under Alternative 1. Therefore, Alternative 1 would result in a **reduced** level of impact on scenic vistas as compared to the proposed Project.

The visual appearance of new development would be substantially different under Alternative 1—consistent with a shopping center—as compared to the proposed warehouse buildings under the proposed Project. Regardless, the shopping center design, layout, parking, landscaping, signage, and lighting would be subject to the same City Municipal Code, City General Plan, City Development Guidelines for Architecture and Site Planning, and City Architectural Review requirements as the proposed Project. As stated in Suisun City General Plan Policy CCD-6.4, the City will not consider urban development that is consistent with General Plan community design policies to represent a degradation of visual character for the purpose of environmental impact analysis. Because Alternative 1 would result in a slightly smaller area of land that would be converted from open space to urban development, Alternative 1 would result in a **reduced** level of impact on visual character as compared to the proposed Project.

A shopping center with associated parking on 73 acres at the Alternative 1 site would result in a slightly reduced level of nighttime lighting. As with the proposed Project, implementation of Mitigation Measure 4.1-3 would help to reduce the impacts from nighttime lighting, glare, and skyglow under Alternative 1. New nighttime skyglow effects under Alternative 1 would be **reduced** as compared to the proposed Project.

ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE

Impact 6.5.1-1. Effects on Scenic Vistas. **This impact would be significant.**

Alternative 2 would result in a smaller development area and reduced building square footage as compared to the proposed Project (i.e., 51 acres vs 93 acres, respectively). Because fewer buildings and landscaping would be

installed, an additional line-of-sight viewpoint corridor would be maintained from Key Community Gateway 3 looking southwest from Pennsylvania Avenue as compared to the proposed Project. The loss of scenic vistas from Key Community Gateway 2 would still occur under Alternative 2. No feasible mitigation is available that could fully preserve the existing views of the Coast Ranges, Howell Mountains, Cement Hill, or the Vaca Mountains while also accommodating operation of the buildings and landscaping that are anticipated under Alternative 2. Therefore, adverse impacts to scenic vistas under Alternative 2 would be **significant and unavoidable**. This impact conclusion is the same as the proposed Project (Impact 4.1-1); however, because Alternative 2 would preserve the existing line-of-sight corridor for the scenic vistas from Key Community Gateway 3, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.1-2. Degradation of Visual Character or Quality. This impact would be less than significant.

Alternative 2 would result in the same type of industrial/commercial buildings, parking, detention basins, lighting, signage, and landscaping as proposed Project, with the same visual appearance as the proposed Project, but would occur in a smaller area and with a reduced building square footage as compared to the proposed Project. The areas immediately west, north, and east of the Alternative 2 site are already urbanized with industrial, commercial, and residential development in the cities of Fairfield and Suisun City. Development of Alternative 2 would visually change less than one-quarter of the Alternative 2 site (i.e., 51 acres of the 487-acre Alternative 2 site). Construction activities would be short-term and temporary, are a common sight in the nearby developed areas of Fairfield and Suisun City (through which motorists are passing before they arrive at the Alternative 2 site) and would be scattered across the Alternative 2 site during each phase of construction.

Operation of Alternative 2 would change the visual character of a small portion of the existing open space along the urban fringe through the introduction of new buildings and associated parking areas and urban landscaping, but the visual appearance of the buildings, parking areas, and landscaping under Alternative 2 would be visually consistent with existing adjacent industrial development to the west and north. Most of the existing visual character of the Alternative 2 site would be preserved under Alternative 2. There are no outstanding examples of visual character at the Alternative 2 site, which consists of flat, rural (non-urbanized) land used for cattle grazing. As stated in Suisun City General Plan Policy CCD-6.4, the City will not consider urban development that is consistent with General Plan community design policies to represent a degradation of visual character for the purpose of environmental impact analysis. A Planned Unit Development (PUD) has been prepared for City approval to establish the land use, zoning, development standards, and regulations for development consistent with General Plan community design policies (David Babcock & Associates 2023). Development is required to comply with the City Municipal Code, General Plan policies, the City's Development Guidelines for Architecture and Site Planning, and Architectural Review requirements. Therefore, the change in visual character at the Alternative 2 site under Alternative 2 is considered a **less-than-significant impact**. This impact conclusion is the same as the proposed Project (Impact 4.1-2); however, because Alternative 2 would involve less conversion of the existing open space to new urban development, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.1-3. Substantial New Light and Glare and Skyglow Effects. This impact would be significant.

Alternative 2 would result in additional nighttime lighting and skyglow effects. The area is urbanized and is not a "dark sky" area; existing development in the area already contributes substantially to nighttime lighting and skyglow effects. Development of 45 acres under Alternative 2 would introduce new street lighting, parking lot lighting, pedestrian way lighting, interior lighted building signage, interior and front lighted landmark and

directory signage, interior lighted (LED) security lighting, and architectural lighting, during operations. These lights would be visible during nighttime hours and would represent a source of light and glare surrounding developed areas and roadways. Therefore, this impact is considered **significant**.

Mitigation Measure: Implement Mitigation Measure 4.1-3 (Prepare an Exterior Lighting Plan Including an Off-Site Photometric Analysis).

Significance after Mitigation

As with the proposed Project, implementation of Mitigation Measure 4.1-3 would reduce Alternative 2's potentially significant impacts from nighttime lighting, glare, and skyglow effects to the maximum extent feasible because an exterior lighting plan would be prepared for City review and approval and implemented at the Alternative 2 site. However, even with implementation of this mitigation measure, development anticipated under Alternative 2 would contribute to nighttime skyglow effects. No additional feasible mitigation measures are available. Therefore, nighttime skyglow effects under Alternative 2 would be **significant and unavoidable**. This impact conclusion is the same as for the proposed Project (Impact 4.1-3); however, because Alternative 2 would involve less nighttime lighting, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Issues Where No Impact Would Occur

For the same reasons discussed in Section 4.1.3, "Environmental Impacts and Mitigation Measures," under the heading "Issues Not Discussed Further," the following issues would also result in **no impact** under Alternative 2.

- ▶ Damage to Scenic Resources within a State- or County-Designated Scenic Highway

ALTERNATIVE 3: REDUCE CRITERIA AIR POLLUTANT AND GHG EMISSIONS AND TRANSPORTATION-RELATED ENERGY CONSUMPTION

Alternative 3 would result in a smaller area affected by development and reduced building square footage as compared to the proposed Project (i.e., 45 acres vs. 93 acres, respectively). Because Alternative 3 would involve construction of 470,000 square feet of building space as compared to 1.28 million square feet of building space under the proposed Project, some of the scenic vistas from Key Community Gateway 2 would be retained under Alternative 3. Furthermore, because fewer buildings and landscaping would be installed, an additional line-of-sight viewpoint corridor would be maintained from Key Community Gateway 3 looking southwest from Pennsylvania Avenue as compared to the proposed Project. Therefore, the level of impact related to scenic vistas would be **reduced** under Alternative 3 as compared to the proposed Project.

Alternative 3 would result in a similar type of change to the existing visual character as compared to the proposed Project, from undeveloped agricultural land to buildings, parking lots, roadways, detention basins, lighting, signage, and landscaping. As stated in Suisun City General Plan Policy CCD-6.4, the City will not consider urban development that is consistent with General Plan community design policies to represent a degradation of visual character for the purpose of environmental impact analysis. Under Alternative 3, the site design, layout, parking, landscaping, signage, and lighting would be subject to the same City Municipal Code, City General Plan, City Development Guidelines for Architecture and Site Planning, and City Architectural Review requirements as the proposed Project. Alternative 3 would result in a similar visual appearance as compared to the proposed Project, but would occur in a smaller area and with reduced building square footage as compared to the proposed Project.

Therefore, Alternative 3 would result in a **reduced** level of impact on visual character as compared to the proposed Project.

New industrial/office development under Alternative 3 would result in an approximately 50 percent reduction in the level of nighttime lighting, because development under Alternative 3 would occur on approximately 51 acres as compared to 93 acres under the proposed Project. As with the proposed Project, implementation of Mitigation Measure 4.1-3 would reduce the impacts from nighttime lighting, glare, and skyglow. New nighttime skyglow effects under Alternative 3 would be **reduced** as compared to the proposed Project.

6.5.2 AIR QUALITY

The same environmental setting and regulatory framework detailed in Section 4.2 of this EIR, “Air Quality,” also applies to the alternatives examined in this chapter.

ALTERNATIVE 1: NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

Alternative 1 would involve less construction and construction-related emissions when compared with the proposed Project. Alternative 1 would develop approximately 73 acres of land area compared to approximately 93 acres under the proposed Project, plus off-site improvement areas. Construction-related emissions would be reduced by approximately 20 percent under Alternative 1 compared to the proposed Project. As with the proposed Project, Alternative 1 would involve toxic air contaminant emissions near existing employees of businesses located near the site and potentially significant effects associated with these emissions that would be reduced to a less-than-significant level through the use of newer and cleaner emitting equipment. During operations, Alternative 1 would involve air pollutant emissions associated with motor vehicle trips to and from the site; fuel combustion from landscape maintenance equipment; natural gas combustion emissions from on-site natural gas use; off-site generation of electricity used at the site; evaporative emissions of reactive organic gases associated with the use of consumer products; and evaporative emissions of reactive organic gases resulting from the intermittent re-application of architectural coatings. With the reduction in square footage of building space and area devoted to landscaping, emissions associated with landscape maintenance equipment, natural gas use, and electricity generation would be reduced compared to the proposed Project. The mix of commercial uses anticipated under Alternative 1 would increase the number of vehicular trips to and from the site compared to the proposed Project, though many of the trips would be expected to be shorter compared to the truck trips to the Project Site under the proposed Project. Even considering that a substantial number of the trips attracted to the site under Alternative 1 could be pass-by trips, criteria air pollutant emissions associated with mobile sources would be higher for Alternative 1 compared to the proposed Project.² Alternative 1 would reduce diesel particulate matter emissions compared to the proposed Project with the substantial reduction in truck trips. Construction-related emissions would be reduced, criteria air pollutant emissions would increase, and toxic air contaminant emissions would be reduced. Overall air quality impacts are considered **similar** to the proposed Project for Alternative 1.

² Pass-by trips are those trips already on the roads immediately adjacent to the site, but that alter their path at the driveway to visit the site. Pass-by trips are not normally considered new trips for the purpose of impact analysis.

ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE

Impact 6.5.2-1. Conflict with or Obstruct Implementation of the Applicable Air Quality Plan. *This impact would be potentially significant.*

Alternative 2 would result in construction-related and operational emissions of criteria air pollutants. Alternative 2 construction activities would involve the temporary use of off-road equipment, haul trucks, and worker commute trips. As with the proposed Project and consistent with Stationary Source Control Measures SS36 (PM from Trackout) and SS38 (Fugitive Dust) of the 2017 Clean Air Plan, Alternative 2 would implement BAAQMD's Basic Construction Mitigation Measures, which would reduce fugitive dust emissions during construction. Alternative 2 construction activities would also be consistent with 2017 Clean Air Plan Measure WA4, Recycling and Waste Reduction, which calls for the recycling of construction materials. A minimum of 75 percent of the solid waste generated would be diverted from landfill disposal, as required by the California Green Building Standards Code.

As the Alternative 2 involves development of warehousing and logistics uses, it would not result in the increase of population or housing that was not foreseen in City or regional planning efforts. The Alternative 2 Site is in a Priority Production Area, which identify clusters of industrial business and are prioritized for economic development investments and protection from competing land uses; these areas are already well-served by the region's goods movement network. Priority Production Areas are approved by the Associated of Bay Area Governments (ABAG) and are a key piece of the Bay Area's regional growth framework for coordinated housing, transportation, and other types of land use planning. Therefore, it would not have the potential to substantially affect housing, employment, and population projections within the region, which is the basis of the 2017 Bay Area Clean Air Plan projections.

Furthermore, operation of Alternative 2 would also support the goals of the 2017 Clean Air Plan in the same manner as the proposed Project. Any new stationary sources associated with the Alternative 2 would be required to comply with BAAQMD's regulations which BAAQMD adopts/revises as needed to implement the Stationary Source (SS) control measures to reduce stationary source emissions. Furthermore, Alternative 2 would be subject to the provisions of the City of Suisun City Building Code, and therefore would comply with Title 24. Compliance with Title 24 would also result in Alternative 2's implementation of energy efficient design features and incorporation of electric infrastructure to support current and future adoption of electric vehicles. The control measures for the Natural and Working Lands (NW) sector focus on increasing carbon sequestration on rangelands and wetlands. Alternative 2 would include the establishment of wetlands and bring additional funding and management oversight to 437 acres of the Suisun Marsh and adjacent uplands as the proposed Managed Open Space, which is a greater area than under the proposed Project. Alternative 2 would comply with Assembly Bill (AB) 341, which requires mandatory commercial recycling for businesses that generate four cubic yards or more of commercial solid waste per week, and would include water-efficient indoor fixtures consistent with the requirements of CALGreen and water-efficient and drought-tolerant landscaping outdoors. Alternative 2 does not contain features that would conflict with or obstruct implementation of any 2017 Clean Air Plan control measures. Therefore, the Alternative 2 would conform to this determination of consistency for the 2017 Clean Air Plan.

However, as detailed under Impact 6.5.2-2 below, Alternative 2 would exceed the BAAQMD-recommended threshold of significance for construction-related average daily NO_x emissions and for operational annual and maximum daily ROG and NO_x emissions. These thresholds are established to identify projects that have the potential to generate a level of emissions that would be cumulatively considerable, potentially resulting in significant adverse air quality impacts to the region's existing air quality conditions. Furthermore, the BAAQMD does not have quantitative mass emissions thresholds for fugitive PM₁₀ and PM_{2.5} fugitive dust. Instead, the BAAQMD recommends that all projects, regardless of the level of average daily emissions, implement applicable best management practices (BMPs), including those listed as Basic Best Management Practices for Construction-Related Fugitive Dust Emissions in the BAAQMD CEQA Air Quality Guidelines (BAAQMD 2023) in order to minimize fugitive dust in alignment with the regional plans for PM reduction. Fugitive dust emissions are considered to be significant unless Alternative 2 implements the BAAQMD's BMPs for fugitive dust control during construction. Because Alternative 2 would exceed the construction threshold of significance for NO_x, operational thresholds of significance for ROG and NO_x, and without implementation of the BMPs for dust management, Alternative 2 could result in a level of emissions that would result in a cumulatively considerable contribution to the existing air quality conditions of the SFBAAB. Therefore, Alternative 2 could conflict with or obstruct implementation of the 2017 Bay Area Clean Air Plan and this impact would be **potentially significant**.

Mitigation Measure: Implement Mitigation Measures 4.2-1a through 4.2-1b

Mitigation Measure 4.2-1a: Implement BAAQMD Basic Best Management Practices for Construction-Related Fugitive Dust Emissions

Mitigation Measure 4.2-1b: Implement Construction Exhaust Emissions Control Measures

Mitigation Measure 4.2-1c: Omit the Inclusion of Natural Gas Infrastructure

Mitigation Measure 4.2-1d: Implement Mitigation Measure 4.12-1, Transportation Demand Management (TDM) Plan

Mitigation Measure 4.2-1e: Incorporate CALGreen Tier 2 Standards for Electric Vehicle Infrastructure into Project Design

Mitigation Measure 4.2-1f: Electrification of Yard Equipment

Mitigation Measure 4.2-1g: Electrification of Transportation Refrigeration Units

Mitigation Measure 4.2-1h: Prohibition of Truck Idling for More than Two Minutes

Mitigation Measure 4.2-1i: Limitation of Model Year of Visiting Trucks

Mitigation Measure 4.2-1j: Diesel Backup Generator and Fire Pump Specifications

Significance after Mitigation

As with the proposed Project, implementation of Mitigation Measures 4.2-1a and 1b would reduce Alternative 2 *construction*-related emissions to less than the BAAQMD significance threshold, thereby ensuring compliance with BAAQMD recommended fugitive dust control measures and ensuring that Alternative 2 construction would not conflict with or obstruct implementation of the 2017 Bay Area Clean Air Plan. In addition, implementation of Mitigation Measures 4.2-1c through 4.2-1j would reduce Alternative 2 *operational* emissions. As detailed in Impact 6.5.2-2, these mitigation measures would reduce operational emissions of ROG and NO_x to below the BAAQMD thresholds, and Alternative 2 operations would not conflict with or obstruct implementation of the 2017 Bay Area Clean Air Plan. Therefore, this impact for Alternative 2 would be **less than significant with mitigation**. This impact conclusion is the **reduced** compared to the proposed Project (Impact 4.2-1)

Impact 6.5.2-2. Result in a cumulatively considerable net increase of any criteria pollutant for which the region is in nonattainment under an applicable federal or state ambient air quality standard. This impact would be potentially significant.

As shown in Table 6.5-1, construction-related emissions associated with Alternative 2 would exceed the average daily thresholds of significance for NO_x emissions in the initial year of construction (2024). The BAAQMD does not have quantitative mass emissions thresholds for fugitive PM₁₀ and PM_{2.5} fugitive dust. Instead, the BAAQMD recommends that all projects, regardless of the level of average daily emissions, implement applicable best management practices (BMPs), including those listed as Basic Best Management Practices for Construction-Related Fugitive Dust Emissions in the BAAQMD CEQA Air Quality Guidelines (BAAQMD 2023) in order to minimize fugitive dust in alignment with the regional plans for PM reduction. Fugitive dust emissions are considered to be significant unless Alternative 2 implements the BAAQMD's BMPs for fugitive dust control during construction. Because construction-related exhaust emissions would exceed the significance threshold for NO_x and without implementation of the BAAQMD Basic Construction Measures, Alternative 2 could result in a cumulatively considerable net increase of criteria pollutants for which the region is non-attainment under an applicable federal or state ambient air quality standard. Construction-related impacts from Alternative 2 would therefore be **potentially significant**.

Table 6.5-1. Annual and Average Daily and Annual Criteria Air Pollutant Construction Emissions

Year/Description	ROG	NO _x	PM ₁₀ (Exhaust)	PM _{2.5} (Exhaust)
2024 Total Emissions (tons)	2.62	5.6	0.45	0.22
2024 Average Daily Emissions (pounds per day) ¹	19.98	42.73	3.42	1.70
2025 Total Emissions (tons)	0.20	1.53	0.27	0.05
2025 Average Daily Emissions (pounds per day) ¹	3.09	23.68	4.23	0.82
Threshold of Significance (pounds per day)	54	54	82	54
Exceeds Threshold?	No	No	No	No

Source: Modeled by AECOM in 2023. See Appendix B for detailed modelling assumptions, outputs, and results.

Notes: NO_x = nitrogen oxides; PM₁₀ = particulate matter less than 10 microns in diameter; PM_{2.5} = particulate matter less than 2.5 microns in diameter; ROG = reactive organic gases.

¹ Average daily emission estimates calculated based on the approximate construction workdays in 2024 and 2025, which is assumed to be 262 days and 129 days, respectively.

Operation

As with the proposed Project, after construction, long-term emissions of criteria air pollutants would be generated from energy, area, stationary, and mobile sources during operation of Alternative 2. Area sources would include

emissions from use of consumer products, periodic architectural coatings, and landscape equipment. Energy sources are associated with water or space heating and cooling. Mobile sources would involve vehicle trips associated with employee commute trips and visiting trucks, including Transport Refrigeration Units (TRUs) associated with visiting trucks. Stationary source emissions would be associated with the emergency generator and fire pumps at each building. Emergency generators were assumed to operate 100 hours per year based on the maintenance and testing limits per BAAQMD regulations. Additional modeling details are provided in Appendix B.

As shown in Table 6.5-2, the total and net increase in operational emissions generated by Alternative 2 would exceed the BAAQMD daily and annual thresholds for ROG and NO_x before mitigation.

Table 6.5-2. Annual and Average Daily Criteria Air Pollutant Operational Emissions

Description	ROG	NO _x	PM ₁₀	PM _{2.5}
Annual Emissions (tons)	<u>14.77</u>	<u>21.65</u>	2.22	0.94
Threshold of Significance (tons/year)	10	10	15	10
Exceeds Threshold?	Yes	Yes	No	No
Average Daily Emissions (pounds per day) ¹	<u>80.95</u>	<u>118.65</u>	12.14	5.17
Threshold of Significance (pounds per day)	54	54	82	54
Exceeds Threshold?	Yes	Yes	No	No

Source: Estimated by AECOM in 2023. See Appendix B for detailed modelling assumptions, outputs, and results.

Notes: NO_x = oxides of nitrogen; PM₁₀ = particulate matter less than 10 microns in diameter; PM_{2.5} = particulate matter less than 2.5 microns in diameter; ROG = reactive organic gases.

¹ Average daily emission estimates are based on the annual operational emissions divided by 365 days.

Because operational emissions from Alternative 2 would exceed the BAAQMD daily and annual thresholds, Alternative 2 could not result in a cumulatively considerable net increase of a criteria pollutant for which the region is in nonattainment under an applicable federal or state ambient air quality standards. Therefore, operational activities associated with Alternative 2 would be **potentially significant**.

Mitigation Measures

Construction:

Implement Mitigation Measure 4.2-1a.

Operations:

Implement Mitigation Measures 4.2-1c through 4.2-1j.

Significance after Mitigation

Implementation of Mitigation Measure 4.2-1a would ensure that Alternative 2 construction would incorporate measures to minimize fugitive dust from construction activities and ensure that Alternative 2 construction would not result in a cumulatively considerable net increase of criteria pollutants for which the region is non-attainment under an applicable federal or state ambient air quality standard.

Implementation of Mitigation Measures 4.2-1c through 4.2-1j would reduce energy, area, and mobile source operational emissions associated with Alternative 2. As shown in Table 6.5-3, these mitigation measures would reduce operational emissions of ROG and NO_x to below the BAAQMD thresholds and Alternative 2 operations would not result in a cumulatively considerable net increase of criteria pollutants for which the region is non-attainment under an applicable federal or state ambient air quality standard and this impact would be **less than significant with mitigation**. This impact conclusion is the **reduced** compared to the proposed Project (Impact 4.2-2)

Table 6.5-3. Mitigated Annual and Average Daily Criteria Air Pollutant Operational Emissions

Description	ROG	NO _x	PM ₁₀	PM _{2.5}
Annual Emissions (tons)	5.50	9.30	1.89	0.64
Threshold of Significance (tons/year)	10	10	15	10
Exceeds Threshold?	No	No	No	No
Average Daily Emissions (pounds per day) ¹	30.13	50.94	10.36	3.49
Threshold of Significance (pounds per day)	54	54	82	54
Exceeds Threshold?	No	No	No	No

Source: Estimated by AECOM in 2023. See Appendix B for detailed modelling assumptions, outputs, and results.

Notes: NO_x = oxides of nitrogen; PM₁₀ = particulate matter less than 10 microns in diameter; PM_{2.5} = particulate matter less than 2.5 microns in diameter; ROG = reactive organic gases.

¹ Average daily emission estimates are based on the annual operational emissions divided by 365 days.

Impact 6.5.2-3. Expose sensitive receptors to substantial pollutant concentrations. *This impact would be potentially significant.*

Construction

Alternative 2 reduces both the land area affected by development and the level of off-site improvements required compared to the proposed Project. The reduced footprint and reduction in necessary off-site improvements would reduce construction emissions but also shift the location of emissions for Alternative 2 compared to the proposed Project. As discussed in Appendix B of this EIR, the impacts associated with construction-related activities for Alternative 2 were quantitatively assessed. Maximum excess cancer risk for residential and worker during 2.6 years of construction were 1.15 and 0.24 per one million, respectively. The maximum annual PM_{2.5} impacts for construction were 0.105 µg/m³ and 0.463 µg/m³ for residential and worker sensitive receptors, respectively; therefore, annual PM_{2.5} impacts would exceed the health impact threshold and the construction-related impacts related to exposure of sensitive receptors to substantial pollutant concentrations from Alternative 2 would be **potentially significant**.

The same mitigation measures required for the proposed Project would also be required for Alternative 2. With the implementation of mitigation measures, construction of Alternative 2 would be reduced to **less than significant with mitigation**, which is the **same** as the proposed Project.

Operations

Alternative 2 involves a reduced footprint for developed area compared to the proposed Project and also reduces the number of buildings and their locations, modifies the on-site on-road vehicle circulation, and reduces the number of offroad equipment (i.e., generators, fire water pumps, forklifts, TRU idling). The subsequent reduced

warehouse and logistics space would decrease the number of employees and truck traffic thus decreasing the toxic air contaminant emissions from trucks and worker trips. As discussed in Appendix B of this EIR, the impacts associated with operations for Alternative 2 were quantitatively assessed. The maximum annual PM_{2.5} impacts were 0.052 µg/m³ and 0.184 µg/m³ for residential and worker sensitive receptors, respectively. Maximum excess cancer risk for residential (30-year exposure period) and worker (25-year exposure period) were 44.03 and 59.05 per one million, respectively. As a result, excess cancer risk impacts exceed the health impact threshold. Therefore, the operation-related impacts related to exposure of sensitive receptors to substantial pollutant concentrations from Alternative 2 would be **potentially significant**.

The same mitigation measures required for the proposed Project would also be required for Alternative 2. With the implementation of mitigation measures, the operation of Alternative 2 would be reduced to **less than significant with mitigation**, which is the **same** as the proposed Project.

Impact 6.5.2-4. Conflict with or Obstruct Implementation of the Applicable Air Quality Plan. *This impact would be potentially significant.*

Construction

During Alternative 2-related construction activities, construction equipment exhaust, application of asphalt, and architectural coatings may temporarily generate odors. Alternative 2 would use typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. The BAAQMD does not identify construction sites as containing activities that would generate objectionable odors. Additionally, odors would be confined to the immediate vicinity of the construction equipment and construction activities that would generate other emissions, such as those leading to odors, would be intermittent in nature (i.e., the duration of these activities would not be continuous for an extended period of time). In addition, odor concentrations in the air decline with increasing distance. Furthermore, nuisance odors are regulated under the BAAQMD's Regulation 7, Odorous Substances, which requires abatement of any nuisance generating an odor complaint. Regulation 7 places general limitations on odorous substances, and specific emission limitations on certain odorous compounds. Therefore, Alternative 2 construction would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people and impacts during construction would be **less than significant** under Alternative 2. This impact is the **same** as under the proposed Project (Impact 4.2-4)

Operation

Alternative 2 would add new logistics and warehousing uses on the Alternative 2 site, including the use of diesel-powered trucks, TRUs, and on-site equipment. The type of facilities that are considered to result in other emissions such as those leading to objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food processing facilities (BAAQMD 2017a). Thus, Alternative 2 land uses are not typical odor-generating facilities. Therefore, Alternative 2 would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. This impact would be **less than significant** under Alternative 2. This impact is the **same** as under the proposed Project (Impact 4.2-4)

ALTERNATIVE 3: REDUCE CRITERIA AIR POLLUTANT AND GHG EMISSIONS AND TRANSPORTATION-RELATED ENERGY CONSUMPTION

The amount of overall development would be reduced under Alternative 3, when compared with the proposed Project. Alternative 3 would reduce construction and construction-related emissions when compared with the proposed Project. Alternative 3 would develop approximately 46 acres of land area compared to approximately 93 acres under the proposed Project, plus off-site improvement areas. Construction-related emissions would be reduced by approximately 50 percent under Alternative 3 compared to the proposed Project. As with the proposed Project, Alternative 3 would involve toxic air contaminant emissions near existing employees of businesses located near the site. The potentially significant effects associated with these emissions concentrations would be reduced to a less-than-significant level through the use of newer and cleaner emitting equipment under Alternative 3.

With the reduction in square footage of building space and area devoted to landscaping under Alternative 3, emissions associated with landscape maintenance equipment, natural gas use, and electricity generation would be reduced compared to the proposed Project.

Under Alternative 3, instead of providing only warehousing and logistics space as under the proposed Project, the site would also provide office space. The office space offered under Alternative 3 with the intent of providing an employment setting that could attract users that could provide jobs for the local residential population, potentially replacing current longer distance commutes with shorter commutes to the Alternative 3 site. As noted in Section 6.4.3 above, there is a gap in local employment for sectors that typically use professional office space, but there is also a local gap in jobs in transportation and warehousing, so Alternative 3 includes this use, as well, but in a reduced amount compared with the proposed Project.

Approximately 7 percent of Suisun City residents commute to Vacaville, producing two-way commuting daily vehicle miles traveled (VMT) of approximately 16,000, assuming only a trip to and from the office and no other trips to lunch, etc. Approximately 5 percent of Suisun City residents commute to San Francisco producing two-way commuting daily VMT of approximately 49,000; 4 percent to Vallejo producing two-way commuting daily VMT of approximately 15,000; 3 percent to Napa producing two-way commuting daily VMT of approximately 13,000; 3 percent to Benicia producing two-way commuting daily VMT of approximately 12,000; 3 percent to Oakland producing two-way commuting daily VMT of approximately 25,000; 3 percent to Concord producing two-way commuting daily VMT of approximately 16,000; and 2 percent to Sacramento producing two-way commuting daily VMT of approximately 17,000. The two-way weighted average travel distance for Suisun City residents is approximately 33 miles (U.S. Census Bureau 2020). If 33 percent of the 1,100 jobs in office settings included as a part of Alternative 3 could be filled by local residents, this would have the potential to decrease commute-related VMT and associated criteria air pollutant emissions by approximately 30 percent, assuming single-occupant vehicular trips only. If the office uses developed on-site as a part of Alternative 3 would attract customers, the mobile source emissions could increase or decrease depending on the transportation efficiency of customer trips that are being replaced by on-site uses under Alternative 3. While Alternative 3 could produce efficiencies in travel, based on the relatively higher trip generation rate for office uses compared with warehousing and logistics uses, the number of daily trips would increase in comparison to the proposed Project – by approximately 30 percent. However, since the average trip distance would be reduced under Alternative 3, the total criteria air pollutant emissions from mobile sources under Alternative 3 would be reduced compared to the proposed Project.

Alternative 3 would also include warehousing and logistics uses but would reduce the square footage associated with such uses by approximately 84 percent compared with the proposed Project. Therefore, criteria air pollutant emissions and toxic air contaminants associated with truck trips would be reduced in comparison to the proposed Project.

Overall, air quality impacts under Alternative 3 would be **reduced** compared with the proposed Project.

6.5.3 BIOLOGICAL RESOURCES

The same general environmental setting and regulatory setting described in Section 4.3, “Biological Resources,” apply to all three alternatives, except for a slightly reduced development area for the Alternative 1 site (73 acres) and a greatly reduced development area for both the Alternative 2 site (51 acres) and Alternative 3 site (46 acres) when compared to the 93-acre proposed Project Development Area.

In addition, compared to the proposed Project, Alternatives 1, 2 or 3 would not impact perennial brackish marsh habitat as a result of construction of a stormwater drainage culvert which is included in the proposed Project.

As with the proposed Project, the alternatives impact analyses will not further analyze the respective alternative against thresholds of significance for which no significant impacts have been identified based on technical studies conducted within and in the vicinity of the proposed Project Site/Alternatives sites (HBG 2006; HBG 2021; Vollmar 2006; Helm 2021; AWE 2006). Therefore, the following issues are not discussed further in the Biological Resources Alternative impact analysis for the same reasons as described in Section 4.3:

- ▶ Monarch Butterfly
- ▶ Delta Green Ground Beetle
- ▶ California Tiger Salamander & Critical Habitat, Central Population
- ▶ Western Spadefoot Toad
- ▶ Special Status Vernal Pool Crustaceans
- ▶ Critical Habitat for Suisun Thistle

In addition, the alternatives impact analyses also will not further analyze potential impacts to the Suisun Marsh Aster because the development areas for all three alternatives have been reduced compared to the proposed Project such that they no longer overlap potential habitat for this species and no occurrences of this species are within 100 feet from proposed ground disturbances, including proposed wetland mitigation establishment areas (except under Alternative 1, where there would be no wetlands mitigation establishment areas).

ALTERNATIVE 1: NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

In the context of biological resources, while the habitat and species impacts would be similar to those described in Section 4.3, implementation of the Alternative 1 project would be **reduced** compared to the proposed Project due to the reduced area of impact (73 acres versus 93 acres).

The following summarizes the key differences in potential impacts between Alternative 1 and the proposed Project:

- ▶ Alternative 1 would not impact potential upland refugia habitat as a result of construction within the Development Area.

- ▶ Alternative 1 would not result in direct or indirect impacts on perennial marsh or associated species from construction of the Development Area.
- ▶ Alternative 1 would not impact Suisun Marsh aster.

ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE

The description of biological resources information and analysis presented in this section is based primarily on the Reduced Footprint Alternative Impacts and Mitigation Measures memo (dated May 9, 2023) prepared by HBG (Appendix D), from which data were verified by AECOM; in some cases, acreages were re-calculated to support the analysis in this document.

Impact 6.5.3-1. Contra Costa Goldfields & Critical Habitat. *This impact would be potentially significant.*

Development of Alternative 2 would directly impact an estimated 51 individual Contra Costa goldfields plants over an approximately 0.016-acre area of occupied habitat for Contra Costa goldfields, would directly impact 5.16 acres of unoccupied marginal habitat for Contra Costa goldfields, and may indirectly impact occupied Contra Costa goldfields habitat in proposed Managed Open Space as a result of mitigation wetland grading. Construction activities could also harm individuals by spreading non-native invasive plant species already present in the area or introducing new species via unwashed construction vehicles and equipment. Alternative 2 would also impact 51.83 acres of the 737-acre Critical Habitat Subunit 5G. These impacts would be **potentially significant**.

The following mitigation measures applicable to the proposed Project would also be applicable to Alternative 2, albeit adjusted accordingly for the reduced levels of impact on this species.

Mitigation Measure 4.3-1a: Establish New Contra Costa goldfields Habitat and Populations

Mitigation Measure 4.3-1b: Establish and Manage 5.16 Acres of Wetland Habitat

Mitigation Measure 4.3-1c: Preserve and Manage Contra Costa goldfields Habitat

Mitigation Measure 4.3-1d: Install Construction Fencing

Mitigation Measures 4.3-1e Limit Introduction and Spread of Invasive Species

Significance after Mitigation

Implementation of these mitigation measures would offset permanent impacts to occupied Contra Costa goldfields habitat and would ensure that Contra Costa goldfields occupied habitat, which supports 99 percent of the Contra Costa goldfields within the Alternative 2 site, is preserved and managed for Contra Costa goldfields in perpetuity. The measures described above would ensure no-net loss of potential Contra Costa goldfields habitat area, Contra Costa goldfields Critical Habitat, or threat to the recovery of Contra Costa goldfields. This mitigation would reduce potential impacts to Contra Costa goldfields to a **less-than-significant** level under Alternative 2. This impact conclusion is the same as the proposed Project (Impact 4.3-1); however, because Alternative 2 would involve less area of impact, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.3-2. Alkali Milk-Vetch. *This impact would be potentially significant.*

Development of Alternative 2 would directly impact an estimated 6 individual alkali milk-vetch plants over an approximately 0.007-acre area, and 5.17 acres of seasonally saturated annual grassland habitat suitable to support alkali milk-vetch, and may indirectly affect occupied alkali milk-vetch habitat in the proposed Managed Open Space area as a result of mitigation wetland grading. Construction activities could also harm individuals by spreading non-native invasive plant species already present in the area or introducing new species via unwashed construction vehicles and equipment. Alternative 2 would result in generally **similar** impacts to alkali milk-vetch as described in Section 4.3 for the proposed Project, but to a reduced extent.

The following mitigation measures applicable to the proposed Project would also be applicable to Alternative 2, albeit adjusted accordingly for the reduced levels of impact on this species.

Mitigation Measure 4.3-1e. Limit Introduction and Spread of Invasive Species

Mitigation Measure 4.3-2a: Preserve and Establish Alkali Milk-Vetch Habitat

Mitigation Measure 4.3-2b: Install Construction Fencing

Significance after Mitigation

Implementation of Mitigation Measures 4.3-2a and 4.3-2b would avoid and offset permanent impacts to occupied alkali milk-vetch habitat and ensure there is no-net loss of potential alkali milk-vetch habitat and avoid indirect impacts during mitigation wetland grading. Implementation of Mitigation Measure 4.3-1e would avoid the introduction and spread of invasive plant species. These mitigation measures would reduce potential impacts to alkali milk-vetch under Alternative 2 to a **less-than-significant** level. This impact conclusion is the same as the proposed Project (Impact 4.3-2); however, because Alternative 2 would involve less area of impact, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.3-3. Saline Clover. *This impact would be potentially significant.*

Development of Alternative 2 would directly impact an estimated 141 individual saline clover plants over a 0.37-acre area, would directly impact 0.30 acres of vernal pool habitat and 5.17 acres of seasonally saturated annual grassland habitat suitable to support saline clover, and may indirectly affect occupied saline clover habitat in the proposed Managed Open Space area as a result of mitigation wetland grading. Construction activities could also harm individuals by spreading non-native invasive plant species already present in the area or introducing new species via unwashed construction vehicles and equipment. These impacts would be **potentially significant**.

The following mitigation measures applicable to the proposed Project would also be applicable to Alternative 2, albeit adjusted accordingly for the reduced levels of impact on this species.

Mitigation Measure 4.3-1e. Limit Introduction and Spread of Invasive Species

Mitigation Measure 4.3-3a: Preserve and Establish Saline Clover Habitat

Mitigation Measure 4.3-3b: Install Construction Fencing

Significance after Mitigation

Implementation of Mitigation Measures 4.3-3a and 4.3-3b would avoid and offset permanent impacts to occupied saline clover habitat and ensure there is no-net loss of potential saline clover habitat and avoid indirect impacts during mitigation wetland grading. Implementation of Mitigation Measure 4.3-1-e would avoid the introduction and spread of invasive plant species. These mitigation measures would reduce potential impacts to saline clover to a **less-than-significant** level under Alternative 2. This impact conclusion is the same as the proposed Project (Impact 4.3-3); however, because Alternative 2 would involve less area of impact, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.3-4. Long-styled sand-spurrey plants. *This impact would be potentially significant.*

Development of Alternative 2 would directly impact 0.30 acres of vernal pool habitat and 5.17 acres of seasonally saturated annual grassland habitat suitable to support long-styled sand spurrey. This impact would be **potentially significant**.

The following mitigation measures applicable to the proposed Project would also be applicable to Alternative 2, albeit adjusted accordingly for the reduced levels of impact on foraging habitat for this species.

Mitigation Measure 4.4-1e. Limit Introduction and Spread of Invasive Species

Mitigation Measure 4.3-5a: Preserve and Establish Long-Styled Sand-Spurrey Habitat

Mitigation Measure 4.3-5b: Install Construction Fencing

Significance after Mitigation

These mitigation measures would offset and avoid permanent impacts to occupied long-styled sand-spurrey habitat and would ensure there is no-net loss of potential habitat for the species. Mitigation Measure 4.4-1e would avoid the introduction and spread of invasive plant species. These mitigation measures would therefore reduce potential impacts to long-styled sand-spurrey to **less than significant** under Alternative 2. This impact conclusion is the same as the proposed Project (Impact 4.3-5); however, because Alternative 2 would involve a reduced extent of development, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.3-5. Crotch Bumble Bee. *This impact would be potentially significant.*

For the same reasons described for the proposed Project in Section 4.3, this species is unlikely to occur in the Alternative 2 site; however, it is unknown whether the species could establish nests or overwintering sites in upland areas. Ground disturbing construction (including for construction of mitigation wetlands and enhanced upland refugia as mitigation within the proposed Managed Open Space area) could destroy nesting colonies or

overwintering queens, if present in rodent burrows or in other ground surface features in upland areas of the Alternative 2 site.

Furthermore, development of Alternative 2 would directly impact 0.30 acres of vernal pool habitat and 5.17 acres of seasonally saturated annual grassland habitat, which could reduce available floral food resources for this species within the Alternative 2 site. This impact would be **potentially significant**.

The following mitigation measures applicable to the proposed Project would also be applicable to Alternative 2, albeit adjusted accordingly for the reduced levels of impact on foraging habitat for this species.

Mitigation Measure 4.3-6: Avoid, Minimize, and Mitigate for Impacts on Crotch Bumble Bee

Significance after Mitigation

Mitigation Measure 4.3-6 would avoid and offset the loss of potential nest sites and provide appropriate native flower resources that would support this species throughout the flight period and promote development of queens (i.e., perennial plants) in the proposed Managed Open Space area, and/or reduce the use of harmful pesticides within the proposed Managed Open Space area. This mitigation would therefore reduce potential impacts to the Crotch bumble bee to **less than significant** under Alternative 2. This impact conclusion is the same as for the proposed Project (Impact 4.3-6); however, because Alternative 2 would involve a reduced extent of development, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.3-6. Northern Harrier and Short-Eared Owl. *This impact would be potentially significant.*

Grading or vegetation removal associated with construction of Alternative 2, including for development or for the creation of mitigation wetlands within the proposed Managed Open Space area, could result in disruption of northern harrier or short-eared owl nesting or the potential loss of an active nest. This impact would be **potentially significant**.

The following mitigation measures applicable to the proposed Project would also be applicable to Alternative 2.

Mitigation Measure 4.3-7a: Preconstruction Nesting Survey

Mitigation Measure 4.3-7b: Implement Non-Disturbance Buffers

Significance after Mitigation

Implementation of these mitigation measures would avoid disturbing a northern harrier or short-eared owl active nest, thus reducing potential impacts to **less than significant** under Alternative 2. This impact conclusion is the same as for the proposed Project (Impact 4.3-7); however, because Alternative 2 would involve less area of impact, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.3-7. Swainson's Hawk. *This impact would be potentially significant.*

Alternative 2 construction would result in the loss of 51.83 acres of Swainson's hawk foraging habitat. Construction activities associated with Alternative 2 could disturb nesting Swainson's hawk if individuals of this species were found to be nesting within one-half mile of construction activities. Therefore, this impact would be **potentially significant**.

The following mitigation measures applicable to the proposed Project shall also be applicable to Alternative 2, albeit adjusted accordingly for the reduced levels of impact on foraging habitat for this species.

Mitigation Measure 4.3-8a: Preserve Swainson’s Hawk Foraging Habitat

Mitigation Measure 4.3-8b: Preconstruction Nesting Surveys

Mitigation Measure 4.3-8c: Implement Nest Buffer

Significance after Mitigation

Implementation of these mitigation measures would compensate for the loss of Swainson’s hawk foraging habitat and would avoid adverse effects on Swainson’s hawks nesting near the Alternative 2 site. These measures would reduce potential impacts on Swainson’s hawks to **less than significant** under Alternative 2. This impact conclusion is the same as the proposed Project (Impact 4.3-8); however, because Alternative 2 would involve a reduced extent of development, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.3-8. Burrowing Owl. *This impact would be potentially significant.*

Construction activities associated with Alternative 2, including for development or for creation of mitigation wetlands within the proposed Managed Open Space area, could impact burrowing owls if found to be present in or near areas of construction. The impact would be **potentially significant**.

The following mitigation measures applicable to the proposed Project would also be applicable to Alternative 2.

Mitigation Measure 4.3-9a: Preconstruction Burrowing Owl Nesting Survey

Mitigation Measure 4.3-9b: Avoid Impacts to Occupied Burrows

Significance after Mitigation

Implementation of these mitigation measures would avoid disturbing an active burrowing owl nest and avoid harming a burrowing owl during the nonbreeding season. These measures would reduce potential impacts to burrowing owls to **less than significant** under Alternative 2. This impact conclusion is the same as the proposed Project (Impact 4.3-9); however, because Alternative 2 would involve less area of impact, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.3-9. California Black Rail. *This impact would be potentially significant.*

Construction activity associated with creation of mitigation wetlands in the proposed Managed Open Space area of the Alternative 2 site could result in impacts to nesting California black rail if construction near marsh areas was to take place during the California black rail nesting season and nesting rails were present. This impact would be **potentially significant**.

Mitigation Measure 4.3-10: Preconstruction Nesting Surveys

Significance after Mitigation

Implementation of this mitigation measure would avoid disturbance of nesting California black rail, thus reducing potential impacts to **less than significant** under Alternative 2. This impact conclusion is the **same** as the proposed Project (Impact 4.3-10); however, because the area of mitigation wetland creation under Alternative 2 would be reduced compared to the proposed Project, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.3-10. Loggerhead Shrike, Suisun Song Sparrow, Grasshopper Sparrow, Tricolored Blackbird. *This impact would be potentially significant.*

Grading or vegetation removal associated with construction of Alternative 2, including for development or for creation of mitigation wetlands within proposed Managed Open Space area, could result in disruption of the nesting cycle of any of several special status bird species (loggerhead shrike, Suisun song sparrow, grasshopper sparrow, or a tricolored blackbird nesting colony) if active nests of any of these species are present. This impact would be **potentially significant**.

The following mitigation measures applicable to the proposed Project would also be applicable to Alternative 2.

Mitigation Measure 4.3-11: Preconstruction Nesting Surveys

Significance after Mitigation

Implementation of this mitigation measure would avoid disturbing a nesting loggerhead shrike, Suisun song sparrow, grasshopper sparrow, or a tricolored blackbird nesting colony, thus reducing potential impacts to a level considered **less than significant** under Alternative 2. This impact conclusion is the same as the proposed Project (Impact 4.3-11); however, because Alternative 2 would involve less area of impact, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.3-11. Construction Impacts on Salt Marsh Harvest Mouse and Suisun Shrew. *This impact would be potentially significant.*

Potential for direct construction impacts to a wandering salt marsh harvest mouse or Suisun shrew would not be expected within the area affected by development under Alternative 2 because the area affected by development under Alternative 2 is not adjacent to perennial marsh habitat for this species; however, such direct construction impacts could still result from grading to establish mitigation wetlands in the southern portion of the proposed Managed Open Space area, especially during extreme high tides. Similarly, no direct or indirect impact from operations within the area affected by development under Alternative 2 would be expected, again because the area affected by development under Alternative 2 does not occur adjacent to perennial marsh habitat for this species; however, operational activities could have indirect impacts due to increased food availability associated with development, which could attract and support predators, and introduction of truck and other vehicle traffic and pedestrian activities and nighttime lighting that could result in noise and other disturbances that could affect salt marsh harvest mouse, Suisun shrew and other wildlife species in the adjacent habitats within the proposed Managed Open Space area. Therefore, direct and indirect impacts to salt marsh harvest mouse or Suisun shrew

may occur as a result of construction or operation of Alternative 2; these impacts would be **potentially significant**.

The following mitigation measures applicable to the proposed Project would also be applicable to Alternative 2.

Mitigation Measure 4.3-12a: Worker Environmental Awareness Training

Mitigation Measure 4.3-12b: Work Scheduling Restrictions

Mitigation Measure 4.3-12c: Vegetation Removal and Installation of Exclusion Fencing

Mitigation Measure 4.3-12d: Biological Construction Monitoring

Significance after Mitigation

Implementation of Mitigation Measures 4.3-12a through 4.3-12d would prevent direct impacts on salt marsh harvest mouse and Suisun shrew during construction by excluding these species (if present) from the construction footprint in areas adjacent to suitable habitat and requiring biological monitoring during work adjacent to suitable habitat to ensure impacts to this species do not occur. Collectively these mitigation measures would reduce the potential for direct impacts on these two species to **less than significant** under Alternative 2. Alternative 2 would result in **similar impacts** to salt marsh harvest mouse and Suisun shrew as described in Section 4.3 for the proposed Project (Impact 4.3-12), albeit over a reduced spatial and temporal extent.

Impact 6.5.3-12. Loss of Upland Refugia. *This impact would be potentially significant.*

Construction of Alternative 2 would permanently develop 5.61 acres of upland annual grassland and would convert 38 acres of upland annual grassland to seasonal wetlands in areas adjacent to wetlands within the proposed Managed Open Space area.

Alternative 2 would result in similar impacts on upland refugia habitat as described in Section 4.3 for the proposed Project, but over a reduced extent. Alternative 2 would not result in a loss of upland refugia habitat within the area affected by development under Alternative 2 because the area affected by development under Alternative 2 does not border areas of perennial marsh habitat. However, construction of mitigation wetlands as part of Alternative 2 would convert 5.61 acres of upland annual grassland, that could serve as upland refugia, to seasonal wetlands within the proposed Managed Open Space area. This habitat conversion could result in indirect impacts to wildlife which rely on upland refugia habitat adjacent to tidal marsh. This habitat loss and conversion could result in potential indirect impacts to salt marsh harvest mouse, the Suisun shrew, and other wildlife that rely on upland refugia habitat adjacent to the tidal marsh during high tide events. This impact would be **potentially significant**.

The following mitigation measures applicable to the proposed Project would also be applicable to Alternative 2, albeit adjusted accordingly to the reduced impact level of Alternative 2.

Mitigation Measure 4.3-13: Create Upland Refugia in Managed Wetland

Significance after Mitigation

Implementation of Mitigation Measure 4.3-11a would enhance and provide additional upland refugia in the proposed Managed Open Space area of the Alternative 2 site for salt marsh harvest mouse, Suisun shrew, and any other species that need cover during high tide events and will reduce this potential impact to **less than significant** under Alternative 2. This impact conclusion is the same as the proposed Project (Impact 4.3-13); however, because Alternative 2 would involve less area of impact, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.3-13. Nesting Birds. *This impact would be potentially significant.*

The removal of vegetation during the February 1 to August 31 breeding season for Alternative 2 could result in mortality of nesting avian species if they are present. Therefore, this impact would be **potentially significant**.

The following mitigation measures applicable to the proposed Project would also be applicable to Alternative 2.

Mitigation Measure 4.3-14a: Preconstruction Nesting Surveys

Mitigation Measure 4.3-14b: Nest Zone Buffers

Significance after Mitigation

Implementation of Mitigation Measures 4.3-14a and 4.3-14b will avoid and minimize potential impacts during construction of Alternative 2 on nesting avian species, thus reducing potential impacts to **less than significant** under Alternative 2. This impact conclusion is the same as the proposed Project (Impact 4.3-14); however, because Alternative 2 would involve less area of impact, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.3-14. Special Status Fish Species. *This impact would be potentially significant.*

Alternative 2 construction activities could result in potential water quality impacts in LedgeWood Creek and other waterways and could adversely affect to special status fish species, if present. This impact would be **potentially significant**.

Alternative 2 would result in similar impacts on special status fish as described in Section 4.3 for the proposed Project, but over a reduced extent.

The following mitigation measures applicable to the proposed Project would also be applicable to Alternative 2.

Mitigation Measure 4.3-15a: Implement SWPPP and BMPs

Significance after Mitigation

Implementation of Mitigation Measure 4.3-15a would avoid and minimize potential indirect impacts of Alternative 2 construction on water quality in LedgeWood Creek and other waterways that could support special status fish populations, thus reducing potential impacts to **less than significant** under Alternative 2. This impact conclusion is the same as the proposed Project (Impact 4.3-15); however, because Alternative 2 would involve

less area of impact, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.3-15. Riparian Habitat. *This impact would be potentially significant.*

Construction activities near the riparian corridor of Ledgewood Creek could reduce the value of the riparian wildlife habitat, disrupt the natural wildlife corridor, and could result in degradation of sensitive habitat areas through increased erosion, sedimentation, spills during vehicle refueling, or disposal of food and trash. The increased noise and disturbance associated with Alternative 2 operation could also adversely affect wildlife in the riparian corridor. These impacts would be **potentially significant**.

The following mitigation measures applicable to the proposed Project would also be applicable to Alternative 2.

Mitigation Measure 4.3-16a: Construction Best Management Practices

Mitigation Measure 4.3-16b: Riparian Corridor Protection Zone

Significance after Mitigation

Mitigation Measure 4.3-16a requires BMPs to avoid direct and indirect impacts to Ledgewood Creek and its riparian habitat. Mitigation Measure 4.3-16b, which requires establishment of a riparian setback from Ledgewood Creek would serve to protect the riparian corridor from operational activities and environmental degradation facilitated by Alternative 2 development. These measures would reduce impacts to **less than significant** under Alternative 2. This impact conclusion is the same as the proposed Project (Impact 4.3-16); however, because Alternative 2 would involve less area of impact, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.3-16. Wetlands. *This impact would be potentially significant.*

Alternative 2 would result in similar impacts on wetlands as described in Section 4.3 for the proposed Project, but over a reduced extent. Furthermore, Alternative 2 would not impact perennial brackish marsh. However, Alternative 2 site grading activities would result in the permanent placement of fill material into 5.17 acres of seasonally saturated annual grassland; 0.30 acre of vernal pools; and 0.14 acre of alkali seasonal wetlands. In addition, grading within the proposed Managed Open Space area to establish/create wetlands may have an indirect adverse effect on the hydrology of adjacent wetlands. These impacts would be **potentially significant**.

The following mitigation measures applicable to the proposed Project would also be applicable to Alternative 2, albeit adjusted accordingly to the reduced impact level of Alternative 2.

Mitigation Measure 4.3-13a: Implement SWPPP and BMPs

Mitigation Measure 4.3-17a: Secure Permits and Implement All Permit Conditions

Mitigation Measure 4.3-17b: Wetland Establishment and Performance Monitoring

Mitigation Measure 4.3-17c: Avoid Impacts to Existing Wetlands in Managed Open Space

Mitigation Measure 4.3-17d: Limit Staging Areas and Access Routes

Mitigation Measure 4.3-17e. Implement Mitigation and Monitoring Plan

Significance after Mitigation

Alternative 2 would protect 437 acres east of Pennsylvania Avenue and south of Cordelia Road; this area would be designated as Managed Open Space and protected in perpetuity with a deed restriction or conservation easement. Approximately three-fourths of this Managed Open Space is currently within the Suisun Marsh Protection Plan jurisdiction. However, the proposed Managed Open Space area provides additional benefits to enhance the quality and diversity of Suisun Marsh wildlife habitats beyond that provided by the Suisun Marsh Protection Plan. The site protection instrument would create new freshwater wetlands and will provide a sanctuary for wildfowl during hunting season by excluding duck hunting, and foster implementation of Suisun Marsh Protection Plan policies and goals such as managing agricultural lands to support waterfowl and enhancements of wildlife habitat. As with the proposed Project, Alternative 2 would create a long-term endowment to provide funding to support regular site inspections, maintenance actions and sustained stewardship to:

- ▶ manage vegetation grazing practices to be compatible with wildlife habitat enhancement and rare plant protections
- ▶ implement invasive plant inspections and undertake remedial actions
- ▶ clean up dump sites and remove trash before it enters waterways
- ▶ prevent damage from homeless encampments
- ▶ maintain fences, gates, and signage

In addition, the proposed Managed Open Space area under Alternative 2 includes approximately 103.14 acres not currently within the Suisun Marsh Plan jurisdiction. This area will be protected as wildlife habitat and provide refuge to wildfowl consistent with the land acquisition recommendations of the Suisun Marsh Protection Plan. The remaining portion of the proposed Managed Open Space area is within the primary and Secondary Management Areas of the Suisun Marsh.

Implementation of the proposed Managed Open Space area in accordance with Mitigation Measures 4.3-17a through 4.3-17e would therefore offset permanent impacts to the 5.17 acres of Seasonally Saturated Annual Grassland; 0.30 acres of Vernal Pools; and 0.14 acres of Alkali Seasonal Wetlands and ensure there is no-net loss

of wetland area under Alternative 2, thus reducing potential impacts to **less than significant** under Alternative 2 and **the same as** the proposed Project.

Impact 6.5.3-17. Conservation and Protection Plan Conflicts. *This impact would be less than significant.*

As with the proposed Project, Alternative 2 would not conflict with existing conservation and protection plans as described in Section 4.3 for the proposed Project. In addition, Alternative 2 would preserve more area as Managed Open Space that would be managed consistent with existing relevant conservation and protection plans.

Because Alternative 2 would not conflict with the provisions of any adopted habitat conservation plan, and because Alternative 2 area occurs within the Primary and Secondary Management Areas of the Suisun Marsh Protection Plan and would be managed consistent with the Suisun Marsh Protection Plan’s goals of preserving and enhancing the quality and diversity of Suisun Marsh wildlife habitats, this impact would be **less than significant** under Alternative 2 and **the same as** the Proposed Project.

ALTERNATIVE 3: REDUCE CRITERIA AIR POLLUTANT AND GHG EMISSIONS AND TRANSPORTATION-RELATED ENERGY CONSUMPTION

The same vicinity subject to development and disturbance under Alternative 2 would also be subject to development and disturbance under Alternative 3. In addition, mitigation measures for Alternative 3 would be the same as detailed above under the discussion of Alternative 2. In the context of biological resources, while the habitat and species impacts would be similar to those described in Section 4.3, implementation of the Alternative 3 project would be **reduced** compared to the proposed Project due to the reduced area of impact (46 acres versus 93 acres).

6.5.4 CULTURAL AND TRIBAL CULTURAL RESOURCES

ALTERNATIVE 1: NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

As with the proposed Project, Alternative 1 would also result in no impacts of known historical resources because no historical resources or unique archaeological resources have been identified. The impact would be **the same as** for the proposed Project.

While Alternative 1 would have a smaller area affected by development and reduced building square footage, it would still require new infrastructure that would involve ground disturbing activities. As with the proposed Project, ground disturbing activities could unearth precontact or historic-era archaeological cultural resources. Implementation of Mitigation Measure 4.4-2 would reduce potentially significant impacts to cultural resources from Alternative 1 because evaluation of discovered resources would take place by a qualified archaeologist and appropriate Native American group, if appropriate, before construction would proceed and, if determined necessary, a data recovery plan and appropriate next steps would be developed in coordination with the appropriate federal, state, and/or local agency(ies) and Tribes to avoid, move, record, or otherwise treat discovered cultural resources appropriately, in accordance with pertinent laws and regulations.

Similarly, as with the proposed Project ground disturbing activities that could unearth buried subsurface human remains. Implementation of Mitigation Measure 4.4-3 in compliance with California Health and Safety Code, California Public Resources Code would reduce potential impacts on previously undiscovered human remains. Implementing this mitigation measure provides consultation with the Most Likely Descendant, and ensures that

any potential human remains encountered during construction would be treated in an appropriate manner under CEQA and other applicable laws and regulations.

Ground disturbing activities could also unearth buried subsurface tribal cultural resources. The Yocha Dehe Wintun Nation's Cultural Resources Department stated that after review of the Project, they concluded it is within the aboriginal territories of the Yocha Dehe Wintun Nation, and that they have a cultural interest and authority in the proposed Project area. Based on the information provided, the Tribe has concerns that the proposed Project could impact known cultural resources, and highly recommend including cultural monitors during development and ground disturbance, including Cultural Sensitivity Training prior to all ground disturbance activities. Additionally, they requested that the CEQA document incorporate Yocha Dehe Wintun Nation's Treatment Protocol into the mitigation measures for the proposed Project, provide the Tribe with a copy of the same, and continue to consult with the Tribe.

As with the proposed Project, implementation of Mitigation Measures 4.4-4a through 4.4-4d provided by the Yocha Dehe Wintun Nation's Cultural Resources Department would reduce potentially significant impacts to tribal cultural resources (TCRs) by providing an opportunity to avoid disturbance, disruption, or destruction of TCRs; develop mitigation in coordination with the Tribe to monitor ground-disturbance activities and have the authority request that work be stopped, diverted, or slowed if such TCRs are identified within the direct impact area; provide the Tribe final determination as to the disposition and treatment of human remains and grave goods; providing the Tribe appropriate treatment of cultural items, including ceremonial items and archeological items; and develop mitigation in coordination with the appropriate federal, state, and/or local agency(ies) and Tribes to record and evaluate significant discovered inadvertent cultural resources and TCRs appropriately in accordance with pertinent laws and regulations.

Because Alternative 1 would result in reduced ground disturbance due to the smaller area affected by development, Alternative 1 would result in a **reduced** level of impact on cultural and tribal cultural resources as compared to the proposed Project.

ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE

Impact 4.4-1. Substantial adverse change in the significance of known historical resources. No impact would occur.

There are no known historical resources or known unique archaeological resources within areas that would be affected by Alternative 2 construction. As with the proposed Project, Alternative 2 would also result in **no impact** to known historical resources because no historical resources or unique archaeological resources have been identified. The impact for Alternative 2 would be **the same** as for the proposed Project.

Impact 4.4-2. Substantial adverse change to undiscovered historical resources or unique archeological resources. The impact would be potentially significant.

While Alternative 2 would result in a smaller development area and reduced building square footage, it would still require new infrastructure that would involve ground disturbing activities that could unearth precontact or historic-era archaeological cultural resources. There may be a slight reduction in the potential for discovery of cultural resources under Alternative 2 – for Alternative 2, the depth of excavation for detention ponds would be approximately 7 to 11 feet, while for the proposed Project, the depth of excavation for detention ponds would be 6 to 18 feet. The impact would be **potentially significant**.

Mitigation Measure 4.4-2 Avoid Potential Effects on Cultural Resources

Significance after Mitigation

As with the proposed Project, implementation of Mitigation Measure 4.4-2 would reduce potentially significant impacts to cultural resources from Alternative 2 because mitigation would be developed in coordination with the appropriate federal, state, and/or local agency(ies) and Tribes to avoid, move, record, or otherwise treat discovered cultural resources appropriately, in accordance with pertinent laws and regulations. By providing an opportunity to avoid disturbance, disruption, or destruction of cultural resources under Alternative 2, this impact would be reduced to **less than significant**. Alternative 2 would result in **similar impacts** to undiscovered historical resources or unique archeological resources as described in Section 4.4 for the proposed Project (Impact 4.4-2); however, because Alternative 2 would involve less ground disturbance, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 4.4-3. Disturbance of human remains. *This impact would be potentially significant.*

While Alternative 2 would result in a reduced area affected by development and reduced building square footage, as with the proposed Project, Alternative 2 would still require new infrastructure that would involve ground disturbing activities that could unearth buried subsurface human remains.

Mitigation Measure 4.4-3: Halt Construction if Human Remains are Discovered and Implement Appropriate Actions

Significance after Mitigation

As with the proposed Project, implementation of Mitigation Measure 4.4-3 in compliance with California Health and Safety Code and California Public Resources Code would reduce potential impacts on previously undiscovered human remains. Implementing this mitigation measure ensures that any potential human remains encountered during construction would be treated in an appropriate manner under CEQA and other applicable laws and regulations. By providing consultation with the Most Likely Descendant, this impact under Alternative 2 would be reduced to **less than significant**. Because Alternative 2 would involve less ground disturbance than the proposed Project, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project (Impact 4.4-3).

Impact 4.4-4. Substantial adverse change in the significance of a tribal cultural resources. *This impact would be potentially significant.*

While Alternative 2 would result in a smaller development area and reduced building square footage, it would still require new infrastructure that would involve ground disturbing activities that could unearth buried subsurface tribal cultural resources. The Yocha Dehe Wintun Nation's Cultural Resources Department stated that after review of the proposed Project, they concluded it is within the aboriginal territories of the Yocha Dehe Wintun Nation, and that they have a cultural interest and authority in the proposed Project area. Based on the information provided, the Tribe has concerns that the proposed Project could impact known cultural resources. The same would be true for Alternative 2. The impact would be **potentially significant**.

Mitigation Measure 4.4-4a: Cultural Sensitivity Training and Non-Disclosure of TCRs

Mitigation Measure 4.4-4b: Native American Monitoring

Mitigation Measure 4.4-4c: Treatment of Native American Remains

Mitigation Measure 4.4-4d: Treatment of Cultural Resources

Significance after Mitigation

As with the proposed Project, implementation of Mitigation Measures 4.4-4a through 4.4-4d would reduce potentially significant impacts to tribal cultural resources (TCRs) by providing an opportunity to avoid disturbance, disruption, or destruction of TCRs; develop mitigation in coordination with the Tribe to monitor ground-disturbance activities and have the authority request that work be stopped, diverted, or slowed if such TCRs are identified within the direct impact area; provide the Tribe final determination as to the disposition and treatment of human remains and grave goods; providing the Tribe appropriate treatment of cultural items, including ceremonial items and archeological items; and develop mitigation in coordination with the appropriate federal, state, and/or local agency(ies) and Tribes to record and evaluate significant discovered inadvertent cultural resources and TCRs appropriately in accordance with pertinent laws and regulations. Implementing these mitigation measures under Alternative 2 would reduce impacts to **less than significant**. Because Alternative 2 would involve less ground disturbance than the proposed Project, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project (Impact 4.4-4).

ALTERNATIVE 3: REDUCE CRITERIA AIR POLLUTANT AND GHG EMISSIONS AND TRANSPORTATION-RELATED ENERGY CONSUMPTION

The same locations subject to development and disturbance under Alternative 2 at the same depths would also be subject to development and disturbance under Alternative 3, and so the impacts and required mitigation measures for Alternative 3 would be the same as detailed above under the discussion of Alternative 2.

6.5.5 GEOLOGY, SOILS, MINERALS, AND PALEONTOLOGICAL RESOURCES

ALTERNATIVE 1: NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

Alternative 1 would result in a smaller development area and reduced building square footage. Because fewer buildings would be subject to hazards from strong seismic ground shaking, this impact would be **reduced** under Alternative 1 as compared to the proposed Project.

Because a smaller area would be developed with urban uses, the level of construction-related erosion, sedimentation, and associated degradation of water quality; and the potential impacts from construction in unstable or expansive soils, would also be **reduced** under Alternative 1 as compared to the proposed Project.

ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE

Impact 6.5.7-1. Risks to People and Structures Caused by Strong Seismic Ground Shaking. This impact would be less than significant.

As described in Section 4.7, “Geology, Soils, Minerals, and Paleontological Resources,” in Impact 4.7-1, the Alternative 2 development area and the off-site improvement areas are located in a seismically active area. There is a 72 percent probability of a major, damaging earthquake occurring in the San Francisco Bay Region during the 30-year timeframe of 2013–2043. The Green Valley-Cordelia-Concord Fault System is located approximately 3.2 miles west of the Alternative 2 site and is classified by CGS as active. The Green Valley Fault System (connected) has the potential to generate a M 6.8 earthquake (Mid Pacific Engineering, Inc. [MPE] 2020). The Vaca-Pittsburg-Kirby Hills Fault Zone and the Great Valley Fault Zone Segment 5 are potentially active and are located approximately 5 miles east of the Alternative 2 site. As with the proposed Project, a large magnitude earthquake on any of these faults, or along other active faults such as the West Napa (11 miles west of the Alternative 2 site) or Hayward-Rodgers Creek (22 miles west of the Alternative 2 site), would subject people and structures at the Alternative 2 development area and the off-site improvement areas to risks from strong seismic ground shaking. As with the proposed Project, under Alternative 2 all structures and infrastructure in the development area and the off-site improvement areas must be designed and built according to the requirements of the seismic design parameters specified in the California Building Standards Code (CBC). In addition to the geotechnical report prepared by MPE (2020) for the Alternative 2 site, which covers the same area as the Alternative 2 development area), an additional, more detailed, geotechnical report would be prepared prior to preparation of detailed construction plans and prior to building permit application. Therefore, the potential damage to the proposed development under Alternative 2 from strong seismic ground shaking would be addressed through proper design as determined by a licensed engineer. The Suisun City Planning Department would review the Alternative 2 building permit applications for compliance with the CBC and implementation of recommendations in the geotechnical study to address seismic hazards. Therefore, impacts related to strong seismic ground shaking under Alternative 2 would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.7-1); however, because Alternative 2 would expose fewer buildings and people to hazards from strong seismic ground shaking, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.7-2. Construction-Related Soil Erosion. This impact would be less than significant.

As described in Impact 4.7-2 for the proposed Project, construction activity for Alternative 2 (in the area proposed for development and the off-site improvement areas) would include soil removal, trenching, excavation, pipe and footing installation, grading, and revegetation. No work would be performed in the bed or bank of Ledgewood Creek. Construction activities would result in the temporary disturbance of soil and would expose disturbed areas to winter storm events resulting in stormwater runoff. In addition, soil erosion could occur from summer/fall wind events. However, the Project applicant must comply with the Suisun City Grading, Erosion Control, and Creekside Development Ordinance (Title 15, Chapter 15.12 of the Suisun City Municipal Code). The ordinance requires project applicants to obtain a grading permit, which must include submittal of engineered grading plans and a soils and engineering geology report. The report also must include a suite of Best Management Practices (BMPs) to control runoff and erosion. Furthermore, because Alternative 2 includes construction activities that would disturb more than 1 acre, the Project applicant must obtain a Construction General Permit from the San Francisco Bay Regional Water Quality Control Board (RWQCB) through the National Pollutant Discharge and Elimination System (NPDES) Stormwater Program. The Construction General Permit requires the

implementation of BMPs to reduce sedimentation into surface waters and to control erosion, as well as preparation of a Storm Water Pollution Prevention Plan (SWPPP) that addresses control of water pollution, including sediment, in runoff during construction. Through compliance with these requirements, construction-related water quality impacts related to soil erosion and stormwater runoff under Alternative 2 would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.7-2); however, because Alternative 2 would disturb less soil over a smaller area, the area exposed to construction-related soil erosion would be smaller, and **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.7-3. Potential Damage to Structures and Infrastructure from Construction in Unstable/Expansive Soils. This impact would be less than significant.

The results of soil borings and laboratory analyses that are part of the geotechnical report for the proposed Project (MPE 2020) are also applicable to Alternative 2. As described in Impact 4.7-3 for the proposed Project, MPE (2020) found that seismically-induced settlement, static settlement, and differential settlement would be expected from construction in unstable soils in the proposed Development Area. MPE (2020) also noted that because shallow groundwater is present, excavation during or shortly after the rainy season in the near-surface soils may occur when soil moisture is high enough such that substantial aeration or lime-treatment may be required to dry the soils to moisture content where the specified degree of compaction can be achieved. This situation is likely to be true for the off-site improvements under Alternative 2, as well. In addition, due to the high water table, MPE (2020) noted that groundwater is likely to exert substantial pressure on building slabs. This problem could result in soils-related cracking of the slab-on-grade floors. MPE (2020) found that the soils in the proposed Development Area have a moderate to high expansion potential. Soil expansion, including volume changes during seasonal fluctuations in moisture content, could adversely affect interior slabs-on-grade, landscaping hardscapes, and underground pipelines. However, the geotechnical report (MPE 2020) includes recommendations to address all of these issues, as discussed in detail in Impact 4.7-3.

The Project applicant would be required to implement the measures that are determined by the soils and civil/structural engineering studies to be appropriate for the project under Alternative 2, in accordance with the requirements of the CBC and the City of Suisun City. With adherence to the requirements of the CBC as applicable to the site-specific nature of the soils, and the required permit application and design review for on-site improvements by the City of Suisun City, impacts under Alternative 2 related to construction in unstable/expansive soils would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.7-3); however, because Alternative 2 would expose fewer buildings over a smaller area to hazards from construction in unstable/expansive soils, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Issues Where No Impact Would Occur

For the same reasons discussed in Section 4.7.3, “Environmental Impacts and Mitigation Measures,” under the heading “Issues Not Discussed Further,” the following issues would also result in **no impact** under Alternative 2.

- ▶ Risks to People or Structures Caused by Surface Fault Rupture
- ▶ Risks to People or Structures Caused by Liquefaction
- ▶ Risks to People or Structures Caused by Landslides
- ▶ Soil Suitability for Septic Systems

- ▶ Destruction of a Unique Paleontological Resource or Site
- ▶ Destruction of a Unique Geologic Feature
- ▶ Loss of Mineral Deposits of Statewide or Local Importance

ALTERNATIVE 3: REDUCE CRITERIA AIR POLLUTANT AND GHG EMISSIONS AND TRANSPORTATION-RELATED ENERGY CONSUMPTION

Alternative 3 would result in an approximately 50 percent reduction in the size of the Development Area and would involve construction of only 470,000 square feet of building space as compared to 1.28 million square feet of building space under the proposed Project. Because less new building square footage would be subject to hazards from strong seismic ground shaking, this impact would be reduced under Alternative 3 as compared to the proposed Project. Because a smaller area would be developed with urban uses, the level of construction-related erosion, sedimentation, and associated degradation of water quality; and the potential impacts from construction in unstable or expansive soils, would be **reduced** under Alternative 3 as compared to the proposed Project.

6.5.6 GREENHOUSE GAS EMISSIONS AND ENERGY

ALTERNATIVE 1: NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

Under Alternative 1, there would be a reduced amount of overall construction and construction-related GHG emissions and energy demand. Alternative 1 would develop approximately 73 acres of land area compared to approximately 93 acres under the proposed Project, plus off-site improvement areas. Alternative 1 would reduce temporary, construction-related GHG emissions by approximately 20 percent compared to the proposed Project.

Alternative 1 would also generate long-term operational emissions from motor vehicle trips to and from the site; fuel combustion from landscape maintenance equipment; natural gas combustion emissions from on-site natural gas use; off-site generation of electricity used at the site; and solid waste. Since Alternative 1 would reduce the building square footage and area devoted to landscaping, GHG emissions associated with landscape maintenance equipment, natural gas use, and electricity generation would be reduced compared to the proposed Project. Alternative 1 would involve a mix of commercial service and retail uses instead of the warehousing and logistics uses proposed for the Project, which would increase the number of daily vehicular trips to and from the site, though many of the trips would be expected to be shorter compared to the truck trips attracted to the Project Site under the proposed Project. Even accounting for pass-by trips that could range from 15 to 30 percent of the total, the total mobile source GHG emissions associated with Alternative 1 would be higher than that generated under the proposed Project. Alternative 1 would also reduce the amount of employment provided on the site, and since GHG emissions are evaluated according to their efficiency per employee, Alternative 1 would be less efficient compared to the proposed Project. This is not a retail-poor area where adding commercial uses could help to reduce relatively long existing commercial trips. The site is not surrounded by compact residential development that would make frequent walking and bicycling trips to the commercial uses under Alternative 1 common. While minor sources of GHG emissions such as energy would be reduced compared to the proposed Project, since mobile sources are the most important source of GHG emissions, and since Alternative 1 would be less transportation efficient compared to the proposed Project, the GHG impact associated with Alternative 1 would be **increased** compared to the proposed Project. The same is true of energy – transportation is the largest user of energy, and since transportation demand would be increased under Alternative 1 compared to the proposed Project, overall energy use would be **increased** compared to the proposed Project.

ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE

Impact 6.5.6-1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be cumulatively considerable.

As with the proposed Project, construction and operation of the proposed facilities associated with the logistics Under Alternative 2 would result in GHG emissions. There would be a reduced amount of building square footage and area affected by construction. Alternative 2 would develop approximately 51 acres of land area compared to approximately 93 acres under the proposed Project, plus off-site improvement areas, and construction of wetlands within the Managed Open Space. Temporary construction-related GHG emissions would be reduced by approximately 20 percent under Alternative 2 compared to the proposed Project.

Operational GHG emissions under Alternative 2 would include those associated with vehicular trips; fuel combustion from landscape maintenance equipment; natural gas combustion emissions from on-site natural gas use; off-site generation of electricity used at the site; and solid waste. With the reduction in square footage of building space and area devoted to landscaping, emissions associated with landscape maintenance equipment, natural gas use, and electricity generation would be reduced compared to the proposed Project. With the decrease in square footage, operational capacity, and employment as a part of Alternative 2 compared to the proposed Project, the mass GHG emissions associated with both truck and non-truck trips attracted to the site would be decreased. Since GHG emissions impacts are evaluated according to their efficiency per employee, and since both emissions and employment would be reduced proportionally, the overall GHG efficiency under Alternative 2 would be approximately 34 MT CO₂e per employee, which would exceed the GHG efficiency threshold.

Mitigation Measures 4.6-1a through 1n would apply to Alternative 2 in the same manner as the proposed Project, reduced construction-related and operational emissions. However, the City cannot guarantee the availability of emissions credits meeting the standards outlined in Mitigation Measures 4.6-1m presented in Section 4.6 of this EIR. There is no additional feasible mitigation available. Therefore, with implementation of Mitigation Measures 4.6-1a through 4.6-1n, Alternative 2 construction and operations would be **cumulatively considerable and significant and unavoidable**. This impact conclusion is **the same** as for the proposed Project (Impact 4.6-1).

Impact 6.5.6-2. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation, or conflict with or obstruction of a State or local plan for renewable energy or energy efficiency. This impact would be less than significant.

As with the proposed Project, construction and operation of the proposed facilities associated with the logistics Under Alternative 2 would result in fuel consumption and electricity and natural gas consumption from equipment and vehicle use and building operations. However, there would be a reduced amount of building square footage and area affected by construction, and therefore, construction-related energy use would be reduced compared to the proposed Project. Based on the reduction in building square footage, energy demand would also be **reduced** under Alternative 2 compared to the proposed Project and, for the same reasons as described for the proposed Project (Impact 4.6-2), this impact for Alternative 2 would be **less than significant**.

ALTERNATIVE 3: REDUCE CRITERIA AIR POLLUTANT AND GHG EMISSIONS AND TRANSPORTATION-RELATED ENERGY CONSUMPTION

With the reduced amount of building square footage and area affected by construction, short-term, construction-related emissions and energy demand under Alternative 3 would be reduced when compared with that of the

proposed Project. Alternative 3 would develop approximately 46 acres of land area compared to approximately 93 acres under the proposed Project, plus off-site improvement areas. Construction-related emissions would be reduced by approximately 50 percent under Alternative 3 compared to the proposed Project.

With the reduction in square footage of building space and area devoted to landscaping under Alternative 3, emissions associated with landscape maintenance equipment, natural gas use, and electricity generation and associated GHG emissions would be reduced compared to the proposed Project.

With the office space added under Alternative 3 intended to increase jobs for local residents, commute-related mobile source emissions could be reduced. The two-way weighted average travel distance to work for Suisun City residents is approximately 33 miles (U.S. Census Bureau 2020). If 33 percent of the 1,100 jobs in office settings included as a part of Alternative 3 could be filled by local residents, this would have the potential to decrease commute-related VMT and associated GHG emissions by approximately 30 percent, assuming single-occupant vehicular trips only. This assumes that the office uses developed on-site as a part of Alternative 3 do not attract a significant number of motorist customers. Based on the relatively higher trip generation rate for office uses compared with warehousing and logistics uses, the number of daily trips would increase in comparison to the proposed Project – by approximately 30 percent. However, since the average trip distance would be reduced under Alternative 3, the total GHG emissions and fuel consumption from mobile sources under Alternative 3 would be reduced compared to the proposed Project. Overall, the GHG emissions and Energy impacts under Alternative 3 would be **reduced** compared with the proposed Project.

6.5.7 HAZARDS AND HAZARDOUS RESOURCES

ALTERNATIVE 1: NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

Alternative 1 would result in a smaller development area and reduced building square footage. Thus, under Alternative 1 the potential hazards associated with routine transport, use, or disposal of hazardous materials and the potential for exposure to hazardous materials from upset and accident conditions would be **reduced** as compared to the proposed Project.

Under Alternative 1, new urban development in the northwestern corner of the Alternative 1 site would be subject to similar hazards from the contaminated groundwater plume emanating from 1745 Enterprise Drive north of SR 12 (which extends underneath the Alternative 1 site). Also under Alternative 1, new urban development immediately west of the former landfill, on the west side of Pennsylvania Avenue, would be subject to a similar level of exposure to temporary construction workers or permanent employees to hazards from the former landfill from contaminated soil, groundwater, or off-gassing that could degrade interior air quality as compared to the proposed Project. However, under Alternative 1, there would be no new urban development east of Pennsylvania Avenue. Thus, there would no potential for exposure of temporary construction workers or permanent employees to hazards from contaminated soil, groundwater, or off-gassing that could degrade interior air quality from the former Pennsylvania Avenue landfill from new development immediately to the south. Therefore, the level of impact from potential off-site hazardous materials under Alternative 1 would be **reduced** as compared to the proposed Project.

Under Alternative 1, new urban development would result in the same potential as compared to the proposed Project to hazards from accidental rupture of known underground pipelines, and from the potential to encounter contaminated soil adjacent to the railroad tracks used by the California Northern Railroad. As with the proposed

Project, implementation of Mitigation Measures 4.7-3a and 4.7-3b would reduce the level of these impacts under Alternative 1. Therefore, Alternative 1 would result in a **similar** level of impact as compared to the proposed Project.

As with the proposed Project, the Alternative 1 site and off-site improvement areas are located in the Travis Air Force Base Airport Land Use Compatibility Plan (ALUCP) land use compatibility Zone D, which requires that: (1) structures are limited to a height that is less than 200 feet above the ground surface, and (2) notice of aircraft overflights must be provided to property owners. As with the proposed Project, review of Alternative 1 land use plans by the Solano County Airport Land Use Commission would ensure compatibility with applicable provisions of the ALUCP, and therefore Alternative 1 would result in **similar** impacts related to airport compatibility hazards.

As with the proposed Project, Alternative 1 would not increase aviation-related bird strike hazards because the on-site detention basin that is assumed to be required if the smaller site were developed as a shopping center would be designed to drain quickly (i.e., detention not retention); thus, new waterfowl habitat would not be created. Therefore, Alternative 1 would result in a **similar** level of impact as compared to the proposed Project. Finally, under Alternative 1, because less off-site roadway work would be necessary, the level of impact from temporary construction-related increases in emergency response times from lane closures would be reduced as compared to the proposed Project. As with the proposed Project, implementation of Mitigation Measure 4.7-5 would reduce the level of this impact under Alternative 1. Therefore, Alternative 1 would result in a **reduced** level of impact as compared to the proposed Project.

ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE

Impact 6.5.9-1. Routine Transport, Use, or Disposal of Hazardous Materials. *This impact would be less than significant.*

As with the proposed Project, construction and operation of the proposed facilities associated with the logistics center under Alternative 2, along with the off-site improvements, would involve the routine storage, use, transport, and disposal of hazardous materials such as fuels, oils and lubricants, paints and paint thinners, glues, and cleaning fluids (e.g., solvents). However, as described in detail in Section 4.7.2, “Regulatory Framework,” the same federal, State, and local regulations that require adherence to specific guidelines regarding the use, transportation, and disposal of hazardous materials to prevent accidental releases would also apply to Alternative 2. The construction contractor, along with future industrial and commercial tenants in the logistics center under Alternative 2, are required by law to comply with the provisions of the California Hazardous Materials Regulations and other federal, State, and local regulations and requirements discussed in Section 4.7.2, “Regulatory Framework,” including preparation of a Hazardous Material Business Plan. In addition, Suisun City would enforce its General Plan policies and Municipal Code requirements through project conditions of approval. Therefore, this impact would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.7-1); however, because Alternative 2 would result in a lesser amount of construction and fewer buildings during operation, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.9-2. Exposure to Hazardous Materials from Upset and Accident Conditions. *This impact would be less than significant.*

The planned land uses at the Alternative 2 site under Alternative 2 would be the same as the proposed Project, and would not generate potentially hazardous materials, and would not involve the use, handling or storage of large quantities of hazardous materials. Compliance with federal, state, and regional/local regulations, which are presented in detail in Section 4.7.2, “Regulatory Framework,” would reduce the risk or severity of an accident from construction and operation under Alternative 2. Compliance with these regulations would reduce the risk of accidental hazardous materials release from construction and operation under Alternative 2 to a **less-than-significant** level. This impact conclusion is the same as the proposed Project (Impact 4.7-2); however, because Alternative 2 would result in a lesser amount of construction and fewer buildings during operation, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.9-3. Exposure of People and the Environment to Existing Hazardous Materials, Including Cortese-listed Sites. *This impact is considered potentially significant.*

Under Alternative 2, roadway improvements to SR 12 would not be necessary, and thus there would be no potential for construction worker exposure to aerially deposited lead. Under Alternative 2, there would be no new urban development east of Pennsylvania Avenue, and no new urban development west of Pennsylvania Avenue immediately across from the former Pennsylvania Avenue landfill. Thus, there would no potential for exposure of temporary construction workers or permanent employees to hazards from contaminated soil, groundwater, or off-gassing that could degrade interior air quality from the former Pennsylvania Avenue landfill from adjacent development to the south or west. Thus, under Alternative 2 there would be **no impact** from exposure to aerially deposited lead or hazardous materials from the former Pennsylvania Avenue, as compared to the proposed Project which would result in a greater level of exposure with a **less-than-significant** impact conclusion (Impact 4.9-3).

New urban development in the northwestern corner of the Alternative 2 site under Alternative 2 would be subject to the same hazards from the contaminated groundwater plume emanating from 1745 Enterprise Drive north of SR 12 (which extends underneath the Alternative 2 site). As described in detail in Section 4.7, “Hazards and Hazardous Materials,” Impact 4.7-3, a Groundwater and Soil Gas Investigation (Brusca Associates 2021) was prepared to evaluate potential human and environmental hazards from the contaminated groundwater plume. The results of laboratory analyses demonstrated that although low levels of 1,1-dichloroethene (DCE) and 1,1-dichloroethane (DCA) were detected in groundwater samples obtained in 2021, the levels were below California maximum contaminant level thresholds and were also below San Francisco Bay RWQCB screening values for indoor air vapor intrusion. Although one sample contained a slightly elevated value of tetrachloroethene (PCE), the sample was obtained from an area that would not be underneath Building A and thus indoor air quality would not be affected. Therefore, the very low concentrations of DCE, DCA, and PCE at the Alternative 2 site in the area of the contaminated groundwater plume emanating from Enterprise Drive would not represent a human health hazard from direct contact or indoor air quality, or an environmental hazard from construction dewatering. As with the proposed Project (Impact 4.7-3), this impact under Alternative 2 is considered **less than significant**.

Under Alternative 2, new urban development would result in the same potential as compared to the proposed Project to hazards from accidental rupture of known underground pipelines, and from the potential to encounter contaminated soil adjacent to the railroad tracks used by the California Northern Railroad.

Mitigation Measure: Implement Mitigation Measure 4.7-3a (Prepare and Implement a Site-Specific Health and Safety Plan).

Mitigation Measure: Implement Mitigation Measure 4.7-7b (Locate and Avoid Underground Utilities in Areas Where Development is Proposed, and Prepare a Response Plan to be Implemented if Accidental Rupture Occurs).

Significance after Mitigation

As with the proposed Project, implementation of Mitigation Measures 4.7-3a and 4.7-3b would reduce impacts related to hazards and hazardous materials under Alternative 2 to a **less-than-significant** level because a site-specific Health & Safety Plan (HASP) would be prepared and implemented. The HASP would contain specific training requirements designed to reduce hazards from elevated hazardous materials contamination, site safety issues, and potential accidental pipeline rupture. In addition, the Project applicant would coordinate with Kinder Morgan, PG&E, and the City of Vallejo to mark the location of high-pressure pipeline rights-of-way for avoidance during construction, and would utilize Underground Service Alert to locate, mark, and flag for avoidance any other buried utilities. This impact is considered **potentially significant**. This impact conclusion is the same as the proposed Project (Impact 4.7-3); however, because Alternative 2 would result in a lesser amount of construction over a much smaller area, **the level of impact would be reduced** under Alternative 2, as compared to the proposed Project.

Impact 6.5.9-4. Creation of Potential Safety Hazards, Including Possible Birdstrike, in the Vicinity of an Airport. *This impact would be less than significant.*

Alternative 2 site and the off-site improvement areas are approximately 4.5 miles southwest of Travis AFB. The Alternative 2 site and off-site improvement areas are located in ALUCP land use compatibility Zone D, which requires that: (1) structures are limited to a height that is less than 200 feet above the ground surface, and (2) notice of aircraft overflights must be provided to property owners. As with the proposed Project, the maximum height of structures proposed at the Alternative 2 site under Alternative 2 would be approximately 30 feet, and notice of aircraft overflights would be provided to future site-specific developers. Therefore, the proposed development under Alternative 2 would be in compliance with land use compatibility Zone D. Furthermore, as with the proposed Project, Alternative 2 would not increase aviation-related bird strike hazards because the on-site detention basins would be designed to drain quickly (i.e., detention not retention), and new created mitigation habitat would replace existing habitat lost to development at a 1:1 ratio; thus, new waterfowl habitat would not be created and this impact is **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.7-4); however, because Alternative 2 would result in construction over a smaller area and fewer buildings and detention basins during operation, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.9-5. Interference with Emergency Response or Evacuation Plans. *This impact would be potentially significant.*

Development within the logistics center under Alternative 2 is subject to design review by the City, and is required to comply with City standards relating to appropriate street design to accommodate emergency vehicles and emergency evacuation thoroughfares. Under Alternative 2, off-site roadway improvements to SR 12 would not be necessary. However, off-site roadway improvements under Alternative 2 would be needed along the north side of Cordelia Road and the west side of Pennsylvania Avenue, along with off-site improvements along

Cordelia Avenue and Beck Avenue for water supply and wastewater conveyance pipelines. Project-related construction activities under Alternative 2 could result in temporary lane closures, increased truck traffic, and other roadway effects that could slow or stop emergency vehicles, temporarily increasing response times and impeding existing services. Potential reduction of emergency response services during construction of the proposed on-site land uses and the off-site improvements under Alternative 2 would be a **potentially significant** impact.

Mitigation Measure: Implement Mitigation Measure 4.7-5 (Implement Traffic Control Plans).

Significance after Mitigation

As with the proposed Project, implementation of Mitigation Measure 4.7-5 would reduce the impacts related to interference with emergency response or emergency evacuation plans under Alternative 2 to a **less-than-significant** level because a traffic control plan(s), designed to avoid traffic-related hazards and maintain emergency access during construction phases, would be prepared and submitted to the City and/or Caltrans, as appropriate, for approval. This impact conclusion is the same as the proposed Project (Impact 4.7-5); however, because Alternative 2 would result in a lesser amount of off-site construction on fewer roadways, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Issues Where No Impact Would Occur

For the same reasons discussed in Section 4.7.3, “Environmental Impacts and Mitigation Measures,” under the heading “Issues Not Discussed Further,” the following issues would also result in **no impact** under Alternative 2.

- ▶ Result in Hazardous Emissions within One-Quarter Mile of a School
- ▶ Impacts Associated with Wildfires

ALTERNATIVE 3: REDUCE CRITERIA AIR POLLUTANT AND GHG EMISSIONS AND TRANSPORTATION-RELATED ENERGY CONSUMPTION

Alternative 3 would result in an approximately 50 percent reduction in the size of the development area and would involve construction of only 470,000 square feet of building space as compared to 1.28 million square feet of building space under the proposed Project. Thus, under Alternative 3 the potential hazards associated with routine transport, use, or disposal of hazardous materials and the potential for exposure to hazardous materials from upset and accident conditions would be **reduced** as compared to the proposed Project.

Depending on the location of new buildings under Alternative 3, new urban development immediately west of the former landfill on the west side of Pennsylvania Avenue would be subject to a similar level of exposure to temporary construction workers or permanent employees to hazards from the former landfill, and from the contaminated groundwater plume emanating from 1745 Enterprise Drive north of SR 12 (which extends underneath the Alternative 3 site) from contaminated soil, groundwater, or off-gassing that could degrade interior air quality as compared to the proposed Project. However, under Alternative 3, there would be no new urban development east of Pennsylvania Avenue. Thus, there would no potential for exposure of temporary construction workers or permanent employees to hazards from contaminated soil, groundwater, or off-gassing that could degrade interior air quality from the former Pennsylvania Avenue landfill from new urban development to the south. Therefore, potential hazards from the off-site landfill would be **reduced** under Alternative 3.

Under Alternative 3, roadway improvements to SR 12 would not be necessary, and thus there would be no potential for construction worker exposure to aerially deposited lead. Under Alternative 3, new urban development would result in the same potential as compared to the proposed Project to hazards from accidental rupture of known underground pipelines, and from the potential to encounter contaminated soil adjacent to the railroad tracks used by the California Northern Railroad. As with the proposed Project, implementation of Mitigation Measures 4.7-3a and 4.7-3b would reduce the level of these impacts under Alternative 3. Therefore, Alternative 3 would result in a **similar** level of impact as compared to the proposed Project.

As with the proposed Project, the Alternative 3 site and off-site improvement areas are located in the Travis Air Force Base Airport Land Use Compatibility Plan (ALUCP) land use compatibility Zone D, which requires that: (1) structures are limited to a height that is less than 200 feet above the ground surface, and (2) notice of aircraft overflights must be provided to property owners. As with the proposed Project, review of Alternative 3 land use plans by the Solano County Airport Land Use Commission would ensure compatibility with applicable provisions of the ALUCP, and therefore Alternative 3 would result in **similar** impacts related to airport compatibility hazards.

As with the proposed Project, Alternative 3 would not increase aviation-related bird strike hazards because the on-site detention basin that is assumed to be required if the smaller site were developed with warehouse/office uses would be designed to drain quickly (i.e., detention not retention); thus, new waterfowl habitat would not be created. Furthermore, since Alternative 3 would result in an approximately 50 percent reduction in the developed area, the size and/or number of detention basins under Alternative 3 would be reduced. Therefore, Alternative 3 would result in a **reduced** level of impact as compared to the proposed Project.

Finally, under Alternative 3, because less off-site roadway work would be necessary, the level of impact from temporary construction-related increases in emergency response times from lane closures would be reduced as compared to the proposed Project. As with the proposed Project, implementation of Mitigation Measure 4.7-5 would reduce the level of this impact under Alternative 3. Therefore, Alternative 3 would result in a **reduced level of impact** as compared to the proposed Project.

6.5.8 HYDROLOGY AND WATER QUALITY

ALTERNATIVE 1: NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

Under Alternative 1, the Project applicant/s would be required to comply with the same federal, state, and local regulations governing stormwater runoff and protection of groundwater and surface water quality as the proposed Project. These regulations include preparing and implementing a SWPPP with BMPs during construction, and implementing appropriate long-term stormwater design measures as required by the Fairfield-Suisun Urban Management Runoff Program (FSURMP) that would be operated according to a site-specific Stormwater Control Plan and a Stormwater Control Operation and Maintenance Plan. Under Alternative 1, a smaller area of land would be developed with urban uses and there would be a reduced building square footage as compared to the proposed Project, resulting in less construction and operation-related stormwater runoff. Therefore, impacts under Alternative 1 related to violation of water quality standards or substantial degradation of surface or groundwater quality would be **reduced** as compared to the proposed Project.

Because Alternative 1 would require a reduced amount of groundwater for potable water supply and landscape irrigation as compared to the proposed Project, Alternative 1 would result in a reduced level of impact from

substantial decreases groundwater supplies. Furthermore, since Alternative 1 would result in a reduction in the amount of impervious surfaces in the proposed development area as compared to the proposed Project, Alternative 1 would result in a **reduced** level of impact related to interference with groundwater recharge.

New development under Alternative 1 in the approximately 73-acre proposed development area could alter drainages and would add impervious surfaces, which could result in increased erosion or siltation. Under Alternative 1, the project applicants would be required to comply with the same federal, state, and local regulations governing stormwater runoff and protection of groundwater and surface water quality as the proposed Project. These regulations include preparing and implementing a SWPPP with BMPs during construction, and implementing appropriate long-term stormwater design measures as required by the FSURMP that would be operated according to a site-specific Stormwater Control Plan and a Stormwater Control Operation and Maintenance Plan. Under Alternative 1, a smaller area of land would be developed with urban uses and there would be a reduced building square footage as compared to the proposed Project, resulting in less alteration of drainages and less construction and operation-related stormwater runoff. Therefore, impacts under Alternative 1 related to substantial alteration of drainage patterns or the addition of impervious surfaces resulting in increased erosion or siltation would be **reduced** as compared to the proposed Project.

Under Alternative 1, as with the proposed Project, the 73-acre proposed development area would be situated within a FEMA 100-year flood hazard zone. However, the Project applicant is required to comply with Suisun City Flood Damage Prevention Ordinance (Suisun City Municipal Code, Chapter 15.08, Article II), which requires a permit from the City's floodplain administrator. The permit application must include plans demonstrating compliance with Municipal Code requirements related to floodproofing, and be certified by a registered engineer. A Master Drainage Plan would be required for Alternative 1 that incorporates stormwater design and water quality and runoff controls per the FSURMP's *Stormwater C.3 Guidebook* (FSURMP 2012), along with a site-specific Stormwater Control Plan and a Stormwater Control Operation and Maintenance Plan, all of which would require city approval prior to approval of improvement plans and building permits. Under Alternative 1, a smaller area of land would be developed with urban uses and there would be a reduced building square footage as compared to the proposed Project. Therefore, under Alternative 1, the impacts from substantial alteration of drainage patterns or the addition of impervious surfaces that would exceed storm drainage systems, result in increased flooding, or impede or redirect flood flows would be **reduced** as compared to the proposed Project.

As with the proposed Project, the Alternative 1 site is not located in a seiche or tsunami hazard area. Although construction materials could be temporarily stored in a FEMA 100-year flood hazard area, the Project applicant is required to comply with Suisun City Flood Damage Prevention Ordinance (Suisun City Municipal Code, Chapter 15.08, Article II), which requires a permit from the City's floodplain administrator. The permit application must include plans illustrating the location(s) that are designated for temporary construction-related storage of materials and equipment, which the city's floodplain administrator must review and approve. The floodplain administrator may require the construction of temporary berms or dikes around the construction materials/equipment storage areas, to ensure sufficient protection from flood flows, if warranted. Under Alternative 1, a smaller area of land would be developed with urban uses and therefore a smaller amount and area of construction materials may be temporarily located in a floodplain. Therefore, under Alternative 1, the impacts from the risk of release of pollutants from inundation in a tsunami, seiche, or flood hazard zone would be **reduced** as compared to the proposed Project.

As with the proposed Project, under Alternative 1 the required compliance with existing laws, regulations, ordinances, and policies related to water quality control, which are required by law, ensures that Alternative 1 would not conflict with the San Francisco Bay Basin Plan. A groundwater sustainability plan (GSP) for the Suisun-Fairfield Valley Groundwater Basin is not required nor are there any plans to prepare one; therefore, as with the proposed Project, Alternative 1 would not conflict with a sustainable groundwater management plan. Because there are no plans to drill a new groundwater well for water supply, and because Alternative 1 would result in reduction in impervious surfaces as compared to the proposed Project, Alternative 1 would result in a **reduced level of impact** from substantial decreases in groundwater supplies or interference with groundwater recharge, and therefore, as with the proposed Project, would not substantially reduce groundwater sustainability in the Suisun-Fairfield Valley Groundwater Basin.

ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE

Impact 6.5.10-1. Violate Water Quality Standards or Substantially Degrade Surface or Groundwater Quality. *This impact would be less than significant.*

Under Alternative 2, approximately 45 acres of cattle grazing land would be converted to urban development in the form of new industrial (i.e., logistics and warehouse) land uses. In addition, off-site improvements related to roadways, water lines, and a sewer line would also occur. Construction and operation under Alternative 2 would result in increased stormwater runoff, which could in turn result in transport of sediment and other pollutants to on-site and off-site waterways. These pollutants could degrade receiving water quality thereby violating water quality standards and interfering with implementation of the San Francisco Bay Basin Plan. Furthermore, groundwater quality could be affected either by direct contact during construction-related earthmoving activities, or by indirect contact as a result of percolation of stormwater. As with the proposed Project, under Alternative 2 the Project applicant must comply with the SWRCB's Construction General Permit, which requires preparation and implementation of a SWPPP with site-specific BMPs designed to prevent stormwater runoff and pollutant transport during construction activities. Similarly, as with the proposed Project, under Alternative 2, long-term operational water quality impacts must be reduced using site design and source control measures to help keep pollutants out of stormwater. Operational stormwater requirements are contained in the FSURMP's *Stormwater C.3 Guidebook* (FSURMP 2012), which is required to achieve compliance with the FSURMP's NPDES MS4 Phase II General Permit. Furthermore, industrial or commercial facilities require appropriate NPDES permits/waste discharge requirements, and implementation of BMPs consistent with the *California Stormwater Quality Association (CASQA) Industrial/Commercial BMP Handbook* (CASQA 2019) or its equivalent, including annual reporting of any structural control measures and treatment systems. These measures would protect water quality as required by the San Francisco Bay Basin Plan. Therefore, this impact would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.8-1); however, because Alternative 2 would result in a lesser amount of construction and operation over a smaller area, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.10-2. Substantially Decrease Groundwater Supplies or Interfere with Groundwater Recharge. *This impact would be less than significant.*

Potable water for development at the Alternative 2 site would be supplied by SID. Water supplied by SID for urban uses is obtained from surface water, from Lake Berryessa via the Solano Project (through a contract with the U.S. Bureau of Reclamation). Alternative 2 would result in reduced water demands for both potable and landscape irrigation water, because a smaller area with less building square footage and fewer employees would

be developed. Because Alternative 2 would not include drilling new groundwater wells, and because SID would have sufficient surface water supplies to serve the Alternative 2 water demands through the Second Amendment to the Suisun/Solano Implementation Agreement and Lease Agreement executed in 2022 (Kjeldsen, Sinnock, and Neudeck, Inc. 2022), Alternative 2 would not substantially decrease groundwater supplies, and this impact would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.8-2); however, because Alternative 2 would result in a reduced water demand, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

The Suisun-Fairfield Valley Groundwater Basin is a low priority basin, and therefore a GSP is not required nor are there any plans to prepare one. Alternative 2 would result in new impervious surfaces over the approximately 45-acre proposed development area. However, the remaining approximately 437 acres of Alternative 2 site would continue to be available for groundwater recharge through rainwater percolation, because this area of the Alternative 2 site would continue to be operated with the existing land use (i.e., cattle grazing). The new 45 acres of impervious surfaces would represent only an approximately 9 percent decrease in the area available for groundwater recharge at the Alternative 2 site. Therefore, Alternative 2 would not substantially interfere with groundwater recharge, and this impact would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.8-2); however, because Alternative 2 would result in a reduced amount of impervious surfaces, **the level of impact would be reduced** under Alternative 2 as compared to the Proposed project.

Impact 6.5.10-3. Substantially Alter Drainage Patterns or Add Impervious Surfaces Resulting in Increased Erosion or Siltation. *This impact would be less than significant.*

Alternative 2 would result in new impervious surfaces over the approximately 45-acre proposed development area. As described above in Impact 6.5.10-1 (and for the proposed project in Impact 4.8-3), the Project applicant must comply with the SWRCB's Construction General Permit, which requires preparation and implementation of a SWPPP with site-specific BMPs designed to prevent stormwater runoff and pollutant transport during construction activities. Similarly, as with the proposed Project, under Alternative 2, long-term operational water quality impacts must be reduced using site design and source control measures to help keep pollutants out of stormwater through compliance with the FSURMP's *Stormwater C.3 Guidebook* (FSURMP 2012), which is required to achieve compliance with the FSURMP's NPDES MS4 Phase II General Permit. Therefore, this impact would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.8-3); however, because Alternative 2 would result in a lesser amount of construction and operation over a smaller area, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.10-4. Substantially Alter Drainage Patterns or Add Impervious Surfaces that would Exceed Storm Drainage Systems, Result in Increased Flooding, or Impede or Redirect Flood Flows. *This impact would be less than significant.*

Alternative 2 would result in new impervious surfaces over the approximately 45-acre proposed development area. As with the proposed Project, under Alternative 2 storm drainage from proposed building roofs and parking lots would be routed into bioretention facilities for infiltration and treatment prior to discharge to the on-site detention basins. The bottom of the on-site detention basins would also be constructed as a bioretention facility. LID features may include disconnected roof drains and disconnected pavement. The proposed locations of detentions basins and LID features are shown on Exhibit 6-2. The proposed on-site detention basin volumes are based on the 100-year, 24-hour storm event with outflows restricted to 95 percent of pre-development flows or less (as required by the City). The detention basins and LID features shown in Exhibit 6-2 are based on the

FSURMP *Stormwater C.3 Guidebook* (FSURMP 2012) requirements. The Drainage Master Plan prepared for the proposed Project (Morton & Pitalo 2021) has been revised specific to Alternative 2, to include hydraulic, floodplain, hydrologic, and water quality analyses for the proposed development under Alternative 2 (Morton & Pitalo 2022). The Drainage Master Plan for Alternative 2 includes modeling results, as required by the City, demonstrating that Alternative 2 includes appropriate stormwater runoff design features, properly sized stormwater drainage features, and appropriate stormwater quality treatment features so that the new impervious surfaces would not increase the peak discharge rate of stormwater runoff and would not result in erosion, sedimentation, and on-site or downstream flooding. Furthermore, as with the proposed Project, Alternative 2 would be operated according to a site-specific Stormwater Control Plan and a Stormwater Control Operation and Maintenance Plan. City approval of the Alternative 2 Drainage Master Plan, Stormwater Control Plan, and Stormwater Control Operation and Maintenance Plan would be required prior to approval of improvement plans or issuance of building permits.

New urban development within the 45-acre development area under Alternative 2 would be located within a FEMA 100-year floodplain zoned as AO (i.e., areas of sheet flow with an average depth of 1–3 feet) (see Exhibit 4.10-2 in Section 4.8, “Hydrology and Water Quality”). As with the proposed Project, under Alternative 2 the Project applicant must comply with the standards set forth in the City’s Floodplains and Flood Damage Prevention Ordinance (Municipal Code Chapter 15.08, Article II) Sections 15.08.410 through 15.08.470. The standards control filling, grading, dredging, and other development which may increase flood damage; and prevent or regulate the construction of flood barriers that would unnaturally divert flood waters or which may increase flood hazards in other areas. Per Municipal Code Section 15.08.370, the Project applicant must apply for a development permit for construction in FEMA flood zones, with approval by the City’s floodplain administrator. The Alternative 2 permit application must include plans showing elevations of proposed structures and the elevations of areas proposed for materials and equipment storage; the proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; and the proposed elevation in relation to mean sea level to which any nonresidential structure will be floodproofed (among other requirements). The Alternative 2 permit application must also include certification from a registered civil engineer or architect that the nonresidential floodproofed building meets the City’s floodproofing criteria (Section 15.08.430[B]). Per Suisun City Ordinance No. 729, Section 15-08.430, the lowest floor of each building must be elevated above the highest adjacent grade to a height equal to or exceeding the depth number specified in feet on the FEMA FIRM plus one-half-foot of freeboard. Municipal Code Section 15.08.420 also requires that within FEMA flood zones AO³, adequate drainage paths must be provided around structures on slopes to guide floodwaters around and away from proposed structures. As with the proposed Project, minor grading associated with creation of new wetlands in the Managed Open Space Area would not affect existing flood flows or depths.

Therefore, although new development under Alternative 2 in the proposed 45-acre development area would alter drainage patterns, add impervious surfaces, and be located in a 100-year floodplain, the new development would not exceed storm drainage system capacity, result in increased flooding, or impede or redirect flood flows, and this impact would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.8-4); however, because Alternative 2 would result in a lesser amount of construction and operation over a smaller area, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

3 Area inundated by the Base Flood with flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities are also determined.

Impact 6.5.10-5. Risk Release of Pollutants from Inundation in a Tsunami, Seiche, or Flood Hazard Zone. *This impact would be less than significant.*

As with the proposed Project, Alternative 2 site and the proposed off-site improvement areas are not in a tsunami inundation zone. The nearest large waterbody with potential for seiches is Grizzly Bay/Suisun Bay, approximately 6.5 miles south of the Alternative 2 site and the off-site improvement areas, and approximately 10 feet lower in elevation; therefore, the potential for inundation of Alternative 2 construction storage areas from a seiche is low.

Construction activities within the 45-acre Alternative 2 development area and the proposed off-site improvement areas could result in short-term, temporary storage of materials in a FEMA 100-year flood hazard zone (i.e., classified by FEMA as zone AO and designated by the city as a secondary FP-2 floodplain zones). Inundation of temporary construction material storage areas during a flood could result in downstream transport of pollutants, thereby degrading water quality. However, development in flood zones is subject to the Suisun City Flood Damage Prevention Ordinance (Suisun City Municipal Code, Chapter 15.08, Article II), and requires a permit from the City's floodplain administrator. The permit application must include plans illustrating the location(s) that are designated for temporary construction-related storage of materials and equipment, which the City's floodplain administrator must review and approve. The floodplain administrator may require the construction of temporary berms or dikes around the construction materials/equipment storage areas, to ensure sufficient protection from flood flows, if warranted.

As with the proposed Project, under Alternative 2, review by the City's floodplain administrator is required to determine whether to approve locations for temporary short-term storage of construction materials and equipment, and the city would impose appropriate permit terms and conditions such as the requirement for installation of temporary berms or dikes around storage areas if necessary. Therefore, this impact is considered **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.8-5); however, because Alternative 2 would result in a lesser amount of construction and operation over a smaller area, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.10-6. Conflict with a Water Quality Control Plan or Sustainable Groundwater Management Plan. *This impact would be less than significant.*

For the same reasons described in Impact 6.5.10-1 above (and Impact 4.10-1 for the proposed Project), under Alternative 2 the required compliance with existing laws, regulations, ordinances, and policies related to water quality control, which are required by law, ensures that Alternative 2 would not conflict with the San Francisco Bay Basin Plan. As described in Impact 6.5.10-2 above (and Impact 4.8-2 for the proposed Project), a GSP for the Suisun-Fairfield Valley Groundwater Basin is not required nor are there any plans to prepare one; therefore, Alternative 2 would not conflict with a sustainable groundwater management plan. As further described in Impact 6.5.10-2, because there are no plans to drill a new groundwater well for water supply, and because Alternative 2 would only result in an approximately 9 percent reduction in pervious surfaces that provide for existing groundwater recharge at the Alternative 2 site, Alternative 2 would not substantially decrease groundwater supplies or interfere with groundwater recharge, and therefore would not substantially reduce groundwater sustainability in the Suisun-Fairfield Valley Groundwater Basin. Therefore, this impact would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.8-6); however, because Alternative 2 would result in a lesser amount of construction and operation over a smaller area, and a reduced demand for water supply and a reduced amount of new impervious surfaces, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

ALTERNATIVE 3: REDUCE CRITERIA AIR POLLUTANT AND GHG EMISSIONS AND TRANSPORTATION-RELATED ENERGY CONSUMPTION

Alternative 3 would result in an approximately 50 percent reduction in the size of the development area and would involve construction of only 470,000 square feet of building space as compared to 1.28 million square feet of building space under the proposed Project, resulting in less construction, fewer impermeable surfaces, and reduced operation-related stormwater runoff. Furthermore, under Alternative 3, the Project applicant would be required to comply with the same federal, state, and local regulations governing stormwater runoff and protection of groundwater and surface water quality as the proposed Project. These regulations include preparing and implementing a SWPPP with BMPs during construction, and implementing appropriate long-term stormwater design measures as required by the FSURMP that would be operated according to a site-specific Stormwater Control Plan and a Stormwater Control Operation and Maintenance Plan. Therefore, the impacts related to violation water quality standards or substantial degradation of surface or groundwater quality would be **reduced** under Alternative 3 as compared to the proposed Project.

Because Alternative 3 would require a reduced amount of groundwater for potable water supply and landscape irrigation as compared to the proposed Project, Alternative 3 would result in a reduced level of impact from substantial decreases groundwater supplies. Furthermore, since Alternative 3 would result in a reduction in the amount of impervious surfaces in the proposed development area as compared to the proposed Project, Alternative 3 would result in a **reduced** level of impact related to interference with groundwater recharge.

New development under Alternative 3 in the approximately 45-acre proposed development area could alter drainages and would add impervious surfaces, which could result in increased erosion or siltation. Under Alternative 3, the project applicants would be required to comply with the same federal, state, and local regulations governing stormwater runoff and protection of groundwater and surface water quality as the proposed Project. These regulations include preparing and implementing a SWPPP with BMPs during construction, and implementing appropriate long-term stormwater design measures as required by the FSURMP that would be operated according to a site-specific Stormwater Control Plan and a Stormwater Control Operation and Maintenance Plan. Under Alternative 3, only 470,000 square feet of building space would be developed as compared to 1.28 million square feet of building space under the proposed Project, which would substantially reduce the impervious surfaces and operational stormwater runoff. Therefore, impacts under Alternative 3 related to substantial alteration of drainage patterns or the addition of impervious surfaces resulting in increased erosion or siltation would be **reduced** as compared to the proposed Project.

Under Alternative 3, as with the proposed Project, the 45-acre proposed development area would be situated within a FEMA 100-year flood hazard zone. However, the Project applicant is required to comply with Suisun City Flood Damage Prevention Ordinance (Suisun City Municipal Code, Chapter 15.08, Article II), which requires a permit from the city's floodplain administrator. The permit application must include plans demonstrating compliance with Municipal Code requirements related to floodproofing, and be certified by a registered engineer. A Master Drainage Plan would be required for Alternative 3 that incorporates stormwater design and water quality and runoff controls per the FSURMP's *Stormwater C.3 Guidebook* (FSURMP 2012), along with a site-specific Stormwater Control Plan and a Stormwater Control Operation and Maintenance Plan, all of which would require city approval prior to approval of improvement plans and building permits. Under Alternative 3, only 470,000 square feet of building space would be developed as compared to 1.28 million square feet of building space under the proposed Project, therefore a substantially smaller area would be subject to flood

area. Therefore, under Alternative 3, the impacts from substantial alteration of drainage patterns or the addition of impervious surfaces that would exceed storm drainage systems, result in increased flooding, or impede or redirect flood flows would be **reduced** as compared to the proposed Project.

As with the proposed Project, the Alternative 3 site is not located in a seiche or tsunami hazard area. Although construction materials could be temporarily stored in a FEMA 100-year flood hazard area, the Project applicant is required to comply with Suisun City Flood Damage Prevention Ordinance (Suisun City Municipal Code, Chapter 15.08, Article II), which requires a permit from the City's floodplain administrator. The permit application must include plans illustrating the location(s) that are designated for temporary construction-related storage of materials and equipment, which the city's floodplain administrator must review and approve. The floodplain administrator may require the construction of temporary berms or dikes around the construction materials/equipment storage areas, to ensure sufficient protection from flood flows, if warranted. Under Alternative 3, a smaller area of land would be developed with urban uses and therefore a smaller amount and area of construction materials may be temporarily located in a floodplain. Therefore, under Alternative 3, the impacts from the risk of release of pollutants from inundation in a tsunami, seiche, or flood hazard zone would be **reduced** as compared to the proposed Project.

As with the proposed Project, under Alternative 3 the required compliance with existing laws, regulations, ordinances, and policies related to water quality control, which are required by law, ensures that Alternative 3 would not conflict with the San Francisco Bay Basin Plan. A groundwater sustainability plan for the Suisun-Fairfield Valley Groundwater Basin is not required nor are there any plans to prepare one; therefore, as with the proposed project, Alternative 3 would not conflict with a sustainable groundwater management plan. Because there are no plans to drill a new groundwater well for water supply, and because Alternative 3 would result in a substantial reduction in impervious surfaces as compared to the proposed project, Alternative 3 would result in a **reduced level of impact** from substantial decreases in groundwater supplies or interference with groundwater recharge, and therefore, as with the proposed Project, would not substantially reduce groundwater sustainability in the Suisun-Fairfield Valley Groundwater Basin.

6.5.9 LAND USE & PLANNING, INCLUDING AGRICULTURAL RESOURCES, POPULATION, AND HOUSING

ALTERNATIVE 1: NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

Alternative 1 assumes that the approximately 161 acres north of Cordelia Road and Cordelia Street within the City's Sphere of Influence would be annexed into the city in the same way as the proposed Project. As with the proposed Project, under Alternative 1 the Solano Local Agency Formation Commission (LAFCO) would require consistency with their policies before approval of annexation, and the same amount of land would be annexed under Alternative 1 as compared to the proposed Project. Therefore, Alternative 1 would have a **similar** level of impact related to land use compatibility from the standpoint of annexation as compared to the proposed Project.

Development under Alternative 1 would be consistent with the existing Commercial Mixed Use land use designation and zoning in the area. Under Alternative 1, the remainder of the approximately 487-acre Alternative 1 site would continue as Agriculture and Open Space within the City's Sphere of Influence (SOI) and Marsh, Extensive Agriculture, and Parks and Recreation in areas under the County's jurisdiction. The types of land uses under Alternative 1, as well as the amount of developed area, would be different from the proposed Project.

Alternative 1 would involve Commercial Mixed Use on 73 acres, whereas the proposed Project would involve a Logistics Center on 93 acres. There would be no Managed Open Space component under Alternative 1. Alternative 1 would not require a General Plan amendment. The proposed Project would require rezoning of Commercial Services & Fabricating instead of Commercial Mixed Use, as would be anticipated under Alternative 1. As with the proposed Project, changes in zoning and general plan land use designations do not in and of themselves represent any adverse physical environmental impact. Therefore, the impact would be **similar** to that of the proposed Project.

With respect to the relationship between Alternative 1 and other plans, policy inconsistencies are not physical effects on the environment under CEQA unless it relates to a physical impact on the environment that is significant in its own right. As with the proposed Project, implementation of Alternative 1 would not conflict with adopted City General Plan policies or other land use plans, policies, or regulations that would generate any adverse physical impacts beyond those addressed in detail in the topic area sections of this EIR. Therefore, Alternative 1 would result in a **similar** level of impact related to conflicts with plans adopted to reduce environmental impacts as compared to the proposed Project.

Neither Alternative 1 nor the proposed Project include housing, and therefore would not directly induce population growth. However, the 726 new employees from the jobs created under Alternative 1 could indirectly induce additional population growth. The 1,275 new employees from jobs created under the proposed Project could also indirectly induce additional population growth. Both Alternative 1 and the proposed Project would improve the City's jobs-to-housing ratio by locating employment uses on historically underutilized land near existing infrastructure, transportation corridors, and residential areas. New and expanded infrastructure would be planned to meet only the demands for new development and would not create additional utility capacity in the Development Area beyond what would be necessary to serve Alternative 1 or the proposed Project. Nevertheless, because Alternative 1 would likely induce less indirect population growth, it would result in a **reduced** level of impact as compared to the proposed Project.

ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE

Impact 6.5.9-1. Conflict with any Land Use Plan, Policy, or Regulation Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect. *This impact would be less than significant.*

Under Alternative 2, the approximately 161 acres north of Cordelia Road and Cordelia Street within the City's Sphere of Influence would be annexed into the city in the same way as the proposed Project. As with the proposed Project, under Alternative 2 the Solano LAFCO would require consistency with their policies before approval of annexation, and the same amount of land would be annexed under Alternative 2 as compared to the proposed Project.

The types of land uses under Alternative 2 and the proposed Project would be the same; however, the area of land subject to development under Alternative 2 would be reduced to 51 acres to protect sensitive biological resources, as compared to 93 acres under the proposed Project. Both Alternative 2 and the proposed Project would require a rezoning of Commercial Services & Fabricating, and the remaining Annexation Area would be pre-zoned as Open Space. The Commercial Services & Fabricating zoning would accommodate light manufacturing, research and development, warehousing, and accessory office space. The Open Space zoning would allow agriculture, resource protection and restoration, and resource-related recreation. Both Alternative 2 and the proposed Project would result in Managed Open Space in the Primary and Second Management Areas of Suisun Marsh, as well as

Managed Open Space that is outside of the Suisun Marsh Protection Plan. Under Alternative 2, the total Managed Open Space area at the Alternative 2 site would increase to 437 acres, versus 393 acres under the proposed Project.

With respect to the relationship between Alternative 2 and other plans, policy inconsistencies are not physical effects on the environment under CEQA unless it relates to a physical impact on the environment that is significant in its own right. As with the proposed Project, implementation of Alternative 2 would not conflict with adopted City General Plan policies or other land use plans, policies, or regulations that would generate any adverse physical impacts beyond those addressed in detail in the topic area sections of this EIR.

For the reasons stated above, under Alternative 2 potential land use conflicts with plans or policies adopted to reduce an environmental effect would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.9-1). Because Alternative 2 would have a similar level of impact related to land use and planning, **the level of impact would be similar** under Alternative 2 as compared to the proposed Project.

Impact 6.5.9-2. Induce Substantial Population Growth. This impact would be less than significant.

Alternative 2's potential to induce substantial unplanned population growth is analyzed based on the following three factors: (1) does Alternative 2 induce unplanned population growth (direct or indirect), (2) is that growth substantial, and (3) does this substantial unplanned growth result in significant adverse environmental impacts.

As with the proposed Project, Alternative 2 does not include housing, and therefore would not directly induce population growth.

Indirect population growth may result from: (1) the extension of roads and infrastructure or increases in infrastructure capacity; (2) the approval of "leapfrog" development (where urban development is approved in a satellite area and this spurs development of the land between the satellite area and the urban edge); or (3) the approval of substantial new land uses or an imbalance of uses which result in a regional draw of people and/or services. As with the proposed Project, the proposed Alternative 2 Development Area is adjacent to the existing city limits and within the existing City SOI; however, under Alternative 2 the Development Area would be reduced to 51 acres, as compared to 93 acres under the proposed Project.

Alternative 2 could indirectly lead to some population growth by creating 528 new local jobs. The 1,275 new employees from jobs created under the proposed Project could also indirectly induce additional population growth. As discussed in DEIR Impact 4.9-2, based on 2022 estimates, the City had a jobs-to-housing ratio of 0.41, which indicates a predominance of residential uses and less jobs potentially available to local resident-workers. U.S. Census data indicate that approximately 96.6 percent of City residents commute to jobs outside of the city. Furthermore, 85 percent of local jobs within the city are filled by employees from outside of the city, mainly from Fairfield and Vacaville. Alternative 2 supports the City's goals to create opportunities to generate jobs and attract new employment-creating industries to Suisun City. Furthermore, the Development Area is identified by the Plan Bay Area 2050 as a PPA, which is defined by the Association of Bay Area Governments as a locally identified place for job growth in middle-wage industries such as manufacturing, logistics, or other trades. Alternative 2 would improve the City's jobs-to-housing ratio by locating employment uses on historically underutilized land near existing infrastructure, transportation corridors, and residential areas, while also avoiding impacts to sensitive biological resources.

Population and employment growth associated with buildout of Alternative 2 are not, in and of themselves, an environmental impact under CEQA. However, the direct and indirect effects on the environment associated with unplanned population growth may be considered potentially significant impacts under CEQA. Unplanned population growth can result in new housing, employment, and increased travel demand that requires additional roadways and other transportation infrastructure, with resulting air pollutant emissions and traffic noise; impacts related to the capacity of public facilities and utilities expansions needed to serve new growth; and loss of biological and cultural resources from installation of the supporting infrastructure. These potential impacts are addressed in the individual topic area sections of this EIR. As with the proposed Project, the new and expanded infrastructure under Alternative 2 would be planned to meet only the demands for planned development and would not create additional utility capacity in the Development Area beyond what would be necessary to serve Alternative 2. The indirect effects associated with the proposed Project's potential for inducing additional population and employment growth (which would be greater than Alternative 2 due to the larger land area developed and additional jobs) are also discussed in Chapter 7 of this EIR, "Other CEQA Considerations."

For the reasons listed above, Alternative 2 would not directly or indirectly induce substantial unplanned growth that could lead to significant environmental impacts not already detailed throughout the environmental topic area sections of this EIR; therefore, the impact is considered **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.9-2). Because Alternative 2 would result in a smaller Development Area with fewer new jobs, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Issues Where No Impact Would Occur

For the same reasons discussed in Section 4.9.3, "Environmental Impacts and Mitigation Measures," under the heading "Issues Not Discussed Further," the following issues would also result in **no impact** under Alternative 2.

- ▶ Physically Divide an Established Community
- ▶ Convert Prime Farmland, Farmland of Statewide Importance, or Unique Farmland
- ▶ Conflict with Existing Zoning for an Agricultural Use
- ▶ Conflict with Existing Williamson Act Contract
- ▶ Conflict with Existing Zoning for, or Cause Rezoning of, Forest Land, Timberland, or Timberland Zoned Timberland Production
- ▶ Result in the Loss of Forest Land or Conversion of Forest Land to Non-Forest Use
- ▶ Displace Substantial Numbers of People or Existing Housing

ALTERNATIVE 3: REDUCE CRITERIA AIR POLLUTANT AND GHG EMISSIONS AND TRANSPORTATION-RELATED ENERGY CONSUMPTION

Alternative 3 assumes that the approximately 161 acres north of Cordelia Road and Cordelia Street within the City's Sphere of Influence would be annexed into the city in the same way as the proposed Project. As with the proposed Project, under Alternative 3 the Solano LAFCO would require consistency with their policies before approval of annexation, and the same amount of land would be annexed under Alternative 3 as compared to the

proposed Project. Therefore, Alternative 3 would have a **similar** level of impact related to land use compatibility from the standpoint of annexation as compared to the proposed Project.

Instead of logistics and warehousing uses alone as under the proposed Project, Alternative 3 would also include office space in addition to warehousing and logistics uses. Both Alternative 3 and the proposed Project would require rezoning, which could include a combination of Commercial Mixed Use and Commercial Services & Fabricating or just Commercial Services & Fabrication; however, the total acreage requiring rezoning would be reduced under Alternative 3. The total Development Area under Alternative 3 would be approximately 46 acres, compared with the approximately 93-acre Development Area under the proposed Project. The remaining Annexation Area would be pre-zoned as Open Space (436 acres under Alternative 3 vs. 393 acres under the proposed Project). Because Alternative 3 would require a rezoning action similar to the proposed Project, Alternative 3 would result in a **similar** level of impact related to land use zoning and designations as compared to the proposed Project.

With respect to the relationship between Alternative 3 and other plans, policy inconsistencies are not physical effects on the environment under CEQA unless it relates to a physical impact on the environment that is significant in its own right. As with the proposed Project, implementation of Alternative 3 would not conflict with adopted City General Plan policies or other land use plans, policies, or regulations that would generate any adverse physical impacts beyond those addressed in detail in the topic area sections of this EIR. Therefore, Alternative 3 would result in a **similar** level of impact related to conflicts with plans adopted to reduce environmental impacts as compared to the proposed Project.

Alternative 3 would also include office space in addition to warehousing and logistics uses. The office space provided under Alternative 3 would focus on providing local employment opportunities for local residents that are currently commuting to other cities for employment. Some of the larger variances between local jobs and occupations of local residents are in the health care and social assistance and administration and support sectors. These sectors employ relatively larger numbers of local residents, but local jobs in these sectors are relatively less available. However, jobs in the logistics/warehousing sector are also underserved. Instead of the approximately 1.28 million square feet in logistics center/warehousing use on 93 acres under the proposed Project, Alternative 3 would provide 203,000 square feet of logistics/warehousing space and 268,000 square feet of office space on 46 acres of land. The total number of jobs under Alternative 3 would be the same as the proposed Project; however, Alternative 3 would provide approximately 1,100 office setting jobs and approximately 200 jobs in a warehousing, logistics, and transportation setting.

Neither Alternative 3 nor the proposed Project include housing, and therefore would not directly induce population growth. However, the approximately 1,275 to 1,300 new employees from the jobs created under Alternative 3 or the proposed Project could indirectly induce additional population growth. Both Alternative 3 and the proposed Project would improve the City's jobs-to-housing ratio by locating employment uses near existing infrastructure, transportation corridors, and residential areas. New and expanded infrastructure would be planned to meet only the demands for new development and would not create additional utility capacity beyond what would be necessary to serve Alternative 3 or the proposed Project. Because Alternative 3 would likely induce the same amount of indirect population growth, it would result in a **similar** level of impact as compared to the proposed Project.

6.5.10 NOISE & VIBRATION

ALTERNATIVE 1: NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

Alternative 1 would result in a smaller development area and reduced building square footage as compared to the proposed Project (i.e., 73 acres vs. 93 acres, respectively). Regardless, the buildings' design, layout, parking, landscaping, signage, and lighting would be subject to the same City Municipal Code, and City General Plan requirements as the proposed Project. Therefore, with respect to construction noise and vibration, Alternative 1, would result in a similar level of impact. As noted previously in Section 6.4.1, Alternative 1 has the potential to increase the number of daily vehicular trips to the site, as compared with the proposed Project. Though Alternative 1 would involve a higher number of daily vehicular trips when compared to the proposed Project, Alternative 1 would have a lower percentage of heavy-duty truck trips and a relatively higher percentage of passenger vehicles when compared with the proposed Project. Also, the number of employees included as a part of Alternative 1 would be reduced when compared to the proposed Project. With implementation of Mitigation Measure 4.12-1, construction would be limited to daytime hours, for which associated noise levels are considered exempt from the provisions of applicable standards established by the City and the County. On-site and off-site impacts from temporary, short-term exposure of sensitive receptors to increased equipment noise from Alternative 1 would be reduced compared to the proposed Project. Therefore, with respect to vehicular traffic noise, Alternative 1, would result in a **lower** level of impact.

ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE

Impact 6.5.10-1. Temporary, Short-Term Exposure of Sensitive Receptors to Construction Noise. *This impact would be significant and unavoidable.*

Short-term construction source noise levels could exceed the applicable City standards at nearby noise-sensitive receptors. In addition, if construction activities were to occur during more noise-sensitive hours, construction source noise levels could also result in annoyance and/or sleep disruption to occupants of existing and proposed noise-sensitive land uses and create a substantial temporary increase in ambient noise levels.

Without feasible noise control, large pieces of earth-moving equipment, such as graders, excavators, and dozers, generate maximum noise levels of 85 dBA to 90 dBA at a distance of 50 feet (refer to Table 4.12-17) (EPA 1971: 11). Typical hourly average construction-generated noise levels are about 80 dBA to 85 dBA, measured at a distance of 50 feet from the site during busy construction periods. It is possible that pile driving could occur during the proposed project construction. This type of construction activity could produce very high noise levels of approximately 95 dB at 50 feet.

Noise from localized point sources (such as construction sites) typically decreases by 6 dB to 7.5 dB with each doubling of distance from source to receptor. The existing intervening ground type at the proposed project area is currently soft and attenuates noise due to absorption; therefore, an attenuation rate of 7.5 dB per doubling of distance was assumed and accounted for in construction operation noise level predictions. The nearest noise and vibration-sensitive uses to the Alternative 2 site are single-family residences located approximately 500 feet (north of SR 12 within the city of Fairfield limit) from the northern project boundary; approximately 2,300 feet (east of the railway within the city of Suisun City limit) from the eastern project boundary; approximately 300 feet from the western project boundary; and approximately 700 feet (along Orehr Road within the Solano County

limit) from the southern project boundary. Table 6-6. Project-Related Construction Noise (dBA) at Nearest Noise-Sensitive Land Uses presents project-related construction noise at the nearest noise-sensitive uses.

Table 6-4. Alternative 2-Related Construction Noise (dBA) at Nearest Noise-Sensitive Land Uses

Source of Construction Noise	Distance (feet)	Typical Construction Noise - L_{eq}	Including Pile Driving Noise - L_{eq}
From Utilities (Potentially within the County and City Limits)	50	85	95
From Northern Boundary (City of Fairfield)	500	60	70
From Eastern Boundary (City of Suisun City)	2,300	44	53
From Southern Boundary (County of Solano)	700	57	66

Notes: dBA = A-weighted decibels; L_{eq} = equivalent or energy-averaged sound level.

Source: Calculated by AECOM 2022.

Permitted hours of construction and applicable thresholds in Solano County, City of Suisun City, and the City of Fairfield are described in Section 4.10.2, and summarized in Table 4.10-19 of this EIR. The County of Solano exempts daytime construction noise from applicable standards. However, if construction activities occur during the more noise-sensitive evening and nighttime hours, due to the potential necessity of continuous activity for specific components to maintain structural integrity, Alternative 2-generated noise levels could exceed nighttime exterior and interior noise standards of 55 dB L_{eq} and 45 dB L_{eq} , respectively, at the nearest noise-sensitive receptors.

As shown in Table 6-6, construction noise ranges from 57 dBA to 85 dBA (under typical construction activities), and from 66 dBA to 95 dBA (with pile driving). These noise levels exceed the applicable thresholds summarized in Table 4.10-19 when construction occurs beyond permitted hours. Therefore, the construction of on-site and off-site facilities could expose existing off-site sensitive receptors to equipment noise levels that exceed the applicable noise standards and/or result in a substantial increase in ambient noise levels. This would be a **significant** impact.

Mitigation Measure: Implement Mitigation Measure 4.10-1 (Implement Noise-Reducing Construction Practices, Prepare and Implement a Noise Control Plan, and Monitor and Record Construction Noise near Sensitive Receptors)

Significance after Mitigation

With implementation of Mitigation Measure 4.10-1, construction would be limited to daytime hours, for which associated noise levels are considered exempt from the provisions of applicable standards established by the City and the County. On-site and off-site impacts from temporary, short-term exposure of sensitive receptors to increased equipment noise from the project would be reduced. With enforcement of the above mitigation measure and existing noise regulations, future development and off-site improvements would be designed to minimize potential impacts. For example, when installed properly, acoustic barriers can reduce construction noise levels by approximately 8–10 dB (EPA 1971). This mitigation measure would reduce potential impacts. However, it is not possible to demonstrate that this would avoid significant construction noise impacts in every case. There is no additional feasible mitigation. Therefore, impacts construction equipment and related noise would be **significant and unavoidable**. This impact conclusion is the same as for the proposed Project (Impact 4.10-1); however,

because Alternative 2 would include a reduced level of construction, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.10-2. Temporary, Short-Term Exposure of Sensitive Receptors to Increased Traffic Noise Levels from Project Construction. *This impact would be less than significant.*

Future development would result in an increase of traffic volumes due to the addition of construction-generated traffic associated with on-site future development and off-site infrastructure improvements. Construction-generated traffic on the local roadway network was analyzed based on a maximum construction-related traffic volume of 500 vehicles daily and assuming eight hours of construction period per, the project would result in 63 construction vehicles per hour. As such, all materials would be transported using the local roadway network, thus increasing traffic volumes along affected roadway segments.

To examine the effect of Alternative 2-generated traffic increases, traffic noise levels were calculated for roadway segments affected by Alternative 2 traffic. Traffic noise levels were modeled using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108) under existing conditions, with and without construction traffic. Additional input data included day/night percentages of autos, medium and heavy trucks, vehicle speeds, ground attenuation factors, and roadway widths.

Table 4.10-16 of this EIR summarizes the modeled traffic noise levels for existing and existing plus construction conditions at 50 feet from the centerline of roadways for the proposed Project. Proposed Project-related construction traffic increases accounted for a 0.1 to 3.5 dB increase in short-term traffic noise levels. Construction-related traffic noise would result in an estimated 3.5-dB increase over existing traffic noise levels along Chadbourne Road from Cordelia Road to South of Cordelia Road. There are no noise-sensitive uses along this segment of the roadway. Alternative 2 would include a reduced level of construction, but could include a similar level of daily worker and truck trips associated with construction during peak construction times. Thus, the potential noise level increases identified for construction related traffic under the proposed Project would be **similar** to that of Alternative 2. Therefore, implementation of Alternative 2 would not result in a substantial temporary or periodic increase in ambient noise levels associated with construction traffic. As a result, this impact would be **less than significant** under Alternative 2. This impact conclusion is the same as the proposed Project (Impact 4.10-2); however, because Alternative 2 would include a reduced level of construction, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.10-3. Temporary, Short-Term Exposure of Sensitive Receptors to Potential Groundborne Noise and Vibration from Project Construction. *This impact would be significant.*

Table 4.10-17 of this EIR provides vibration levels at 25 feet for impact and heavy construction equipment, in terms of PPV (for structural damage) and VdB (for human annoyance). Construction equipment could include pile drivers, loaded trucks, bulldozers, and vibratory roller, among others. According to the FTA, vibration levels associated with the use of such equipment would range from approximately 0.003 in/sec PPV (referenced to 1 μ m/sec and based on the root mean square velocity amplitude) and 58 VdB for a vibratory roller to 1.518 in/sec PPV and 112 VdB for a pile driver, at 25 feet, as shown in Table 4.10-17 of this EIR. Typical construction equipment, loaded trucks, jackhammers, and bulldozers, generate vibration levels that decrease quickly over distance, and pile driving activities generate significantly more vibration energy and require more distance for it to decrease the vibration levels.

The vibration-sensitive uses (buildings) nearest to the construction sites are residential uses approximately 350 feet to the west, approximately 550 feet to the north, approximately 2,300 feet to the east, and approximately 650 feet to the south. The majority of the construction activities would take place farther from the nearest noise-sensitive uses; most would occur in the central portion of the site where the buildings would be constructed. At distances of 350 to 2,300 feet, the vibration generated by construction equipment would result in 28 to 53 VdB and 0.0001 to 0.002 in/sec PPV, respectively for a bulldozer (the heaviest equipment). The vibration levels from vibratory roller operation would result in 35 to 60 VdB and 0.0001 to 0.002 in/sec PPV, at distances of 350 to 2,300 feet, respectively. The vibration generated by the pile driver would result in 53 to 78 VdB and 0.001 to 0.01 in/sec PPV. These levels would be below the criteria of 80 VdB, and above 0.2 in/sec PPV recommended for older building structures by Caltrans. However, for the existing commercial buildings located in the middle of the Alternative 2 site to the west of the intersection of Pennsylvania Avenue and Cordelia Street, the vibration levels due to construction would exceed the thresholds of building damage, conservatively assuming these structures would occur to be within 100 feet for the pile driver, and within 45 feet for vibratory rollers. Therefore, short-term construction of Alternative 2 would exceed the threshold for structural damage and would expose persons to or generate excessive ground-borne noise or vibration. For these reasons, this impact would be **potentially significant** under Alternative 2.

Long-term operations under Alternative 2 would not include any major new sources of groundborne noise or vibration. Maintenance vehicles and delivery trucks would be restricted to existing public roadways, and the limited number of trips generated would not have the potential to substantially increase vibration levels at adjacent land uses.

Mitigation Measure: Implement Mitigation Measure 4.10-2 (Implement Measures to Reduce Groundborne Noise and Vibration Levels at Sensitive Receptors during Pile Driving Activities)

Significance after Mitigation

Implementation of Mitigation Measure 4.10-2 would substantially limit the effects of groundborne vibration on sensitive receptors. Pile driving construction would be conducted at least 500 feet from vibration-sensitive receptors, or use alternative methods when within 500 feet from a vibration-sensitive receptor. Therefore, project-generated groundborne noise and vibration levels would be reduced.

Implementation of Mitigation Measure 4.10-2 would substantially limit the effects of groundborne vibration on sensitive receptors. Pile driving construction would be conducted at least 500 feet from vibration-sensitive receptors, or use alternative methods when within 500 feet from a vibration-sensitive receptor. Therefore, with implementation of Mitigation Measure 4.10-2, this impact would be reduced to a **less-than-significant level** under Alternative 2. This impact conclusion is the same as the proposed Project (Impact 4.10-3); however, because Alternative 2 would include a reduced level of construction duration, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Impact 6.5.10-4. Long-term Traffic Noise Levels at Existing Noise-Sensitive Receivers. *This impact would be less than significant.*

The contribution of Alternative 2 to the existing and future traffic noise levels along area roadways was determined by comparing the predicted noise levels with and without Alternative 2-generated traffic. Table 6-7 summarizes the modeled traffic noise levels at 50 feet from the centerline of affected roadway segments in the

vicinity of the Alternative 2 site. Modeled increases that would be considered substantial, an increase of 3 dBA, in comparison to existing no project conditions are indicated in bold. Modeled roadway noise levels assume no natural or artificial shielding between the roadway and the receptor.

As shown in Table 6-7, the modeling conducted shows that future development, in addition to existing conditions, would result in traffic noise level increases ranging from 0.1 dBA to + 0.5 dBA L_{dn} , compared to noise levels without Alternative 2. As seen, traffic generated under existing and future conditions by the Alternative 2 would not contribute to a substantial increase in future traffic noise conditions. Therefore, long-term noise levels from Alternative 2-generated traffic sources for Alternative 2 would not result in a substantial permanent increase in ambient noise levels (an increase of 3 dBA or greater) under existing and future conditions. As a result, this impact is considered **less than significant** under Alternative 2. This impact conclusion is the same as for the proposed Project (Impact 4.10-4); however, because Alternative 2 would include a reduced level of operational traffic levels, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Table 6-5. Predicted Traffic Noise Levels, Existing Plus Project Alternative 2 Conditions, L_{dn} at 50 Feet, dB

Roadway Segment	Segment Location	No Project	Plus Alternative 2	Net Change	Significant Impact?
Chadbourne Road	From SR-12 to Cordelia Road	68.5	68.8	0.2	No
Beck Avenue	From SR-12 to North of SR-12	69.1	69.3	0.2	No
Beck Avenue	From SR-12 to South of SR-12	67.1	67.4	0.3	No
West Texas Street	From Beck Avenue to Pennsylvania Avenue	69.7	69.9	0.2	No
SR-12	From Beck Avenue to Pennsylvania Avenue	76.2	76.3	0.1	No
Cordelia Road	From Beck Avenue to Pennsylvania Avenue	66.9	67.3	0.3	No
Pennsylvania Avenue	From SR-12 to North of SR-12	69.4	69.6	0.2	No
Pennsylvania Avenue	From SR-12 to South of SR-12	64.8	65.4	0.5	No
SR-12	From Marina Boulevard to Grizzly Island Road	76.1	76.2	0.1	No
SR-12	From Emperor Drive to Walters Road	74.1	74.2	0.1	No

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level

^a There is no existing noise-sensitive use along this segment of the roadway.

Source: AECOM 2023

Impact 6.5.10-5. Long-term Non-Transportation Noise Levels at Existing Noise-Sensitive Receivers. *This impact would be significant.*

The long-term operations of Alternative 2 could result in non-transportation noise from, but not limited to, the following potential sources:

- ▶ landscape and building maintenance activities (e.g., hand tools, power tools, lawn and garden equipment);
- ▶ mechanical equipment (e.g., pumps, generators heating, ventilation, and cooling systems);
- ▶ garbage collection;
- ▶ parking lots; and
- ▶ commercial, office, and industrial activities.

The OS zoning of the Managed Open Space portion of the Alternative 2 site would accommodate agriculture, resource protection and restoration, and resource-related recreation. However, the Managed Open Space area would be managed to protect the existing habitat and also to provide for mitigation of development impacts, and noise-generating activities associated with uses such as agriculture or recreation would be minimal.

Potential Long-Term Alternative 2-Generated Stationary Source Noise

Landscape and Building Maintenance Activities

Landscape maintenance activities include the use of leaf blowers, power tools, and gasoline-powered lawn mowers, which could result in intermittent noise levels that range from approximately 88.3 dB at 6.5 feet, respectively. Based on an equipment noise level of 88.3 dB, the use of such equipment, assuming a noise attenuation rate of 6 dB per doubling of distance from the source, would result in exterior noise levels of approximately 70.1 dB at 50 feet. Although such activities would likely occur during the daytime hours, the exact hours and locations are unknown at this time. Such activities are intermittent and would occur during the daytime, which is a less noise-sensitive time of day. The use of such equipment is not so frequent that applicable daily noise standards or maximum single-event noise standards would be exceeded for noise-sensitive land uses. This impact would be **less than significant**. However, because Alternative 2 would include a reduced level of development, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Mechanical HVAC Equipment

HVAC equipment is often mounted on rooftops, located on the ground, or located within mechanical equipment rooms. The noise sources could take the form of fans, pumps, air compressors, and chillers. Packaged rooftop units contain all necessary mechanical equipment, such as fans, pumps, condensers, and compressors, within a single enclosure. AECOM has measured noise levels from schools' HVAC systems. HVAC equipment noise at high schools would be approximately 70 dBA L_{eq} at a distance of 6 feet⁴. This would result in a noise level of 52 dBA at a distance of 50 feet. Also, noise levels from commercial HVAC equipment can reach 100 dBA at a distance of three feet (EPA 1971). However, HVAC systems would be enclosed and/or shielded to reduce exterior

4 Long Beach Unified School District. Jordan High School Major Renovation Project Draft EIR. September 2013: <http://lbschoolbonds.net/jordanhs.cfm>.

noise levels. Noise from mechanical equipment associated with the operation of Alternative 2 is required to comply with the California Building Standards Code requirements pertaining to noise attenuation.

The closest off-site noise-sensitive land uses in the vicinity of the Alternative 2 site are single-family residences located approximately 200 feet east of the Alternative 2 site from the boundary of the Alternative 2 site and HVAC would be farther away (200 feet to 300 feet) assuming the HVAC would be located in the center of a rooftop of buildings within the Alternative 2 site. Furthermore, the HVAC systems would be enclosed and/or shielded to reduce exterior noise. Based on the cooling capacity of the packaged systems and their locations with respect to sensitive uses, noise levels for mechanical HVAC systems would be less than 50 dBA L_{eq} at the nearest noise-sensitive receptors to the Alternative 2 site. Therefore, HVAC equipment would not exceed the City's performance standard of 55 dB L_{eq} for noise-sensitive land uses affected by non-transportation noise during the daytime period, and would not result in a substantial permanent increase (more than 3–5 dB) in ambient noise levels in the project vicinity above levels existing without Alternative 2. This impact would be **less than significant**. However, because Alternative 2 would include a reduced level of development and since the Alternative 2 site is farther from noise-sensitive receptors, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Garbage Collection Activities

Garbage collection activities (e.g., emptying large refuse dumpsters, possibly multiple times per week, and the shaking of containers with a hydraulic lift), could result in instantaneous maximum noise levels of approximately 89 dB L_{max} at 50 feet. Such activities are anticipated to be very brief, intermittent, and would occur during daytime hours, which are considered to be less noise-sensitive times of the day. Garbage collection activities are infrequent, and therefore would not be expected to exceed daily noise standards. Noises would typically emanate from public rights-of-way, which would normally be separated from outdoor gathering spaces associated with residential uses. Noise associated with garbage collection would not be expected to create single-event noise that would be substantially disruptive to daily activities or cause sleep disturbance. This impact would be **less than significant**. However, because Alternative 2 would include a reduced level of development, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

Parking Lots

Parking lots and parking structures include noise sources such as vehicles entering/exiting the lot, alarms/radios, and doors slamming. Alternative 2 would introduce approximately 546 new parking stalls at the nearest proposed building (Building A) on the north side of the Alternative 2 site approximately 500 feet from adjacent noise-sensitive residential uses to the north. Based on previous noise measurements, the sound exposure level (SEL) associated with a parking event is approximately 71 dB SEL at 50 feet. Assuming that each parking stall adjacent to residential uses were to fill and empty (416 parking events total) during the peak hour, the noise level is predicted to be 62 dBA L_{eq} at 50 feet, and 42 dBA L_{eq} at 500 feet from the center of the parking stalls. Existing ambient noise levels at the residential uses to the north of the Alternative 2 site were measured at 56 to 59 dBA L_{eq} , represented by LT-1. Therefore, noise levels associated with parking would not be distinguishable from the existing ambient noise levels. As a result, this impact would be **less than significant** and **the level of impact would be similar** under Alternative 2 as compared to the proposed Project.

Light Manufacturing, Research and Development, Warehousing, and Accessory Office Space Activities

Light manufacturing, research and development, warehousing, and accessory office space noise sources include loading dock activities, air circulation systems, delivery areas, and the operation of trash compactors and air compressors. Such activities could result in intermittent noise levels of approximately 91 dB L_{max} at 50 feet (79 dB L_{max} at 200 feet) (EPA 1971) and high single-event noise levels from backup alarms from delivery trucks during the more noise-sensitive hours of the day. Noise levels could exceed the applicable standards at existing and proposed noise-sensitive receptors, especially if such activities were to occur during the more noise-sensitive hours (e.g., evening, nighttime, and early morning) and create a substantial increase in ambient noise levels at existing noise-sensitive receptors located approximately at 200 feet. Therefore, this impact would be **potentially significant**.

Mitigation Measure: Implement Mitigation Measure 4.10-3 (Implement Measures to Reduce Potential Exposure of Sensitive Receptors to Non-Transportation Source-Generated Noise)

Significance after Mitigation

Compliance with the applicable City of County Noise Ordinance and implementation of additional mitigation measures for the control of non-transportation source noise as identified above in Mitigation Measure 4.10-3 would reduce non-transportation source noise levels. Restricting noise-generating activities to daytime hours as outlined in the City or County's Noise Control Ordinance and requiring stationary equipment to achieve property line noise limits would reduce the potential for noise impacts at sensitive receptors. Achievable noise reductions from fences or barriers can vary but typically range from approximately 5 to 10 dBA, depending on construction characteristics, height, and location. However, it is not now possible to determine the effectiveness of mitigation with certainty. With enforcement of the above mitigation measure, Alternative 2 would be designed to minimize potential impacts. Therefore, implementation of Mitigation Measure 4.10-3 would reduce this impact to a **less-than-significant level** under Alternative 2. This impact conclusion is the same as for the proposed Project (Impact 4.10-5); however, because Alternative 2 would include a reduced level of development, **the level of impact would be reduced** under Alternative 2 as compared to the proposed Project.

ALTERNATIVE 3: REDUCE CRITERIA AIR POLLUTANT AND GHG EMISSIONS AND TRANSPORTATION-RELATED ENERGY CONSUMPTION

As described in Section 6.4.3, Alternative 3 is intended to reduce potential impacts related to air pollutant emissions, greenhouse gas (GHG) emissions, vehicular travel demand (measured according to vehicle miles traveled or "VMT"), and energy use associated with transportation. To reduce these impacts, Alternative 3 would reduce the amount of building space for logistics and warehousing uses, and would add office space with the intent to offer local employment opportunities for residents that are currently commuting relatively long distances for employment.

Alternative 3 would result in a smaller area affected by development and reduced building square footage as compared to the proposed Project (i.e., 45 acres vs. 93 acres, respectively). Because fewer buildings and landscaping would be installed, as compared to the proposed Project, the level of impact related to construction and operational noise and vibration would be less than Alternative 3 as compared to the proposed Project.

6.5.11 PUBLIC SERVICES AND RECREATION

ALTERNATIVE 1: NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

As with the proposed Project, Alternative 1 would increase the demand for Suisun City Fire Department facilities and services within the 161-acre Annexation Area after annexation to the City. The Project applicant would be required to incorporate all California Fire Code and California Health and Safety Code requirements into the 73-acre Development Area designs under Alternative 1, which would reduce the dependence on the Suisun City Fire Department equipment and personnel by reducing fire hazards. Under both Alternative 1 and the proposed Project, the Project applicant would be required to pay the Fees for New Construction as required by Section 3.16 of the Suisun City Municipal Code to ensure fire protection equipment and facilities are provided to meet increased demand. Because Alternative 1 would involve a reduced amount of development (363,000 square feet vs 1.28 million square feet under the proposed Project) in a smaller area, the level of impact related to increased demand for fire protection facilities, services, and equipment under Alternative 1 would be **reduced** as compared to the proposed Project.

As with the proposed Project, Alternative 1 would increase the demand for Suisun City Police Department facilities and services within the 161-acre Annexation Area after annexation to the City. Under both Alternative 1 and the proposed Project, the Project applicant would be required to pay the Fees for New Construction as required by Section 3.16 of the Suisun City Municipal Code to ensure police protection equipment and facilities are provided to meet increased demand. Furthermore, incorporation of security measures into the 73-acre Development Area designs under Alternative 1 would reduce the need for police protection services by reducing the potential for crime. Because Alternative 1 would generate a reduced number of on-site personnel (approximately 726 jobs as compared to 1,275 jobs under the proposed Project) that would be concentrated in a smaller patrol area, the level of impact related to increased demand for police protection facilities, services, and equipment under Alternative 1 would be **reduced** as compared to the proposed Project.

ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE

Impact 6.5.11-1: Increased Demand for Fire Protection Facilities, Services, and Equipment. *This impact would be less than significant.*

Under Alternative 2, the approximately 161 acres north of Cordelia Road and Cordelia Street within the City's SOI would be annexed into the city in the same way as the proposed Project. After annexation, fire protection services to the Annexation Area would be provided by the Suisun City Fire Department. The department operates out of one fire station located at 621 Pintail Drive in Suisun City, approximately 2.9 miles northeast of the Alternative 2 site. As discussed in EIR Section 4.11.1, in the event of a large-scale fire, the Suisun City Fire Department would request mutual aid from the City of Fairfield.

The City requires new development to demonstrate, to the satisfaction of the City Engineer, that existing services can accommodate the increased demand generated by new development or that project conditions would adequately mitigate for impacts associated with additional demand. As with the proposed Project, Alternative 2 would include two tie-ins from existing water transmission mains (shown in Exhibit 6-4, "Alternative 2 Building Layout and Utility Plan") to supply fire and potable water and meet California Fire Code requirements for fire flow to the 51-acre Development Area. The Suisun City Fire Department would review the Alternative 2 designs to ensure that adequate emergency access, fire suppression equipment, and other features that reduce fire risk are

incorporated into the designs. In addition, as with the proposed Project, Alternative 2 would be subject to the requirements of Suisun City Municipal Code Section 3.16, Fees for New Construction, which establishes a fee for new construction to meet the City's current and future needs for capital improvements, including land acquisition and construction of public buildings and other facilities. Payment of the fee would offset the cost of fire service demands associated with Alternative 2.

The Alternative 2 applicant would be required to incorporate all California Fire Code and California Health and Safety Code requirements, including fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, and hazardous materials storage and use, into the Alternative 2 Development Area site designs. Incorporation of all State and local requirements into Alternative 2 designs would reduce the dependence on the Suisun City Fire Department equipment and personnel by reducing fire hazards.

Therefore, Alternative 2 would not require new fire protection facilities or the expansion of existing fire protection facilities to maintain acceptable service ratios, response times, or other performance objectives for fire protection services, and this impact would be **less than significant**. This impact conclusion is the same as for the proposed Project (Impact 4.11-1). Because Alternative 2 would involve a reduced amount of development (529,708 square feet of building space as compared to 1.28 million square feet under the proposed Project), the level of impact under Alternative 2 would be **reduced** as compared to the proposed Project.

Impact 6.5.11-2: Increased Demand for Police Protection Facilities, Services, and Equipment. *This impact would be less than significant.*

Under Alternative 2, after annexation, police protection services to the Annexation Area would be provided by the Suisun City Police Department. The police department is located at 701 Civic Center Boulevard, approximately 1.5 miles east of the Alternative 2 site. The City requires new development to demonstrate, to the satisfaction of the City Engineer, that existing services can accommodate the increased demand generated by new development or that project conditions would adequately mitigate for impacts associated with additional demand. The Suisun City Police Department would review the final Alternative 2 Development Area site plan to ensure that adequate access for police services is available and that adequate security measures have been incorporated. In addition, as with the proposed Project, the Alternative 2 applicant would be subject to the requirements of Suisun City Municipal Code Section 3.16, Fees for New Construction, which establishes a fee for new construction to meet the City's current and future needs for capital improvements, including land acquisition and construction of public buildings and other facilities. Payment of the fee would offset the cost of police service demands associated with Alternative 2.

As with the proposed Project, because Alternative 2 does not include development of new housing, Alternative 2 would not generate new residents that require additional police department staffing. The approximately 528 new jobs created under Alternative 2 (as compared to approximately 1,275 jobs created by the proposed Project) would not substantially increase the population in the surrounding area that is served by the Suisun City Police Department. Incorporation of security measures into Alternative 2 Development Area designs, such as security gates, security guard shacks at each access point, parking lot illumination, on-site security patrols, and fencing would reduce the need for police protection services by reducing the potential for crime. Therefore, Alternative 2 would not result in the need for construction of new police protection facilities or the expansion of existing police protection facilities that could cause an adverse physical environmental effect, and this impact would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.11-2). Because Alternative 2

would involve a reduced number of jobs (i.e., on-site personnel) concentrated in a smaller patrol area, the level of impact under Alternative 2 would be **reduced** as compared to the proposed Project.

Issues Where No Impact Would Occur

For the same reasons discussed in Section 4.11.3, “Environmental Impacts and Mitigation Measures,” under the heading “Issues Not Discussed Further,” the following issues would also result in **no impact** under Alternative 2.

- ▶ Increased Demand for Schools, Parks, or Other Public Facilities
- ▶ Increase the Use of Existing Neighborhood and Regional Parks or Other Recreational Facilities
- ▶ Construction or Expansion of Recreational Facilities

ALTERNATIVE 3: REDUCE CRITERIA AIR POLLUTANT AND GHG EMISSIONS AND TRANSPORTATION-RELATED ENERGY CONSUMPTION

As with the proposed Project, Alternative 3 would increase the demand for Suisun City Fire Department facilities and services within the 161-acre Annexation Area after annexation to the City. The Project applicant would be required to incorporate all California Fire Code and California Health and Safety Code requirements into the 46-acre Development Area designs under Alternative 3, which would reduce the dependence on the Suisun City Fire Department equipment and personnel by reducing fire hazards. Under both Alternative 3 and the proposed Project, the Project applicant would be required to pay the Fees for New Construction as required by Section 3.16 of the Suisun City Municipal Code to ensure fire protection equipment and facilities are provided to meet increased demand. Furthermore, the amount of building square footage under Alternative 3 would be substantially reduced as compared to the proposed Project: instead of the approximately 1.28 million square feet in logistics center/warehousing use under the proposed Project, Alternative 3 would provide 203,000 square feet of logistics/warehousing space and 268,000 square feet of office space. Because Alternative 3 would involve a reduced amount of development in a smaller area, the level of impact related to increased demand for fire protection facilities, services, and equipment under Alternative 3 would be **reduced** as compared to the proposed Project.

As with the proposed Project, Alternative 3 would increase the demand for Suisun City Police Department facilities and services within the 161-acre Annexation Area after annexation to the City. Under both Alternative 3 and the proposed Project, the Project applicant would be required to pay the Fees for New Construction as required by Section 3.16 of the Suisun City Municipal Code to ensure police protection equipment and facilities are provided to meet increased demand. Furthermore, incorporation of security measures into the 46-acre Development Area designs under Alternative 3 would reduce the need for police protection services by reducing the potential for crime. The total number of jobs (i.e., on-site personnel) under Alternative 3 would be the same as the proposed Project, and therefore the level of impact related to increased demand for police protection facilities, services, and equipment under Alternative 3 would be **similar** to the proposed Project.

6.5.12 TRANSPORTATION

ALTERNATIVE 1: NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

Alternative 1 assumes a mix of commercial uses, including retail and commercial services. As noted previously in Section 6.4.1, Alternative 1 has the potential to increase the number of daily vehicular trips to the site, as

compared with the proposed Project. Though Alternative 1 would involve a higher number of daily vehicular trips when compared to the proposed Project, Alternative would have a lower percentage of heavy-duty truck trips and a relatively higher percentage of passenger vehicles when compared with the proposed Project. However, as detailed in Section 4.12 of this EIR, “Transportation and Circulation,” the City’s methodology for assessing transportation impacts focuses on passenger vehicle and light-duty vehicles, and not on medium- or heavy-duty truck trips. The adverse physical environmental impacts associated with vehicular transportation are fully evaluated in the air quality, greenhouse gas emissions, and noise and vibration sections, as well as these sections within this alternatives chapter. For the purposes of transportation impact analysis specifically, the vehicular travel demand impact, measured according to passenger vehicle miles traveled (VMT) per employee would be increased relative to the proposed Project. This particularly true considering that the number of employees included as a part of Alternative 1 would be reduced when compared to the proposed Project. Commercial services and retail in this location would be separated from residential areas that it could serve by State Route 12 to the north and the Union Pacific Railroad to the east. Commercial development that is in smaller increments and is designed and tenanted in a way that directly appeals to surrounding residences in a pedestrian and bicycle-friendly environment could reduce vehicular travel demand (CAPCOA 2021). However, given the location of the site and the scale of commercial development contemplated as a part of Alternative 1, these travel demand-reducing features would be unlikely. Similar to the proposed Project, Alternative 1 would require a policy consistency analysis with relevant transportation-related policies and would be required to implement public works improvement standards and street design standards designed to avoid any substantial traffic hazard. Overall, transportation impacts under Alternative 1 would be **increased** compared to the proposed Project.

ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE

Impact 6.5.12-1. Near-Term Vehicle-Miles Traveled (VMT). *This impact would be potentially significant.*

As with the proposed Project, the City of Fairfield travel demand model, which includes Fairfield and Suisun City, was used to analyze the impact on VMT from implementation of Alternative 2.⁵ Using Caltrans and Federal Highway Administration model validation standards, the model was calibrated and validated to 2019 pre-pandemic conditions and finalized in year 2020 (herein referred to as the “year 2020 model”). The year 2020 model network and land use in the Alternative 2 site vicinity were confirmed to reflect existing roadway network and land uses.

Impacts are identified based on the Alternative 2 VMT compared against a percentage of a baseline value of VMT. Based on the Suisun City thresholds, the Alternative 2 VMT-related impact was evaluated against two criteria: (1) a project would result in a significant impact if it would generate an average home-based work VMT per employee that is greater than 85 percent of the citywide average, and (2) if the threshold is exceeded, the project’s VMT impact could still be found to be less-than-significant if it did not cause the total citywide VMT to increase. The average home-based work VMT per employee metric in the first criterion evaluates the VMT for all employee trips that travel between home and work. Trips related to non-commute economic activity (i.e., goods deliveries, customer visits, etc.) would not be captured in this metric. The focus of this metric is on passenger vehicle commute trips as being the primary component of VMT for most employment-focused land uses. The total citywide VMT metric in the second criterion evaluates all VMT (for all trip purposes by all users) that occurs within a geographic boundary. Since Alternative 2 is expected to generate truck traffic, which is not captured by

⁵ The City of Fairfield Model was adjusted to ensure the model vehicle trip generation for the project was consistent with ITE trip generation estimate for Alternative 2.

the average home-based work passenger vehicle commute metric in the first criterion, this total citywide VMT metric includes all vehicle trips. This metric is used to understand whether a project causes trips to shorten and thereby result in a net decrease in areawide VMT.

Based on the model runs, the citywide average home-based work daily VMT per employee is 14.8, and the 85 percent citywide average threshold is 12.6. Alternative 2 is expected to result in 14.3 home-based work daily VMT per employee, which is 1.7 VMT greater than the threshold. Alternative 2 would also increase total citywide daily VMT by approximately 4,000. Therefore, this impact would be **potentially significant**. The VMT analysis results are summarized in the Table 6-8.⁶

Table 6-6. Existing and Existing Plus Alternative 2 Daily VMT Results

	Criterion 1: Home-Based Work VMT per Employee	Criterion 2: Total Citywide VMT
No Project Value	14.8	472,000
Threshold Value	12.6 ¹	472,000 ²
Project Value	14.3	476,000
Change between Threshold and Project Value	+1.7	+4,000
Change as % of Threshold Value	+13.5%	+0.8%

VMT = vehicle miles traveled

Table Notes

1. Represents 85 percent of the citywide average home-based work VMT per employee.
2. Represents the total citywide VMT.

Mitigation Measure: Implement Mitigation Measure 4.12-1 (Transportation Demand Management [TDM] Plan)

Significance after Mitigation

Prior to issuance of building permits, the Alternative 2 applicant would develop a TDM Plan for Alternative 2, including any anticipated phasing, and would submit the TDM Plan to the City for review and approval. The TDM Plan would be required to identify trip reduction strategies, as well as mechanisms for funding and overseeing the delivery of trip reduction programs and strategies. The TDM Plan would be required to be designed to achieve the trip reduction, as required to reduce the commute trip VMT per employee from 13.1 to 12.6, consistent with an 11.3-percent reduction. The analysis prepared to support the TDM Plan would be required to demonstrate that the selected reduction measures will achieve the necessary VMT reduction.

Based on research in the *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (GHG Handbook), Table 4.12-3 of this EIR describes feasible measures for the Alternative 2 TDM Plan aimed to reduce trips that would be generated under Alternative 2. The

⁶ VMT forecasts presented in this assessment do not consider some foreseeable travel changes, including increased use of transportation network companies, such as Uber and Lyft, nor the potential for autonomous vehicles. Although the technology for autonomous vehicles is expected to be available over the planning horizon, the federal and State legal and policy frameworks are uncertain. Initial modeling of an autonomous future indicates that with automated and connected vehicles, the capacity of the existing transportation system would increase as vehicles can travel closer together; however, these efficiencies are only realized when a high percentage of vehicles on the roadway are automated and connected. There is also the potential for vehicle travel to increase with zero-occupancy vehicles on the roadway. Additionally, the VMT forecasts are based on a model that was developed using data reflecting travel conditions before COVID-19; the effects of COVID-19 may be a near-term suppression in travel activity based on reduced economic output and could permanently modify travel habits.

GHG Handbook calculates maximum VMT reduction based on the Alternative 2 land use type and locational context. Alternative 2 is considered a commercial project type in a suburban setting.⁷ A 11.3-percent reduction is potentially achievable with implementation of the measures listed in Table 4.12-3 of this EIR.

As part of the TDM Plan, the Alternative 2 applicant would be required to monitor and report its effectiveness at reducing home-based work VMT per employee. Tenant/s would be required to submit annual reports to the City describing the specific TDM measures that are being implemented, the number of employees on-site, the daily vehicle trips generated by Alternative 2, and length of the trips being generated. The report would be required to be prepared by an independent City-approved transportation planning/engineering firm. The TDM Coordinator will provide information to the firm to monitor implementation effectiveness of the approved TDM Plan. To assess the TDM Plan's commute trip reductions, a baseline daily driveway count of vehicle trips shall be conducted before implementation of the TDM Plan and compared to the driveway count after one year of TDM Plan implementation. If the monitoring report shows that there was at least 11.3-percent commute trip VMT reduction, then the TDM Plan is presumed to effectively mitigate the Alternative 2 impact on VMT. If the monitoring report shows that the TDM Plan does not reduce commute trip VMT by at least 11.3 percent, then the transportation planning/engineering firm would be required to provide guidance for TDM Plan modification to achieve the VMT reduction goal.

Additionally, if the initial TDM Plan strategies do not reduce commute trip VMT by at least 11.3 percent, the Alternative 2 operations shall incorporate additional TMD strategies, such as the following to increase TDM effectiveness in the future:

- ▶ Provide enhancements to bus service to the Alternative 2 site area during peak commute times in coordination with FAST and SolTrans (not quantifiable at this time as future coordination with FAST and SolTrans is required and has not occurred)
- ▶ Compliance with a future City VMT/TDM ordinance (not quantifiable at this time as the City does not have a VMT/TDM ordinance)
- ▶ Participation in a future City VMT fee program (not quantifiable at this time as the City does not have a VMT fee program)

Implementation of Mitigation Measure 4.12-1 would reduce VMT to a level of **less-than-significant with mitigation** under Alternative 2 by implementing a TDM Plan and regularly monitoring its effectiveness through annual reports to the City to ensure VMT reductions are met. This impact conclusion is the same as for the proposed Project (Impact 4.12-1). Because Alternative 2 would involve a reduced amount of VMT, the level of impact under Alternative 2 would be **reduced** as compared to the proposed Project.

Impact 6.5.12-2. Circulation System. This impact would be less than significant.

The Alternative 2 site plan provides 5 vehicular driveways along Pennsylvania Avenue and Cordelia Road. The driveway specifications provide for adequate queuing and site distance to minimize potentially hazardous conditions. Furthermore, the California Northern Railroad (CFNR) crosses Pennsylvania Avenue and divides the Alternative 2 site. Warning equipment and gate arms are currently provided at the Pennsylvania Avenue crossing.

⁷ Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (GHG Handbook), California Air Pollution Control Officers Association, 2021.

The proposed rail spurs extend north and south of the CFNR onto the Alternative 2 site with adequate separation between on-site vehicular circulation. Alternative 2 would not conflict with programs, plans, ordinances, and policies addressing the circulation system. With the same Mitigation Measure 4.12-2 as required for the proposed Project, Alternative 2 would not increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Furthermore, individual projects are reviewed and conditioned for consistency with City standards, which are designed to avoid such impacts. Therefore, this would be a **less-than-significant impact with mitigation** under Alternative 2. This impact conclusion is the **same** as for the proposed Project (Impact 4.12-2). Some adjustments will be required to the Alternative 2 site plan if the City were to move forward with this alternative. For example, the parking areas next to the driveways (entering from Cordelia Road) would be adjusted to accommodate the required throat depths. The center driveway serving Building C on Cordelia Road would need to be reconfigured to increase the throat depth. No changes would be required for driveways on Pennsylvania Avenue. The sight distance of drivers exiting the driveways required to reduce vehicular conflicts with vehicles on Pennsylvania Avenue is adequate under Alternative 2 with no change. All driveways are shown as perpendicular. Drive aisles are shown perpendicular and parallel to the proposed buildings under Alternative 2 to the extent possible. The rail spurs are shown as eliminated.

Impact 6.5.12-3. Transit System. *This impact would be less than significant.*

Fixed route bus service operates in the vicinity of the Alternative 2 site. The closest bus stop is FAST Route 5 approximately 0.6-mile north of the Alternative 2 site at Pennsylvania Avenue and Woolner Avenue and the FAST Route 7 bus stop approximately 0.75-mile west of the Alternative 2 at Beck Avenue and Courage Drive. Based on the Suisun City commute patterns, about 90 percent of commute trips are by car. The Alternative 2 site is in an area with limited access to public transit. It is unlikely that Alternative 2 would generate large amounts of new demand for the transit services and facilities that serve the area to a level that would exceed the current local commute transit vehicle capacities. Alternative 2 is not expected to conflict with existing or planned transit facilities as there are no existing or planned transit facilities at the Alternative 2 site or frontages that would be interrupted or impacted. Therefore, this impact would be **less than significant** under Alternative 2. This impact conclusion is the **same** as for the proposed Project (Impact 4.12-3).

Impact 6.5.12-4. Pedestrian and Bicycle Systems. *This impact would be potentially significant.*

Like the proposed Project, Alternative 2 is expected to increase pedestrian and bicycle activity. The existing transportation network along the Alternative 2 site frontages on Pennsylvania Avenue and Cordelia Road do not provide pedestrian or bicycle facilities. Pedestrian and bicycle facilities are provided in and around the developed parcels near the Alternative 2 site. The closest major intersection is at SR-12 and Pennsylvania Avenue, adjacent the northeast corner of the area anticipated for development. This signalized intersection provides actuated pedestrian pushbuttons and signals, a marked crosswalk on the east leg for north-south travel, and a marked crosswalk on the southern leg for east-west travel. The north-south crosswalk connects the Alternative 2 site area south of SR 12 to Fairfield residential and commercial development north of SR 12 on Pennsylvania Avenue. The east-west crosswalk provides pedestrians the option of walking on either the east or west side of Pennsylvania Avenue south of SR 12. Pedestrians traveling south on Pennsylvania Avenue on the east side can continue on Cordelia Road along the Alternative 2 site frontage. Pedestrians traveling southbound on the west side of Pennsylvania Avenue can access the Alternative 2 site and continue east on Cordelia Street toward Suisun City. Other nearby sidewalks are located on Cordelia Street west of West Street, Beck Avenue, north of Cordelia Road,

and Cordelia Road east of Beck Avenue. The closest existing bicycle facility is the Central County Bikeway, a Class I bicycle path in Suisun City providing east-west travel along SR 12 between Walters Road and the Suisun/Fairfield Amtrak Station at Main Street.

The Suisun City and Fairfield Active Transportation Plans propose to build bicycle facilities that directly connect to the Alternative 2 site frontages at the following locations:

- ▶ SR 12 between Beck Avenue and Illinois Avenue
- ▶ Cordelia Road between Beck Avenue and Pennsylvania Avenue
- ▶ Cordelia Street between Pennsylvania Avenue and Waterfront Path

A portion of workers could use transit, walk, or bike to and from the Alternative 2 site. The Alternative 2 site plan does not provide pedestrian or bicycle facilities along Pennsylvania Avenue or Cordelia Road to connect to existing and planned facilities. Inadequate pedestrian and bicycle facilities and connections to the existing pedestrian and bicycle network and transit stations would expose pedestrian and bicyclists to hazardous conditions. The Suisun City and Fairfield General Plans include policy goals of safe and accessible multimodal system and infrastructure. Therefore, the Alternative 2 impact on pedestrians and bicyclists would be **potentially significant**.

Mitigation Measure: Implement Mitigation Measure 4.12-3 (Provide adequate pedestrian and bicycle facilities and improvements along Project Site frontages and on site)

Significance after Mitigation

Mitigation Measure 4.12-3 of this EIR would reduce this potential impact for Alternative 2 to less than significant through improved on-site and surrounding pedestrian and bicycle transportation conditions by providing adequate facilities to connect to the existing and future multimodal transportation network. Implementation of Mitigation Measure 4.12-3 would therefore reduce this impact to **less than significant** under Alternative 2. This impact conclusion is the **same** as the proposed Project (Impact 4.12-4).

Impact 6.5.12-5. Emergency Access. *This impact would be less than significant.*

Alternative 2 would provide a complete on-site circulation network with multiple ingress and egress. The final site plan must be approved by the Suisun City Fire Department to ensure the emergency access routes meet requirements to facilitate the safe movement of emergency vehicles. This impact would be **less than significant** under Alternative 2. This impact conclusion is the **same** as the proposed Project (Impact 4.12-5).

ALTERNATIVE 3: REDUCE CRITERIA AIR POLLUTANT AND GHG EMISSIONS AND TRANSPORTATION-RELATED ENERGY CONSUMPTION

As described in Section 6.4.3, Alternative 3 is intended to reduce potential impacts related to air pollutant emissions, greenhouse gas (GHG) emissions, vehicular travel demand (measured according to vehicle miles traveled or “VMT”), and energy use associated with transportation. To reduce these impacts, Alternative 3 would reduce the amount of building space for logistics and warehousing uses, and would add office space with the

intent to offer local employment opportunities for residents that are currently commuting relatively long distances for employment.

Approximately 7 percent of Suisun City residents commute to Vacaville, producing two-way commuting daily VMT of approximately 16,000; 5 percent to San Francisco producing two-way commuting daily VMT of approximately 49,000; 4 percent to Vallejo producing two-way commuting daily VMT of approximately 15,000; 3 percent to Napa producing two-way commuting daily VMT of approximately 13,000; 3 percent to Benicia producing two-way commuting daily VMT of approximately 12,000; 3 percent to Oakland producing two-way commuting daily VMT of approximately 25,000; 3 percent to Concord producing two-way commuting daily VMT of approximately 16,000; and 2 percent to Sacramento producing two-way commuting daily VMT of approximately 17,000.

Alternative 3 could reduce some of this commuting VMT if the additional office space developed under this alternative would attract tenants that would offer local jobs to those currently commuting to relatively more distant locations, such as San Francisco, Napa, Oakland, Concord, and Sacramento. The degree of VMT reduction would depend on many factors outside the control of the Alternative 3 applicant and City. The relative percentage of remote Suisun City employees and Suisun City employees that sometimes travel to distant office locations and at other times work from home remotely is unknown. Similarly, the change in remote and hybrid work arrangements associated with Alternative 3 is not known. However, considering the current deficit of local employment options in office settings and the substantial number of Suisun City residents that are currently commuting relatively long distances, it is assumed that Alternative 3 could reduce commute-related VMT somewhat, assuming that the office space offered at the Alternative 3 site could displace office space situated in more distant locations and the local labor force could occupy this space. The impact would be **slightly reduced** compared to the proposed Project.

Similar to the proposed Project, Alternative 3 would require a policy consistency analysis with relevant transportation-related policies and would be required to implement public works improvement standards and street design standards designed to avoid any substantial traffic hazard.

6.5.13 UTILITIES & SERVICE SYSTEMS

ALTERNATIVE 1: NO PROJECT ALTERNATIVE (BUILDOUT OF EXISTING LAND USE DESIGNATIONS)

Alternative 1, as with the proposed Project, would require installation of new electrical, natural gas, water, and wastewater utilities and service systems to serve the proposed development. Environmental impacts related to constructing or expanding utility infrastructure, including water, sewer, electrical, and natural gas infrastructure to serve the 73-acre commercial area under Alternative 1, are analyzed throughout the various environmental topic specific subsections of this alternatives analysis in conjunction with overall development at the Alternative 1 site. There is no additional significant impact related to construction of new or expanded utilities and service systems within the Alternative 1 development area beyond what is comprehensively analyzed throughout this chapter. Because Alternative 1 would involve a reduced amount of development (363,000 square feet vs 1.28 million square feet under the proposed Project) in a smaller area, the level of impact related to construction of new or expanded utilities and service systems facilities under Alternative 1 would be **reduced** as compared to the proposed Project.

Alternative 1 would increase the demand for water supplies from the Suisun-Solano Water Authority for new development within the 73-acre area anticipated for development under Alternative 1. The Water Supply Assessment prepared for the proposed Project, which included water demand for industrial development and landscaping over a 93-acre Development Area, concluded that with implementation of the Second Amendment to the Suisun/Solano Implementation Agreement and Lease Agreement and annexation into the Suisun-Solano Water Authority's service area, water supply would be sufficient to meet demands of the proposed Project and existing and planned development in the Suisun-Solano Water Authority service area in normal, single-dry, and multiple-dry years. The Suisun-Solano Water Authority water demand rates are based on acreage and land use type. Alternative 1 consists of commercial development and landscaping over a 73-acre area. Because the water demand rates for commercial development are higher than industrial development (Maddaus Water Management 2023), Alternative 1 would result in a similar water demand as the proposed Project even with the reduced acreage. As with the proposed Project, sufficient water supplies would be available to serve Alternative 1 in normal, single-dry, and multiple-dry years. Because the water demand under Alternative 1 would be similar, the level of impact related to increased demand for water supplies under Alternative 1 would be **similar** to the proposed Project.

Alternative 1 would require wastewater conveyance and treatment for the 73-acre area anticipated for development under Alternative 1. Under Alternative 1 as with the proposed Project, on-site and off-site sewer conveyance lines would be installed to convey wastewater to an existing off-site 27-inch pipeline near the intersection of Cordelia Road and Beck Avenue. Wastewater would be conveyed to the Fairfield-Suisun Subregional Wastewater Treatment Plant (WWTP) for treatment. Alternative 1 would result in development of 363,000 square feet of building space, as compared to 1.28 million square feet under the proposed Project. The Fairfield-Suisun Sewer District wastewater generation rates are based on building square footage and land use type (Woodard & Curran 2020: Table 2-2). Because the Fairfield-Suisun Sewer District wastewater generation rates for commercial development are the same as industrial development, and Alternative 1 would result in a reduction in the area anticipated for development (73 acres vs. 93 acres), Alternative 1 would result in less wastewater generation as compared to the proposed Project. As with the proposed Project, Alternative 1 would not exceed the capacity of existing sewer conveyance lines or the WWTP's permitted treatment capacity. Because the amount of wastewater generated under Alternative 1 would be less, the level of impact related to increased demand for wastewater conveyance and treatment would be **reduced** as compared to the proposed Project.

As with the proposed Project, Alternative 1 would result in generation of solid waste during the construction and operational phases. Construction and operational activities under Alternative 1 would be required to comply with all federal, state, and local solid waste statutes and regulations. Because Alternative 1 would result in fewer employees and construction over a smaller area with a reduced building square footage as compared to the proposed Project, the construction and operational generation of solid waste under Alternative 1 would be reduced as compared to the proposed Project. The Potrero Hills Landfill has sufficient landfill capacity available to accommodate the solid-waste disposal needs of both Alternative 1 and the proposed Project. Because Alternative 1 would result in a reduced amount of solid waste generation, the level of impact related to increased generation of solid waste and the potential to impair the attainment of solid waste reductions goals would be **reduced** as compared to the proposed Project.

ALTERNATIVE 2: REDUCED FOOTPRINT ALTERNATIVE

Impact 6.5.13-1: Require or Result in the Relocation of or the Construction of New or Expanded Utilities and Service Systems Facilities, the Construction of Which Could Cause Significant Environmental Effects. *This impact would be less than significant.*

The 51-acre area anticipated for development under Alternative 2 would require the construction of new or expanded electrical, natural gas, water, and wastewater facilities to serve proposed development of approximately 529,708 square feet of warehousing and logistics uses. New underground utility lines would be installed throughout the Alternative 2 site, as shown on Exhibit 6-3 and Exhibit 6-4. Similar off-site water and sewer line improvements as compared to the proposed Project would also be required for Alternative 2, as shown on Exhibit 6-2.

Environmental impacts related to constructing or expanding utility infrastructure, including water, sewer, electrical, and natural gas infrastructure, to serve the 51-acre Development Area are analyzed throughout the various environmental topic specific sections of this chapter in conjunction with overall development at the Alternative 2 site. The placement of these utilities has been considered in the other sections of this EIR, such as Section 4.2, "Air Quality," Section 4.3, "Biological Resources," Section 4.4, "Cultural Resources," Section 4.8, "Hydrology and Water Quality," and throughout Chapter 6, "Alternatives," which specifically analyze the potential impacts from the development at the Alternative 2 site. Where necessary, these sections include mitigation measures that would reduce or avoid the impacts of developing infrastructure on the physical environment under Alternative 2. There is no additional significant impact related to construction of new or expanded utilities and service systems for Alternative 2 beyond what is comprehensively analyzed throughout this chapter and this EIR. Therefore, this impact would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.13-1). Because Alternative 2 would involve a reduced amount of development on reduced acreage (529,708 square feet of building space on 51 acres as compared to 1.28 million square feet on 93 acres under the proposed Project), and a reduced number of employees (528 as compared to 1,275 under the proposed Project) the level of impact under Alternative 2 would be **reduced** as compared to the proposed Project.

Impact 6.5.13-2: Increased Demand for Water Supplies. *This impact would be less than significant.*

As with the proposed Project, Alternative 2 would require water supply for the anticipated development, provided by the Suisun-Solano Water Authority. The City outlines specific requirements to ensure water supplies are available to meet demands created by new development. These requirements include demonstrating water supplies are available to accommodate new development, including during multiple-dry years and adequate fire flow pressure, prior to approval. The Suisun-Solano Water Authority has published Design Standards, Standard Specifications, and Standard Details that include fire flow requirements, with which developers are required to comply. In addition, the City requires new development to include water conservation technologies and water-efficient industrial equipment, in accordance with State law. The proposed on-site and off-site water supply system improvements under Alternative 2 are shown in Exhibit 6-2 and Exhibit 6-4, and are similar to the proposed Project except for modifications related to the smaller area anticipated for development.

A Water Supply Assessment was prepared for the proposed Project as requested by the City, which included water demand for approximately 1,275 employees and 1.28 million square feet of buildings plus landscaping over a 93-acre Development Area. Based on a water demand factor of 0.7 gallons per minute (gpm) per acre for warehouse land uses, water demand for the proposed Project was determined to be 65.1 gpm total annual demand,

which equates to 105 acre-feet per year (afy) (Kjeldsen, Sinnock & Neudeck, Inc. 2022: Appendix A, p. 30). The Water Supply Assessment concluded that with implementation of the Second Amendment to the Suisun/Solano Implementation Agreement and Lease Agreement, and annexation of the Project site into the Suisun-Solano Water Authority's service area, water supply would be sufficient to meet demands of the proposed Project and existing and planned development in the Suisun-Solano Water Authority service area in normal, single-dry, and multiple-dry years.

Alternative 2 includes approximately 538 employees and 529,708 square feet of building space with landscaping on 51 acres. Based on the 0.7 gpm/acre warehouse demand factor used by the Suisun-Solano Water Authority (Maddaus Water Management 2023), the water demand for Alternative 2 would be 35.7 gpm total annual demand, which equates to 57.6 afy. Therefore, the water demand for Alternative 2 represents a 45-percent reduction as compared to the proposed Project.

Since Alternative 2 would result in a substantial reduction in water demand, the Water Supply Assessment conclusion for the proposed Project is also applicable to Alternative 2. If required by the City, the Water Supply Assessment would be updated specific to the development proposed under Alternative 2. Because sufficient water would be available to serve Alternative 2 plus existing and planned development in the Suisun-Solano Water Authority service area in normal, single-dry, and multiple-dry years, this impact would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.13-2). Because Alternative 2 would result in a reduced water demand, the level of impact related to demand for water supply would be **reduced** as compared to the proposed Project.

Impact 6.5.13-3: Increased Demand for Wastewater Treatment Facilities. *This impact would be less than significant.*

Alternative 2 would require wastewater conveyance and wastewater treatment. As with the proposed Project, wastewater generated by Alternative 2 would be conveyed off-site to a 27-inch sewer main near the intersection of Beck Avenue and Cordelia Road. The proposed on-site and off-site wastewater system improvements under Alternative 2 are shown in Exhibit 6-2 and Exhibit 6-4, and are similar to the proposed Project except for modifications related to the smaller area anticipated for development. As discussed in detail in Section 4.13, "Utilities and Service Systems," no deficiencies in the conveyance pipelines or pump stations in the vicinity of the Alternative 2 site were identified in the most recent Fairfield-Suisun Sewer District Master Plan. Wastewater would be treated at the Fairfield-Suisun Subregional WWTP, which has a maximum average dry-weather design treatment capacity of 23.7 million gallons per day (mgd); the current average dry weather flow is approximately 16.1 mgd.

The Fairfield-Suisun Sewer District uses a base wastewater flow factor for industrial development of 0.1 gallons per day per square foot (gpd/SF) (Woodard & Curran 2020: Table 2-2). For the proposed Project, the base wastewater flow factor was determined to be 128,000 gpd (0.128 mgd), based on approximately 1.28 million square feet of building area. Applying this discharge into the wastewater pipeline at the intersection of Beck Avenue and Cordelia Road, a modeled system capacity analysis showed that the proposed Project would somewhat increase the projected surcharge in the existing wastewater system (by approximately 1 foot). However, based on allowable surcharges in the sewer system, the proposed development would not trigger any new capacity deficiencies and would not exacerbate any existing capacity deficiencies (Morton & Pitalo 2021: Appendix B).

Under Alternative 2, approximately 529,708 square feet of building space would be developed. Applying the industrial wastewater flow factor of 0.1 gpd/SF, the proposed Alternative 2 development would result in 52,970

gpd (0.05 mgd) of wastewater. Therefore, the amount of wastewater generated under Alternative 2 represents a 59-percent reduction as compared to the proposed Project.

Because the amount of wastewater generated by Alternative 2 (0.05 mgd) would not exceed the capacity of the existing 27-inch sewer conveyance line at Beck Avenue and Cordelia Road and would not result in an increase in wastewater flows that exceed the current disposal capacity of 23.7 mgd average dry-weather flow at the Fairfield-Suisun Subregional WWTP, this impact would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.13-3). Because Alternative 2 would result in a reduced amount of wastewater generation, the level of impact related to demand for wastewater treatment would be **reduced** as compared to the proposed Project.

Impact 6.5.13-4: Increased Generation of Solid Waste in Excess of Capacity and Compliance with Solid Waste Statutes and Regulations. *This impact would be less than significant.*

Construction of the Alternative 2 Development Area and the off-site improvements would result in site clearing and the generation of various construction-period wastes, including scrap lumber, scrap finishing materials, various scrap metals, and other recyclable and nonrecyclable construction-related wastes. The California Green Building Standards Code (CALGreen Code) (Title 24, Part 11 of the California Code of Regulations) requires construction contractors to prepare a Waste Management Plan that identifies a waste hauler and a construction and demolition sorting facility, and a waste log must be maintained to document compliance with CALGreen Code's 65 percent diversion requirement. In addition, the City requires all new construction to comply with its Construction and Demolition Debris Recycling Program.

The California Department of Resources Recycling and Recovery (CalRecycle) estimated Suisun City had a 2020 solid-waste disposal generation rate of 28.8 pounds per day (ppd) per employee (CalRecycle 2020). Based on this generation rate, the approximately 528 employees anticipated under Alternative 2 could generate 15,206 ppd (7.6 tons per day [tpd]) (above existing conditions), as compared to the 36,720 ppd (18.4 tpd) under the proposed Project. The amount of solid waste generated by Alternative 2 represents a 59-percent reduction as compared to the proposed Project. This estimate of solid waste for Alternative 2 is conservative (high) because recycling and waste diversion reduces this amount and is likely to increasingly reduce the waste stream that is sent to landfills in the future as more restrictive regulations require diversion of larger fractions of the waste stream. The City provides recycling programs, such as curbside recycling of paper, plastics, and bottles, to reduce the operational volume of solid waste transported to landfills.

Solid waste in Suisun City is transported by Solano Garbage and disposed of at the Potrero Hills Landfill. According to CalRecycle, the Potrero Hills Landfill has a maximum permitted throughput of 4,330 tpd and has a total maximum permitted capacity of 83.1 million cubic yards (CalRecycle 2022). The Potrero Hills Landfill has a remaining capacity of approximately 13.9 million cubic yards and an anticipated closure date of February 14, 2048 (CalRecycle 2022). Therefore, the Potrero Hills Landfill has sufficient existing remaining capacity to accept the anticipated increase in solid waste generated by Alternative 2 (7.6 tpd).

As with the proposed Project, Alternative 2 would be required to comply with all federal, State, and local solid waste statutes and regulations, including compliance with the CALGreen Code, the City's Construction and Demolition Debris Recycling Program, the Suisun City Municipal Code Sections 8.08 (Solid Wastes) and 8.10 (Recyclable Materials), Assembly Bill (AB) 341 related to commercial recycling programs, AB 1826 related to mandatory commercial organics recycling, and other City recycling programs. Implementation of these codes and

programs would reduce the volume of solid waste disposed of at the Potrero Hills Landfill and ensure sufficient landfill capacity would be available to accommodate solid-waste disposal needs under Alternative 2. Therefore, Alternative 2 would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reductions goals or other federal, state, and local management and reduction status and regulations. Thus, impacts related to increased generation of solid waste under Alternative 2 would be **less than significant**. This impact conclusion is the same as the proposed Project (Impact 4.13-4). Because Alternative 2 would result in a reduced amount of solid waste generation, the level of impact related to increased generation of solid waste and the potential to impair the attainment of solid waste reductions goals would be **reduced** as compared to the proposed Project.

ALTERNATIVE 3: REDUCE CRITERIA AIR POLLUTANT AND GHG EMISSIONS AND TRANSPORTATION-RELATED ENERGY CONSUMPTION

Alternative 3, as with the proposed Project, would require installation of new electrical, natural gas, water, and wastewater utilities and service systems to serve the proposed development. Environmental impacts related to constructing or expanding utility infrastructure, including water, sewer, electrical, and natural gas infrastructure to serve the 46-acre logistics/warehousing and office space Development Area under Alternative 3, are analyzed throughout the various environmental topic specific subsections of this alternatives analysis in conjunction with overall development at the Alternative 3 site. There is no additional significant impact related to construction of new or expanded utilities and service systems within the Alternative 3 Development Area beyond what is comprehensively analyzed throughout this chapter. Because Alternative 3 would involve a reduced amount of development (470,000 square feet vs. 1.28 million square feet under the proposed Project) in a smaller area, the level of impact related to construction of new or expanded utilities and service systems facilities under Alternative 3 would be **reduced** as compared to the proposed Project.

Alternative 3 would increase the demand for water supplies from the Suisun-Solano Water Authority for new development within the 46-acre logistics/warehousing and office space Development Area. The Water Supply Assessment prepared for the proposed Project, which included industrial water demand for a 93-acre Development Area, concluded that with implementation of the Second Amendment to the Suisun/Solano Implementation Agreement and Lease Agreement and annexation of the 161 acres of the Project site that is north of Cordelia Road and Cordelia Street into the Suisun-Solano Water Authority's service area, water supply would be sufficient to meet demands of the proposed Project and existing and planned development in Suisun-Solano Water Authority service area in normal, single-dry, and multiple-dry years. The Suisun-Solano Water Authority water demand rates are based on acreage and land use type. Alternative 3 includes a mix of warehouse and office uses over a smaller 46-acre area; office uses are included in the commercial water demand factors (Maddaus Water Management 2023). Although the commercial water demand rates are somewhat higher than industrial, the reduced acreage under Alternative 3 would still result in a reduced water demand as compared to the proposed Project. As with the proposed Project, sufficient water supplies would be available to serve Alternative 3 in normal, single-dry, and multiple-dry years. Because the water demand under Alternative 3 would be less, the level of impact related to increased demand for water supplies would be **reduced** as compared to the proposed Project.

Alternative 3 would increase the demand for wastewater conveyance and treatment for new development within the 46-acre Development Area. Under Alternative 3 as with the proposed Project, on-site and off-site sewer conveyance lines would be installed to convey wastewater to the existing 27-inch off-site pipeline near the intersection of Beck Avenue and Cordelia Road. Wastewater would be conveyed to the Fairfield-Suisun

Subregional WWTP for treatment. Alternative 3 would result in development of 470,000 square feet of building space (203,000 square feet of warehouse/logistics space and 268,000 square feet of office space), as compared to 1.28 million square feet of industrial use under the proposed Project. The Fairfield-Suisun Sewer District wastewater generation rates are based on building square footage and land use type (Woodard & Curran 2020: Table 2-2). The wastewater generation rates for office and commercial land uses are the same as industrial uses; therefore, the reduced acreage under Alternative 3 would result in a reduced wastewater generation rate as compared to the proposed Project. As with the proposed Project, Alternative 3 would not exceed the capacity of existing sewer conveyance lines or the WWTP’s permitted treatment capacity. Because the amount of wastewater generated under Alternative 3 would be reduced as compared to the proposed Project, the level of impact related to increased demand for wastewater conveyance and treatment would be **reduced** as compared to the proposed Project.

As with the proposed Project, Alternative 3 would result in generation of solid waste during the construction and operational phases. Construction and operational activities under Alternative 3 would be required to comply with all federal, State, and local solid waste statutes and regulations. Because Alternative 3 would result in a similar number of employees as the proposed Project, the operational generation of solid waste under Alternative 3 would also be similar to the proposed Project. However, because Alternative 3 would involve development on a much smaller area of land and greatly reduced building square footage, the amount of solid waste generated during the construction phase under Alternative 3 would be substantially reduced as compared to the proposed Project. The Potrero Hills Landfill has sufficient landfill capacity available to accommodate the solid-waste disposal needs of both Alternative 3 and the proposed Project. Because Alternative 3 would result in an overall (construction and operation) reduced generation of solid waste, the level of impact related to increased generation of solid waste and the potential to impair the attainment of solid waste reductions goals would be **reduced** as compared to the proposed Project.

6.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Alternative 2 would have the greatest number of reduced impacts as shown in Table 6-9, therefore Alternative 2 would be the Environmentally Superior Alternative. This alternative provides the greatest reduction in potential environmental effects of the proposed Project.

Table 6-7. Comparison of Impacts of the Alternatives to the Proposed Project

Environmental Topic Area	Alternative 1: No Project (Buildout of Existing Land Use Designations)	Alternative 2: Reduced Footprint	Alternative 3: Reduce Criteria Air Pollutant and GHG Emissions and Transportation-Related Energy Consumption
Aesthetics	Reduced	Reduced	Reduced
Air Quality	Similar	Reduced	Reduced
Biological Resources	Reduced	Reduced	Reduced
Cultural and Tribal Cultural Resources	Reduced	Reduced	Reduced
Geology, Soils, Minerals, and Paleontological Resources	Reduced	Reduced	Reduced

Environmental Topic Area	Alternative 1: No Project (Buildout of Existing Land Use Designations)	Alternative 2: Reduced Footprint	Alternative 3: Reduce Criteria Air Pollutant and GHG Emissions and Transportation- Related Energy Consumption
Greenhouse Gas Emissions and Energy	Increased	Reduced	Reduced
Hazards and Hazardous Materials	Reduced	Reduced	Reduced
Hydrology and Water Quality	Reduced	Reduced	Reduced
Land Use and Planning, Including Agricultural Resources, and Population and Housing	Similar	Reduced	Similar
Noise and Vibration	Reduced	Reduced	Reduced
Public Services and Recreation	Reduced	Reduced	Reduced
Transportation	Increased	Reduced	Reduced
Utilities and Service Systems	Reduced	Reduced	Reduced
Total Reduced Impact Topics	9	13	12

Source: Data Compiled by AECOM in 2023