

# Chapter 5

## Alternatives Analysis

### 5.1 Introduction

Section 15126.6 of the State California Environmental Quality Act (CEQA) Guidelines requires that an Environmental Impact Report (EIR) include a discussion of a reasonable range of project alternatives that 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.” Within that context, this chapter discusses alternatives to the proposed project.

Key provisions of the State CEQA Guidelines on alternatives (Section 15126.6(a) through (f)) are excerpted below to explain the foundation and legal requirements for the alternatives analysis in the EIR.

- “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.” (15126.6(a))
- “...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.” (15126.6(b))
- “The **specific** alternative of 'no project' shall also be evaluated along with its impact.” (15126.6(e)(1)) “The 'no project' analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” (15126.6(e)(2))

“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.” (15126.6(f))

- “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,...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)." (15126.6(f)(1))

- For **alternative** locations, "[o]nly locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR." (15126.6(f)(2)(A))
- "If the lead agency concludes that no feasible alternative locations exist, it must disclose the **reasons** for this conclusion, and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative locations for a geothermal plant or mining project which must be in close proximity to natural resources at a given location." (15126.6(f)(2)(B))
- "An EIR **need** not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative." (15126.6(f)(3))

The following sections discuss the significant impacts of the proposed project as identified in Chapter 3, Environmental Analysis, the objectives of the proposed project, alternatives considered but rejected, alternatives carried forward for further consideration in this EIR, as well as the environmental impacts of alternatives carried forward, including discussion as to whether such alternatives would avoid or substantially lessen any of the significant environmental impacts associated with the proposed project. Also included in this chapter is identification of the environmentally superior alternative.

## 5.2 Significant Impacts of the Proposed Project

The alternatives in this chapter have been selected to evaluate means for avoiding or substantially reducing the significant impacts of the proposed project identified in Chapter 3, Environmental Analysis, with a focus on impacts that would be significant and unavoidable. As summarized in the Executive Summary, the proposed project would result in the following significant impacts, some of which would remain significant even after implementation of mitigation measures:

- **Air Quality**
  - **Operations** – Implementation of the proposed project would exceed the screening-level emissions thresholds for certain criteria pollutants, which would be a significant and unavoidable impact. With the exception of PM<sub>10</sub>, concentrations of criteria pollutants would not exceed state or federal standards and, therefore, would result in a less than significant impact, relative to those pollutants. However, existing background concentrations of PM<sub>10</sub> currently exceed state standards and the increase in PM<sub>10</sub> concentrations associated with project operations would increase that existing exceedance. As such, the project's concentration-based impact associated with PM<sub>10</sub> would be a ***significant and unavoidable impact***, even after implementation of feasible mitigation measures. It should be noted for informational purposes that air pollutant emissions associated with future operations at SDIA would be even greater (higher) without implementation of the proposed project (i.e., under the No Project Alternative) due to the fact that future growth in aircraft operations and passenger levels at SDIA would be the same with or without the proposed project; however, implementation of

the proposed project would include improvements in aircraft taxiing operations and motor vehicle movements near SDIA that would reduce air pollutant emissions.

- **Cumulative Impacts – Construction and Operations** – Construction of the proposed project in conjunction with other projects anticipated to be under construction during that same period would result in a **significant** impact relative to cumulative emissions, to which the proposed project's contribution to that significant impact would be **cumulatively considerable**. Operation of the proposed project at buildout in 2035 and in 2050 would result in a cumulatively considerable net increase of VOCs and NO<sub>x</sub>, which are precursors to ozone (O<sub>3</sub>), for which the San Diego air basin is in nonattainment under federal and state ambient air quality standards. Even with implementation of Mitigation Measures MM-AQ/GHG-1 through MM-AQ/GHG-10 and MM-TDM-1, the proposed project's contribution to the cumulatively considerable net increase in VOCs and NO<sub>x</sub> would be **significant and unavoidable**. Existing background concentrations of PM<sub>10</sub> currently exceed state standards and there would be an increase in PM<sub>10</sub> emissions associated with project operations, which is considered to be cumulatively considerable; this is a **significant and unavoidable impact**. Similar to above, the severity of these impacts would be greater (higher) if the proposed project was not implemented.
- **Greenhouse Gas (GHG) Emissions**
  - **Construction and Operations:**
    - o Construction and operation of the proposed project would generate GHG emissions that may have a significant impact on the environment. Even with implementation of proposed Mitigation Measures MM-AQ/GHG-1 through MM-AQ/GHG-10 and MM-TDM-1, impacts would be **significant and unavoidable**. Similar to above relative to air quality impacts, and for the same reasons described therein, GHG emissions from future operations at SDIA would be even greater (higher) without implementation of the proposed project.
    - o Construction and operation of the proposed project would conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs. Even with implementation of proposed Mitigation Measures MM-AQ/GHG-1 through MM-AQ/GHG-10 and MM-TDM-1, impacts would be **significant and unavoidable**. Similar to above, the severity of this impact would be greater (higher) if the proposed project was not implemented.
  - **Cumulative Impacts – Construction and Operations:**
    - o Cumulatively considerable increase in GHG emissions. Even with implementation of proposed Mitigation Measures MM-AQ/GHG-1 through MM-AQ/GHG-10 and MM-TDM-1, project contribution would be **significant and unavoidable**. Similar to above, the severity of this impact would be greater (higher) if the proposed project was not implemented.
    - o Cumulatively considerable impact relative to conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs.

Even with implementation of proposed Mitigation Measures MM-AQ/GHG-1 through MM-AQ/GHG-10 and MM-TDM-1, project contribution would be ***significant and unavoidable***. Similar to above, the severity of this impact would be greater (higher) if the proposed project was not implemented.

- **Human Health Risk**

- **Construction and Operations** – Construction and operation of the proposed project would generate emissions of toxic air contaminants (TAC), which would result in a significant impact on human health.
  - o Incremental cancer risk for combined construction and operational exposure would be above the threshold of 10 in 1 million for maximally exposed 30-year residents, adult residents, and off-airport adult workers. Incremental cancer risk impacts would be ***significant***. With implementation of proposed Mitigation Measure MM-AQ/GHG-1, impacts would be ***reduced to a level that is less than significant***.
  - o Population-based cancer burden risk would result in greater than 0.5 new cases of cancer. Therefore, population-based cancer burden risk would be ***significant***. With implementation of proposed Mitigation Measure MM-AQ/GHG-1, impacts would be ***reduced to a level that is less than significant***.

- **Biological Resources**

- **Construction and Operations** – Construction and operation of the proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). Although SDCRAA would continue to implement measures included in their existing program to protect the California least terns at SDIA which would avoid and/or minimize potential indirect impacts from construction and operation of the proposed project, the indirect impact is considered ***potentially significant*** for construction and operations. With implementation Mitigation Measures MM-BIO-1: California Least Tern: Construction Measures and MM-BIO-2: California Least Tern: Operations Measures the impacts of the proposed project would be ***reduced to a level that is less than significant*** for construction and operations.
- **Cumulative Impacts – Construction and Operations – *Potentially cumulative considerable contribution*** to impacts to California least tern would be ***reduced to a level that is less than significant*** with implementation Mitigation Measures MM-BIO-1: California Least Tern: Construction Measures and MM-BIO-2: California Least Tern: Operations Measures.

- **Cultural Resources**

- **Construction** – Implementation of the proposed project would require the demolition and removal of two significant historical buildings (the existing Terminal 1 and the

existing Terminal 2-East). Mitigation Measure MM-HR-1: Preparation of Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) Documentation, is proposed to document the characteristics of each of these two buildings; however, even with implementation of MM-HR-1, the permanent loss of Terminal 1 and the existing Terminal 2-East would be a ***significant and unavoidable impact*** of the project. Implementation of the proposed project would also impact the former United Airlines Hangar and Terminal Building, which is also a significant historical building. Mitigation Measures MM-HR-1: Preparation of Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) Documentation and MM-HR-2: Relocation of the United Airlines Hangar and Terminal Building, are proposed and would ***reduce the impact to a level less than significant***.

- **Cumulative Impacts – Construction** – Even with implementation of Mitigation Measure MM-HR-1, the project’s cumulatively considerable contribution to significant impacts to historical resources would be ***significant and unavoidable***.

- **Hazards and Hazardous Materials**

- **Construction** – Implementation of the proposed project would require the disturbance of areas with groundwater and soil contamination associated with past activities that occurred on- and off-site, including sites included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. While it is anticipated that contaminated soils would be encapsulated on-site, transport of these materials off-site for disposal could potentially occur. Additionally, there is the potential to encounter a groundwater monitoring well(s). Demolition of structures that contain hazardous building materials would also occur and such materials would require transport to a properly licensed disposal facility. With implementation of mitigation requiring preparation of a Hazardous Materials Management Plan (MM-HW-1), proper destruction of groundwater monitoring wells (MM-HW-2), and abatement of hazardous building materials (MM-HW-3), construction impacts would be ***reduced to a level that is less than significant***.
- **Operations**
  - o There is the potential for soil vapor gas intrusion into the new T1 building. With implementation of mitigation requiring preparation of a Vapor Intrusion Assessment and implementation of a vapor intrusion mitigation system if warranted (MM-HW-4), operational impacts would be ***reduced to a level that is less than significant***.
  - o The proposed project would be located within an airport land use plan and, although it would not result in a safety hazard, it could result in excessive aircraft noise for people residing or working in the project area; even with implementation of aircraft noise-related Mitigation Measures MM-NOI-1 through MM-NOI-5. this would be a ***significant and unavoidable impact***. This significant impact could be considered to be a cumulatively considerable contribution to significant noise impacts within the region.

- **Cumulative Impacts – Construction and Operations – *Potentially cumulative considerable contribution*** to impacts relative to hazards and hazardous materials associated with disturbance of areas with groundwater and soil contamination, demolition of structures that contain hazardous building materials, transport of hazardous materials for disposal, and potential for the soil vapor gas intrusion into the new T1 building would be ***reduced to a level that is less than significant*** with implementation Mitigation Measures MM-HW-1: Preparation of Hazardous Materials Management Plan (HMMP); MM-HW-2: Existing Groundwater Monitoring Wells; MM-HW-3: Hazardous Building Materials Abatement; and MM-HW-4: Vapor Intrusion Assessment. However, even with implementation of Mitigation Measures MM-NOI-1 through MM-NOI-5, the project’s cumulatively considerable contribution to significant impacts associated with excessive aircraft noise for people residing or working in the project area would be ***significant and unavoidable***.
- **Land Use and Planning**
  - **Operations** – Significant impacts associated with future aircraft noise levels and future traffic could be considered to conflict with the Community Plans for the affected areas. Mitigation is proposed to reduce these impacts to a less-than-significant level; however, some proposed mitigation is infeasible. As such, operation of the proposed project would result in a ***significant and unavoidable impact***. As further described below relative to noise and traffic impacts, it should be noted for informational purposes that those impacts associated with future operations at SDIA would be generally the same with or without the proposed project due to future growth in aircraft and passenger activity levels that would occur regardless of the proposed project. Future airport operations associated with implementation of the proposed project would result in projected aircraft noise contours that conflict with the existing Airport Land Use Compatibility Plan (ALUCP). With implementation of Mitigation Measure LUP-1: Amendment of the SDIA Airport Land Use Compatibility Plan, which requires the SDCRAA to initiate an update to the ALUCP in conjunction with an update to the Airport Layout Plan, impacts would be ***reduced to a level that is less than significant***.
  - **Cumulative Impacts – Operations** – The project’s significant noise and traffic impacts are considered to be a cumulatively considerable contribution to increased noise levels and traffic congestion within the affected Community Plan areas, which would be ***significant and unavoidable***. For the same reason noted above, this impact would be the same with or without implementation of the proposed project.
- **Noise**
  - **Operations:**
    - o Airport operations at SDIA in future years (2024, 2026, 2030, 2035, and 2050) would generate aircraft noise that would increase noise levels at exterior use areas of residences and other noise-sensitive uses to noise levels of 65 CNEL or above, as compared to the existing (2018) baseline condition. Even with implementation of proposed Mitigation Measures MM-NOI-1 through MM-NOI-5, it is uncertain



whether all of the affected uses would be soundproofed. As such, this would be a ***significant and unavoidable impact***. It should be noted for informational purposes, however, that the future increases in aircraft noise levels that result in this impact would be the same even if the proposed project was not implemented (i.e., there is no difference between the proposed project and the No Project Alternative relative to future increases in aircraft noise levels).

- o Implementation of the proposed project would cause a 1.5 dB or more increase resulting in noise-sensitive areas being exposed to 65 CNEL or greater increase in 2024, 2026, 2030, 2035, and 2050, as compared to the existing (2018) baseline condition. Even with implementation of proposed Mitigation Measures MM-NOI-1 through MM-NOI-5, it is uncertain whether all of the affected areas would be soundproofed. As such, this would be a ***significant and unavoidable impact***. It should be noted for informational purposes, however, that the future increases in aircraft noise levels that result in this impact would be the same even if the proposed project was not implemented (i.e., there is no difference between the proposed project and the No Project Alternative relative to future increases in aircraft noise levels).
- o Implementation of the proposed project would cause a 3 dB or more increase resulting in noise-sensitive areas being exposed to 60 CNEL to less than 65 CNEL in 2024, 2026, 2030, 2035, and 2050, as compared to the existing (2018) baseline condition. Even with implementation of proposed Mitigation Measures MM-NOI-1 through MM-NOI-5, it is uncertain whether all of the affected areas would be soundproofed. As such, this would be a ***significant and unavoidable impact***. It should be noted for informational purposes, however, that the future increases in aircraft noise levels that result in this impact would be the same even if the proposed project was not implemented (i.e., there is no difference between the proposed project and the No Project Alternative relative to future increases in aircraft noise levels).
- o Implementation of the proposed project would cause a substantial increase in the number of nighttime flight operations that produce exterior SELs sufficient to awaken an increasing proportion of the population in 2024, 2026, 2030, 2035, and 2050, as compared to the existing (2018) baseline condition. Even with implementation of proposed Mitigation Measures MM-NOI-1 through MM-NOI-5, it is uncertain whether all of the affected areas would be soundproofed. As such, this would be a ***significant and unavoidable impact***. It should be noted for informational purposes that the future increases in nighttime flights associated with flight operations at SDIA would be the same with or without the proposed project due to future growth in aircraft activity levels that would occur regardless of the proposed project.
- o Implementation of the proposed project would cause traffic noise levels for existing development along two segments of one roadway to exceed the noise levels considered compatible for noise-sensitive areas associated with the applicable land

use categories. Also, implementation of the proposed project would cause traffic noise levels along one segment that is currently at or already exceeds the levels considered compatible for noise-sensitive land use associated with the applicable land use categories to increase by 3 dB CNEL, or more, as compared to existing baseline conditions. There are no feasible mitigation measures available for these impacts. As such, these would be **significant and unavoidable impacts**. Similar to above, it should be noted for informational purposes that the future increases in roadway noise levels that result in this impact would be generally the same even if the proposed project was not implemented (i.e., there is no material difference between the proposed project and the No Project Alternative relative to future increases in roadway noise levels, with the exception of a segment of North Harbor Drive where future roadway noise levels would be lower with implementation of the proposed project, compared to without the proposed project).

- **Cumulative Impacts – Operations** – The combination of future aircraft noise levels and future traffic noise levels would result in significant cumulative noise impacts. Mitigation is proposed to reduce these impacts to a less-than-significant level; however, some proposed mitigation is infeasible. As such, the cumulative impact would be **significant and unavoidable**. As noted above, future aircraft noise levels and impacts to noise-sensitive areas associated with operations at SDIA would be the same with or without the proposed project.

- **Traffic and Circulation**

- **Construction**

- o Implementation of the proposed project would exceed thresholds of significance relating to the operation of 2 intersections in late 2020 or early 2021 With Project Construction Conditions scenario (Construction Phase 1a). With proposed mitigation, these impacts would be **reduced to a less-than-significant level**.
- o Implementation of the proposed project would exceed thresholds of significance relating to the operation of 5 intersections in 2024 With Project Construction Conditions scenario (Construction Phase 1b). Although mitigation is proposed to reduce these impacts, impacts would not be fully mitigated and would be **significant and unavoidable** at 1 intersection.
- o Implementation of the proposed project would exceed thresholds of significance relating to the operation of 4 intersections in 2026 With Project Construction Conditions scenario (Construction Phase 2a). Although mitigation is proposed to reduce these impacts, impacts would not be fully mitigated and would be **significant and unavoidable** at 1 intersection.
- o Implementation of the proposed project would exceed thresholds of significance relating to the operation of 10 intersections in 2030 With Project Construction Conditions scenario (Construction Phase 2b). Although mitigation is proposed to



reduce these impacts, impacts would not be fully mitigated and would remain ***significant and unavoidable*** at 4 intersections.

– **Operations**

- o Implementation of the proposed project would result in unacceptable operations of study facilities. Of those facilities, 5 intersections, 11 roadway segments, and 14 freeway segments are expected to exceed thresholds of significance under the Existing With Project Conditions scenario. Mitigation is proposed to reduce these impacts to a less-than-significant level; however, some proposed mitigation is infeasible, therefore, impacts would remain ***significant and unavoidable*** at 7 roadway segments, and 14 freeway segments.
- o Implementation of the proposed project would result in unacceptable operations of study facilities in 2024. Of those facilities, 4 intersections, 13 roadway segments, and 17 freeway segments are expected to exceed thresholds of significance under the 2024 With Project Conditions scenario. Mitigation is proposed to reduce these impacts to a less-than-significant level; however, some proposed mitigation is infeasible, therefore, impacts would remain ***significant and unavoidable*** at 1 intersection, 10 roadway segments, and 17 freeway segments. It should be noted for informational purposes that traffic impacts around SDIA would generally be the same in the future with or without the project due to future growth in passenger activity levels at SDIA that would occur regardless of the proposed project. The one notable exception to this would be at North Harbor Drive where the new on-airport access road proposed as part of the project would remove some airport-related traffic from that road, thereby improving traffic conditions on North Harbor Drive, as compared to future conditions if the proposed project was not implemented.
- o Implementation of the proposed project would result in unacceptable operations at study facilities in 2026. Of those facilities, 4 intersections, 14 roadway segments, and 19 freeway segments are expected to exceed thresholds of significance under the 2026 With Project Conditions scenario. Mitigation is proposed to reduce these impacts to a less-than-significant level; however, some proposed mitigation is infeasible, therefore, impacts would remain ***significant and unavoidable*** at 1 intersection, 11 roadway segments and 19 freeway segments. As explained above, future traffic conditions and impacts would be generally the same if the proposed project was not implemented.
- o Implementation of the proposed project would result in unacceptable operations of study facilities in 2030. Of those facilities, 8 intersections, 20 roadway segments, and 21 freeway segments are expected to exceed thresholds of significance under the 2030 With Project Conditions scenario. Mitigation is proposed to reduce these impacts to a less-than-significant level; however, some proposed mitigation is infeasible and other measures only partially mitigate impacts, therefore, impacts would remain ***significant and unavoidable*** at 2 intersections, 18 roadway segments and 21 freeway segments. As explained above, future traffic conditions

and impacts would be generally the same if the proposed project was not implemented.

- o Implementation of the proposed project would result in unacceptable operations of study facilities in 2035. Of those facilities, 13 intersections, 20 roadway segments, and 21 freeway segments are expected to exceed thresholds of significance under the 2035 With Project Conditions scenario. Mitigation is proposed to reduce these impacts to a less-than-significant level; however, some proposed mitigation is infeasible and other measures only partially mitigate impacts, therefore, impacts would remain **significant and unavoidable** at 4 intersections, 18 roadway segments and 21 freeway segments. As explained above, future traffic conditions and impacts would be generally the same if the proposed project was not implemented.
- o Implementation of the proposed project would result in unacceptable operations of study facilities in 2050. Of those facilities, 26 intersections, 25 roadway segments, and 22 freeway segments are expected to exceed thresholds of significance under the 2050 With Project Conditions scenario. Mitigation is proposed to reduce these impacts to a less-than-significant level; however, some proposed mitigation is infeasible, therefore, impacts would remain **significant and unavoidable** at 26 intersections, 23 roadway segments, and 22 freeway segments. As explained above, future traffic conditions and impacts would be generally the same if the proposed project was not implemented.

### 5.3 Project Objectives

The proposed project – the ADP – is the next phase of master planning for SDIA, enabling SDCRAA to accommodate anticipated future demand for air travel at SDIA with more modern, efficient, and comfortable facilities. The ADP planning effort began in 2012 with defining the effort’s Goals and Objectives. The objectives of the proposed project incorporate and build upon the goals identified in 2012.

The objectives for the proposed project include the following:

- Goal: Develop passenger terminal facilities to efficiently accommodate future activity levels and maintain high levels of passenger satisfaction that reflect the local feel and uniqueness of San Diego
  - Objectives:
    - o Maintain appropriate level of service on the curbside, security checkpoints, passenger holdrooms, and bag claim areas.
    - o Optimize airport concessions to meet demand and generate revenue for SDIA.
    - o Minimize walking distances and mode changes from curbside to aircraft gate.
    - o Address T1 functional deficiencies, including replacement if necessary.
    - o Develop a plan that can be implemented in a phased manner.

- o Make the terminal a showplace of functionality and design that reflects the local feel and uniqueness of San Diego.
- Goal: Plan for an operationally efficient airfield that meets FAA standards
  - Objectives:
    - o Improve and optimize airfield configuration for safety, efficiency, and capacity.
    - o Develop a plan to eliminate any existing modifications to standards as soon as feasibly practical and do not create conditions warranting additional modifications or waivers from the FAA.
    - o Provide flexibility to respond to future aircraft, technology, and industry changes.
- Goal: Provide a plan that is fiscally and environmentally sustainable
  - Objectives:
    - o Wherever prudent, make use of existing facilities through renewal or modernization to meet future demand.
    - o Ensure the development plan is fiscally responsible from both the capital and operational cost perspectives.
    - o Provide plans that will diversify airport revenues and strengthen the financial position of SDIA.
    - o Maximize funding resources through appropriate facility planning.
    - o Continue to implement sustainability measures at SDIA, and monitor and report on those measures consistent with Global Reporting Initiative (GRI) Sustainability Reporting Standards.<sup>1</sup>
- Goal: Optimize the productive use of SDIA properties
  - Objectives:
    - o Maximize non-airline revenues.
    - o Identify opportunities for increased commercial utilization.
- Goal: Provide a plan that meets the aviation needs of the San Diego region in a socially responsible manner
  - Objectives:
    - o Support increases in air service demand for commercial passenger service to meet the needs of the San Diego regional economy and businesses.
    - o Implement airport improvements in a sustainable manner and consider the total cost of ownership including financial, environmental, and social costs.

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<sup>1</sup> Global Reporting Initiative. GRI Sustainability Reporting Standards. October 2016. Available: <https://www.globalreporting.org/information/g4/Pages/default.aspx>.

- Goal: Improve ground access to SDIA, including coordination of transit service and facilities that interface with regional systems, and accommodate parking demand
  - Objectives:
    - o Provide enhanced vehicular access from Harbor Drive to SDIA.
    - o Improve mobility for private vehicles, transit users, and bicyclist/pedestrians along the North Harbor Drive corridor.
    - o Improve transit connections to the existing transit system planned by the San Diego Association of Governments (SANDAG) and operated by the San Diego Metropolitan Transit System (MTS) including bus shuttle service to light rail stations and transit centers (Santa Fe Depot and Old Town Transit Centers).
    - o Accommodate demand for short-term and long-term parking spaces on-airport to ensure sufficient passenger satisfaction and appropriate revenue generation.

## 5.4 Alternatives Considered but Rejected

### 5.4.1 Alternative Location

In the past, SDCRAA has examined the possibility of developing a new commercial airport facility elsewhere within the San Diego region to accommodate future demand for air travel that would otherwise be directed to SDIA. Implementation of the currently proposed project would provide for improvements at SDIA to help accommodate projected future regional demand for air travel. The need for those improvements and the associated environmental impacts at and around SDIA, as addressed in this EIR, could be avoided or substantially reduced by accommodating future demand for air travel at an airport facility developed at an alternative location, recognizing that such a scenario does not completely eliminate the impacts, but rather shifts certain impacts to the alternative location.

The idea of developing a new airport facility at an alternative location is not new to San Diego. From 2003 to November 7, 2006, the SDCRAA conducted a comprehensive study of relocating the region's primary commercial airport or enhancing SDIA's capacity with a connecting inter-tie across San Diego Bay to transport passengers and cargo to the airfield and runways on Naval Air Station North Island. That study was undertaken in the San Diego Airport Site Selection Program conducted by the SDCRAA as part of the state law requirement to conduct a comprehensive study of all potential airport sites and solutions to meet the region's air transportation needs through the year 2030. As part of the San Diego Airport Site Selection Program, the SDCRAA was required to have a county-wide advisory ballot measure with an airport recommendation.

Through the course of evaluating 30 possible sites and applying "screening criteria" to winnow the range of potential options, nine sites were identified as candidates for further analysis. The SDCRAA selected five of the sites to undergo a comprehensive detailed alternatives analysis for the purpose of developing a recommendation for a new airport location. In accordance with the same state law that created the SDCRAA, the recommendation was presented to the people of San Diego County as a ballot measure for a county-wide vote in November 2006.

The advisory ballot measure was identified as San Diego County Measure A in the November 7, 2006 election, and was worded as follows:

*“To provide for San Diego’s long-term air transportation needs, shall the Airport Authority and government officials work to obtain approximately 3,000 of 23,000 acres at MCAS Miramar by 2020 for a commercial airport, provided necessary traffic and freeway improvements are made, military readiness is maintained without expense to the military for modifying or relocating operations, no local taxes are used on the airport, overall noise impacts are reduced, and necessary Lindbergh Field improvements are completed?”*

The final decision was made by the voters of San Diego County and the measure did not pass in a final result of 61.83 percent No and 38.17 percent Yes (County of San Diego, Election Results 2006). In light of the San Diego Airport Site Selection Program experience and results, development of airport improvements at an alternative location is not considered to be feasible and was rejected from further consideration.

Note that alternatives relating to Airport Relocation and Use of Other Airports were also rejected as infeasible in Section 4.4.2 of the 2008 Final Environmental Impact Report for the SDIA Airport Master Plan.

## 5.5 Alternatives Carried Forward for Further Consideration

### 5.5.1 Alternative 1: No Project

Under Alternative 1, none of the improvements under the proposed project would occur. The project site would retain the existing structures and roadway system and there would be no demolition of, or additions or modifications to, the existing facilities. It should be noted, however, that even without implementation of the proposed project improvements, there would be continued growth in aircraft operations and passenger activity levels in the future at SDIA, including through 2035 (the buildout year for the ADP), to meet the region’s demand for air service. The capacity limitation of SDIA’s single-runway is the same with or without the project improvements.

### 5.5.2 Alternative 2: Reduced Scale of Development

Under Alternative 2, additional gates and terminal area at SDIA would be developed as a new stand-alone facility constructed east of the existing T1, as shown in Figure 5-1. The new facility would have 12 gates and approximately 500,000 square feet of terminal area. The existing T1 and T2 would remain in their current location and configuration. Table 5-1 provides a summary comparison of the amount and location of terminal area under Alternative 2 compared to the proposed project. Under Alternative 2, the total amount of terminal area would be approximately 25 percent less than that of the proposed project.



## BUILDINGS

27 TERMINAL 1 - 12 GATES

A FORMER UNITED AIRLINES HANGAR AND TERMINAL BUILDING (TO REMAIN)

B FORMER COMMUTER TERMINAL (TO REMAIN)

## SURFACE ELEMENTS

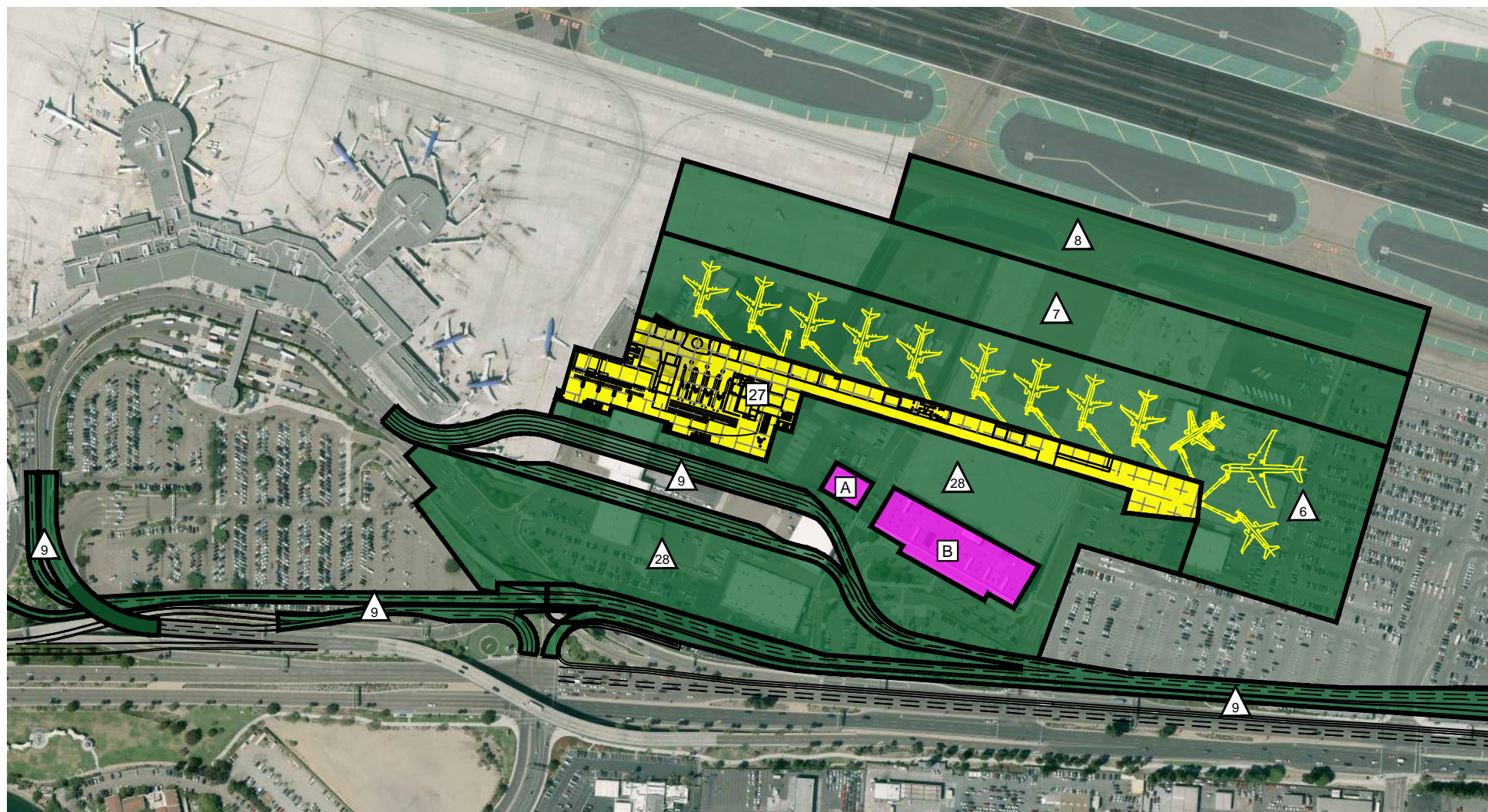
6 AIRCRAFT APRON

7 TAXIWAY A

8 TAXIWAY B

9 TERMINAL/AIRPORT ACCESS ROADS - ON GRADE

28 SURFACE PARKING LOT



Source: AECOM, 2018

Figure 5-1



**Table 5-1: Terminal Development – Alternative 2 Compared to Proposed Project**

Building Area (SF)	Proposed Project (Square Feet)				Alt. 2 - Reduced Scale of Development (Square Feet)				
	T1	T2-W	T2-E	Total	T1	T2-W	T2-E	New Terminal	Total
Existing	336,000	889,000	350,000	1,575,000	336,000	889,000	350,000	0	1,575,000
Demolished	336,000	0	350,000	686,000	0	0	0	0	0
New	1,210,000	450,000	250,000	1,910,000	0	0	0	500,000	500,000
Future Net	1,210,000	1,339,000	250,000	2,799,000	336,000	889,000	350,000	500,000	2,075,000

Source: CDM Smith, 2018.

In addition to having less demolition of existing terminal area and construction of new terminal area compared to the proposed project, Alternative 2 would not include development of the 400,000 square foot commercial development opportunity that is included in the proposed project, and would also not require demolition and replacement of the existing SDCRAA Administrative Offices that are located in the former Commuter Terminal. Also, under Alternative 2, the 1.5 million square foot T1 Parking Structure that is included in the proposed project would not be developed but, instead, 700,000 square feet of surface parking would be provided, which would be accessed via an on-airport roadway system similar to that of the proposed project. Under Alternative 2, only the eastern portions of the Taxiway A and Taxiway B improvements would be constructed, immediately north of the 12-gate terminal, resulting in only 650,000 square feet of taxiway improvements rather than 1,415,000 square feet of taxiway improvements that would occur under the proposed project. Similarly, the amount of aircraft apron area around the terminals would be reduced to approximately 550,000 square feet under Alternative 2, instead of the 2,360,000 square feet of apron area under the proposed project.

Under Alternative 2, it would not be necessary to demolish and remove the former United Airlines Hangar and Terminal Building (a.k.a. the ASIG building or Menzies Aviation), the existing Terminal 1, or the existing Terminal 2-East, which are identified in Section 3.6, Cultural Resources, as being significant historic resources.

In terms of the amounts of demolition and construction associated with Alternative 2 compared to the proposed project, Table 5-2 and Table 5-3 present the relevant square footages for demolition and construction, respectively, associated with each scenario.

**Table 5-2: Amounts of Demolition – Alternative 2 Compared to Proposed Project**

Demolition (in Square Feet) by Phase			
Phase	Facility	Proposed Project	Alternative 2
1a	Airport Administration Building	132,000	0
1a	Facilities Management Department (FMD) Administration Building	10,000	10,000
1a	Triturator & Wash Rack	3,500	3,500
1a	United Cargo	17,000	17,000
1a	Southwest Cargo	32,000	32,000
1a	Air Freight (Southwest, Alaska, Hawaiian, Delta, jetBlue)	30,000	30,000
1a	Menzies Aviation Maintenance	9,000	0
1a	American Airlines Maintenance	12,000	12,000
1a	FMD Workshop; Paint Shop & Procurement	29,000	29,000

**Table 5-2: Amounts of Demolition – Alternative 2 Compared to Proposed Project**

Demolition (in Square Feet) by Phase			
Phase	Facility	Proposed Project	Alternative 2
1a	FMD Maintenance Shops	25,000	25,000
1a	Terminal 1 (Gates 1, 1A & 2)	36,000	36,000
1a	On-Airport Roadways	590,000	440,000
1a	Administration Building Parking Lot & Access Roads	390,000	390,000
1a	Taxiway B	300,000	250,000
1a	Employee/Public Parking Lots	1,003,000	620,000
1a	Terminal 1 Parking Lot	270,000	60,000
1a	Aircraft Apron	1,415,000	620,000
Phase 1a - Buildings Total		335,500	194,500
Phase 1a - Surface Elements Total		3,968,000	2,380,000
Phase 1a - Total		4,303,500	2,574,500
Phase 1b - Buildings Total		300,000	0
Phase 1b - Surface Elements Total		1,500,000	0
Phase 1b - Total		1,800,000	0
Phase 2a - Buildings Total		0	0
Phase 2a - Surface Elements Total		725,000	0
Phase 2a - Total		725,000	0
Phase 2b - Buildings Total		350,000	0
Phase 2b - Surface Elements Total		540,000	0
Phase 2b - Total		890,000	0
Demolition Total - Buildings		985,500	194,500
Demolition Total - Surface Elements		6,773,000	2,380,000
Demolition Grand Total		7,718,500	2,574,500

Source: CDM Smith, 2019.

**Table 5-3: Amounts of Construction – Alternative 2 Compared to Proposed Project**

Construction Area (in Square Feet) by Phase			
Phase	Facility	Proposed Project	Alternative 2
1a	Terminal (Project: T1 - 22 Gates/Alt. 2: New terminal – 12 gates)	810,000	500,000
1a	Parking (Project: Parking Structure Alt. 2: Parking Lot)	1,500,000	700,000
1a	Airport Administration Building	150,000	0
1a	Existing CUP Capacity Expansion/Thermal Energy Storage	12,000	0
1a	Aircraft Apron	1,230,000	550,000
1a	Taxiway A	385,000	390,000
1a	Taxiway B	360,000	260,000
1a	Terminal/Airport Access Roads	654,300	670,000
1a	Aircraft Overnight Parking	230,000	0
Phase 1a - Buildings Total		2,472,000	500,000
Phase 1a - Surface Elements Total		2,859,300	2,570,000
Phase 1a - Total		5,331,300	3,070,000

**Table 5-3: Amounts of Construction – Alternative 2 Compared to Proposed Project**

Construction Area (in Square Feet) by Phase			
Phase	Facility	Proposed Project	Alternative 2
	Phase 1b - Buildings Total	1,680,000	0
	Phase 1b - Surface Elements Total	950,000	0
	Phase 1b - Total	2,630,000	0
	Phase 2a - Buildings Total	850,000	0
	Phase 2a - Surface Elements Total	520,000	0
	Phase 2a - Total	1,370,000	0
	Phase 2b - Buildings Total	250,000	0
	Phase 2b - Surface Elements Total	560,000	0
	Phase 2b - Total	810,000	0
	<i>Project Total - Buildings</i>	<i>5,252,000</i>	<i>500,000</i>
	<i>Project Total - Surface Elements</i>	<i>4,889,300</i>	<i>2,570,000</i>
	<i>Grand Total</i>	<i>10,141,300</i>	<i>3,070,000</i>

Source: CDM Smith, 2018.

### 5.5.3 Alternative 3: Revised Implementation Phasing

Under Alternative 3, the currently proposed project would still be developed, but the implementation phasing would be modified such that the T2-West modification/addition (the “Stinger”) would be included in the first phase of development (i.e., under the proposed project, the Stinger would be constructed in Phase 2a, but under Alternative 3, the Stinger would be constructed in Phase 1a) and would then be followed by the development phasing sequence of the proposed project (i.e., development of the new T1 eastern portion, then development of the new T1 western portion, and then removal of T2-East and the associated development of a linear concourse between the new T1 western portion and the existing T2-West). The implementation phasing associated with Alternative 3 would shift the most intensive development activities, in terms of the amount of demolition and construction, of the overall ADP program to occur between 2024 and 2030. By comparison, the proposed project would have the most intensive development activities assumed to occur between approximately 2021 and 2026. Table 5-4 provides a comparison of amounts of demolition and construction associated with each subphase under the proposed project and under Alternative 3.

Alternative 3 would include all the elements of the proposed project and the total amount of development at buildout would be the same as the proposed project; only the phasing of development would differ.

**Table 5-4: Development Phasing - Alternative 3 Compared to Proposed Project**

	Proposed Project (Square Feet)		Alternative 3-Revised Implementation Phasing (Square Feet)	
	Demolition	Construction	Demolition	Construction
<b>Sub-Phase 1a (2024 Completion)</b>	<b>New T1 - Eastern Portion</b>		<b>T2-West Modification/Addition</b>	
Buildings Total	335,500	2,472,000	0	850,000 <sup>1</sup>
Surface Elements Total	3,968,000	2,859,300	725,000	520,000
<b>Total</b>	<b>4,303,500</b>	<b>5,331,300</b>	<b>725,000</b>	<b>1,370,000</b>
<b>Sub-Phase 1b (2026 Completion)</b>	<b>New T1 - Western Portion</b>		<b>New T1 - Eastern Portion</b>	
Buildings Total	300,000	1,680,000	335,500	2,472,000
Surface Elements Total	1,500,000	950,000	3,968,000	2,859,300
<b>Total</b>	<b>1,800,000</b>	<b>2,630,000</b>	<b>4,303,500</b>	<b>5,331,300</b>
<b>Sub-Phase 2a (2030 Completion)</b>	<b>T2-West Modification/Addition</b>		<b>New T1 - Western Portion</b>	
Buildings Total	0	850,000 <sup>1</sup>	300,000	1,680,000
Surface Elements Total	725,000	520,000	1,500,000	950,000
<b>Total</b>	<b>725,000</b>	<b>1,370,000</b>	<b>1,800,000</b>	<b>2,630,000</b>
<b>Sub-Phase 2b (2035 Completion)</b>	<b>Remove T2-East and replace with Linear Concourse</b>		<b>Remove T2-East and replace with Linear Concourse</b>	
Buildings Total	350,000	250,000	350,000	250,000
Surface Elements Total	540,000	560,000	540,000	560,000
<b>Total</b>	<b>890,000</b>	<b>810,000</b>	<b>890,000</b>	<b>810,000</b>

Source: CDM Smith, 2019.

Note: <sup>1</sup> Includes 400,000 square foot commercial development opportunity

## 5.5.4 Alternative 4: T1 Replacement and Transportation Improvements

Under Alternative 4, the ADP would focus primarily on replacing T1 and providing transportation/transit-related improvements, including on-airport access road enhancements to reduce airport-related traffic on nearby streets and upgrades to public transit systems at and near SDIA. As further described below, Alternative 4 would eliminate certain aspects of the proposed project. It also would substantially reduce the construction period otherwise required for the proposed project. The SDCRAA developed Alternative 4 in response to comments received on the 2018 Draft EIR, many of which requested that SDCRAA reduce the size, scope, and the construction period of the proposed project, and provide more transit-related improvements to reduce the project's traffic and air quality impacts. The following describes the elements of Alternative 4 as compared to those of the proposed project.

### 5.5.4.1 Overview

Under Alternative 4, the primary elements of the ADP would be limited to the following:

- replacement of the existing T1;
- a new reduced-height (compared to the proposed project) airport administration building;

- a new on-airport access roadway on airport property along with preservation of right-of-way on airport property to accommodate potential future off-airport access road improvements;
- a new reduced-size (compared to the proposed project) parking structure;
- elimination of the commercial development opportunity area included in the proposed project;
- implementation of a dedicated shuttle service between the Old Town Transit Center (located at 4005 Taylor Street) and SDIA;
- work with the MTS to upgrade Bus Route 992 transit service between downtown and SDIA; and
- preservation of a portion of SDIA as a “transit-ready” area to accommodate potential future regional transit system improvements that would link to SDIA.
- there would be no additions or modifications to T2.

SDIA would implement Alternative 4 over one phase, within two sub-phases (Phase 1a and Phase 1b), as shown in Figures 5-2 and 5-3. Below is a description of each element of Alternative 4 and how it compares to the elements of the proposed project. Build-out of Alternative 4 is shown in Figure 5-3. The details of the construction phasing, including a description of what elements would occur in each sub-phase, are also described below.

#### **5.5.4.2 Terminal Improvements**

##### *Terminal 1*

Under Alternative 4, the features of the T1 replacement would generally be the same as those of the proposed project, with the following notable exceptions:

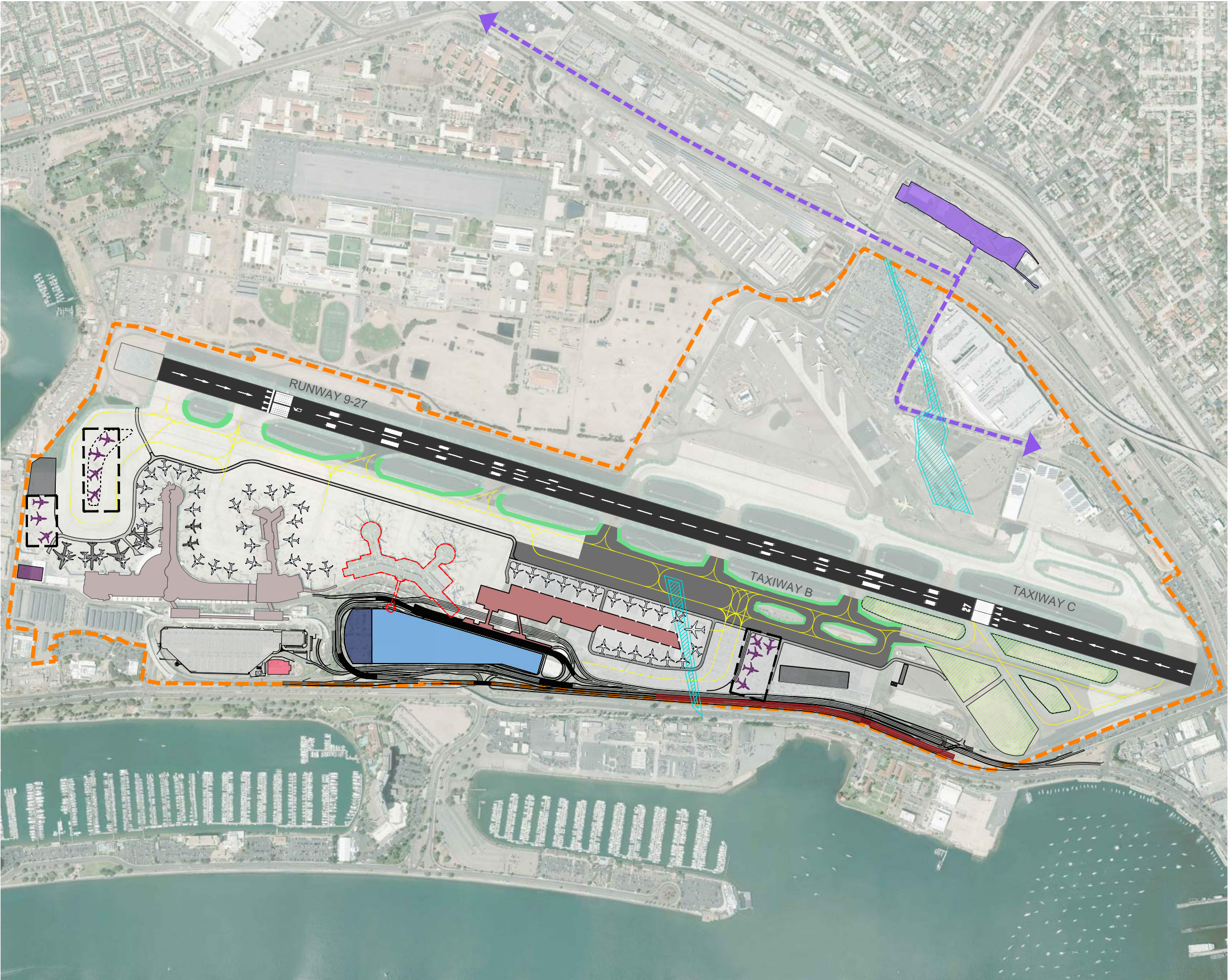
- Under Alternative 4, there would be no development of the 400,000 square-foot potential commercial development opportunity area.
- Under Alternative 4, the parking structure proposed adjacent to the replacement T1 would be smaller than that of the proposed project (i.e., 5,500 parking spaces versus 7,500 parking spaces). By reducing the number of parking spaces, Alternative 4 would provide space to reserve a “transit-ready” area for connecting SDIA with potential future regional transit system improvements nearby.
- Also, Alternative 4 includes near-term transit system connection programs, such as a dedicated shuttle service between the Old Town Transit Center and SDIA, and upgrade of the Bus Route 992 transit service between downtown and SDIA. Additional discussion of these elements is provided below in the description of Ground Transportation improvements.

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Source: Jacobsen | Daniels, 2019.



**LEGEND**

- Airport Property Line
- California Least Tern Nesting Site
- Fault Zone

**AIRFIELD FACILITIES**

- Runway
- Taxiway
- Apron
- Shoulder

**PASSENGER TERMINAL FACILITIES**

- Existing Passenger Terminal (to Remain)
- Future Passenger Terminal
- Decommissioned Existing Terminals
- Domestic Aircraft Parking Position
- International Aircraft Parking Position
- Remain Overnight Aircraft Parking Position

**GROUND TRANSPORTATION FACILITIES**

- Roadway
- Existing T2 Parking Plaza
- Future T1 Parking Plaza
- Future Right-of-Way (Eastbound Roadway)

**SUPPORT FACILITIES**

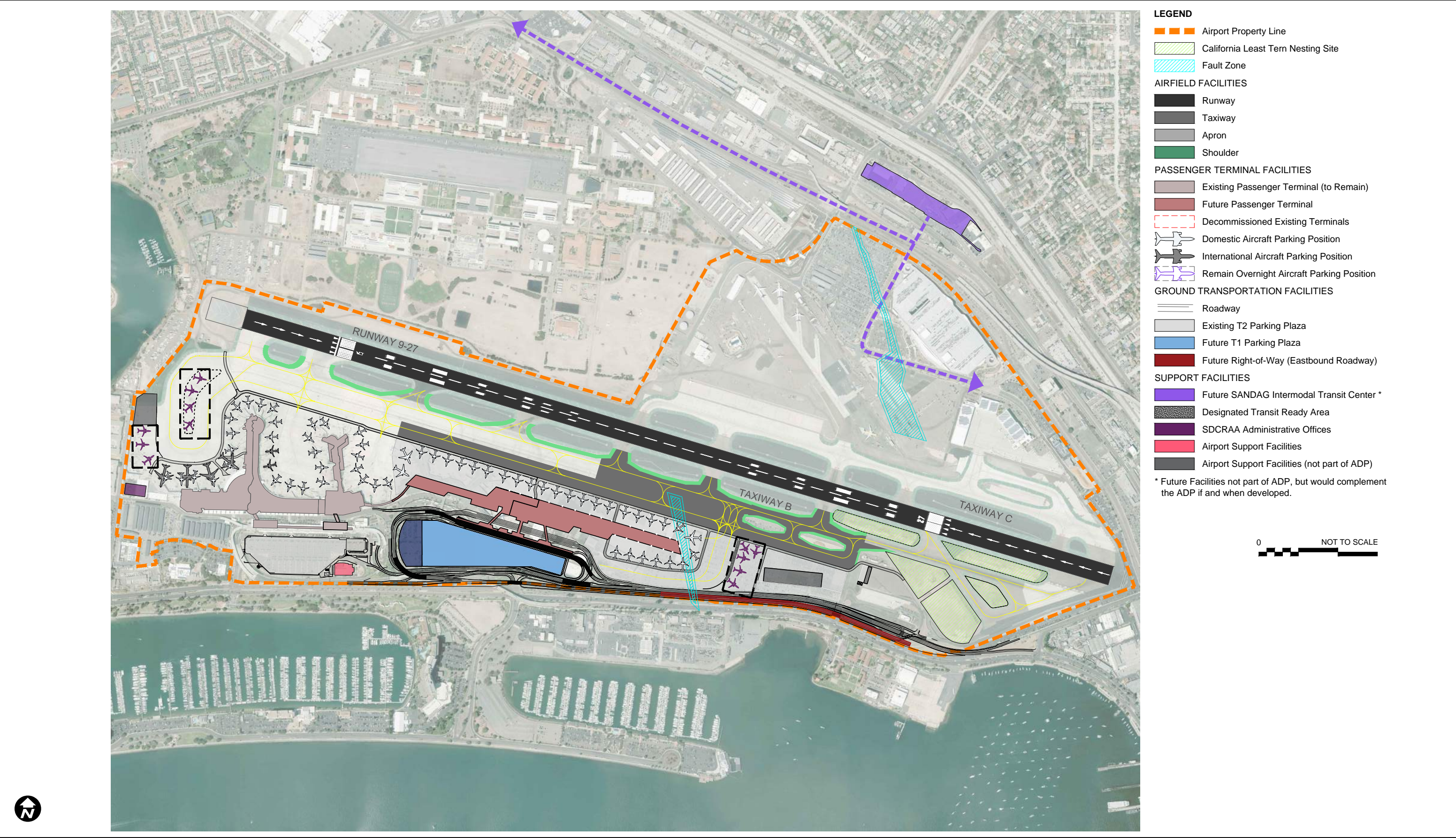
- Future SANDAG Intermodal Transit Center \*
- Designated Transit Ready Area
- SDCRAA Administrative Offices
- Airport Support Facilities
- Airport Support Facilities (not part of ADP)

\* Future Facilities not part of ADP, but would complement the ADP if and when developed.

0 NOT TO SCALE

Figure 5-2  
**ALTERNATIVE 4 - PHASE 1A DEVELOPMENT CONCEPT**  
September 2019 | Recirculated Draft EIR





Source: Jacobsen | Daniels, 2019.



### *Terminal 2*

Under Alternative 4, SDIA would not construct the proposed project's T2-West addition (i.e., the "Stinger"). Nor would SDIA demolish the existing T2-East, or replace it with a linear concourse between the new T1 and the existing T2-West. In short, there would be no ADP Phase 2 improvements under Alternative 4, although interior renovations and upgrades to the existing T2-East would likely occur in the future.

#### **5.5.4.3 Ground Transportation**

Proposed ground transportation system modifications under Alternative 4 include the following.

##### *On-Airport Vehicle Transportation*

Under Alternative 4, the on-airport vehicle circulation improvements would generally be the same as those of the proposed project described in Section 2.6.4. These include a new on-airport entry roadway that would connect to North Harbor Drive. This new roadway would allow westbound airport traffic to enter SDIA at a new intersection west of the existing intersection of North Harbor Drive and Laurel Street. This will reduce the amount of westbound airport traffic using North Harbor Drive. Other improvements include a new loop road that would provide access to the new T1 and a new reduced-size (compared to the proposed project) T1 Parking Structure.

Alternative 4 includes several other transportation- and transit-related improvements that are not in the proposed project described. Those additional improvements that are included in Alternative 4 are as follows:

- Under Alternative 4, space is reserved within the on-airport roadway to accommodate a 42-foot wide eastbound egress route on the north side of North Harbor Drive between Winship Lane and Terminal Link Road/Coast Guard. This egress route would tie into future off-airport roadway system improvements that would serve to improve access to and from SDIA. The location of that future right-of-way is shown on Figures 5-2 and 5-3. The nature, extent, and timing of such off-airport roadway system improvements would be determined through the involvement of, and subject to approvals by, several agencies beyond the SDCRAA, including SANDAG, MTS, the County of San Diego, the City of San Diego, the Port of San Diego, and the California Department of Transportation (Caltrans).
- Under Alternative 4, a dedicated airport shuttle service between the Old Town Transit Center and SDIA would be established to provide improved access to local and regional transit for airport passengers and employees. The operational characteristics of the proposed shuttle system are anticipated to include:
  - Shuttle bus would operate daily between the Old Town Transit Center and Terminals 1 and 2 during the same hours as the San Diego Trolley. The trolley currently operates from approximately 5 AM to 1 AM daily. On Weekdays, the service would operate at 15-minute frequency from 5 AM to 9 PM, and at 30-minute frequency from 9 PM to 1 AM. On Weekends, the service would operate at 15-minute frequency from 5 AM to 7 PM, and at 30-minute frequency from 7 PM to 1 AM.
  - Shuttles would be all-electric zero-emission-vehicles (ZEVs) that can accommodate 20 passengers.

- Shuttle Route between the SDIA Terminals and Old Town Transit Center: The shuttle bus would depart the terminals, access the Terminal Link Road at the U.S. Coast Guard crossing, and exit onto Pacific Highway at the intersection with Palm Street. The shuttle bus would continue north on Pacific Highway to the Old Town Transit Center where it would use the curbside located on either the west or east curb at the Old Town Transit Center located at 4005 Taylor Street.
- Shuttle Route from Old Town Transit Center to SDIA Terminals: The shuttle bus would depart the Old Town Transit Center at 4005 Taylor Street by proceeding south on Pacific Highway. At the intersection with Palm Street, the shuttle bus would access the gated Terminal Link Road, on which it would proceed to Terminals 1 and 2.
- Distance: The shuttle bus would be 3.8 miles for each one-way trip (according to Google Maps).
- Under Alternative 4, SDCRAA would also work with the MTS to upgrade Bus Route 992 transit service between downtown and SDIA. This would include the following measures to increase ridership by reducing the travel time along the route: 1) allow 992 buses to use the new on-airport access road including preferential locations at the terminals for bus stops; and 2) provide space for a kiosk and fare purchase station at a convenient location within the new, replacement Terminal 1 (implemented in January 2016 at existing Terminals 1 and 2). Under Alternative 4, a designated “transit-ready” area would be located between the proposed new T1 Parking Structure and the recently opened T2 Parking Plaza. This “transit-ready” area would place a potential future transit station in close proximity to both T1 and T2. The nature, design, and timing of such a transit station would be determined through a joint effort between agencies, such as SDCRAA, the Port District, SANDAG, and MTS to select the preferred regional transit system connection to SDIA. This transit connection type could include an automated people mover, light-rail/trolley line, subway, gondola, or autonomous electric vehicles, and will be further evaluated as part of SANDAG’s 2021 Regional Transportation Plan.

### *Pedestrian and Bicycle Circulation*

Similar to the proposed project, Alternative 4 would include safe, recognizable, and continuous connections along North Harbor Drive and to SDIA terminals to be provided for bicycles and pedestrians. Existing pedestrian and bicycle connections would be retained, while, additionally, new connections would also be established. For westbound passengers accessing SDIA, at the intersection of North Harbor Drive and Laurel Street, a pedestrian/bicycle crossing would be provided along the on-airport entry ramp. From the entry ramp, pedestrians and bicycles could travel on a multi-use path along the north side of the on-airport entry roadway. At the intersection of North Harbor Drive and Terminal Link Road, the multi-use path would cross under the on-airport entry road where it would continue along the north side of North Harbor Drive. At the intersection of North Harbor Drive and Harbor Island Drive, there would be a crossing that connects to the T1 Parking Structure. From there, pedestrians and bicyclists could access all new T1 facilities. . At some future time when additional eastbound exit lanes within right-of-way along the north side of North Harbor Drive are implemented (see discussion above under the Heading “On-Airport Vehicle Transportation”), the multi-use path may be realigned to connect with

circulation improvements and continue to provide bicycle and pedestrian access from land uses to the east of SDIA.

### Parking

Like the proposed project, Alternative 4 would construct a new parking structure south of the new T1, but it would be smaller in size, with only 5,500 spaces instead of 7,500 spaces under the proposed project. The smaller footprint would, in turn, provide space for the “transit-ready” area described above. The 5,500-space parking structure would be a maximum of approximately 2,250,000 square feet, with up to five levels and a maximum height of 60 feet for the main roof deck and 84 feet for the elevator penthouses and light poles. It is important to note that, although the new parking structure would provide 5,500 spaces, the majority of these spaces would offset the loss of existing parking at SDIA. Table 5-5 provides a breakdown of parking spaces at SDIA under existing (2018) conditions and at buildout of Alternative 4. As shown in the table, with implementation of Alternative 4, including the 5,500-space parking structure, there would be a net increase of 650 parking spaces compared to existing conditions.

**Table 5-5: Airport Parking Spaces: Existing Conditions, Proposed Project and Alternative 4**

Type	Lot	Existing (2018) Baseline	Proposed Project	Buildout of Alternative 4 (2026)
<b>Passenger Parking</b>				
	T1 Parking	1,200	7,500	5,500
	T2W Surface Lot (NTC)	1,100	900	900
	T2 Parking Plaza	2,900	2,900	2,900
	Long-Term Lot #1 (Harbor Dr.)	1,400	0	0
	Economy Lot (Pacific Hwy)	1,950	0	0
	<b>Subtotal</b>	<b>8,550</b>	<b>11,300</b>	<b>9,300</b>
<b>Valet Parking</b>				
	Various	450	0	0
<b>Employee Parking</b>				
	Admin Building Lot #7	200	0	0
	Employee Lot #6 (Harbor Dr.)	1,550	0	0
	ADC Lot (McCain Rd.)	50	0	0
	Employee Lot (Pacific Hwy)	0	1,950	1,950
	T2W Employee Lot (NTC)	0	200	200
	<b>Subtotal</b>	<b>1,800</b>	<b>2,150</b>	<b>2,150</b>
<b>Total</b>				
	<b>TOTAL</b>	<b>10,800</b>	<b>13,450</b>	<b>11,450</b>
<b>APPROXIMATE NET INCREASE</b>			<b>2,650</b>	<b>650</b>

Source: SDCRAA, January 2019.

### 5.5.4.4 Central Utility Plant

Alternative 4’s improvements to the Central Utility Plant would be the same as those under the proposed project. Those improvements would include replacement of the existing boilers and chillers, which would increase the heating and cooling capacity at SDIA, improve efficiencies, and reduce energy consumption compared to the existing system.

#### 5.5.4.5 Airport Administrative Offices

Similar to the proposed project, Alternative 4 would include demolition of the former 132,000 square-foot Commuter Terminal, where SDCRAA administrative offices are currently located, and construction of a new 150,000 square-foot airport administration office building near the intersection of McCain Road and Airport Terminal Road. Parking for the new airport administration building would be at the existing surface lot located at the current T2 Parking Lot at McCain Road and Airport Terminal Road. The lot would be resurfaced and reconfigured. The new airport administration building developed under Alternative 4 would, however, differ from that of the proposed project in that it would be only 84 feet tall, instead of the 95-foot building height associated with the proposed project.

#### 5.5.4.6 Other Improvements

Other improvements associated with the proposed project would be similar to those under Alternative 4, including those related to utilities, including the SAN Stormwater Capture and Reuse System, with the most notable difference being that there would be no utility systems modifications in the T2 area, since the new T2-West improvement (i.e., the “Stinger”) and replacement of existing T2-East with a linear concourse between T1 and T2-West would not occur under Alternative 4.

#### 5.5.4.7 Project Phasing

Under Alternative 4, the proposed improvements would be implemented in one major phase (Phase 1), with two sub-phases (Phases 1a and 1b), that would ensure that regular airport operations would be maintained at a sufficient level during construction. As indicated earlier, Alternative 4 would not provide for the development of the new T2-West addition (i.e., the “Stinger”) or demolition of existing T2-East and its replacement with a new linear concourse between the new T1 and the existing T2-West. As such, there would be no Phase 2 improvements under Alternative 4. The primary components of Phase 1 under Alternative 4 are the replacement of T1 (including realignment of Taxiway B and construction of a new Taxiway A), a new T1 Parking Structure, a T1 loop road, and the on-airport entry roadway. Tables 5-6 and 5-7 provide a detail of the demolition and construction, respectively, that would occur under each sub-phase, and compares the amounts to those that would otherwise occur under the proposed project. As shown in Tables 5-6 and 5-7, there is some variation in construction and demolition amounts in Phase 1a and Phase 1b between the proposed project and Alternative 4 although overall, the total amounts of construction and demolition are similar. This difference is accounted for by refinements and minor design variations under Alternative 4 (e.g., preservation of right-of-way on airport property to accommodate potential future off-airport access road and the “transit-ready” area to accommodate potential future regional transit system improvements under Alternative 4).

**Table 5-6: Comparison of Demolition Amounts - Proposed Project and Alternative 4**

Demolition (in Square Feet) by Phase			
Phase	Facility	Proposed Project	Alternative 4
1a	Airport Administration Building	132,000	132,000
1a	Facilities Maintenance Division (FMD) Administration Building	10,000	10,000
1a	Triturator & Wash Rack	3,500	3,500
1a	United Cargo	17,000	17,000
1a	Southwest Cargo	32,000	32,000



**Table 5-6: Comparison of Demolition Amounts - Proposed Project and Alternative 4**

Demolition (in Square Feet) by Phase			
Phase	Facility	Proposed Project	Alternative 4
1a	Air Freight (Southwest, Alaska, Hawaiian, Delta, jetBlue)	30,000	30,000
1a	Menzies Aviation Maintenance	9,000	9,000
1a	American Airlines Maintenance	12,000	12,000
1a	FMD Workshop; Paint Shop & Procurement	29,000	29,000
1a	FMD Maintenance Shops	25,000	25,000
1a	Terminal 1 (Gates 1, 1A & 2)	36,000	36,000
1a	On-Airport Roadways	590,000	590,000
1a	Administration Building Parking Lot & Access Roads	390,000	390,000
1a	Taxiway B	300,000	585,000
1a	Employee/Public Parking Lots	1,003,000	1,493,000
1a	Terminal 1 Parking Lot	270,000	470,000
1a	Aircraft Apron	1,415,000	1,265,000
Phase 1a - Buildings Total		335,500	335,500
Phase 1a - Surface Elements Total		3,968,000	4,793,000
Phase 1a - Total		4,303,500	5,128,500
1b	Terminal 1	300,000	300,000
1b	Terminal 1 Parking Lot	300,000	100,000
1b	Aircraft Apron	410,000	580,000
1b	Employee Parking Lot	490,000	0
1b	Taxiway B	300,000	0
Phase 1b - Buildings Total		300,000	300,000
Phase 1b - Surface Elements Total		1,500,000	680,000
Phase 1b - Total		1,800,000	980,000
Phase 1 - Buildings Total		635,500	635,500
Phase 1 - Surface Elements Total		5,468,000	5,473,000
Phase 1 - Total		6,103,500	6,108,500
Phase 2a - Buildings Total		0	0
Phase 2a - Surface Elements Total		725,000	0
Phase 2a - Total		725,000	0
Phase 2b - Buildings Total		350,000	0
Phase 2b - Surface Elements Total		540,000	0
Phase 2b - Total		890,000	0
Phase 2 - Buildings Total		350,000	0
Phase 2 - Surface Elements Total		1,265,000	0
Phase 2 - Total		1,615,000	0
Demolition Total - Buildings		985,500	635,500
Demolition Total - Surface Elements		6,773,000	5,473,000
Demolition Grand Total		7,718,500	6,108,500

Source: AECOM/SDCRAA, 2019.

**Table 5-7: Comparison of Construction Amounts - Proposed Project and Alternative 4**

Construction Area (in Square Feet) by Phase			
Phase	Facility	Proposed Project	Alternative 4
1a	Terminal 1	810,000	835,000
1a	Terminal 1 Parking	1,500,000	2,250,000
1a	Airport Administration Building	150,000	150,000
1a	Existing CUP Capacity Expansion	12,000	12,000
1a	Aircraft Apron	1,230,000	1,120,000
1a	Taxiway A	385,000	506,000
1a	Taxiway B	360,000	640,000
1a	Terminal/Airport Access Roads	654,300	654,300
1a	Aircraft Overnight Parking	230,000	230,000
Phase 1a - Buildings Total		2,472,000	3,247,000
Phase 1a - Surface Elements Total		2,859,300	3,150,300
Phase 1a - Total		5,331,300	6,397,300
1b	Terminal 1	400,000	375,000
1b	Terminal 1 Parking	1,280,000	0
1b	Aircraft Apron	260,000	285,000
1b	Taxiway A	380,000	269,000
1b	Taxiway B	290,000	0
1b	Terminal Area Road-On Grade	20,000	20,000
1b	Transit-Ready Area	0	100,000
Phase 1b - Buildings Total		1,680,000	375,000
Phase 1b - Surface Elements Total		950,000	674,000
Phase 1b - Total		2,630,000	1,049,000
Phase 1 - Buildings Total		4,152,000	3,622,000
Phase 1 - Surface Elements Total		3,809,300	3,824,300
Phase 1 - Total		7,961,300	7,446,300
Phase 2a - Buildings Total		850,000	0
Phase 2a - Surface Elements Total		520,000	0
Phase 2a - Total		1,370,000	0
Phase 2b - Buildings Total		250,000	0
Phase 2b - Surface Elements Total		560,000	0
Phase 2b - Total		810,000	0
Phase 2 - Buildings Total		1,100,000	0
Phase 2 - Surface Elements Total		560,000	0
Phase 2 - Total		2,180,000	0
Project Total - Buildings		5,252,000	3,622,000
Project Total - Surface Elements		4,889,300	3,824,300
Grand Total		10,141,300	7,446,300

Source: AECOM/SDCRAA, 2019.

### 5.5.4.8 Aircraft Gates

Table 5-8 provides a comparison of the number of aircraft gates at each subphase of development under the proposed project and Alternative 4.

**Table 5-8: Number of Airport Gates at SDIA by Project Construction Phases - Proposed Project Compared to Alternative 4**

Terminal	Total Number of Gates at SDIA								
	Existing	Proposed Project				Alternative 4			
		Phase 1a	Phase 1b	Phase 2a	Phase 2b	Phase 1a	Phase 1b	Phase 2a <sup>a</sup>	Phase 2b <sup>a</sup>
Existing T1	19	0	0	-	-	0	0	-	-
Replacement T1(a)	-	22	22	22	22	19	19	19	19
Replacement T1(b)		0	8	8	8	0	11	11	11
Existing T2-West	19	19 <sup>b</sup>	19 <sup>b</sup>	17 <sup>c</sup>	17	19 <sup>b</sup>	19 <sup>b</sup>	19 <sup>b</sup>	19 <sup>b</sup>
Modified T2-West	-	0	0	7	7	NA	NA	NA	NA
Existing T2-East	13	13	13	13	0	13	13	13	13
Modified T2-East	-	0	0	0	7	NA	NA	NA	NA
Total Gates	51	54	62	67	61	51	62	62	62

Source: LeighFisher and CDM Smith, April 2019.

Notes:

a. Phase 2 would not take place under Alternative 4. Therefore, as shown, there would be no change in gate numbers.

b. Four widebody positions west of existing T2-West would operate as six narrowbody positions in Phases 1a and 1b.

c. Two of the four widebody positions west of existing T2-West would operate as three narrowbody positions in Phase 2a.

## 5.6 Alternatives Impacts Analysis

### 5.6.1 Alternative 1: No Project Alternative

#### 5.6.1.1 Aesthetics and Visual Resources

##### *Construction*

As described in Section 3.1.6, construction of the proposed project would result in temporary impacts related to aesthetics and visual resources; however, such impacts would not be significant. Under the No Project Alternative, there would be no construction activities and, therefore, there would be no construction-related impacts related to aesthetics and visual resources.

##### *Operations*

As described in Section 3.1.6, the proposed project would not: have a substantial adverse effect on a scenic vista; substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; conflict with applicable zoning and other regulations governing scenic quality; or create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. As such, implementation of the proposed project would result in a less than significant impact relative to aesthetics and visual resources during operations. Under the No Project Alternative, T1, which is the oldest terminal facility at the Airport, would remain in its current state. As discussed further in Section 3.6, Cultural

Resources, T1 was constructed in 1967 as a Brutalist-style<sup>2</sup> airport terminal with Futurist influences on the primary (south) façade and International influences on the north, west, and east façades. As discussed in Section 3.1.6, the new T1 under the proposed project would have a contemporary design that compliments the existing T2-West (the Green Build) and would incorporate high-quality materials and public art. As such, unlike the No Project Alternative, the proposed project would be consistent with the project objective to “[m]ake the terminal a showplace of functionality and design that reflects the local feel and uniqueness of San Diego.”

### 5.6.1.2 Air Quality

#### *Construction*

The No Project Alternative would avoid the construction-related air pollutant emissions associated with the proposed project; there would be no exceedance of the significance threshold under the proposed project. However, construction of the proposed project in conjunction with other projects anticipated to be under construction during that same period would result in a significant impact relative to cumulative emissions, to which the proposed project’s contribution to that significant impact would be cumulatively considerable.

#### *Operations*

Table 5-9 indicates and compares the operational emissions associated with the proposed project and with Alternative 1 (No Project). Construction emissions associated with the proposed project are also listed in Table 5-9 to show the total net difference in emissions between the proposed project and the No Project Alternative. As shown, with the exception of SO<sub>x</sub> emissions in 2030, Alternative 1 would not avoid the significant impacts of the proposed project relative to VOC, NO<sub>x</sub>, CO, or SO<sub>x</sub> in any of the evaluated years. As also shown, in the year 2024 emissions of VOC, CO, and SO<sub>x</sub> would be greater with Alternative 1, while emissions of VOC, NO<sub>x</sub>, CO, and SO<sub>x</sub> would be greater with Alternative 1 in the years 2026, 2030, 2035, and 2050, compared to the proposed project. The reduction in emissions with the proposed project from 2024 through 2050 is primarily due to airfield efficiency that would result from taxiway improvements and a linear concourse which reduces aircraft taxi and delay times (see Table C-7 in Appendix RC-1). Notably, the increase in PM with the proposed project is primarily due to the short-term construction activities that would be required to implement the proposed project.

**Table 5-9: Comparison of Emissions Inventory: Proposed Project versus Alternative 1 (No Project)**

Phase/ Year	Sources	Pollutants (tons/year)											
		VOC		NO <sub>x</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>		CO		SO <sub>x</sub>	
		Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1
1a/ 2024	Aircraft	111	117	1,104	1,117	7	8	7	8	992	1,072	105	109
	APUs	<1	<1	7	7	1	1	1	1	4	4	1	1
	GSE	29	29	81	81	2	2	2	2	867	867	<1	<1
	Stationary Sources	4	4	17	17	6	5	2	2	11	11	1	1

<sup>2</sup> “Brutalist-style” buildings are primarily constructed of concrete and have a design that is strikingly blockish, geometric, and contain design elements with repetitive shapes. See Appendix F for additional description of the Brutalist-style.

Table 5-9: Comparison of Emissions Inventory: Proposed Project versus Alternative 1 (No Project)

Phase/ Year	Sources	Pollutants (tons/year)											
		VOC		NO <sub>x</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>		CO		SO <sub>x</sub>	
		Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1
	Motor Vehicles	2	2	14	15	10	10	1	1	114	120	1	1
	Energy Use	<1	<1	1	2	<1	<1	<1	<1	1	1	<1	<1
	Construction	3	--	17	--	10	--	1	--	17	--	<1	--
	<b>Totals</b>	149	152	1,241	1,239	37	26	15	15	2,006	2,075	108	112
<b>Tons/ Year</b>	<i>Existing</i>	141		1,058		25		14		1,887		95	
	<i>Future-Existing</i>	8	11	183	181	12	<1	1	<1	119	188	13	17
	<i>Threshold</i>	13.7		40		15		10		100		40	
	<i>Exceeds Threshold?</i>	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
	<i>Alternative 1 - Proposed Project</i>	3		-2		-11		<1		68		4	
<b>1b/ 2026</b>	Aircraft	120	127	1,186	1,204	8	8	8	8	1,045	1,150	111	116
	APUs	<1	<1	8	8	1	1	1	1	4	4	1	1
	GSE	29	29	79	79	2	2	2	2	922	922	<1	<1
	Stationary Sources	4	4	17	17	6	5	2	2	11	11	1	1
	Motor Vehicles	2	2	17	18	11	11	1	1	111	117	1	1
	Energy Use	<1	<1	1	2	<1	<1	<1	<1	1	1	<1	<1
	Construction	1	--	6	--	6	--	1	--	6	--	<1	--
	<b>Totals</b>	155	162	1,314	1,328	34	28	15	14	2,101	2,204	114	119
<b>Tons/ Year</b>	<i>Existing</i>	141		1,058		25		14		1,887		95	
	<i>Future-Existing</i>	14	21	256	270	9	2	1	<1	214	317	19	24
	<i>Threshold</i>	13.7		40		15		10		100		40	
	<i>Exceeds Threshold?</i>	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	No	No
	<i>Alternative 1 – Proposed Project</i>	7		10		-7		<1		97		5	
<b>2a/ 2030</b>	Aircraft	132	144	1,404	1,432	8	9	8	9	1,146	1,310	125	133
	APUs	<1	<1	8	8	1	1	1	1	4	4	1	1
	GSE	26	26	61	61	1	1	1	1	947	947	<1	<1
	Stationary Sources	4	4	17	17	6	5	2	2	11	11	1	1
	Motor Vehicles	1	1	13	13	11	11	1	1	103	107	1	1
	<b>Totals</b>	163	175	1,883	1,921	46	46	22	22	2,208	2,279	127	136

**Table 5-9: Comparison of Emissions Inventory: Proposed Project versus Alternative 1 (No Project)**

Phase/ Year	Sources	Pollutants (tons/year)											
		VOC		NO <sub>x</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>		CO		SO <sub>x</sub>	
		Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1
	Energy Use	<1	<1	2	2	<1	<1	<1	<1	2	1	<1	<1
	Construction	1	--	7	-	3	--	<1	--	13	--	<1	--
	<b>Totals</b>	165	176	1,512	1,533	31	27	13	13	2,225	2,380	128	136
<b>Tons/ Year</b>	<i>Existing</i>	141		1,058		25		14		1,887		95	
	<i>Future-Existing</i>	24	35	454	475	6	2	<1	<1	338	492	33	41
	<i>Threshold</i>	13.7		40		15		10		100		40	
	<i>Exceeds Threshold?</i>	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	No	Yes
	<i>Alternative 1 – Proposed Project</i>	11		21		-4		<1		154		8	
<b>2b/ 2035</b>	Aircraft	149	163	1,660	1,695	9	10	9	10	1,386	1,570	149	158
	APUs	<1	<1	9	9	1	1	1	1	5	5	1	1
	GSE	26	26	57	57	1	1	1	1	1,011	1,011	<1	<1
	Stationary Sources	4	4	17	17	6	5	2	2	11	11	1	1
	Motor Vehicles	1	1	7	8	11	11	1	1	89	93	1	1
	Energy Use	<1	<1	2	2	<1	<1	<1	<1	2	1	<1	<1
	Construction	<1	-	1	--	2	--	<1	--	2	--	<1	--
	<b>Totals</b>	181	194	1,754	1,786	31	28	14	14	2,506	2,690	152	161
<b>Tons/ Year</b>	<i>Existing</i>	141		1,058		25		14		1,887		95	
	<i>Future-Existing</i>	40	53	696	728	6	4	1	1	618	803	58	67
	<i>Threshold</i>	13.7		40		15		10		100		40	
	<i>Exceeds Threshold?</i>	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes
	<i>Alternative 1 – Proposed Project</i>	13		32		-2		<1		185		9	
<b>2050</b>	Aircraft	157	171	1,795	1,831	9	10	9	10	1,427	1,616	158	167
	APUs	<1	<1	10	10	1	1	1	1	5	5	1	1
	GSE	21	21	34	34	1	1	1	1	497	497	<1	<1
	Stationary Sources	4	4	17	17	6	5	2	2	11	11	1	1
	Motor Vehicles	<1	<1	4	4	11	11	1	1	86	90	<1	1
	Energy Use	<1	<1	2	2	<1	<1	<1	<1	2	1	<1	<1
	<b>Totals</b>	183	197	1,862	1,897	28	28	14	14	2,029	2,221	161	170



**Table 5-9: Comparison of Emissions Inventory: Proposed Project versus Alternative 1 (No Project)**

Phase/ Year	Sources	Pollutants (tons/year)											
		VOC		NO <sub>x</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>		CO		SO <sub>x</sub>	
		Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1	Prop. Project	Alt. 1
Tons/ Year	<i>Existing</i>	141		1,058		25		14		1,887		95	
	<i>Future-Existing</i>	42	56	804	839	4	3	<1	<1	141	333	66	76
	<i>Threshold</i>	13.7		40		15		10		100		40	
	<i>Exceeds Threshold?</i>	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes
	<i>Alternative 1 – Proposed Project</i>	14		35		<1		<1		192		10	

Source: KB Environmental Sciences, Inc., 2019.

Note: Totals may reflect rounding.

It should also be noted that existing background concentrations of PM<sub>10</sub> currently exceed state standards and there would be an increase in PM<sub>10</sub> emissions associated with Alternative 1, compared to existing baseline conditions. The increase is considered to be cumulatively considerable; this is a significant and unavoidable impact. That would also be the case for the proposed project; however, with no construction activities occurring under Alternative 1, the overall PM<sub>10</sub> emissions associated with Alternative 1 would be less than those of the proposed project, but, nevertheless, would be a cumulatively considerable significant impact.

### 5.6.1.3 Greenhouse Gas Emissions

#### *Construction*

The No Project Alternative would avoid the construction-related GHG emissions associated with the proposed project, which has a peak of 6,627 annual metric tons in 2024, as shown in Table 5-10.

#### *Operations*

Table 5-10 indicates and compares the operations-related GHG emissions associated with the proposed project and with the No Project Alternative, as well as the aforementioned construction-related emissions of the proposed project. As shown, the operations-related GHG emissions associated with the No Project Alternative would be greater than the operations-related emissions of the proposed project for all horizon years (i.e., 2024, 2026, 2030, 2035, and 2050). Even with the construction-related GHG emissions associated with the proposed project, which would not occur under Alternative 1, the total GHG emissions of the proposed project would be less than GHG emissions of Alternative 1 for all horizon years.

**Table 5-10: Alternative 1 (No Project) Annual GHG Emissions Compared to Existing and Proposed Project Emissions (in metric tons of CO<sub>2</sub>e)**

Year	Source	Metric Tons of CO <sub>2</sub> e		Alternative 1 (No Project)		
		Existing (2018 Baseline) Conditions	Proposed Project	Metric Tons of CO <sub>2</sub> e	Increase/ Decrease from Existing	Increase/ Decrease from Proposed Project
2024	Aircraft	249,504	285,313	294,504	45,000	9,191
	APUs	2,223	2,505	2,505	282	0
	GSE	12,091	12,471	12,471	380	0
	Stationary Sources	12,940	13,399	12,940	0	-459
	Motor Vehicles	55,434	55,991	58,790	3,356	2,799
	Other <sup>a</sup>	5,597	8,149	5,597	0	-2,552
	Total Operations	337,789	377,828	386,807	49,018	8,979
	Construction	--	6,627	--	--	-6,627
	Grand Total	337,789	384,455	386,807	49,018	2,352
2026	Aircraft	249,504	300,734	312,855	63,351	12,121
	APUs	2,223	2,580	2,580	357	0
	GSE	12,091	13,799	13,799	1,708	0
	Stationary Sources	12,940	13,399	12,940	0	-459
	Motor Vehicles	55,434	63,469	66,258	10,824	2,789
	Other <sup>a</sup>	5,597	11,924	5,597	0	-6,327
	Total Operations	337,789	405,905	414,030	76,241	8,125
	Construction	--	2,698	--	--	-2,698
	Grand Total	337,789	408,603	414,030	76,241	5,427
2030	Aircraft	249,504	331,950	350,556	101,052	18,606
	APUs	2,223	2,623	2,623	400	0
	GSE	12,091	13,409	13,409	1,318	0
	Stationary Sources	12,940	13,399	12,940	0	-459
	Motor Vehicles	55,434	59,650	61,716	6,282	2,066

**Table 5-10: Alternative 1 (No Project) Annual GHG Emissions Compared to Existing and Proposed Project Emissions (in metric tons of CO<sub>2</sub>e)**

Year	Source	Metric Tons of CO <sub>2</sub> e		Alternative 1 (No Project)		
		Existing (2018 Baseline) Conditions	Proposed Project	Metric Tons of CO <sub>2</sub> e	Increase/Decrease from Existing	Increase/Decrease from Proposed Project
	Other <sup>a</sup>	5,597	18,215	5,597	0	-12,618
	Total Operations	337,789	439,246	446,842	109,053	7,595
	Construction	--	2,598	--	--	-2,598
	Grand Total	337,789	441,844	446,842	109,053	4,998
2035	Aircraft	249,504	395,743	417,922	168,418	22,179
	APUs	2,223	3,139	3,139	916	0
	GSE	12,091	13,475	13,475	1,384	0
	Stationary Sources	12,940	13,399	12,940	0	-459
	Motor Vehicles	55,434	51,022	53,304	-2,130	2,282
	Other <sup>a</sup>	5,597	20,066	5,597	0	-14,469
	Total Operations	337,789	496,844	506,377	168,588	9,533
	Construction	--	830	--	--	-830
	Grand Total	337,789	497,674	506,377	168,588	8,702
2050	Aircraft	249,504	417,468	440,947	191,444	23,480
	APUs	2,223	3,417	3,417	1,195	0
	GSE	12,091	12,011	12,011	-80	0
	Stationary Sources	12,940	13,399	12,940	0	-459
	Motor Vehicles	55,434	44,667	46,923	-8,511	2,256
	Other <sup>a</sup>	5,597	20,066	5,597	0	-14,469
	Total	337,789	511,029	521,837	184,048	10,808

Source: KB Environmental Sciences, Inc., 2019.

Note: Totals may reflect rounding. -- = Not applicable

a. Estimates of emissions resulting from energy consumption associated with electricity usage, water usage (conveyance, consumption and treatment), and solid waste disposal. Emissions associated with natural gas consumption within the built environment are captured by the "Stationary Sources" category, as natural gas consumption is associated with SDIA's existing, on-site Central Utility Plant.

"--" Implies emissions are not applicable.

#### 5.6.1.4 Human Health Risk

##### *Construction*

Under the No Project Alternative, there would be no construction activities and, therefore, there would be no construction-related toxic air contaminants (TAC) generated under that scenario. As described in Section 3.4.6, the generation of construction-related TAC associated with implementation of the proposed project would not result in any significant non-cancer human health impacts, as specifically indicated in Table 3.4-3 relative to chronic non-cancer human health hazards, Table 3.4-4 relative to acute (1-hour) non-cancer health hazards, and Table 3.4-5 relative to acute (8-hour) non-cancer health hazards. Additionally, as indicated in Table 3.4-6, on-site TAC concentrations associated with implementation of the proposed project would be within Cal/OSHA acceptable levels. As such, there would be no significant construction-related non-cancer human health impacts under the No Project Alternative or under the proposed project.

Relative to construction-related human health impacts for cancer, the assessment of that impact was based on the combination of construction-related emissions and operations-related emissions, for the reasons presented in Section 3.4.2.3. As described below, the combination of construction-related emissions and operations-related emissions would result in a significant impact relative to cancer risk. Although the No Project Alternative would not generate construction-related TAC emissions, it would still result in a significant impact relative to cancer risk based on operations, as described below.

##### *Operations*

As described in Section 3.4.6, the generation of operations-related TAC associated with implementation of the proposed project would not result in any significant non-cancer human health impacts – see the tables specifically referenced above relative to construction-related non-cancer impacts. As also described in Section 3.4.6, the generation of operations-related TAC associated with implementation of the proposed project would result in a significant cancer risk human health impact relative to a 30-year resident, adult resident, and off-airport adult worker – see Table 3.4-2. These significant cancer risk human health impacts are primarily due to diesel exhaust associated with GSE; however, with implementation of Mitigation Measure MM-AQ/GHG-1, which calls for the conversion of GSE to alternative fuels that reduce TAC emissions, the cancer risk would be reduced to a level that is less than significant. Under Alternative 1, no mitigation measures would be implemented and the operations-related cancer risk human health impacts would be significant.

Section 3.4.2.3.1 identifies TAC of concern relative to evaluating potential human health risk impacts, which include volatile organic compounds (VOCs), polycyclic aromatic hydrocarbon (PAH), particulate matter (PM) of metals and inorganics and from diesel exhaust. As indicated above in Table 5-9, operations-related emissions of VOCs and PM under the No Project Alternative would generally be greater than the emissions associated with the proposed project, although the comparatively higher emissions of those TAC associated with operations under the No Project Alternative would be partially offset by the avoidance of construction-related emissions under that alternative, compared to the proposed project. Notwithstanding, the cancer risk human health impacts of operations alone would be significant under the No Project Alternative, but would not be significant under the proposed project with mitigation. In summary, the potential for human health risk impacts under the No Project Alternative would be greater than under the proposed

project, including as related to the No Project Alternative having a significant cancer risk human health impact that would not occur under the proposed project with mitigation.

#### **5.6.1.5 Biological Resources**

##### *Construction*

Under the No Project Alternative, no construction activities would occur, including construction activities near the California least tern habitat areas (i.e., “the ovals”) located in the southeastern portion of the Airport, that would otherwise occur under the proposed project. The No Project Alternative would avoid the potential for construction-related indirect impacts to that sensitive biological resource; however, implementation of the proposed project would include compliance with existing applicable measures specified in the 1993 Biological Opinion and in the 2013 and 2018 Informal Section 7 Consultations between the FAA and USFWS regarding potential effects of the SDIA Northside Improvements Project and the Taxiway B Object-Free Area Improvement Project, respectively, listed in Section 3.5.4.1, as well as the additions and refinements to those measures that are presented in Section 3.5.6.1.3 (Mitigation Measure MM-BIO-1: California Least Tern: Construction Measures). As such, the No Project Alternative would avoid the project’s potential construction-related indirect impacts to sensitive biological resources; however, such potential indirect impacts of the proposed project would be reduced to a less than significant impact through implementation of mitigation measures.

##### *Operations*

Ongoing operations at SDIA under the No Project Alternative would include continued aircraft movements near the California least tern habitat areas (i.e., “the ovals”); however, such operations would continue to be subject to the existing applicable measures specified in the 1993 Biological Opinion and in the 2013 and 2018 Informal Section 7 Consultations between the FAA and USFWS regarding potential effects of the SDIA Northside Improvements Project and the Taxiway B Object-Free Area Improvement Project, respectively, listed in Section 3.5.4.1 to avoid potential indirect impacts to California least tern during operation of the proposed project. Such would also be the case for the proposed project. In addition, the proposed project would implement measures presented in Section 3.5.6.1.3 (Mitigation Measure MM-BIO-2: California Least Tern: Operations Measures) to avoid potential significant indirect impacts during operation as related to perching for predatory species. Neither the No Project Alternative nor the proposed project (after mitigation) would result in significant impacts to biological resources.

#### **5.6.1.6 Cultural Resources**

##### *Construction*

Under the No Project Alternative, there would be no removal of existing buildings, which includes no removal of the two significant historic buildings that would otherwise be removed under the proposed project – the existing Terminal 1 and the existing Terminal 2-East. As such, the No Project Alternative would avoid the unavoidable significant impacts to these two historic resources that would occur with implementation of the proposed project. The No Project Alternative would also not result in the removal and relocation (as a mitigation measure) of the former United Airlines Hangar and Terminal Building, which is also a significant historical building.

### *Operations*

Continued operation of SDIA under the No Project Alternative would not affect any historic resources, which would also be the case for the proposed project; consequently, there would be no impact under either scenario.

#### **5.6.1.7 Tribal Cultural Resources**

##### *Construction*

As discussed in Section 3.7.4, there are no known tribal cultural resources, as defined in Public Resources Code Section 21074, on the project site. Based on formal consultation with Viejas described in Section 3.7.4.2, ground disturbance associated with construction of the proposed project could disturb previously unidentified tribal cultural resources on the project site. To address this contingency, the SDCRAA has voluntarily agreed to implement Excavation Monitoring as part of the construction program for the proposed project. Under the agreed-upon Excavation Monitoring program, a Kumeyaay Cultural Monitor will be present onsite during ground disturbing activities that involve soils that are not previously dredged/filled materials below the airport for the proposed project. Such monitoring would serve to address the potential, if any, for tribal cultural resources to be unexpectedly encountered during project-related excavation activities. As such, the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074. Thus, impacts on tribal cultural resources from construction of the proposed project would be less than significant. Under the No Project Alternative, there would be no excavation; therefore, the No Project Alternative would avoid the potential for tribal cultural resources to be unexpectedly encountered during project-related excavation activities. As indicated above, however, construction of the proposed project would not result in any significant impacts to tribal cultural resources.

##### *Operations*

Continued operation of SDIA under the No Project Alternative would not affect tribal cultural resources, which would also be the case for the proposed project; consequently, there would be no impact under either scenario.

#### **5.6.1.8 Geology and Soils**

##### *Construction*

Under the No Project Alternative, there would be no construction activities and, therefore, there would be no construction-related impacts related to geology and soils.

##### *Operations*

As described in Section 3.8.6, although the proposed project would expose people or structures to risk related to seismic hazards including rupture of a known earthquake fault, seismic ground shaking, liquefaction, and dynamic settlement, the effect would not constitute a substantial adverse impact. Further, although the proposed project would expose people or property to risk from unstable geologic and related conditions including liquefaction, ground settlement, lateral spreading or landsliding; subsidence; collapse; corrosive soils; compressible materials; and/or shallow groundwater, the effect(s) would not constitute a substantial adverse impact. Lastly, the proposed project would not be located on expansive soil that could result in direct or indirect risks to life and property. In summary, geology and soil impacts for the proposed project would be less

than significant. This would also be the case for operation of the No Project Alternative, whereby structures currently exist at the Airport with the same geology and soils conditions. However, under the No Project Alternative, the existing T1, which was constructed in 1967 under less stringent building codes with less stringent seismic requirements, would remain in its current state. As discussed further in Section 3.8.6, the new T1 under the proposed project, along with the other new construction, would be designed, located, and built in compliance with the most up-to-date building code requirements of the California Building Code (CBC) and City of San Diego Building Code applicable at the time of development. Therefore, structural improvements (a new, replacement T1) that address seismic and other geologic conditions under the proposed project would not be realized under the No Project Alternative.

#### **5.6.1.9 Hazards and Hazardous Materials**

##### *Construction*

Under the No Project Alternative, existing groundwater and soils located at the project site would not undergo remediation and hazardous building materials in the existing structures to be demolished (such as T1) would not be abated; however, no disturbance of these materials would occur under the No Project Alternative, and therefore, no new risks would occur. However, remediation of contaminated groundwater and soils and abatement of hazardous building materials under the proposed project would not be realized under the No Project Alternative. The No Project Alternative would avoid the construction-related impacts on emergency access related to temporary lane closures; however, the construction impacts of the proposed project on emergency access would be less than significant.

##### *Operations*

Although the proposed project would create a potential hazard to the public or the environment associated with possible soil gas vapor intrusion into the new T1 building, with implementation of mitigation, the effect would not constitute a substantial adverse impact. Because no change to the existing footprint of T1 would occur, this impact would not occur under the No Project Alternative. The proposed project would not significantly impair implementation of an emergency response plan or evacuation plan or result in a significant safety hazard to the people residing or working in the project area due to its location at an airport. This would also be the case for operation of the No Project Alternative. Under the No Project Alternative there would still be continued future growth in aircraft activity and passenger activity to the same degree as under the proposed project. As such, and as further described below in Section 5.6.1.12, there would still be the same significant aircraft noise impacts as the proposed project. The related impacts, in terms of how such noise impacts would result in an excessive aircraft noise impact to the people residing or working in the project area due to its location at an airport would be the same for the No Project Alternative as for the proposed project. As such, the No Project Alternative would not avoid or substantially reduce the operations-related significant impacts of the proposed project associated with excessive aircraft noise as related to hazards and hazardous materials.

#### **5.6.1.10 Hydrology and Water Quality**

##### *Construction*

Under the No Project Alternative, there would be no construction activities; consequently, the No Project Alternative would avoid the temporary construction-related hydrology and water quality



impacts of the proposed project. As indicated in Section 3.10.6, however, construction of the proposed project would not result in any significant impacts to hydrology or water quality.

### *Operations*

Under the No Project Alternative, there would be no change to the existing physical characteristics of the project area and, in turn, no change to existing surface runoff patterns or volumes and no change to the existing stormwater drainage system in and around the subject area. As described in Section 3.10.6, implementation of the proposed project includes improvements related to the SAN Stormwater Capture and Reuse System, which would serve to reduce the volume of stormwater discharge from the Airport and also provide water quality benefits related to stormwater discharge. Under the No Project Alternative, the SAN Stormwater Capture and Reuse System improvements associated with the proposed project would not occur and, as such, the hydrology and water quality benefits that would otherwise occur with the proposed project would not be realized.

## **5.6.1.11 Land Use and Planning**

### *Construction*

Under the No Project Alternative, there would be no demolition, new construction, or any other change in use at the project site. Therefore, no impacts to land use and planning would occur. However, construction of the proposed project would not result in any significant impacts to land use and planning.

### *Operations*

Under the No Project Alternative there would still be continued future growth in aircraft activity and passenger activity to the same degree as under the proposed project. As such, and as further described below in Sections 5.6.1.12 and 5.6.1.14, there would still be the same significant aircraft and roadway noise impacts as the proposed project due to future growth at SDIA projected to occur with or without the proposed project. Further, there would be worse significant traffic impacts than the proposed project because the No Project Alternative does not include the new on-airport access road, which would serve to divert/remove some of the airport-related traffic from North Harbor Drive. The related impacts, in terms of how such noise and traffic impacts would conflict with policies in the General Plan, local community plans, and the existing ALUCP would be the same for the No Project Alternative as for the proposed project. As such, the No Project Alternative would not avoid or substantially reduce the operations-related significant impacts of the proposed project as related to land use and planning. However, because no new construction would occur than under the proposed project, there would be less opportunity to implement improvements consistent with the Climate Resilience Plan. Additionally, the project elements supportive of increasing transit opportunities and alternative access to SDIA, such as the new multi-use pathway on the north side of North Harbor Drive, would not be implemented.

## **5.6.1.12 Noise**

### *Construction*

The No Project Alternative would avoid the construction-related noise associated with the proposed project; however, the construction noise impacts of the proposed project would be less than significant.



### Operations

Operations-related aircraft noise impacts associated with the No Project Alternative would be the same as those of the proposed project because the number, nature, and timing of aircraft operations would be the same between the two scenarios. As such, the estimated population and housing counts, as well as other types of noise-sensitive receptors such as churches (places of worship) and schools, exposed to the various CNEL aircraft noise levels, the changes in CNEL, and the changes in nighttime flights (sleep disturbance) presented in Section 3.12.3 for the proposed project would be the same for the No Project Alternative, which would include unavoidable significant aircraft noise impacts. That similarity in impacts would also be the case relative to aircraft noise impacts to schools, in terms of the amount of time above certain exterior noise levels, which would be less than significant. As such, the No Project Alternative would have the same significant aircraft noise impacts in 2050 as the proposed project.

Operations-related roadway noise impacts associated with the No Project Alternative would be generally similar to those of the proposed project. Table 5-11 presents the estimated roadway CNELs along roadways in the vicinity of SDIA for the No Project Alternative and the proposed project.

**Table 5-11: Predicted Traffic CNELs for the No Project Alternative and Proposed Project**

Roadway Segment	Existing CNEL at 50 ft from Edge of Road	2024 CNEL (dB)		2026 CNEL (dB)		2030 CNEL (dB)		2035 CNEL (dB)		2050 CNEL (dB)	
		Proposed Project	No Project	Proposed Project	No Project	Proposed Project	No Project	Proposed Project	No Project	Proposed Project	No Project
Pacific Highway											
Kurtz St to Barnett Ave	69.7	69.9	69.9	70.0	70.0	70.2	70.2	70.3	70.3	70.8	70.8
Barnett Ave to Washington St	73.4	74.2	74.2	74.3	74.3	74.4	74.4	74.6	74.6	74.8	74.8
Washington St to Sassafras St	66.3	66.7	66.7	66.8	66.8	67.1	67.1	68.0	68.0	70.7	70.7
Sassafras St to Palm St	66.2	66.8	66.8	67.0	67.0	67.4	67.4	67.7	67.7	68.1	68.1
Palm St to Laurel St	66.5	67.0	67.0	67.2	67.2	67.7	67.7	68.2	68.2	69.1	69.1
Laurel St to Juniper St	63.6	64.9	64.9	65.1	65.1	65.5	65.5	66.1	66.1	66.9	66.9
Kettner Boulevard											
Vine St to Sassafras St	68.7	69.7	69.7	70.0	70.0	70.6	70.6	71.0	71.0	70.5	70.5
Sassafras St to Palm St	67.1	69.2	69.2	69.5	69.5	70.2	70.2	70.8	70.8	70.9	70.9
Palm St to Laurel St	67.1	68.3	68.3	68.6	68.6	69.2	69.2	69.6	69.6	69.8	69.8
India Street											
Sassafras St to Laurel St	66.1	68.0	68.0	68.4	68.4	69.2	69.2	69.5	69.5	69.9	69.9
Laurel St to Juniper St	60.3	60.5	60.5	60.5	60.5	60.6	60.6	60.7	60.7	61.1	61.1
Washington Street											
West of Pacific Hwy	57.5	58.7	58.7	58.9	58.9	59.4	59.4	59.8	59.8	60.6	60.6
Hancock St to San Diego Ave	67.7	68.1	68.1	68.3	68.3	68.5	68.5	68.7	68.7	69.0	69.0
East of India St	68.0	68.8	68.8	68.9	68.9	69.2	69.2	69.3	69.3	69.7	69.7

**Table 5-11: Predicted Traffic CNELs for the No Project Alternative and Proposed Project**

Roadway Segment	Existing CNEL at 50 ft from Edge of Road	2024 CNEL (dB)		2026 CNEL (dB)		2030 CNEL (dB)		2035 CNEL (dB)		2050 CNEL (dB)	
		Proposed Project	No Project	Proposed Project	No Project	Proposed Project	No Project	Proposed Project	No Project	Proposed Project	No Project
Admiral Boland Way											
Washington St to Terminal Link Rd	64.5	66.7	66.7	67.0	67.0	67.5	67.5	67.9	67.9	68.2	68.2
Terminal Link Rd to Pacific Hwy	64.5	66.7	66.7	67.0	67.0	67.5	67.5	67.9	67.9	68.2	68.2
Sassafras Street											
Pacific Hwy to Kettner Blvd	61.9	63.4	63.4	63.7	63.7	64.2	64.2	65.1	65.1	65.4	65.4
Palm Street											
Pacific Hwy to Kettner Blvd	53.5	59.6	59.6	59.8	59.8	60.0	60.0	61.6	61.6	61.7	61.9
Laurel Street											
Harbor Dr to Pacific Hwy	69.5	71.0	71.0	71.4	71.4	72.2	72.2	72.6	72.6	73.0	73.0
Pacific Hwy to India St	64.3	65.1	65.1	65.4	65.4	66.1	66.1	66.4	66.4	66.8	66.8
Columbia St to State St/ Reynard Wy	61.3	61.4	61.4	61.5	61.5	61.8	61.8	62.0	62.0	62.3	62.3
Hawthorn Street											
Harbor Dr to Pacific Hwy	65.6	65.9	65.9	66.1	66.1	66.6	66.6	67.2	67.2	67.6	67.6
Pacific Hwy to India St	66.3	66.6	66.6	67.0	67.0	67.6	67.6	68.9	68.9	69.2	69.2
India St to State St	66.3	66.7	66.7	67.0	67.0	67.7	67.7	68.9	68.9	69.3	69.3
State St to Albatross St	61.6	61.8	61.8	61.8	61.8	61.9	61.9	62.0	62.0	62.4	62.4
Grape Street											
Harbor Dr to Pacific Hwy	68.2	69.0	69.0	69.4	69.4	70.1	70.1	71.7	71.7	72.0	72.0
Pacific Hwy to India St	68.9	70.3	70.3	70.6	70.6	71.2	71.2	72.4	72.4	72.7	72.7
India St to State St	69.6	71.3	71.3	71.6	71.6	72.2	72.2	73.3	73.3	73.7	73.7
Albatross St to Front St	54.8	56.4	56.4	56.8	56.8	57.9	57.9	58.9	58.9	59.2	59.2
Harbor Drive											
Scott Rd to Nimitz Blvd	64.8	66.2	66.2	66.3	66.3	66.5	66.5	66.7	66.7	67.1	67.1
Nimitz Blvd to Laning Rd	66.3	67.5	67.5	67.7	67.7	68.0	68.0	68.2	68.2	68.6	68.6
Laning Rd to McCain Rd	68.0	68.2	68.2	68.4	68.4	69.0	69.0	69.2	69.2	69.6	69.6
McCain Rd to Spanish Landing	68.1	68.2	68.2	68.5	68.5	69.0	69.0	69.2	69.2	69.6	69.6
Spanish Landing to Harbor Island Dr	68.2	68.0	69.9	68.3	70.2	68.7	70.6	68.9	70.9	69.2	71.3
Harbor Island Dr to Winship Ln	72.3	66.1	70.4	67.0	70.9	69.2	72.2	69.3	72.5	70.1	72.9
Winship Ln to Liberator Way	72.9	71.7	73.5	72.2	73.9	73.3	74.8	73.6	75.2	74.0	75.8
Liberator Way to Cell Phone Lot	73.2	71.8	73.6	72.3	74.1	73.4	75.0	73.7	75.3	74.1	75.9
Cell Phone Lot to Laurel St/ Solar Turbines	73.2	71.9	73.8	72.3	74.2	73.4	75.1	73.8	75.5	74.2	76.1

**Table 5-11: Predicted Traffic CNELs for the No Project Alternative and Proposed Project**

Roadway Segment	Existing CNEL at 50 ft from Edge of Road	2024 CNEL (dB)		2026 CNEL (dB)		2030 CNEL (dB)		2035 CNEL (dB)		2050 CNEL (dB)	
		Proposed Project	No Project	Proposed Project	No Project	Proposed Project	No Project	Proposed Project	No Project	Proposed Project	No Project
Laurel St/ Solar Turbines to W Laurel St	72.2	71.6	71.6	72.1	72.1	73.2	73.2	73.5	73.5	74.0	74.0
Laurel St to Hawthorn St	71.1	71.6	71.6	72.0	72.0	72.9	72.9	74.1	74.1	74.4	74.4
Hawthorn St to Grape St	69.2	69.8	69.8	70.2	70.2	71.2	71.2	72.5	72.5	72.8	72.8
Grape St to Ash St	70.1	70.4	70.4	70.7	70.7	71.4	71.4	71.6	71.6	71.9	71.9
<b>Harbor Island Drive</b>											
Harbor Dr to Old Rent A Car Access	60.9	61.1	61.1	62.2	62.2	64.9	64.9	65.0	65.0	65.1	65.1
West of Harbor Island Dr	58.6	61.1	61.1	61.2	61.2	61.3	61.3	61.5	61.5	61.8	61.8
Harbor Island Dr to Parking Lot	56.6	58.2	58.2	58.3	58.3	58.3	58.3	58.9	58.9	61.0	61.0
East of Parking Lot	55.7	58.2	58.2	58.3	58.3	58.3	58.3	58.9	58.9	61.0	61.0

Source: HMMH, 2019.

As indicated above, the roadway CNEL noise levels would be the same between the No Project Alternative and the proposed project for all roadway segments, with the exception of five segments along North Harbor Drive, specifically, Spanish Landing to Harbor Island Drive, Harbor Island Drive to Winship Lane, Winship Lane to Liberator Way, Liberator Way to Cell Phone Lot, and Cell Phone Lot to Laurel St/Solar Turbines, where the on-airport access road associated with the proposed project would reduce traffic volumes on North Harbor Drive. The significant and unavoidable roadway noise impacts along Grape Street and along India Street identified in Section 3.12.4 for the proposed project would remain the same under the No Project Alternative.

Based on the above, the No Project Alternative would not avoid or substantially reduce any of the significant noise impacts of the proposed project.

### 5.6.1.13 Public Services

#### *Construction*

The No Project Alternative would avoid the construction-related impacts related to public services (i.e., fire protection/emergency medical services, law enforcement services, and recreation/parks) associated with the proposed project; however, the construction impacts of the proposed project on public services would be less than significant.

#### *Operations*

Under the No Project Alternative, the City of San Diego Police Department (SDPD), San Diego Harbor Police Department (SDHPD), and City of San Diego Fire-Rescue Department (SDFD) would define staffing needs through their ongoing assessments of service levels, which is also the case for the proposed project; there would be no significant impact to public services under either scenario. However, while newer structures, such as T2-West, have sprinkler systems, the existing T1 does

not. The new T1 under the proposed project would comply with the current Uniform Fire Code, including installation of a fire sprinkler system. Under the No Project Alternative, no improvements to T1 would occur; as such, the fire suppression benefits that would otherwise occur with the proposed project would not be realized.

#### **5.6.1.14 Traffic and Circulation**

##### *Construction*

As discussed in Section 3.14, implementation of the proposed project would exceed thresholds of significance relating to the operation of 2 intersections in the 2020/2021 and 2024 With Project Conditions scenarios (Construction Phase 1a and Construction Phase 1b, respectively), 1 intersection in the 2026 With Project Conditions scenario (Construction Phase 2a), and 7 intersections in the 2030 With Project Conditions scenario (Construction Phase 2b). Although mitigation measures were formulated to reduce these impacts, the impacts would not be fully mitigated and/or the mitigation measures were determined to be infeasible for reasons described in Section 3.14. As such, the construction traffic impacts of the proposed project would remain significant and unavoidable at all or most of the intersections significantly impacted in all construction phases (Construction Phases 1a, 1b, 2a, and 2b). The No Project Alternative would avoid these significant construction-related traffic and circulation impacts of the proposed project.

##### *Operations*

Future aircraft and passenger activity levels at SDIA are projected to increase with or without the proposed project. Operations-related traffic generation at SDIA in the future horizon years of 2024, 2026, 2030, 2035, and 2050 under the No Project Alternative would be similar to that of the proposed project. The most notable traffic-related difference between the two scenarios is that the new on-airport access road north of, and adjacent to, North Harbor Drive would be constructed under the proposed project, but would not occur under the No Project Alternative. Based on the similar levels of future airport-related traffic generation for the two scenarios, the traffic impacts of the No Project Alternative would be similar to those described in Section 3.14 for the proposed project. However, given that the No Project Alternative does not include the new on-airport access road, which would serve to divert/remove some of the airport-related traffic from North Harbor Drive, as evident in the Roadway Segment Level of Service Tables for 2024 and 2026 in Section 3.14 (i.e., several of the segments along North Harbor Drive show a reduction in traffic volumes with implementation of the proposed project compared to baseline traffic volumes), future traffic conditions around SDIA would be worse under the No Project Alternative than under the proposed project. Therefore, in summary, the No Project Alternative would result in operational traffic impacts that are worse than those of the proposed project, and would not avoid or substantially reduce the significant operational traffic impacts of the proposed project.

#### **5.6.1.15 Utilities**

##### *Construction*

Under the No Project Alternative, there would be no changes or upgrades to the existing utilities (potable water, wastewater, storm drains, solid waste, electricity, natural gas, and telecommunications). However, under the proposed project, impacts on utilities associated with construction would be less than significant.

### *Operations*

As described in Section 3.15.6, while increased demand for utilities would occur under the proposed project, such impacts would be less than significant. Under the No Project Alternative, utility use would also increase in conjunction with continued growth in aircraft operations and passenger activity levels. However, given that the amount of Airport square footage would be less as compared to the proposed project, the increase in demand for utilities is expected to be less than the proposed project. Although, under the proposed project, energy and water-saving features such as replacement of older, less efficient water fixtures, expanded stormwater capture for non-potable water reuse, and expansion of the Central Utility Plant (CUP) would be implemented. This would not occur under the No Project Alternative. Therefore, while utility use would be less under the No Project Alternative as compared to the proposed project, the water and energy-conservation benefits that would otherwise occur under the proposed project would not be realized.

## **5.6.2 Alternative 2: Reduced Scale of Development**

### **5.6.2.1 Aesthetics and Visual Resources**

#### *Construction*

Under Alternative 2, there would be no demolition of, replacement of, or additions to the existing T1 and T2, but rather there would be the development of a new terminal east of T1. As such, Alternative 2 would involve much less construction than the proposed project. As described in Section 3.1.6, construction of the proposed project would not result in any significant impacts related to aesthetics and visual resources, which would also be the case for Alternative 2. As such, there would be no significant construction-related aesthetics or visual resource impacts under either the proposed project or Alternative 2.

#### *Operations*

As described in Section 3.1.6, the proposed project would not have a substantial adverse effect on a scenic vista; substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; conflict with applicable zoning and other regulations governing scenic quality; or create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. As such, implementation of the proposed project would result in a less than significant impact relative to aesthetics and visual resources during operations. Although visual simulations of the development associated with Alternative 2 (i.e., a new terminal east of T1) were not developed for this EIR, it is anticipated that, similar to the proposed project, implementation of Alternative 2 would not result in significant impacts relative to aesthetics and visual resources during operations. However, under Alternative 2, T1, which is the oldest terminal facility at the Airport, would remain in its current state. As discussed further in Section 3.6, Cultural Resources, T1 was constructed in 1967 as a Brutalist-style airport terminal with Futurist influences on the primary (south) façade and International influences on the north, west, and east façades. As discussed in Section 3.1.6, the new T1 under the proposed project would have a contemporary design that compliments the existing T2-West (the Green Build) and would incorporate high-quality materials and public art. As such, unlike Alternative 2, the proposed project would be consistent with the project objective to “[m]ake the terminal a showplace of functionality and design that reflects the local feel and uniqueness of San Diego.”

### 5.6.2.2 Air Quality

#### Construction

Under Alternative 2, there would be no demolition of, replacement of, or additions to the existing T1 and T2, but rather there would be the development of a new terminal east of T1. As such, and as detailed earlier in Table 5-2, Alternative 2 would involve much less construction than the proposed project. It is assumed that development of Alternative 2 could occur within the same timeframe as Phase 1a of the proposed project. Based on the combined total area of demolition and construction in Phase 1a, the construction intensity of Alternative 2 would be approximately 59 percent of that associated with the proposed project in that phase (i.e., 5,644,500 square feet of demolition/construction under Alternative 2 compared to 9,634,800 square feet for the proposed project in Phase 1a). It is assumed that there would be no demolition or construction associated with Alternative 2 as related to Phases 1b, 2a, and 2b of the proposed project.

In light of the above, Table 5-12 presents the estimated construction emissions (with demolition and construction combined) of Alternative 2 compared to the proposed project, assuming the highest annual emissions of the project in each development phase. As shown, the construction emissions associated with Alternative 2 would be less than those of the proposed project in Phase 1a (2024), and whereas the proposed project would have construction emissions in all other phases (Phase 1b-2026, Phase 2a-2030, and Phase 2b-2035), Alternative 2 would not have construction emissions in any of those phases/years. There would be no exceedance of the significance thresholds under Alternative 2, as would also be the case for the proposed project. Similar to the proposed project, construction of Alternative 2 in conjunction with other projects anticipated to be under construction during that same period would result in a significant impact relative to cumulative emissions, to which Alternative 2's contribution to that significant impact would be cumulatively considerable.

**Table 5-12: Construction Emissions of Alternative 2 Compared to Proposed Project**

Project Phase	Years	Scenario	Pollutants (tons/year)					
			VOCs	NOX	PM10	PM2.5	CO	SOX
1a	2021-2024	Proposed Project	3	17	10	1	17	<1
		Alternative 2	2	10	6	<1	10	<1
1b	2024-2026	Proposed Project	1	6	6	1	6	<1
		Alternative 2	0	0	0	0	0	0
2a	2027-2030	Proposed Project	1	7	3	<1	13	<1
		Alternative 2	0	0	0	0	0	0
2b	2031-2035	Proposed Project	<1	2	2	<1	2	<1
		Alternative 2	0	0	0	0	0	0
	Threshold of Significance		13.7	40	15	10	100	40
	Any Exceedance of Threshold?		No	No	No	No	No	No

Source: CDM Smith, May 2019.



### *Operations*

The air pollutant emissions and concentrations associated with operations under Alternative 2 would be essentially the same as those of the proposed project. This is because the future aircraft and passenger activity levels, and key improvements such as the provision of additional gates and development of the new on-airport access road, would be comparable under both scenarios, and those type of improvements have similar implications relative to operations-related air quality impacts. As described in Chapter 2, future activity levels at SDIA are not dependent on gates (i.e., same level of passenger activity in the future can be accommodated with implementation of the proposed project, with 62 gates, as it could without any additions to the existing 51 gates). Such would also be the case relative to Alternative 2.

The only notable difference in operational emissions between Alternative 2 and the proposed project would be that Alternative 2 would not include expansion of the CUP and, therefore, its stationary source emissions would be slightly less than those of the proposed project. Table 5-9 above provides an indication of the difference in emissions associated with the CUP expansion for the proposed project and without the CUP expansion, as would be the case under the No Project Alternative similar to Alternative 2. As shown in the table, there is no appreciable difference for emissions of VOCs, NO<sub>x</sub>, CO, and SO<sub>x</sub> (i.e., difference is less than one ton per year), and the difference for PM is approximately 1 ton per year. Given that the significant air quality impacts of the proposed project related to the NO<sub>x</sub>, VOC, and SO<sub>x</sub> emissions in the future horizon years beginning in 2024, 2030, and 2035, respectively, implementation of Alternative 2 would not avoid or substantially reduce the significant air quality impacts of the proposed project.

It should also be noted that existing background concentrations of PM<sub>10</sub> currently exceed state standards and there would be an increase in PM<sub>10</sub> emissions associated with Alternative 2, compared to existing baseline conditions. The increase is considered to be cumulatively considerable; this is a significant and unavoidable impact. That would also be the case for the proposed project; however, with less construction activities occurring under Alternative 2 the overall PM<sub>10</sub> emissions associated with Alternative 2 would be less than those of the proposed project, but, nevertheless, would be a cumulatively considerable significant impact.

### **5.6.2.3 Greenhouse Gas Emissions**

#### *Construction*

Using the same approach as described above in Section 5.6.2.2, the construction-related GHG emissions were estimated for Alternative 2. Table 5-13 presents those GHG estimates and compares them to the construction-related GHG emissions of the proposed project.

The annual construction-related GHG emissions associated with Alternative 2 would be approximately 59 percent of the amounts that would occur under Phase 1a of the proposed project, and there would be no construction-related GHG emissions under Alternative 2 relative to the remaining phases of the proposed project. While the construction-related emissions of Alternative 2 would be substantially (88 percent) less than those of the proposed project, that reduction would have a negligible effect on the total GHG emissions of Alternative 2, when operations-related GHG emissions, described below, are taken into account (i.e., the reduction in construction-related

emissions would represent less than one percent of the operations-related emissions that would still occur with or without Alternative 2<sup>3</sup>).

**Table 5-13: Construction-Related GHG Emissions (in metric tons) – Alternative 2 Compared to Proposed Project**

Year	Annual CO <sub>2</sub> e Emissions in Metric Tons		Difference in Emissions with Alternative 2
	Proposed Project	Alternative 2	
2021	4,033	2,379	-1,654
2022	3,970	2,342	-1,628
2023	3,915	--	-3,915
2024	6,627	--	-6,627
2025	2,714	--	-2,714
2026	2,698	--	-2,698
2027	2,633	--	-2,633
2028	2,625	--	-2,625
2029	2,603	--	-2,603
2030	2,214	--	-2,214
2031	846	--	-846
2032	842	--	-842
2033	838	--	-838
2034	834	--	-834
2035	830	--	-830
<b>Total</b>	<b>38,222</b>	<b>4,721</b>	<b>-33,501</b>

Source: CDM Smith and KB Environmental Sciences, Inc. 2019.

Note: Totals may reflect rounding.

### Operations

Similar to above regarding operations-related criteria air pollutant emissions, the GHG emissions associated with operations under Alternative 2 would be essentially the same as those of the proposed project, with the only notable exception being slightly less stationary source GHG emissions, because there would be no CUP expansion under Alternative 2. The main reason that the GHG emissions associated with the other sources would be the same between the proposed project and Alternative 2 is because the future aircraft and passenger activity levels, and key improvements, such as the provision of additional gates and development of the new on-airport access road, would be comparable under both scenarios, and those types of improvements have similar implications relative to operations-related GHG emissions impacts. As indicated earlier in Table 3.3-5, operations-related GHG emissions associated with the proposed project, in terms of annual tons of CO<sub>2</sub>e, estimated for the future horizon years would be 362,112 in 2024, 382,046 in 2026, 421,340 in 2030, 493,368 in 2035 and 512,074 in 2050. Table 5-10 in the above discussion of the No Project Alternative indicates the difference in stationary source GHG emissions that would occur with the CUP expansion (proposed project) and without the CUP expansion (No

<sup>3</sup> Specifically, the total reduction in construction emissions (33,501 tons) amortized over 30 years (1,117 tons per year) would be 0.3 percent of the operations emission in 2024 (377,828 tons per year) and continue to decrease over time to 0.2 percent of the operations emissions in 2050 (512,074 tons per year).

Project Alternative, as also representative of Alternative 2). As shown, the difference would be approximately 459 annual tons of CO<sub>2</sub>e, which would represent less than 0.1 percent of the total annual operations-related emissions of the proposed project. As such, implementation of Alternative 2 would result in similar significant unavoidable impacts for GHG emissions as the proposed project, and would not avoid or substantially reduce those impacts.

#### **5.6.2.4 Human Health Risk**

##### *Construction*

As indicated above in the discussion of air quality impacts, implementation of Alternative 2 would result in less construction-related air pollutant emissions than the proposed project, which would include reduced emissions of VOCs and PM that contribute to human health risk impacts. As indicated in Section 3.4.6, the generation of construction-related TAC associated with implementation of the proposed project would not result in any significant non-cancer human health impacts, and on-site TAC concentrations would not exceed Cal/OSHA acceptable levels, which would also be the case for Alternative 2. Relative to construction-related human health impacts for cancer, the assessment of that impact was based on the combination of construction-related emissions and operations-related emissions, for the reasons presented in Section 3.4.2.3. As described below, the combination of construction-related emissions and operations-related emissions would result in a significant impact relative to cancer risk. Although implementation of Alternative 2 would generate less construction-related TAC emissions, it would still result in a significant impact relative to cancer risk based on operations, as described below.

##### *Operations*

As described in Section 3.4.6, the generation of operations-related TAC associated with implementation of the proposed project would not result in any significant non-cancer human health impacts; however, the generation of operations-related TAC associated with implementation of the proposed project would result in a significant cancer risk human health impact relative to a 30-year resident, adult resident, and off-airport adult worker. These significant cancer risk human health impacts are primarily due to diesel exhaust associated with GSE (which would be converted to alternative fuels both with the proposed project and under Alternative 2 through Mitigation Measure MM-AQ/GHG-1). After mitigation, implementation of the proposed project would result in a less than significant cancer risk human health impact relative to a 30-year resident, adult resident, and off-airport adult worker – see Table 3.4-7.

As described in Section 3.4.6, the generation of construction and operations-related TAC associated with implementation of the proposed project would result in a significant cancer burden human health impact. This significant cancer risk human health impact would be primarily due to diesel exhaust associated with GSE (which would be converted to alternative fuels with the proposed project and under Alternative 2 through Mitigation Measure MM-AQ/GHG-1). After mitigation, implementation of the proposed project would result in a less than significant risk human health impact relative to cancer burden.

As indicated above in the discussion of air quality impacts, implementation of Alternative 2 would result in essentially the same amounts of air pollutant emissions as the proposed project, with the only notable difference being a reduction in stationary source emissions, because the CUP expansion would not occur under Alternative 2. Of the TAC most related to human health risk,

there would be no appreciable reduction in VOC emissions (i.e., a reduction of less than 1 ton per year, which would be less than 1 percent of the total VOC emissions) and some reduction in PM (i.e., a reduction of approximately 1 ton per year, which would be approximately 3 percent of the total PM emissions). Implementation of Alternative 2, with the reduced operations-related TAC emissions, would further reduce the less than significant human health risk impact of the proposed project after the application of mitigation.

### **5.6.2.5 Biological Resources**

#### *Construction*

The development area associated with Alternative 2 would be the same as the eastern portion of the proposed project's development area and both scenarios include development of the proposed on-airport access road. As such, both scenarios would place construction activities in the same proximity to the California least tern habitat areas (i.e., "the ovals") and the potential for indirect impacts to that sensitive biological resource would be the same. Construction under either scenario would include compliance with existing applicable measures specified in the 1993 Biological Opinion and in the 2013 and 2018 Informal Section 7 Consultations between the FAA and USFWS regarding potential effects of the SDIA Northside Improvements Project and the Taxiway B Object-Free Area Improvement Project, respectively, listed in Section 3.5.4.1, as well as the additions and refinements to those measures that are presented in Section 3.5.6.1.3 (Mitigation Measure MM-BIO-1: California Least Tern: Construction Measures). As such, potential indirect impacts to sensitive biological resources would be reduced to less than significant under both Alternative 2 and the proposed project in the same manner, and implementation of Alternative 2 would not avoid or substantially reduce potential indirect significant impacts to biological resources.

#### *Operations*

Operations under Alternative 2 would be the same as under the proposed project; hence, potential impacts to sensitive biological resources would be the same for both scenarios. Both would be subject to the existing applicable measures specified in the 1993 Biological Opinion and in the 2013 and 2018 Informal Section 7 Consultations between the FAA and USFWS regarding potential effects of the SDIA Northside Improvements Project and the Taxiway B Object-Free Area Improvement Project, respectively, listed in Section 3.5.4.1 to avoid potential indirect impacts to California least tern during operation of the proposed project, as well as measures presented in Section 3.5.6.1.3 (Mitigation Measure MM-BIO-2: California Least Tern: Operations Measures) to avoid potential significant indirect impacts during operation as related to perching for predatory species. Such would also be the case for the proposed project. Neither Alternative 2 nor the proposed project would result in significant impacts (after mitigation) to biological resources.

### **5.6.2.6 Cultural Resources**

#### *Construction*

The development proposed under Alternative 2, Reduced Scale of Development, would not require removal of the two significant historic buildings that would otherwise be removed under the proposed project – the existing Terminal 1 and the existing Terminal 2-East. As such, Alternative 2 would avoid the unavoidable significant impacts to these two historic resources that would occur with implementation of the proposed project. Alternative 2 would also not result in the removal

and relocation (as a mitigation measure) of the former United Airlines Hangar and Terminal Building, which is also a significant historical building.

#### *Operations*

Operation of Alternative 2 would not affect any historic resources, which would also be the case for the proposed project; consequently, there would be no impact under either scenario.

### **5.6.2.7 Tribal Cultural Resources**

#### *Construction*

As discussed in Section 3.7.4, there are no known tribal cultural resources, as defined in Public Resources Code Section 21074, on the project site. Based on formal consultation with Viejas described in Section 3.7.4.2, ground disturbance associated with construction of the proposed project could disturb previously unidentified tribal cultural resources on the project site. To address this contingency, the SDCRAA has voluntarily agreed to implement Excavation Monitoring as part of the construction program for the proposed project. Under the agreed-upon Excavation Monitoring program, a Kumeyaay Cultural Monitor will be present onsite during ground disturbing activities that involve soils that are not previously dredged/filled materials below the airport for the proposed project. Such monitoring would serve to address the potential, if any, for tribal cultural resources to be unexpectedly encountered during project-related excavation activities. As such, the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074. Thus, impacts on tribal cultural resources from construction of the proposed project would be less than significant. Excavation Monitoring for tribal cultural resources would also be implemented under Alternative 2, which would include excavation for the development of a new terminal east of T1. As such, there would be no significant construction-related impacts to tribal cultural resources under either the proposed project or Alternative 2.

#### *Operations*

Continued operation of SDIA under Alternative 2 would not affect tribal cultural resources, which would also be the case for the proposed project; consequently, there would be no impact under either scenario.

### **5.6.2.8 Geology and Soils**

#### *Construction*

Under Alternative 2, there would be no demolition of, replacement of, or additions to the existing T1 and T2, but rather there would be the development of a new terminal east of T1. As such, Alternative 2 would involve much less construction than the proposed project. As described in Section 3.8.6, construction of the proposed project would not result in any significant impacts related to geology and soils, which would also be the case for Alternative 2. As such, there would be no significant construction-related geology and soils impacts under either the proposed project or Alternative 2.

#### *Operations*

As described in Section 3.8.6, although the proposed project would expose people or structures to risk related to seismic hazards including rupture of a known earthquake fault, seismic ground shaking, liquefaction, and dynamic settlement, the effect would not constitute a substantial adverse

impact. Further, although the proposed project would expose people or property to risk from unstable geologic and related conditions including liquefaction, ground settlement, lateral spreading or landsliding; subsidence; collapse; corrosive soils; compressible materials; and/or shallow groundwater, the effect(s) would not constitute a substantial adverse impact. Lastly, the proposed project would not be located on expansive soil that could result in direct or indirect risks to life and property. In summary, geology and soil impacts for the proposed project would be less than significant. This would also be the case for operation of Alternative 2, whereby the new terminal east of T1 would be constructed on the eastern portion of the project site with the same geology and soils conditions. However, under Alternative 2, the existing T1, which was constructed in 1967 under less stringent building codes with less stringent seismic requirements, would remain in its current state. As discussed further in Section 3.8.6, the new T1 under the proposed project, along with the other new construction, would be designed, located, and built in compliance with the most up-to-date building code requirements of the CBC and City of San Diego Building Code applicable at the time of development. Therefore, structural improvements (a new, replacement T1) that address seismic and other geologic conditions under the proposed project would not be realized under Alternative 2.

#### **5.6.2.9 Hazards and Hazardous Materials**

##### *Construction*

Under Alternative 2, the overall amount and duration of construction activities would be much less than under the proposed project and the suspected location of an existing groundwater monitoring well near the existing T1 would not be disturbed. While less areas that potentially have existing contaminated groundwater and soils would be disturbed, the potential for significant impacts to occur would remain. Additionally, while much less building square footage would be demolished under Alternative 2 (i.e., the existing T1 would remain), the potential for hazardous building materials to be encountered during demolition would remain. Similar to the proposed project, implementation of mitigation measures to address soil and groundwater contamination and hazardous building materials would reduce impacts to less than significant.

##### *Operations*

Similar to the proposed project, construction of a new stand-alone facility east of the existing T1 could create a potential hazard to the public or the environment associated with possible soil gas vapor intrusion into the new building. As with the proposed project, implementation of mitigation would reduce this impact to less than significant. Similar to the proposed project, Alternative 2 would not significantly impair implementation of an emergency response plan or evacuation plan or result in a significant safety hazard to the people residing or working in the project area due to its location at an airport. However, as with the proposed project, operation of Alternative 2 would result in significant aircraft noise impacts, which could expose people residing or working in the project area to excessive aircraft noise. As with the proposed project, even with implementation of proposed Mitigation Measures MM-NOI-1 through MM-NOI-5, the impact would be significant and unavoidable.



### 5.6.2.10 Hydrology and Water Quality

#### *Construction*

Under Alternative 2, the overall amount and duration of construction activities would be much less than under the proposed project which, in turn, would reduce the potential for temporary construction-related hydrology and water quality impacts. As indicated in Section 3.10.6, however, construction of the proposed project would not result in any significant impacts to hydrology or water quality.

#### *Operations*

Under Alternative 2, the amounts of terminal development and apron area construction would be less than those of the proposed project; however, given the relatively flat and already developed condition of SDIA, neither the development of the proposed project nor development of Alternative 2 would result in a notable change to the existing drainage patterns and volumes of the Airport.

### 5.6.2.11 Land Use and Planning

#### *Construction*

Under Alternative 2, there would be less demolition and new construction than would otherwise occur under the proposed project. However, construction of the proposed project would not result in any significant impacts to land use and planning.

#### *Operations*

Under Alternative 2 there would still be continued future growth in aircraft activity and passenger activity to the same degree as under the proposed project. As such, and as further described below in Sections 5.6.2.12 and 5.6.2.14, there would still be the same significant aircraft noise impacts, significant roadway noise impacts, and significant traffic impacts as the proposed project. The related impacts, in terms of how such noise and traffic impacts would conflict with policies in the General Plan, local community plans, and the existing ALUCP under Alternative 2 would be the same as those under the proposed project. Implementation of Alternative 2 would, therefore, not avoid or substantially reduce the operations-related significant impacts of the proposed project as related to land use and planning. However, because less construction would occur than under the proposed project, there would be less opportunity to implement improvements consistent with the Climate Resilience Plan. Additionally, the project elements supportive of increasing transit opportunities and alternative access to SDIA, such as the new multi-use pathway on the north side of North Harbor Drive, would not be implemented.

### 5.6.2.12 Noise

#### *Construction*

Although the overall construction intensity and construction duration of Alternative 2 would be less than that of the proposed project, there would be no material difference in the potential for significant construction noise impacts. The area of development for Alternative 2 generally overlaps the eastern portion of the development area associated with the proposed project, at which there are no noise-sensitive receptors nearby. The type of construction equipment to be used, and the type of construction activities to occur (i.e., demolition of existing uses, site preparation, building construction, apron and taxiway construction) would be similar between Alternative 2 and the proposed project. As indicated in Section 3.12.5, implementation of the

proposed project would not result in any significant construction noise impacts, which would also be the case for Alternative 2.

### *Operations*

Operations-related aircraft noise impacts associated with Alternative 2 would be the same as those of the proposed project because the number, nature, and timing of aircraft operations would be the same between the two scenarios. As such, the estimated population and housing counts, as well as other types of noise-sensitive receptors such as churches (places of worship) and schools, exposed to the various CNEL aircraft noise levels, the changes in CNEL, and the changes in nighttime flights (sleep disturbance) presented in Section 3.12.3 for the proposed project would be the same for Alternative 2, which would include unavoidable significant aircraft noise impacts, even after implementation of feasible mitigation measures. Alternative 2 would also have the same noise impacts as the proposed project relative to aircraft noise impacts to schools, in terms of the amount of time above certain exterior noise levels, which would be less than significant.

Operations-related roadway noise impacts associated with the Alternative 2 would also be the same as those of the proposed project because future passenger activity level, and associated vehicle trip generation, at SDIA would be the same under both scenarios, plus both scenarios would include the on-airport access road improvements that would reduce future airport-related traffic volumes on North Harbor Drive. As such, implementation of Alternative 2 would result in the same significant and unavoidable traffic noise impacts along Grape Street and India Street as the proposed project, which are identified in Section 3.12.4.

Based on the above, implementation of Alternative 2 would not avoid or substantially reduce any of the operations-related significant noise impacts of the proposed project.

## **5.6.2.13 Public Services**

### *Construction*

Although the overall construction intensity and construction duration of Alternative 2 would be less than that of the proposed project, there would be no material difference in the potential for significant impacts to public services. During construction of the proposed project, SDHPD and SDPD would continue to provide law enforcement services at SDIA, and SDFD would provide fire services. Throughout the construction period, public access to the Airport terminals and public parking outside of the construction activities would be maintained, which would ensure that adequate access for emergency vehicles would be available. As indicated in Section 3.13, implementation of the proposed project would not result in any significant impacts on public services, which would also be the case for Alternative 2.

### *Operations*

Under Alternative 2 the SDPD, SDHPD, and SDFD would define staffing needs through their ongoing assessments of service levels, which is also the case for the proposed project; there would be no significant impact to public services under either scenario. However, while newer structures, such as T2-West, have sprinkler systems, the existing T1 does not. The new T1 under the proposed project would comply with the current Uniform Fire Code, including installation of a fire sprinkler system. Under Alternative 2, no improvements to T1 would occur; as such, the fire suppression benefits that would otherwise occur with the proposed project would not be realized.

#### 5.6.2.14 Traffic and Circulation

##### *Construction*

As discussed in Section 3.14, implementation of the proposed project would exceed thresholds of significance relating to the operation of 2 intersections in the 2020/2021 and 2024 With Project Conditions scenarios (Construction Phase 1a and Construction Phase 1b, respectively), 1 intersection in the 2026 With Project Conditions scenario (Construction Phase 2a), and 7 intersections in the 2030 With Project Conditions scenario (Construction Phase 2b). Although mitigation measures were formulated to reduce these impacts, the impacts would not be fully mitigated and/or the mitigation measures were determined to be infeasible for reasons described in Section 3.14. As such, the construction traffic impacts of the proposed project would remain significant and unavoidable at all or most of the intersections significantly impacted in all construction phases (Construction Phases 1a, 1b, 2a, and 2b).

Under Alternative 2, there would be less demolition and construction (collectively referred to as “construction” in this discussion) than under the proposed project, and it is assumed all the construction activities associated with Alternative 2 could be completed by 2020/2021, which coincides with completion of Phase 1a under the proposed project. The amount of construction associated with Alternative 2 would be about 59 percent of that of the proposed project in Phase 1a. While the reduced amount of construction activity would reduce the amount of construction traffic impacting the two intersections significantly impacted by the project (i.e., #16 – Laurel Street at Kettner Boulevard and #41 – Kettner Boulevard at Palm Street), it is unlikely that it would completely avoid the significant impact because both intersections already operate at poor levels of service (i.e., LOS F) and it would take relatively little additional traffic to exceed the thresholds of significance. Implementation of Alternative 2 would, however, avoid the significant construction traffic impacts projected to occur from the proposed project in the future development phases (i.e., 1b, 2a, and 2b).

##### *Operations*

Future aircraft and passenger activity levels at SDIA are projected to increase with or without the proposed project. Operations-related traffic generation at SDIA in the future horizon years of 2024, 2026, 2030, 2035, and 2050 under Alternative 2, even as a reduced-scale development program, would be similar to those of the proposed project. Alternative 2 includes development of the new on-airport access road that would occur under the proposed project. As such, the resultant changes in airport-related access and distribution onto nearby roadways would be the same for the two scenarios (i.e., both scenarios would provide for a reduction in airport-related traffic along North Harbor Drive). In light of the above, the operational traffic impacts of Alternative 2 would be similar to those of the proposed project. Implementation of Alternative 2 would not avoid or substantially reduce the significant operational traffic impacts of the proposed project.

#### 5.6.2.15 Utilities

##### *Construction*

Under Alternative 2, there would be changes and upgrades to the existing utilities (potable water, wastewater, storm drains, solid waste, electricity, natural gas, and telecommunication facilities) associated with utility connections to the new stand-alone facility east of the existing T1. However, this would occur to a lesser degree than the proposed project. For example, given the reduced

development area, less re-routing of existing utility lines and pipelines would occur. Therefore, construction impacts associated with utilities would be reduced under Alternative 2 as compared to the proposed project; neither Alternative 2 nor the proposed project would result in significant impacts related to utilities.

### *Operations*

As described in Section 3.15.6, while increased demand for utilities would occur under the proposed project, such impacts would be less than significant. Under Alternative 2, the total amount of terminal area would be approximately 25 percent less than that of the proposed project and, thus, the demand for utilities is also expected to be approximately 25 percent less. Therefore, while utility demand would be reduced under Alternative 2 as compared to the proposed project, neither Alternative 2 nor the proposed project would result in significant impacts related to utilities. Further, under Alternative 2, the water and energy-conservation benefits that would otherwise occur under the proposed project would also be reduced.

## **5.6.3 Alternative 3: Revised Implementation Phasing**

### **5.6.3.1 Aesthetics and Visual Resources**

#### *Construction and Operations*

Implementation of Alternative 3 would provide for the same nature and amount of development as in the currently proposed project, with the only difference being in the phasing of development. As such, the potential aesthetics and visual resources impacts for Alternative 3 would be the same as for the proposed project for both construction and operations. Neither Alternative 3 nor the proposed project would result in significant impacts related to aesthetics and visual resources.

### **5.6.3.2 Air Quality**

#### *Construction*

Implementation of Alternative 3 would provide for the same nature and amount of development as in the currently proposed project but would be phased differently. Based on the comparative differences in construction intensity, as defined by the combination of demolition and construction, shown in Table 5-4, the totals of demolition and construction associated with Alternative 3 compared to the proposed project would be approximately:

- 23 percent of that associated with the proposed project in Phase 1a (2022/2024);
- 209 percent of that associated with proposed project in Phase 1b (2026);
- 209 percent of that associated with proposed project in Phase 2a (2030); and
- 100 percent of that associated with proposed project in Phase 2b (2035).

In light of those proportional differences in the amounts of demolition and construction at each development phase, Table 5-14 presents the estimated construction emissions of Alternative 3 compared to the proposed project, assuming the highest annual emissions of the project in each development phase. As shown, implementation of Alternative 3 would result in less construction emissions in Phase 1a than the proposed project, but would result in comparatively more construction emissions than the proposed project in the remaining phases (Phases 1b, 2a, and 2b). There would be no exceedance of the significance threshold under either Alternative 3 or the

proposed project. Similar to the proposed project, construction of Alternative 3 in conjunction with other projects anticipated to be under construction during that same period would result in a significant impact relative to cumulative emissions, to which Alternative 3's contribution to that significant impact would be cumulatively considerable.

**Table 5-14: Construction Emissions of Alternative 3 Compared to Proposed Project**

Project Phase	Years	Scenario	Pollutants (tons/year)					
			VOCs	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO	SO <sub>x</sub>
1a	2021-2024	Proposed Project	3	17	10	1	17	<1
		Alternative 3	<1	4	2	<1	4	<1
1b	2024-2026	Proposed Project	1	6	6	1	6	<1
		Alternative 3	2	13	13	2	13	<1
2a	2027-2030	Proposed Project	1	7	3	<1	13	<1
		Alternative 3	2	15	6	<1	27	<1
2b	2031-2035	Proposed Project	<1	2	2	<1	2	<1
		Alternative 3	<1	2	2	<1	2	<1
Threshold of Significance			13.7	40	15	10	100	40
Any Exceedance of Threshold?			No	No	No	No	No	No

Source: CDM Smith, May 2019.

### Operations

The air pollutant emissions and concentrations associated with operations under Alternative 3 would be comparable to those of the proposed project. This is because the future aircraft and passenger activity levels, and key improvements such as the provision of additional gates and development of the new on-airport access road, would be the same under both scenarios, and those type of improvements have similar implications relative to operations-related air quality impacts; however, the phasing of those improvements would result in slight differences in the early phases of the project. Table 5-15 indicates and compares the operational, plus construction, emissions associated with the proposed project and Alternative 3. As shown, with the exception of VOC emissions in 2026, Alternative 3 would not avoid the significant impacts of the proposed project relative to VOC, CO, NO<sub>x</sub>, and SO<sub>x</sub> emissions in the future horizon years.

**Table 5-15: Comparison of Operational Emissions Inventory: Project versus Alternative 3**

Phase/ Year	Sources	Pollutants (tons/year)											
		VOC		NO <sub>x</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>		CO		SO <sub>x</sub>	
		Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3
1a/ 2024	Aircraft	111	114	1,104	1,108	7	7	7	7	992	1,019	105	106
	APUs	<1	<1	7	7	1	1	1	1	4	4	1	1
	GSE	29	29	81	81	2	2	2	2	867	867	<1	1



**Table 5-15: Comparison of Operational Emissions Inventory: Project versus Alternative 3**

Phase/ Year	Sources	Pollutants (tons/year)											
		VOC		NO <sub>x</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>		CO		SO <sub>x</sub>	
		Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3
	Stationary Sources	4	4	17	17	6	5	2	2	11	11	1	1
	Motor Vehicles	2	2	14	14	10	10	1	1	114	114	1	1
	Energy Use	<1	<1	1	1	<1	<1	<1	<1	1	1	<1	1
	Construction	3	1	17	4	10	3	1	1	17	4	<1	1
	Totals	149	150	1,241	1,232	37	29	15	15	2,006	2,020	108	112
Existing Baseline		141		1,058		25		14		1,887		95	
Difference		8	9	183	174	12	4	1	1	119	133	13	17
Threshold (tpy)		13.7		40		15		10		100		40	
Exceeds Threshold?		No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
Alternative 3 - Proposed Project		1		-9		-8		0		14		4	
1b/ 2026	Aircraft	120	122	1,186	1,190	8	8	8	8	1,045	1,174	111	126
	APUs	<1	<1	8	8	1	1	1	1	4	4	1	1
	GSE	29	19	79	51	2	2	2	2	922	922	<1	1
	Stationary Sources	4	4	17	17	6	6	2	2	11	11	1	1
	Motor Vehicles	2	2	17	13	11	1	1	1	111	111	1	1
	Energy Use	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1
	Construction	1	2	6	13	6	13	1	2	6	13	<1	1
	Totals	155	150	1,314	1,293	34	32	15	17	2,101	2,236	114	132
Existing Baseline		141		1,058		25		14		1,887		95	
Difference		14	9	256	235	9	7	1	3	214	349	19	37
Threshold (tpy)		13.7		40		15		10		100		40	
Exceeds Threshold?		Yes	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
Alternative 3 - Proposed Project		-5		-21		-2		2		136		18	
2a/ 2030	Aircraft	132	132	1,404	1,404	8	8	8	8	1,146	1,146	125	125
	APUs	<1	1	8	8	1	1	1	1	4	4	1	1
	GSE	26	26	61	61	1	1	1	1	947	947	<1	1
	Stationary Sources	4	4	17	17	6	6	2	2	11	11	1	1
	Motor Vehicles	1	1	13	13	11	11	1	1	103	103	1	1

Table 5-15: Comparison of Operational Emissions Inventory: Project versus Alternative 3

Phase/ Year	Sources	Pollutants (tons/year)											
		VOC		NO <sub>x</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>		CO		SO <sub>x</sub>	
		Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3
	Energy Use	<1	1	2	2	<1	1	<1	1	2	2	<1	1
	Construction	1	2	7	15	3	6	<1	1	13	27	<1	1
	Totals	165	167	1,512	1,520	31	34	13	15	2,225	2,240	128	131
Existing Baseline		141		1,058		25		14		1,887		95	
Difference		24	26	454	462	6	9	<1	-1	338	353	33	36
Threshold (tpy)		13.7		40		15		10		100		40	
Exceeds Threshold?		Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	No	No
Alternative 3 - Proposed Project		2		8		4		2		15		3	
2b/ 2035	Aircraft	149	149	1,660	1,660	9	9	9	9	1,386	1,386	149	149
	APUs	<1	<1	9	9	1	1	1	1	5	5	1	1
	GSE	26	26	57	57	1	1	1	1	1,011	1,011	<1	1
	Stationary Sources	4	4	17	17	6	6	2	2	11	11	1	1
	Motor Vehicles	1	1	7	7	11	11	1	1	89	89	1	1
	Energy Use	<1	1	2	2	<1	1	<1	1	2	2	<1	1
	Construction	<1	1	1	2	2	2	<1	1	2	2	<1	1
	Totals	181	183	1,754	1,755	31	31	14	16	2,506	2,506	152	155
Existing Baseline		141		1,058		25		14		1,887		95	
Difference		40	42	696	697	6	6	0	2	618	618	58	60
Threshold (tpy)		13.7		40		15		10		100		40	
Exceeds Threshold?		Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes
Alternative 3 - Proposed Project		2		1		0		2		0		2	
2050	Aircraft	157	157	1,795	1,795	9	9	9	9	1,427	1,427	158	158
	APUs	<1	1	10	10	1	1	1	1	5	5	1	1
	GSE	21	21	34	34	1	1	1	1	497	497	<1	<1
	Stationary Sources	4	4	17	17	6	6	2	2	11	11	1	1
	Motor Vehicles	<1	1	4	4	11	10	1	1	86	86	<1	1
	Energy Use	<1	1	2	2	<1	1	<1	1	2	2	<1	1

**Table 5-15: Comparison of Operational Emissions Inventory: Project versus Alternative 3**

Phase/ Year	Sources	Pollutants (tons/year)											
		VOC		NO <sub>x</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>		CO		SO <sub>x</sub>	
		Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3	Prop. Project	Alt. 3
	<b>Totals</b>	<b>183</b>	<b>185</b>	<b>1,862</b>	<b>1,862</b>	<b>28</b>	<b>28</b>	<b>14</b>	<b>14</b>	<b>2,029</b>	<b>2,029</b>	<b>161</b>	<b>161</b>
<b>Existing Baseline</b>		<b>141</b>		<b>1,058</b>		<b>25</b>		<b>14</b>		<b>1,887</b>		<b>95</b>	
<b>Future-Existing</b>		<b>42</b>	<b>44</b>	<b>804</b>	<b>804</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>142</b>	<b>142</b>	<b>66</b>	<b>66</b>
<b>Threshold</b>		<b>13.7</b>		<b>40</b>		<b>15</b>		<b>10</b>		<b>100</b>		<b>40</b>	
<b>Exceeds Threshold?</b>		<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
<b>Alternative 3 - Proposed Project</b>		<b>2</b>		<b>0</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>0</b>	

Source: CDM Smith., 2019.

Notes: Totals may reflect rounding.

It should also be noted that existing background concentrations of PM<sub>10</sub> currently exceed state standards and there would be an increase in PM<sub>10</sub> emissions associated with Alternative 3, compared to existing baseline conditions. The increase is considered to be cumulatively considerable; this is a significant and unavoidable impact. That would also be the case for the proposed project; however, with less construction activities occurring under Alternative 3, the overall PM<sub>10</sub> emissions associated with Alternative 3 would be less than those of the proposed project, but, nevertheless, would be a cumulatively considerable significant impact.

### 5.6.3.3 Greenhouse Gas Emissions

#### Construction

Using the same approach as described in Section 5.6.3.2, the construction-related GHG emissions were estimated for Alternative 3. Table 5-16 presents those GHG estimates and compares them to the construction-related GHG emissions of the proposed project.

The annual construction-related GHG emissions associated with Alternative 3 would differ from those of the proposed project year-to-year in all but the last phase (Phase 2b) of development, but overall would not be substantially less than the proposed project. In combination with operations-related GHG emissions, which are discussed below, Alternative 3 would not avoid or substantially reduce the GHG emissions significant impacts of the proposed project.

**Table 5-16: Construction-Related GHG Emissions (in metric tons) – Alternative 3 Compared to Proposed Project**

Year	Annual CO <sub>2</sub> e Emissions in Tons		Difference in Emissions With Alternative 3
	Proposed Project	Alternative 3	
2021	4,033	928	-3,105
2022	3,970	913	-3,057
2023	3,915	900	-3,015
2024	6,627	1,524	-5,103
2025	2,714	5,672	2,958
2026	2,698	5,639	2,941
2027	2,633	5,503	2,870
2028	2,625	5,486	2,861
2029	2,603	5,440	2,837
2030	2,214	2,214	0
2031	846	846	0
2032	842	842	0
2033	838	838	0
2034	834	834	0
2035	830	830	0
<b>Total</b>	<b>38,222</b>	<b>38,409</b>	<b>187</b>

Source: CDM Smith and KB Environmental Sciences, Inc. 2019.

Note: Totals may reflect rounding.

### Operations

Table 5-17 indicates and compares the operations-related GHG emissions associated with the proposed project and with Alternative 3. As shown, Alternative 3 would result in GHG emissions levels that are generally comparable to those of the proposed project. Aircraft-related GHG emissions in Phases 1a and 1b under Alternative 3 would be slightly greater than those of the proposed project, but not appreciably (i.e., less than one percent greater).

**Table 5-17: Alternative 3 Annual GHG Emissions Compared to Existing and Proposed Project Emissions (in metric tons of CO<sub>2</sub>e)**

Year	Source	Metric Tons of CO <sub>2</sub> e		Alternative 3		
		Existing (2018 Baseline Conditions)	Proposed Project	Metric Tons of CO <sub>2</sub> e	Increase/Decrease from Existing	Increase/Decrease from Proposed Project
<b>2024</b>	<b>Aircraft</b>	249,504	285,313	288,586	39,082	+3,273

**Table 5-17: Alternative 3 Annual GHG Emissions Compared to Existing and Proposed Project Emissions (in metric tons of CO<sub>2</sub>e)**

Year	Source	Metric Tons of CO <sub>2</sub> e		Alternative 3		
		Existing (2018 Baseline Conditions)	Proposed Project	Metric Tons of CO <sub>2</sub> e	Increase/Decrease from Existing	Increase/Decrease from Proposed Project
	APUs	2,223	2,505	2,505	282	0
	GSE	12,091	12,471	12,471	380	0
	Stationary Sources	12,940	13,399	13,399	459	0
	Motor Vehicles	55,434	55,991	55,991	557	0
	Other <sup>a</sup>	5,597	8,149	8,149	2,552	0
	Operations Total	337,789	377,828	381,101	43,312	+3,273
	Construction	-	6,627	1,524	1,524	-5,103
	Grand Total	337,789	384,455	382,625	44,836	-1,830
2026	Aircraft	249,504	300,734	303,655	54,151	+2,921
	APUs	2,223	2,580	2,580	357	0
	GSE	12,091	13,799	13,799	1,708	0
	Stationary Sources	12,940	13,399	13,399	459	0
	Motor Vehicles	55,434	63,469	63,469	8,035	0
	Other <sup>a</sup>	5,597	11,924	11,924	6,327	0
	Operations Total	337,789	405,905	408,826	71,037	+2,921
	Construction	-	2,698	5,639	5,639	2,941
	Grand Total	337,789	408,603	414,465	76,676	5,862
2030	Aircraft	249,504	331,950	331,950	82,446	0
	APUs	2,223	2,623	2,623	400	0
	GSE	12,091	13,409	13,409	1,318	0
	Stationary Sources	12,940	13,399	13,399	459	0
	Motor Vehicles	55,434	59,650	59,650	4,216	0



**Table 5-17: Alternative 3 Annual GHG Emissions Compared to Existing and Proposed Project Emissions (in metric tons of CO<sub>2</sub>e)**

Year	Source	Metric Tons of CO <sub>2</sub> e		Alternative 3		
		Existing (2018 Baseline Conditions)	Proposed Project	Metric Tons of CO <sub>2</sub> e	Increase/Decrease from Existing	Increase/Decrease from Proposed Project
	Other <sup>a</sup>	5,597	18,215	18,215	12,618	0
	Operations Total	337,789	439,246	439,246	101,457	0
	Construction	-	2,589	2,214	2,214	0
	Grand Total	337,789	441,8440	441,460	103,671	0
2035	Aircraft	249,504	395,743	395,743	146,239	0
	APUs	2,223	3,139	3,139	916	0
	GSE	12,091	13,475	13,475	1,384	0
	Stationary Sources	12,940	13,399	13,399	459	0
	Motor Vehicles	55,434	51,022	51,022	-4,412	0
	Other <sup>a</sup>	5,597	20,066	20,066	14,469	0
	Operations Total	337,789	496,844	496,844	159,055	0
	Construction	-	830	830	830	0
	Grand Total	337,789	497,674	497,674	159,885	0
2050	Aircraft	249,504	417,468	417,468	167,964	0
	APUs	2,223	3,417	3,417	1,194	0
	GSE	12,091	12,011	12,011	-80	0
	Stationary Sources	12,940	13,399	13,399	459	0
	Motor Vehicles	55,434	44,667	44,667	-10,767	0
	Other <sup>a</sup>	5,597	20,066	20,066	14,469	0
	Total	337,789	511,029	511,029	173,240	0

Source: CDM Smith and KB Environmental Sciences, Inc. 2019.

Notes: Totals may reflect rounding.

a. Estimates of emissions resulting from energy consumption associated with electricity usage, water usage (i.e., pumping of imported water to southern California), and solid waste disposal.

Given that the levels of GHG emissions associated with Alternative 3 are comparable to those of the proposed project, it is concluded that implementation of Alternative 3 would not avoid or substantially reduce the significant GHG impacts of the proposed project.

#### **5.6.3.4 Human Health Risk**

##### *Construction and Operations*

Implementation of Alternative 3 would provide for the same nature and amount of development as in the currently proposed project, with the only difference being in the phasing of development. As such, the potential human health risk impacts for Alternative 3 would be the same as for the proposed project for both construction and operations. Neither Alternative 3 nor the proposed project would result in significant impacts related to non-cancer human health risk nor would on-site concentrations of TAC exceed Cal/OHSA acceptable levels; however, the generation of operations-related TAC associated with implementation of the proposed project or Alternative 3 would result in a significant cancer risk human health impact relative to a 30-year resident, adult resident, and off-airport adult worker. These significant cancer risk human health impacts are primarily due to diesel exhaust associated with GSE (which would be converted to alternative fuels both with the proposed project and under Alternative 3 through Mitigation Measure MM-AQ/GHG-1). After mitigation, implementation of the proposed project or Alternative 3 would result in a less than significant cancer risk human health impact relative to a 30-year resident, adult resident, and off-airport adult worker.

As described in Section 3.4.6, the generation of construction and operations-related TAC associated with implementation of the proposed project would result in a significant cancer burden human health impact. This significant cancer risk human health impact would be primarily due to diesel exhaust associated with GSE (which would be converted to alternative fuels with the proposed project and under Alternative 3 through Mitigation Measure MM-AQ/GHG-1). After mitigation, implementation of the proposed project would result in a less than significant risk human health impact relative to cancer burden.

#### **5.6.3.5 Biological Resources**

##### *Construction*

Implementation of Alternative 3 would encompass the same development footprint as the proposed project, which would place construction activities in the same proximity to the California least tern habitat areas (i.e., “the ovals”) and pose the same potential for indirect impacts to that sensitive biological resource. Construction under either scenario would include compliance with existing applicable measures specified in the 1993 Biological Opinion and in the 2013 and 2018 Informal Section 7 Consultations between the FAA and USFWS regarding potential effects of the SDIA Northside Improvements Project and the Taxiway B Object-Free Area Improvement Project, respectively, listed in Section 3.5.4.1, as well as the additions and refinements to those measures that are presented in Section 3.5.6.1.3 (Mitigation Measure MM-BIO-1: California Least Tern: Construction Measures). As such, potential indirect impacts to sensitive biological resources would be reduced to less than significant under both Alternative 3 and the proposed project in the same manner, and implementation of Alternative 3 would not avoid or substantially reduce potential indirect significant impacts to biological resources.

### *Operations*

Operations under Alternative 3 would be the same as under the proposed project; hence, potential impacts to sensitive biological resources would be the same for both scenarios. Both would be subject to the existing applicable measures specified in the 1993 Biological Opinion and in the 2013 and 2018 Informal Section 7 Consultations between the FAA and USFWS regarding potential effects of the SDIA Northside Improvements Project and the Taxiway B Object-Free Area Improvement Project, respectively, listed in Section 3.5.4.1 to avoid potential indirect impacts to California least tern during operation of the proposed project, as well as measures presented in Section 3.5.6.1.3 (Mitigation Measure MM-BIO-2: California Least Tern: Operations Measures) to avoid potential significant indirect impacts during operation as related to perching for predatory species. Such would also be the case for the proposed project. Neither Alternative 3 nor the proposed project would result in significant impacts (after mitigation) to biological resources.

#### **5.6.3.6 Cultural Resources**

##### *Construction*

Implementation of Alternative 3 would provide for the same nature and amount of development as in the currently proposed project, with the only difference being in the phasing of development. As such, construction of Alternative 3 would require removal of two significant historic buildings that would also be removed under the proposed project – the existing Terminal 1 and the existing Terminal 2-East. Implementation of Alternative 3 would, therefore, not avoid or substantially reduce the significant impacts to these two historic resources that would occur from the proposed project. Similar to the proposed project, Alternative 3 would result in the removal and relocation (as a mitigation measure) of the former United Airlines Hangar and Terminal Building, which is also a significant historical building.

##### *Operations*

Operation of Alternative 3 would not affect any historic resources, which would also be the case for the proposed project; consequently, there would be no impact under either scenario.

#### **5.6.3.7 Tribal Cultural Resources**

##### *Construction*

Implementation of Alternative 3 would result in the same excavation within the same development footprint as the proposed project, and pose the same potential for impacts to previously unknown tribal cultural resources. Excavation Monitoring for tribal cultural resources would also be implemented under Alternative 3. As such, there would be no significant construction-related impacts to tribal cultural resources under either the proposed project or Alternative 3.

##### *Operations*

Continued operation of SDIA under Alternative 3 would not affect tribal cultural resources, which would also be the case for the proposed project; consequently, there would be no impact under either scenario.

### **5.6.3.8 Geology and Soils**

#### *Construction and Operations*

Implementation of Alternative 3 would provide for the same nature and amount of development as in the currently proposed project, with the only difference being in the phasing of development. As such, the potential geology and soils impacts for Alternative 3 would be the same as for the proposed project for both construction and operations. Neither Alternative 3 nor the proposed project would result in significant impacts related to geology and soils.

### **5.6.3.9 Hazards and Hazardous Materials**

#### *Construction and Operations*

Implementation of Alternative 3 would provide for the same nature and amount of development as in the currently proposed project, with the only difference being in the phasing of development. As such, the hazardous and hazardous material impacts for Alternative 3 would be the same as for the proposed project for both construction and operations. Therefore, as with the proposed project, operation of Alternative 3 would result in significant aircraft noise impacts, which could expose people residing or working in the project area to excessive aircraft noise. As with the proposed project, even with implementation of proposed Mitigation Measures MM-NOI-1 through MM-NOI-5, the impact would be significant and unavoidable.

### **5.6.3.10 Hydrology and Water Quality**

#### *Construction and Operations*

Implementation of Alternative 3 would provide for the same nature and amount of development as in the currently proposed project, with the only difference being in the phasing of development. The basic types of construction activities that would occur under either development phasing program would be similar in that both involve demolition of existing uses, site preparation, vertical (building) construction, and flatwork (apron/taxiway construction) in each phase no matter the phasing sequence. Similarly, both Alternative 3 and the proposed project would result in the same physical conditions at the Airport and operational levels at buildout; therefore, there would be no difference in construction- or operations-related hydrology and water quality impacts.

In light of the above, there would be no difference between Alternative 3 and the proposed project relative to hydrology and water quality impacts; neither scenario would result in a significant impact.

### **5.6.3.11 Land Use and Planning**

#### *Construction*

Under Alternative 3, there would be the same overall amount of demolition and new construction as the proposed project; only the phasing of such activities would differ between the two scenarios. Construction under either scenario would not result in any significant impacts to land use and planning.

#### *Operations*

Under Alternative 3 there would still be continued future growth in aircraft activity and passenger activity to the same degree as under the proposed project. As such, and as further described below in Sections 5.6.2.12 and 5.6.2.14, there would still be the same significant aircraft noise impacts,

significant roadway noise impacts, and significant traffic impacts as the proposed project. The related impacts, in terms of how such noise and traffic impacts would conflict with policies in the General Plan, local community plans, and the existing ALUCP under Alternative 3 would be the same as those under the proposed project. Implementation of Alternative 3 would, therefore, not avoid or substantially reduce the operations-related significant impacts of the proposed project as related to land use and planning.

### **5.6.3.12 Noise**

#### *Construction*

Implementation of Alternative 3 would provide for the same nature, amount, and location of development as in the currently proposed project, but would be phased differently. As such, the potential for construction-related noise impacts under Alternative 3 would be the same as described in Section 3.12 for the proposed project, which under both scenarios would be less than significant.

#### *Operations*

Operations-related aircraft noise impacts associated with Alternative 3 would be the same as those of the proposed project because the number, nature, and timing of aircraft operations would be the same between the two scenarios. As such, the estimated population and housing counts, as well as other types of noise-sensitive receptors such as churches (places of worship) and schools, exposed to the various CNEL aircraft noise levels, the changes in CNEL, and the changes in nighttime flights (sleep disturbance) presented in Section 3.12.3 for the proposed project would be the same for Alternative 3, which would include unavoidable significant aircraft noise impacts, even after implementation of feasible mitigation measures. Alternative 3 would also have the same noise impacts as the proposed project relative to aircraft noise impacts to schools, in terms of the amount of time above certain exterior noise levels, which would be less than significant.

Operations-related roadway noise impacts associated with the Alternative 3 would also be the same as those of the proposed project because future passenger activity level, and associated vehicle trip generation, at SDIA would be the same under both scenarios, plus both scenarios would include the on-airport access road improvements that would reduce future airport-related traffic volumes on North Harbor Drive. As such, implementation of Alternative 3 would result in the same significant and unavoidable traffic noise impacts along Grape Street and India Street as the proposed project, which are identified in Section 3.12.4.

Based on the above, implementation of Alternative 3 would not avoid or substantially reduce any of the operations-related significant noise impacts of the proposed project.

### **5.6.3.13 Public Services**

#### *Construction and Operations*

Implementation of Alternative 3 would provide for the same nature and amount of development as in the currently proposed project, with the only difference being in the phasing of development. As such, the potential public services impacts for Alternative 3 would be the same as for the proposed project for both construction and operations. Neither Alternative 3 nor the proposed project would result in significant impacts related to public services.



### 5.6.3.14 Traffic and Circulation

#### *Construction*

As discussed in Section 3.14, implementation of the proposed project would exceed thresholds of significance relating to the operation of 2 intersections in the 2020/2021 and 2024 With Project Conditions scenarios (Construction Phase 1a and Construction Phase 1b, respectively), 1 intersection in the 2026 With Project Conditions scenario (Construction Phase 2a), and 7 intersections in the 2030 With Project Conditions scenario (Construction Phase 2b). Although mitigation measures were formulated to reduce these impacts, the impacts would not be fully mitigated and/or the mitigation measures were determined to be infeasible for reasons described in Section 3.14. As such, the construction traffic impacts of the proposed project would remain significant and unavoidable at all or most of the intersections significantly impacted in all construction phases (Construction Phases 1a, 1b, 2a, and 2b).

Implementation of Alternative 3 would involve the same overall amount of demolition and construction as the proposed project, but such activity would be phased differently. Given the similarity in overall demolition and construction, it is not anticipated that the construction-related traffic impacts would be substantially different than those of the proposed project. As such, implementation of Alternative 3 would not avoid or substantially reduce the significant construction traffic impacts of the proposed project.

#### *Operations*

Alternative 3 would generate the same amount of vehicle trips as the proposed project and would include development of the new on-airport access road, as would also occur under the proposed project. As such, Alternative 3 would have substantially the same significant traffic impacts as the proposed project, and implementation of Alternative 3 would not avoid or substantially reduce the significant operational traffic impacts of the proposed project.

### 5.6.3.15 Utilities

#### *Construction and Operations*

Implementation of Alternative 3 would provide for the same nature and amount of development as in the proposed project, with the only difference being in the phasing of development. As such, the potential impacts on utilities for Alternative 3 would be the same as for the proposed project for both construction and operations. Neither Alternative 3 nor the proposed project would result in significant impacts related to utilities.

## 5.6.4 Alternative 4: T1 Replacement and Transportation Improvements

### 5.6.4.1 Aesthetics and Visual Resources

As discussed in Chapter 1, Introduction, and Section 5.5.4 above, under Alternative 4, the main differences between the Alternative 4 and the proposed project that relate to the assessment of aesthetics and visual resources impacts include:

- Reduction in Size, Scope, and Construction Period of ADP Improvements
  - Under Alternative 4, the proposed project improvements would focus only on the replacement of the existing T1 and forego the addition to T2-West (i.e., the proposed “stinger”). It would also forego the replacement of existing T2-East. Completion of the

ADP improvements under this alternative would occur by 2026, as compared to 2035 for the proposed project.

- Under Alternative 4, the 400,000 square foot commercial development opportunity area proposed adjacent to the new (replacement) T1 under the proposed project would not be implemented, eliminating a 90-foot structure component.
- Reduced Size T1 Parking Structure
  - Alternative 4 would reduce the size of the proposed parking structure south of the new (replacement) T1. Specifically, it would reduce the number of parking spaces from 7,500 to 5,500, and the total square footage from 2,780,000 to 2,250,000. As part of this reduction, the westernmost portion of the T1 Parking Structure under the proposed project would not be constructed; instead this area would be left open as a designated area for a potential transit station that would connect the Airport directly to off-airport transit system improvements, should that opportunity occur in the future.
- Reduced Height Airport Administrative Offices Building
  - Under Alternative 4, the new (replacement) airport administrative offices building would be only 84 feet in height, compared to the 95-foot height in the proposed project.

As described in Section 3.1.6, the proposed project would not: (1) have a substantial adverse effect on a scenic vista; (2) substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; (3) conflict with applicable zoning and other regulations governing scenic quality; or (4) create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. As such, implementation of the proposed project would result in a less than significant impact relative to aesthetics and visual resources during operations. This would also be the case for Alternative 4, which would have less development than the proposed project, as described in more detail below.

### *Effects on a Scenic Vista*

#### Construction

Under Alternative 4 there would be no demolition of, replacement of, or additions to the existing T2, no development of the 400,000 square-foot potential commercial development opportunity area, a reduced size T1 Parking, and a shorter new airport administration building. As such, Alternative 4 would involve much less construction than the proposed project with a shorter duration (approximately 5 years compared to approximately 15 years for the proposed project). As with the proposed project, the typical work week schedule for construction of Alternative 4 would be Monday through Friday from approximately 7:00 a.m. to 3:30 p.m., with occasional nighttime work and weekend work. Typical construction equipment from the proposed facilities would include tractors, backhoes, scrapers, pavers, cranes, and pile drivers. All construction activities would be located on-Airport and would incorporate temporary construction fencing/barriers to screen construction activities and equipment. Even with screening, construction activities would be distantly visible from viewpoints within elevated public streets/I-5 east of the Airport. However, impacts to designated public views from the east/northeast would

be temporary<sup>4</sup> and existing views of San Diego Bay, the Pacific Ocean, the Point Loma peninsula, and the downtown skyline would not be blocked and would be preserved. Unlike the proposed project, Alternative 4 does not include the T2-West Stinger; thus, construction activities associated with Alternative 4 facilities would be much less visible from NTC Park than under the proposed project. Similar to the proposed project, under Alternative 4, construction would not block or eliminate existing views of the Navy Boat Channel and the downtown skyline from NTC Park. In summary, as with the proposed project, construction of Alternative 4 would not have a substantial adverse effect on a scenic vista and the impact would be less than significant.

### Operations

Visual simulations from each of the 13 key views (see Figure 5-4) that illustrate the differences of the development associated with the proposed project as compared to development associated with Alternative 4 are provided in Figures 5-5 to 5-17. As shown in these figures, the nature and visibility of the future facilities in Key Views 1, 2, 6, and 10 (Figures 5-5, 5-6, 5-10, and 5-14) would be the same for both the proposed project and Alternative 4.

As shown in Figures 5-8, 5-9, 5-11, and 5-12, although there would be less development and a shorter airport administration building under Alternative 4, distant views from elevated areas to the east of the Airport would not be substantially different between the proposed project and Alternative 4. As with the proposed project, under Alternative 4, existing views of San Diego Bay, the Pacific Ocean, the Point Loma peninsula, and the downtown skyline would not be blocked and would be preserved.

As shown in Figure 5-7, under Alternative 4, views of the proposed project's facilities from North Harbor Drive looking north/northwest towards the Airport would be similar, although the commercial development opportunity building, which is visible under the proposed project, would not occur and, thus, not be visible under Alternative 4.

As shown in Figures 5-15, 5-16, and 5-17, the airport administration building under Alternative 4 (84 feet in height) would be somewhat less visible from areas to the south and west of the Airport than under the proposed project (95 feet in height).

The most notable difference to the key views in the area is illustrated in Figure 5-13. As shown in the figure, under Alternative 4, the view from the south end of NTC Park towards the Airport would remain unchanged from existing conditions, while under the proposed project, the new T2-West Stinger would be visible. As with the proposed project, under Alternative 4, existing views of the Navy Boat Channel and the existing partially obstructed distant views of the downtown skyline would not be blocked and would be preserved. In summary, as with the proposed project, operation of Alternative 4 would not have a substantial adverse effect on a scenic vista and the impact would be less than significant.

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<sup>4</sup> Although the overall construction period for Alternative 4 would be approximately 5 years, construction activities/equipment would not be in the same locations during the entire construction period, but would vary depending on the facility undergoing demolition/construction. As an example, construction of the recently completed T2 Parking Plaza was completed in just 20 months; it is anticipated that construction of the proposed T1 Parking Structure (the proposed facility that would be closest to, and most visible from, North Harbor Drive), would similarly be constructed in less than 2 years.





Source: CDM Smith and SDCRAA, 2019. Aerial source: NAIP, 2016.



## Proposed Project



## Alternative 4



Location  
North Harbor Drive and Harbor Island Drive

Viewer Group  
Users of North Harbor Drive and Harbor Island Drive; users of pedestrian/bicycle path on south side of North Harbor Drive

Source: CDM Smith and AECOM, 2019

Figure 5-5

## VISUAL SIMULATIONS: PROPOSED PROJECT COMPARISON

San Diego International Airport  
Airport Development Plan

## TO ALTERNATIVE 4 – KEY VIEW 1

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## Proposed Project



## Alternative 4



Location  
North Harbor Drive east of Winship Lane

Viewer Group  
Users of North Harbor Drive; users of pedestrian/bicycle path  
on south side of North Harbor Drive

Source: CDM Smith and AECOM, 2019

Figure 5-6

## VISUAL SIMULATIONS: PROPOSED PROJECT COMPARISON TO ALTERNATIVE 4 – KEY VIEW 2



Location  
North Harbor Drive and Liberator Way

Viewer Group  
Users of North Harbor Drive; users of pedestrian/bicycle path on south side of North Harbor Drive

Source: CDM Smith and AECOM, 2019

Figure 5-7

## VISUAL SIMULATIONS: PROPOSED PROJECT COMPARISON TO ALTERNATIVE 4 – KEY VIEW 3





Location  
I-5 Pedestrian Overpass at Palm Street

Viewer Group  
Pedestrians and users of public streets/I-5

Source: CDM Smith and AECOM, 2019

Figure 5-8  
**VISUAL SIMULATIONS: PROPOSED PROJECT COMPARISON  
TO ALTERNATIVE 4 – KEY VIEW 4**  
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Location  
Columbia Street and Quince Street

Viewer Group  
Users of public streets and sidewalks

Source: CDM Smith and AECOM, 2019

## Figure 5-9 VISUAL SIMULATIONS: PROPOSED PROJECT COMPARISON TO ALTERNATIVE 4 – KEY VIEW 5

San Diego International Airport  
Airport Development Plan

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Location  
West Upas Street and Union Street

Viewer Group  
Users of public streets and sidewalks

Source: CDM Smith and AECOM, 2019

## Figure 5-10 VISUAL SIMULATIONS: PROPOSED PROJECT COMPARISON TO ALTERNATIVE 4 – KEY VIEW 6

San Diego International Airport  
Airport Development Plan

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Location  
Andrews Street and Puterbaugh Street

Viewer Group  
Users of public streets and sidewalks

Source: CDM Smith and AECOM, 2019

## Figure 5-11 VISUAL SIMULATIONS: PROPOSED PROJECT COMPARISON

San Diego International Airport  
Airport Development Plan

TO ALTERNATIVE 4 – KEY VIEW 7  
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Location  
Henry Street and Linwood Street

Viewer Group  
Users of public streets and sidewalks

Source: CDM Smith and AECOM, 2019

Figure 5-12  
**VISUAL SIMULATIONS: PROPOSED PROJECT COMPARISON  
TO ALTERNATIVE 4 – KEY VIEW 8**



Proposed Project



Alternative 4



Location  
Liberty Station NTC Park – North

Viewer Group  
Park users

Source: CDM Smith and AECOM, 2019

Figure 5-13

**VISUAL SIMULATIONS: PROPOSED PROJECT COMPARISON**

## Proposed Project



## Alternative 4



Location  
North Harbor Drive at Cancer Survivors Park

Viewer Group  
Users of North Harbor Drive; users of Cancer Survivors Park and the pedestrian/bicycle path on south side of North Harbor Drive

Source: CDM Smith and AECOM, 2019

## Figure 5-14 VISUAL SIMULATIONS: PROPOSED PROJECT COMPARISON

San Diego International Airport  
Airport Development Plan

TO ALTERNATIVE 4 – KEY VIEW 10

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## Proposed Project



## Alternative 4



Location  
North Harbor Drive and McCain Road

Viewer Group  
Users of North Harbor Drive and Spanish Landing Park

Source: CDM Smith and AECOM, 2019

Figure 5-15

## VISUAL SIMULATIONS: PROPOSED PROJECT COMPARISON TO ALTERNATIVE 4 – KEY VIEW 11

San Diego International Airport  
Airport Development Plan

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Location  
North Harbor Drive and Spanish Landing Way

Viewer Group  
Users of North Harbor Drive and Spanish Landing Park

Source: CDM Smith and AECOM, 2019

Figure 5-16  
**VISUAL SIMULATIONS: PROPOSED PROJECT COMPARISON  
TO ALTERNATIVE 4 – KEY VIEW 12**  
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Proposed Project

New Administration  
Building



Alternative 4

New Administration  
Building



Location  
Liberty Station NTC Park – South

Viewer Group  
Park users

Source: CDM Smith and AECOM, 2019

Figure 5-17

**VISUAL SIMULATIONS: PROPOSED PROJECT COMPARISON  
TO ALTERNATIVE 4 – KEY VIEW 13**

The most notable difference to the key views in the area is illustrated in Figure 5-13. As shown in the figure, under Alternative 4, the view from the south end of NTC Park towards the Airport would remain unchanged from existing conditions, while under the proposed project, the new T2-West Stinger would be visible. As with the proposed project, under Alternative 4, existing views of the Navy Boat Channel and the existing partially obstructed distant views of the downtown skyline would not be blocked and would be preserved. In summary, as with the proposed project, operation of Alternative 4 would not have a substantial adverse effect on a scenic vista and the impact would be less than significant.

#### *Scenic Resources within a State Scenic Highway*

The Alternative 4 site, like the proposed project site, consists of highly-developed areas within and adjacent to a busy international airport. The project site is not located adjacent to or within the viewshed of a designated state scenic highway. The project site is not visible from the scenic highway-eligible portion of State Route 163. Therefore, as with the proposed project, construction and operation of Alternative 4 would not impact scenic resources within a state scenic highway and there would be no impact.

#### *Consistency with Applicable Zoning and Other Regulations Governing Scenic Quality*

##### Plan Consistency

##### Construction

##### The California Coastal Act

The CCA contains policies for the protection of views to and along the ocean and scenic coastal areas. Construction activities for the proposed facilities would be located on Airport property and would not impact views of coastal resources from along North Harbor Drive or tourist-recreational uses to the south (Spanish Landing Park and Harbor Island). As discussed under the heading “Effects on a Scenic Vista” above, as with the proposed project, although construction activities under Alternative 4 would be distantly visible from elevated public streets and I-5 east/northeast of the Airport, such impacts would be temporary and existing views of San Diego Bay, the Pacific Ocean, the Point Loma peninsula, and the downtown skyline would not be blocked and would be preserved. Therefore, as with the proposed project, construction activities associated with the Alternative 4 facilities would be consistent with the policies in the CCA regarding aesthetics and visual resources, and the impact would be less than significant.

##### Port Master Plan (PMP)

The PMP contains goals for the protection of views of San Diego Bay. As discussed under the heading “Effects on a Scenic Vista” above, as with the proposed project, construction activities for Alternative 4 would be located on Airport property and would not impact views of coastal resources from along North Harbor Drive or tourist-recreational uses to the south (Spanish Landing Park and Harbor Island).

The PMP also include a goal to “[e]stablish guidelines and standards facilitating the retention and development of an aesthetically pleasing tideland environment free of noxious odors, excessive noise, and hazards to the health and welfare of the people of California.” As with the proposed project, all construction activities for Alternative 4 would occur on Airport property and adjacent public rights-of-way, and as discussed in Section 5.6.4.2 - Air Quality, Section 5.6.4.4 - Human Health Risk, Section 5.6.4.9 - Hazards and Hazardous Materials, and Section 5.6.4.12 - Noise,



construction-related air quality/odor, noise, and health and safety impacts to users/workers/residents in off-Airport areas, including Port tidelands to the south, would be less than significant.<sup>5</sup> Further, temporary construction fencing/barriers would be implemented to screen construction activities, to the extent possible, from off-site areas, including to the south. Construction activities would be further screened from off-site adjacent areas by existing Airport buildings, elevated roadways, and landscaping.

Therefore, as with the proposed project, construction activities associated with Alternative 4 would be consistent with the goals in the PMP regarding aesthetics and visual resources, and the impact would be less than significant.

#### City of San Diego Community Plans

The San Diego Downtown Community Plan, Uptown Community Plan, Peninsula Community Plan, and NTC Precise Plan and Local Coastal Program all contain policies, goals, objectives, and/or guidelines related to the protection of public views of scenic/coastal resources. As discussed under the heading “Effects on a Scenic Vista” above, although construction activities for Alternative 4 would be distantly visible from elevated public streets and I-5 east/northeast of the Airport and much less visible from NTC Park west of the Airport than under the proposed project, which includes the T2-West Stinger, such impacts would be temporary and existing views of San Diego Bay, the Navy Boat Channel, the Pacific Ocean, the Point Loma peninsula, and the downtown skyline would not be blocked and would be preserved. Therefore, similar to the proposed project, construction activities associated with Alternative 4 facilities would be consistent with the policies, goals, objectives, and/or guidelines in the applicable City of San Diego community plans regarding aesthetics and visual resources, and the impact would be less than significant.

#### Operation

##### The California Coastal Act

The CCA contains policies for the protection of views to and along the ocean and scenic coastal areas. The Alternative 4 facilities would be located on Airport property and would not impact views of coastal resources from along North Harbor Drive or tourist-recreational uses to the south (Spanish Landing Park and Harbor Island). Moreover, as discussed under the heading “Effects on a Scenic Vista” above, existing views of coastal resources from public areas/roadways (including Interstate 5 and surrounding public viewpoints) surrounding the Airport would be maintained during operation of the Alternative 4 facilities.

The CCA also contains a policy that development shall be designed and sited to minimize alteration of natural landforms. As indicated in Section 3.1.4, SDIA is relatively flat, with an average elevation between 10 to 15 feet above mean sea level (msl). As with the proposed project, all Alternative 4 facilities would be located on Airport property; there would be no impact to the natural landforms of the Point Loma peninsula to the west of the Airport and the hillsides of Uptown (Middletown and Mission Hills) to the east of the Airport.

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<sup>5</sup> As discussed in Section 3.9, Hazards and Hazardous Materials, all potentially significant impacts related to exposure to hazardous materials during construction would be mitigated to a level less than significant with implementation of proposed Mitigation Measures MM-HW-1: Preparation of Hazardous Materials Management Plan (HMMP), MM-HW-2: Existing Groundwater Monitoring Wells, and MM-HW-3: Hazardous Building Materials Abatement; such mitigation would also apply to Alternative 4.

In addition, the CCA contains a policy that development shall be designed and sited to be visually compatible with the character of the surrounding area. The current character of the proposed project area is that of a major U.S. airport – consisting of an airfield, terminals, ground transportation, circulation, parking, transit plazas, and air cargo and general aviation facilities – within a highly urbanized area. As discussed below under the heading “Neighborhood Character,” as with the proposed project, the Alternative 4 facilities would be compatible and consistent with the existing urban character of the project area. The Alternative 4 facilities (with building heights ranging between 60 and 90 feet) would be compatible and consistent with existing on-Airport facilities (with buildings heights up to 90 feet<sup>6</sup>), and with the low- and medium-rise buildings surrounding the Airport, and would not be out of character for the area. Moreover, as with the proposed project, the new T1 under Alternative 4 would have a contemporary design that complements the existing T2-West (the Green Build) and would incorporate high-quality materials and public art.

In summary, as with the proposed project, operation of the Alternative 4 facilities would be consistent with the policies in the CCA regarding aesthetics and visual resources, and the impact would be less than significant.

#### Port Master Plan (PMP)

The PMP contains goals for the protection of views of San Diego Bay. As discussed under the heading “Effects on a Scenic Vista” above, as with the proposed project, the Alternative 4 facilities would be located on Airport property and would not impact views of coastal resources from along North Harbor Drive or tourist-recreational uses to the south (Spanish Landing Park and Harbor Island). As with the proposed project, Alternative 4 would be consistent with the PMP goal to “[e]stablish guidelines and standards facilitating the retention and development of an aesthetically pleasing tideland environment free of noxious odors, excessive noise, and hazards to the health and welfare of the people of California.” As discussed in Section 3.2- Air Quality, Section 3.4 - Human Health Risk, and Section 3.9 - Hazards and Hazardous Materials, implementation of the proposed project would not result in any significant odor impacts, significant human health risk impacts, or any significant impacts related to hazards and hazardous materials, including to users/workers/residents in off-Airport areas (including Port tidelands to the south).<sup>7</sup> As with the proposed project, under Alternative 4, there would be significant increases in aircraft noise (i.e., increase of 1.5 dB or more CNEL or greater in areas already exposed to 65 or more CNEL) in 2035 and 2050 at areas close to SDIA, which would include areas within the tideland environment. Those significant noise impacts would occur with or without the proposed project due to future regional growth, as described in Section 3.12. Whether such noise would be deemed “excessive” under the PMP’s aesthetic goal cannot be determined at this stage, since the Port has not set the guidelines and standards necessary for such an assessment.

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<sup>6</sup> The only exception is the existing Airport Traffic Control Tower (152 feet).

<sup>7</sup> As discussed in Section 3.9, Hazards and Hazardous Materials, the potentially significant impact related to exposure to hazardous materials during operations would be mitigation to a level less than significant with implementation of proposed Mitigation Measures MM- HW-4: Vapor Intrusion Assessment; such mitigation would also apply to Alternative 4.



Therefore, as with the proposed project, operation of the Alternative 4 facilities would be consistent with the goals in the PMP regarding aesthetics and visual resources, and the impact would be less than significant.

#### San Diego Downtown Community Plan

The San Diego Downtown Community Plan contains policies related to ensuring a diversity of land uses along Harbor Drive and fostering physical and visual linkages between downtown and the surrounding neighborhoods. As with the proposed project, the Alternative 4 facilities would be located on Airport property and would not conflict with, or inhibit implementation of, these policies. The San Diego Downtown Community Plan also contains policies related to protecting public views to the water/San Diego Bay. The relevant view corridors identified in the San Diego Downtown Community Plan are along public streets on the west side of the Community Planning Area looking west and south towards San Diego Bay; SDIA is located north of, and not within, these designated view corridors towards San Diego Bay. As such, as with the proposed project, the Alternative 4 facilities would not conflict with the view preservation policies in the San Diego Downtown Community Plan, and there would be no impact.

#### Midway-Pacific Highway Community Plan

The Midway-Pacific Highway Community Plan contains policies related to improving the visual quality along Pacific Highway. None of the proposed facilities are located along Pacific Highway. Operation of the proposed facilities would be consistent with the policies in the Midway-Pacific Highway Community Plan regarding aesthetics and visual resources, and there would be no impact under the proposed project or Alternative 4.

#### Uptown Community Plan

The Uptown Community Plan contains policies related to protecting public views of scenic resources. As discussed under the heading “Effects on a Scenic Vista” above, as shown in Figures 5-8, 5-9, 5-11, and 5-12, although there would be less development and a shorter airport administration building under Alternative 4, distant views from elevated areas to the east of the Airport would not be substantially different between the proposed project and Alternative 4. As with the proposed project, under Alternative 4, existing views of San Diego Bay, the Pacific Ocean, the Point Loma peninsula, and the downtown skyline would not be blocked and would be preserved. As such, as with the proposed project, operation of the Alternative 4 facilities would be consistent with the policies in the Uptown Community Plan regarding aesthetics and visual resources, and the impact would be less than significant.

#### Peninsula Community Plan/NTC Precise Plan and Local Coastal Program

The Peninsula Community Plan and NTC Precise Plan and Local Coastal Program contain objectives related to protecting public views of San Diego Bay, the Pacific Ocean, the Navy Boat Channel, and the downtown skyline. As discussed under the heading “Effects on a Scenic Vista,” as shown in Figure 5-13, under Alternative 4, the view from the south end of NTC Park towards the Airport would remain unchanged from existing conditions, while under the proposed project, the new T2-West Stinger would be visible. As with the proposed project, under Alternative 4, existing views of the Navy Boat Channel and the existing partially obstructed distant views of the downtown skyline would not be blocked and would be preserved. As with the proposed project, operation of the Alternative 4 facilities would be consistent with the objectives in the Peninsula Community

Plan/NTC Precise Plan and Local Coastal Program regarding aesthetics and visual resources, and the impact would be less than significant.

### *Neighborhood Character*

#### Construction

As with the proposed project, construction of Alternative 4 would result in temporary changes to the visual character of the project area. Under Alternative 4 there would be no demolition of, replacement of, or additions to the existing T2, no development of the 400,000 square-foot potential commercial development opportunity area, a reduced size T1 Parking, and a shorter new airport administration building. As such, Alternative 4 would involve much less construction than the proposed project with a shorter duration (approximately 5 years compared to approximately 15 years for the proposed project). As with the proposed project, construction activities for Alternative 4 would occur entirely on SDIA property, on the south side of the Airport. All construction activities would incorporate temporary construction fencing/barriers to screen construction activities and the previously identified equipment. Construction activities would be further screened from off-site adjacent areas by existing Airport buildings, elevated roadways, and landscaping. While construction of the Alternative 4 facilities would introduce new features, the existing project area is highly urbanized with uses including military training and headquarters areas, mixed-use residential, civic developments, port operations, parks, recreation and boating, single-family residential, commercial, and industrial areas. More specifically, construction of the proposed project or Alternative 4 would occur on Airport property that contains existing Airport buildings, with multi-story hotels, surface parking lots/areas, and governmental offices to the south along North Harbor Drive and adjacent public rights-of-way. As such, similar to the proposed project, while construction of Alternative 4 would result in temporary changes to the visual character of the project area, it would not severely contrast with the character of the surrounding neighborhood and the impact would be less than significant.

#### Operations

The current character of the proposed project area is that of a major U.S. airport – consisting of an airfield, terminals, ground transportation, circulation, parking, transit plazas, and air cargo and general aviation facilities – within a highly urbanized area. As shown in Figures 5-4 through 5-17, the Alternative 4 facilities would be compatible and consistent with the existing urban character of the overall project area. As with the proposed project, implementation of the Alternative 4 facilities would introduce new large-scale facilities on the south side of the Airport that would be notably visible from along North Harbor Drive. However, unlike the proposed project, Alternative 4 does not include the T2-West Stinger; thus, Alternative 4 facilities would be much less visible from within Liberty Station/NTC Park (see Figure 5-13).

As with the proposed project (with building heights ranging between 60 and 95 feet), the Alternative 4 facilities (with building heights ranging between 60 and 90 feet) would be compatible and consistent with existing on-Airport facilities (with buildings heights up to 90 feet), and with the low- and medium-rise buildings surrounding the Airport, and would not be out of character for the area. Further, as shown in Figures 5-15, 5-16, and 5-17, the tallest structure, the new airport administration building (95 feet in height under the proposed project and a shorter 84 feet under Alternative 4), would be set back from North Harbor Drive and partially screened from views along North Harbor Drive and from NTC Park by existing landscaping and structures within and adjacent

to the airport property, and would be compatible with the multi-story new hotels constructed near the intersection of North Harbor Drive and McCain Road and the multi-story buildings on the east side of Liberty Station, east of the Navy Boat Channel and adjacent to SDIA (i.e., the City of San Diego Police and Fire-Rescue Training Facilities, City of San Diego Public Services Department laboratory facilities, and the San Diego State University Coastal and Marine Institute Laboratory). Moreover, under both the proposed project and Alternative 4, the new T1 would have a contemporary design that complements the existing T2-West (the Green Build) and would incorporate high-quality materials and public art. Similarly, the proposed T1 Parking Structure would be designed to complement the existing T2 Parking Plaza, including incorporation of public art. As such, similar to the proposed project, operation of Alternative 4 would not severely contrast with the character of the surrounding neighborhood and the impact would be less than significant.

### *Light or Glare Impacts on Day and Nighttime Views in the Area*

#### Construction

Under Alternative 4 there would be no demolition of, replacement of, or additions to the existing T2, no development of the 400,000 square-foot potential commercial development opportunity area, a reduced size T1 Parking, and a shorter new airport administration building. As such, Alternative 4 would involve much less construction than the proposed project with a shorter duration (approximately 5 years compared to approximately 15 years for the proposed project); as such, light and glare impacts from construction of Alternative 4 compared to the proposed project would be reduced.

As with the proposed project, construction of the Alternative 4 facilities would involve various demolition, site clearing, grading, and building construction activities. Construction equipment would include, but not limited to, tractors, backhoes, scrapers, pavers, cranes, and pile drivers. Construction activities associated with the proposed project would occur primarily during the daytime (i.e., 7:00 a.m. to 3:30 p.m., Monday through Friday); however, it is anticipated that construction activities at nighttime would be required from time to time. Such nighttime activities would require lighting of work areas at the construction sites. Construction-related nighttime lighting would include lights on vehicles, perimeter lighting, and safety lighting. Construction equipment would not include large expanses of mirrors or reflective surfaces that could cause daytime glare impacts that would affect daytime views in the area.

Construction activities would generate similar sources of light compared to existing conditions and would need to adhere to FAA guidance to avoid causing light impacts or glare to aircraft or air traffic controllers. Construction activities would be screened from off-site adjacent areas by fencing/barriers, as well as existing Airport buildings, elevated roadways, and landscaping. All construction activities would follow standard SDIA construction practices (i.e., ensuring lighting is shielded and focused downward and establishing a schedule to use lighting only when required) to minimize the spillover of light off the project site.

Currently, areas to the east of the Airport in Middletown and Mission Hills that have nighttime views of San Diego Bay, the Pacific Ocean, and the Point Loma peninsula are impacted by light and glare from the current uses at the SDIA and existing uses in the surrounding urbanized area, including vehicle lights associated with I-5. While construction of the Alternative 4 facilities would

incrementally increase overall nighttime lighting, such lighting would be similar to existing light sources at the Airport.

Based on the above, as with the proposed project, construction of the Alternative 4 facilities would not alter lighting so as to create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, and the impact would be less than significant.

#### Operations

Under Alternative 4 there would be no demolition of, replacement of, or additions to the existing T2, no development of the 400,000 square-foot potential commercial development opportunity area, a reduced size T1 Parking, and a shorter new airport administration building. As such, Alternative 4 light and glare impacts from operation of Alternative 4 compared to the proposed project would be reduced. As with the proposed project, new facilities under Alternative 4 would contribute new sources of lighting typical of a modern airport transportation area, which currently contains moderate to high levels of ambient lighting.

As with the proposed project, Alternative 4 would incorporate adequate nighttime lighting throughout all of its components to ensure a safe and accessible environment for passengers. These sources of nighttime lighting include, but are not limited to, poles and fixtures along the new roadway improvements, building entrance and walkway illumination, building mounted fixtures, roof perimeter lights, security lighting, landscape lighting features, and signage lighting. Various forms of wayfinding nighttime lighting would also be provided for safe pedestrian passage and property identification, as well as to direct ground transportation circulation. Other sources of lighting would be associated with ground transportation, such as private vehicles, buses, and shuttles.

Similar to existing development at SDIA, as with the proposed project, all lighting associated with the Alternative 4 facilities would be shielded and directed downward to minimize light spillover. The shielding and focusing of lighting sources would also minimize any adverse glare effects. New facilities would also utilize low-reflective materials to minimize any introduced sources of daytime or nighttime glare within the area. Coordination with FAA would occur during project design to ensure that new facilities do not pose any hazard to aircraft or air traffic controllers.

As with the proposed project, while Alternative 4 would introduce new sources of lighting, these introduced sources of lighting would be typical of terminal, parking, and roadway facilities similar to the character of existing uses within the project area.

Currently, areas to the east of the Airport in Middletown and Mission Hills that have nighttime views of San Diego Bay, the Pacific Ocean, and the Point Loma peninsula are impacted by light and glare from the current uses at the SDIA and existing uses in the surrounding urbanized area, including vehicle lights associated with I-5. While operation of the Alternative 4 facilities would incrementally increase overall nighttime lighting, such lighting would be similar to existing light sources at the Airport.

Based on the above, as with the proposed project, the Alternative 4 facilities would not alter lighting so as to create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, and the impact would be less than significant.

### 5.6.4.2 Air Quality

Under Alternative 4, the ADP would focus primarily on replacing T1 and providing transportation/transit-related improvements, including on-airport access road enhancements to reduce airport-related traffic on nearby streets and upgrades to public transit systems at and near the Airport. Alternative 4 would eliminate certain aspects of the proposed project (i.e., the SDCRAA would not implement the T2-West (the “Stinger”) and T2-East improvements or the commercial development opportunity). It also would substantially reduce the construction period otherwise required for the proposed project (i.e., all construction activities would occur during Phase 1, unlike the proposed project that includes a Phase 2 construction period).

In light of the above, Table 5-18 presents the estimated construction emissions (with demolition and construction combined) of Alternative 4 compared to the proposed project. Under Alternative 4, there would only be Phase 1 of development, which would extend through 2026 and during the first three years of construction there would be greater activity than with the proposed project (i.e. with Alternative 4 there would approximately 6.4 million square feet of construction compared to 5.3 million square feet with the proposed project).

**Table 5-18: Construction Emissions of Alternative 4 Compared to Proposed Project**

Project Phase	Years	Scenario	Pollutants (tons/year)					
			VOCs	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO	SO <sub>x</sub>
1a	2021	Proposed Project	2	16	5	1	12	<1
		Alternative 4	3	18	5	1	13	<1
1a	2022	Proposed Project	2	12	4	1	11	<1
		Alternative 4	2	14	5	1	12	<1
1a	2023	Proposed Project	2	11	4	1	11	<1
		Alternative 4	2	12	5	1	12	<1
1a/ 1b	2024	Proposed Project	3	17	10	1	17	<1
		Alternative 4	3	15	9	1	17	<1
1b	2025	Proposed Project	1	6	6	1	6	<1
		Alternative 4	1	4	5	1	5	<1
1b	2026	Proposed Project	1	6	6	1	6	<1
		Alternative 4	1	4	5	1	5	<1
2a	2027	Proposed Project	1	7	3	<1	13	<1
		Alternative 4	0	0	0	0	0	0
2a	2028	Proposed Project	1	7	3	<1	13	<1
		Alternative 4	0	0	0	0	0	0
2a	2029	Proposed Project	1	7	3	<1	13	<1
		Alternative 4	0	0	0	0	0	0
2a	2030	Proposed Project	1	7	3	<1	13	<1
		Alternative 4	0	0	0	0	0	0
2b	2031	Proposed Project	<1	2	2	<1	2	<1
		Alternative 4	0	0	0	0	0	0
2b	2032	Proposed Project	<1	2	2	<1	2	<1
		Alternative 4	0	0	0	0	0	0



**Table 5-18: Construction Emissions of Alternative 4 Compared to Proposed Project**

Project Phase	Years	Scenario	Pollutants (tons/year)					
			VOCs	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO	SO <sub>x</sub>
2b	2033	Proposed Project	<1	2	2	<1	2	<1
		Alternative 4	0	0	0	0	0	0
2b	2034	Proposed Project	<1	2	2	<1	2	<1
		Alternative 4	0	0	0	0	0	0
2b	2035	Proposed Project	<1	1	2	<1	2	<1
		Alternative 4	0	0	0	0	0	0
Threshold of Significance			13.7	40	15	10	100	40
Any Exceedance of Threshold?			No	No	No	No	No	No

Source: KB Environmental Sciences, Inc., 2019.

Note: Under Alternative 4, all construction would occur during Phase 1; there would be no construction emissions during Phase 2a or Phase 2b.

As indicated in Table 5-18, Alternative 4 would have greater construction emissions in Phase 1a than the proposed project, a comparable level of emissions in Phase 1b, and no construction emissions in Phases 2a and 2b, as compared to the proposed project. Similar to the proposed project, construction of Alternative 4 in conjunction with other projects anticipated to be under construction during that same period would result in a significant impact relative to cumulative emissions, to which Alternative 4's contribution to that significant impact would be cumulatively considerable.

The estimated differences in operational emissions associated Alternative 4, as compared to the proposed project, are provided in Table 5-19. As shown, Alternative 4 would not avoid the significant impacts of the proposed project relative to: VOC in 2030, 2035, and 2050; NO<sub>x</sub> in every horizon year; CO in the years 2024, 2026, 2030, and 2035; and, SO<sub>x</sub> in 2035 and 2050. Alternative 4 would, however, avoid the proposed project's significant impacts to VOC in 2026 and CO in 2050.

**Table 5-19: Comparison of Operational Emissions Inventory: Proposed Project versus Alternative 4**

Phase / Year	Sources	Pollutants (tons/year)											
		VOC		NO <sub>x</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>		CO		SO <sub>x</sub>	
		Prop. Project	Alt. 4	Prop. Project	Alt. 4	Prop. Project	Alt. 4	Prop. Project	Alt. 4	Prop. Project	Alt. 4	Prop. Project	Alt. 4
1a/ 2024	Aircraft	111	114	1,104	1,110	7	7	7	7	992	1,027	105	107
	APUs	<1	<1	7	7	1	1	1	1	4	4	1	1
	GSE	29	29	81	81	2	2	2	2	867	867	<1	<1
	Stationary Sources	4	4	17	17	6	6	2	2	11	11	1	1
	Motor Vehicles	2	2	14	11	10	9	1	1	114	104	1	<1
	Energy Use	<1	<1	1	2	<1	<1	<1	<1	1	2	<1	<1
	Construction	3	3	17	15	10	9	1	1	17	17	<1	<1
	<b>Totals</b>	<b>149</b>	<b>151</b>	<b>1,241</b>	<b>1,244</b>	<b>37</b>	<b>35</b>	<b>15</b>	<b>15</b>	<b>2,006</b>	<b>2,031</b>	<b>108</b>	<b>110</b>

**Table 5-19: Comparison of Operational Emissions Inventory: Proposed Project versus Alternative 4**

Phase / Year	Sources	Pollutants (tons/year)											
		VOC		NO <sub>x</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>		CO		SO <sub>x</sub>	
		Prop. Project	Alt. 4	Prop. Project	Alt. 4	Prop. Project	Alt. 4	Prop. Project	Alt. 4	Prop. Project	Alt. 4	Prop. Project	Alt. 4
Existing		141		1,058		25		14		1,887		95	
Future-Existing		8	10	183	186	12	10	1	1	119	144	13	15
Threshold		13.7		40		15		10		100		40	
Exceeds Threshold?		No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
Alternative 4 – Proposed Project		2		3		2		<1		25		2	
1b/ 2026	Aircraft	120	119	1,186	1,184	8	8	8	8	1,045	1,030	111	111
	APUs	<1	<1	8	8	1	1	1	1	4	4	1	1
	GSE	29	29	79	79	2	2	2	2	922	922	<1	<1
	Stationary Sources	4	4	17	17	6	6	2	2	11	11	1	1
	Motor Vehicles	2	2	17	13	11	9	1	1	111	98	1	1
	Energy Use	<1	<1	1	2	<1	<1	<1	<1	1	2	<1	<1
	Construction	1	1	6	4	6	5	1	1	6	5	<1	<1
	Totals	155	154	1,314	1,307	35	32	15	14	2,101	2,072	114	113
Existing		141		1,058		25		14		1,887		95	
Future-Existing		14	13	255	249	10	7	1	1	214	184	19	19
Threshold		13.7		40		15		10		100		40	
Exceeds Threshold?		Yes	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
Alternative 4 - Proposed Project		1		6		3		>1		29		0	
2a/ 2030	Aircraft	132	132	1,404	1,403	8	8	8	8	1,146	1,140	125	125
	APUs	<1	<1	8	8	1	1	1	1	4	4	1	1
	GSE	26	26	61	61	1	1	1	1	947	947	<1	<1
	Stationary Sources	4	4	17	17	6	6	2	2	11	11	1	1
	Motor Vehicles	1	1	13	10	11	10	1	1	103	92	1	1
	Energy Use	<1	<1	2	<1	<1	<1	<1	<1	2	2	<1	<1
	Construction	1	<1	7	<1	3	<1	<1	<0	13	<1	<1	<1
	Totals	165	164	1,512	1,058	31	25	13	13	2,225	2,196	128	127
	Existing		141		1,058		25		14		1,887		95
Future-Existing		24	23	454	443	6	2	<1	-1	338	308	33	33
Threshold		13.7		40		15		10		100		40	
Exceeds Threshold?		Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	No	No

**Table 5-19: Comparison of Operational Emissions Inventory: Proposed Project versus Alternative 4**

Phase / Year	Sources	Pollutants (tons/year)											
		VOC		NO <sub>x</sub>		PM <sub>10</sub>		PM <sub>2.5</sub>		CO		SO <sub>x</sub>	
		Prop. Project	Alt. 4	Prop. Project	Alt. 4	Prop. Project	Alt. 4	Prop. Project	Alt. 4	Prop. Project	Alt. 4	Prop. Project	Alt. 4
Alternative 4 – Proposed Project		1		11		4		<1		30		<1	
2b/ 2035	Aircraft	149	147	1,660	1,654	9	9	9	9	1,386	1,350	149	148
	APUs	<1	<1	9	9	1	1	1	1	5	5	1	1
	GSE	26	26	57	57	1	1	1	1	1,011	1,011	<1	<1
	Stationary Sources	4	4	17	17	6	6	2	2	11	11	1	1
	Motor Vehicles	1	1	7	7	11	10	1	1	89	82	1	<1
	Energy Use	<1	<1	2	2	<1	<1	<1	<1	2	2	<1	<1
	Construction	<1	-	1	--	2	--	<1	--	2	--	<1	--
	Totals	181	178	1,754	1,745	31	28	14	14	2,506	2,461	152	151
Existing		141		1,058		25		14		1,887		95	
Future-Existing		40	37	696	687	6	3	1	<1	618	574	58	56
Threshold		13.7		40		15		10		100		40	
Exceeds Threshold?		Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes
Alternative 4 – Proposed Proposed Project		3		9		3		<1		44		2	
2050	Aircraft	157	155	1,795	1,788	9	9	9	9	1,427	1,392	158	156
	APUs	<1	<1	10	10	1	1	1	1	5	5	1	1
	GSE	21	21	34	34	1	1	1	1	497	497	<1	<1
	Stationary Sources	4	4	17	17	6	6	2	2	11	11	1	1
	Motor Vehicles	<1	<1	4	4	11	10	1	1	86	80	<1	<1
	Energy Use	<1	<1	2	2	<1	<1	<1	<1	2	2	<1	<1
	Totals	183	181	1,862	1,855	28	27	14	13	2,029	1,987	161	159
	Existing		141		1,058		25		14		1,887		95
Future-Existing		42	39	804	797	4	3	<1	<1	141	100	66	64
Threshold		13.7		40		15		10		100		40	
Exceeds Threshold?		Yes	Yes	Yes	Yes	No	No	No	No	Yes	No	Yes	Yes
Alternative 4 – Proposed Project		3		7		1		<1		41		2	

Source: KB Environmental Sciences, Inc., 2019.

Notes: Totals may reflect rounding.

It should also be noted that existing background concentrations of PM<sub>10</sub> currently exceed state standards and there would be an increase in PM<sub>10</sub> emissions associated with Alternative 4,

compared to existing baseline conditions. The increase is considered to be cumulatively considerable; this is a significant and unavoidable impact. That would also be the case for the proposed project; however, with less construction activities occurring under Alternative 4, the overall PM<sub>10</sub> emissions associated with Alternative 4 would be less than those of the proposed project, but, nevertheless, would be a cumulatively considerable significant impact.

### 5.6.4.3 Greenhouse Gas Emissions

#### Construction

Using the same approach as described in Section 5.6.2.2, the construction-related GHG emissions were estimated for Alternative 4. Table 5-20 presents those GHG estimates and compares them to the construction-related GHG emissions of the proposed project.

**Table 5-20: Construction-Related GHG Emissions (in metric tons) – Alternative 4 Compared to Proposed Project**

Year	Annual CO <sub>2</sub> e Emissions in Tons		Difference in Emissions with Alternative 4
	Proposed Project	Alternative 4	
2021	4,033	4,458	425
2022	3,970	4,384	414
2023	3,915	4,321	406
2024	6,627	5,980	-647
2025	2,714	1,670	-1,044
2026	2,698	1,662	-1,036
2027	2,633	-	-2,633
2028	2,625	-	-2,625
2029	2,603	-	-2,603
2030	2,214	-	-2,214
2031	846	-	-846
2032	842	-	-842
2033	838	-	-838
2034	834	-	-834
2035	830	-	-830
<b>Total</b>	<b>38,222</b>	<b>22,475</b>	<b>-15,747</b>

Source: CDM Smith and KB Environmental Sciences, Inc. 2019.

Notes: Totals may reflect rounding. -- = Not applicable

»-« Implies emissions are not applicable

The annual construction-related GHG emissions associated with Alternative 4 would differ from those of the proposed project in every year of construction. Under Alternative 4, there would only be Phase 1 of development, which would extend through 2026 and during the first three years of construction there would be greater activity than with the proposed project (i.e., with Alternative 4 there would approximately 6.4 million square feet of construction compared to 5.3 million square feet with the proposed project). With Alternative 4 there would be no Phase 2 (2027 through 2035) construction GHG emissions. Notably, in combination with operations-related GHG emissions, which are discussed below, Alternative 4 would not avoid or substantially reduce the GHG significant impacts of the proposed project.



## Operations

Table 5-21 indicates and compares the operations-related GHG emissions associated with the proposed project and with Alternative 4. As shown, Alternative 4 would result in GHG emissions levels that would be less than the proposed project in 2024, 2026, 2030, 2035, and 2050. The reduction in emission with Alternative 4 is primarily due to a reduction in motor vehicle-related GHG emissions and emissions associated with energy consumption associated with electricity usage, water usage (i.e., pumping of imported water to southern California), and solid waste disposal.

**Table 5-21: Alternative 4 Annual GHG Emissions Compared to Existing and Proposed Project Emissions (in metric tons of CO<sub>2</sub>e)**

Year	Source	Metric Tons of CO <sub>2</sub> e		Alternative 4		
		Existing (2018 Baseline Conditions)	Proposed Project	Metric Tons of CO <sub>2</sub> e	Increase/Decrease from Existing	Increase/Decrease from Proposed Project
2024	Aircraft	249,504	285,313	289,311	39,807	3,998
	APUs	2,223	2,505	2,505	282	0
	GSE	12,091	12,471	12,471	380	0
	Stationary Sources	12,940	13,399	13,399	459	0
	Motor Vehicles	55,434	55,991	49,202	-6,232	-6,789
	Other <sup>a</sup>	5,597	8,149	8,811	3,214	662
	Operations Total	337,789	377,828	375,699	37,910	-2,129
	Construction	--	6,627	5,980	5,980	-647
	Grand Total	<b>337,789</b>	<b>384,455</b>	<b>381,679</b>	<b>43,890</b>	<b>-2,776</b>
2026	Aircraft	249,504	300,734	298,965	49,461	-1,769
	APUs	2,223	2,580	2,580	357	0
	GSE	12,091	13,799	13,799	1,708	0
	Stationary Sources	12,940	13,399	13,399	459	0
	Motor Vehicles	55,434	63,469	53,536	-1,898	-9,933
	Other <sup>a</sup>	5,597	11,924	11,587	5,990	-337
	Operations Total	337,789	405,905	393,866	56,077	-12,039
	Construction	--	2,698	1,662	1,662	-1,036
	Grand Total	<b>337,789</b>	<b>408,603</b>	<b>395,528</b>	<b>57,739</b>	<b>-13,075</b>
2030	Aircraft	249,504	331,950	331,334	81,830	-616
	APUs	2,223	2,623	2,623	400	0
	GSE	12,091	13,409	13,409	1,318	0
	Stationary Sources	12,940	13,399	13,399	459	0
	Motor Vehicles	55,434	59,650	52,448	-2,986	-7,202
	Other <sup>a</sup>	5,597	18,215	11,587	5,990	-6,628
	Operations Total	337,789	439,246	424,800	87,011	-14,446
	Construction	--	2,214	--	--	-2,214
	Grand Total	<b>337,789</b>	<b>441,460</b>	<b>424,800</b>	<b>87,011</b>	<b>-16,660</b>

**Table 5-21: Alternative 4 Annual GHG Emissions Compared to Existing and Proposed Project Emissions (in metric tons of CO<sub>2</sub>e)**

Year	Source	Metric Tons of CO <sub>2</sub> e		Alternative 4		
		Existing (2018 Baseline Conditions)	Proposed Project	Metric Tons of CO <sub>2</sub> e	Increase/Decrease from Existing	Increase/Decrease from Proposed Project
2035	Aircraft	249,504	395,743	391,385	141,881	-4,358
	APUs	2,223	3,139	3,139	916	0
	GSE	12,091	13,475	13,475	1,384	0
	Stationary Sources	12,940	13,399	13,399	459	0
	Motor Vehicles	55,434	51,022	47,516	-7,918	-3,506
	Other <sup>a</sup>	5,597	20,066	11,587	5,990	-8,479
	Operations Total	337,789	496,844	480,501	142,712	-16,343
	Construction	--	830	--	--	-830
	<b>Grand Total</b>	<b>337,789</b>	<b>497,674</b>	<b>480,501</b>	<b>142,712</b>	<b>-17,174</b>
2050	Aircraft	249,504	417,468	413,022	163,518	-4,446
	APUs	2,223	3,417	3,417	1,194	0
	GSE	12,091	12,011	12,011	-80	0
	Stationary Sources	12,940	13,399	13,399	459	0
	Motor Vehicles	55,434	44,667	41,384	-14,050	-2,723
	Other <sup>a</sup>	5,597	20,066	11,587	5,990	-8,479
	<b>Total</b>	<b>337,789</b>	<b>511,029</b>	<b>494,821</b>	<b>157,032</b>	<b>-16,208</b>

Source: CDM Smith and KB Environmental Sciences, Inc. 2019.

Note: -- = Not applicable

a. Estimates of Other emissions are those resulting from energy consumption associated with electricity usage, water usage (i.e., pumping of imported water to southern California), and solid waste disposal.

Human Health Risk

### Construction

As indicated above in the discussion of air quality impacts, implementation of Alternative 4 would result in less construction-related air pollutant emissions than the proposed project, which would include reduced emissions of VOCs and PM that contribute to human health risk impacts. As indicated in Section 3.4.6, the generation of construction-related TAC associated with implementation of the proposed project would not result in any significant non-cancer human health impacts, and on-site TAC concentrations would not exceed Cal/OSHA acceptable levels, which would also be the case for Alternative 4. Non-cancer MEI health hazards under Alternative 4 are presented in Tables 5-23 through 5-26 below.

Relative to construction-related human health impacts for cancer, the assessment of that impact was based on the combination of construction-related emissions and operations-related emissions, for the reasons presented in Section 3.4.2.3. As described below, the combination of construction-related emissions and operations-related emissions would result in a significant impact relative to cancer risk. Although implementation of Alternative 4 would generate less construction-related TAC emissions, it would still result in a significant impact relative to cancer risk, as described below

and presented in Table 5-26. After the application of mitigation, implementation of Alternative 4 would result in a less than significant impact relative to cancer risk, as detailed below and presented in Table 5-27.

### Operations

As described in Section 3.4.6, the generation of operations-related TAC associated with implementation of the proposed project would not result in any significant non-cancer human health impacts; however, the generation of operations-related TAC associated with implementation of the proposed project would result in a significant cancer risk human health impact relative to a 30-year resident, adult resident, and off-airport adult worker. These significant cancer risk human health impacts are primarily due to diesel exhaust associated with GSE (which would be converted to alternative fuels both with the proposed project and under Alternative 4 through Mitigation Measure MM-AQ/GHG-1). After mitigation, implementation of Alternative 4 would result in a less than significant cancer risk human health impact relative to a 30-year resident, adult resident, and off-airport adult worker – see Table 5-27. As indicated above in Table 5-19, implementation of Alternative 4 would result in amounts of air pollutant emissions comparable to those of the proposed project. As such, the MEI cancer risk and population-based cancer burden impacts of Alternative 4 would be comparable to those of the proposed project, and implementation of Alternative 4 would not avoid or substantially reduce the significant impact of the proposed project relative to cancer risk. Non-cancer MEI health hazards and cancer risk associated with operation of Alternative 4 are presented in Tables 23 through 27.

**Table 5-23: Construction and Operations-Related Acute (1-Hour) Non-Cancer Health Hazards Under Alternative 4**

	Acrolein HQ <sup>1</sup>	Arsenic HQ <sup>1</sup>	Nickel HQ <sup>1</sup>	Benzene HQ <sup>1</sup>	Formaldehyde HQ <sup>1</sup>	Total Risk HI <sup>2</sup>	Significance Threshold	Exceeds Threshold?
MEI (Construction)	<0.001	0.005	0.02	0.01	0.03	0.1	1	No
MEI (Operations)	0.2	<0.001	0.003	0.01	0.04	0.2 <sup>3</sup>	1	No

Source: Appendix R-D of this EIR.

Notes:

1. Hazard indices are unitless.
2. Total risk may not add up exactly due to trace risk from unlisted pollutants.
3. Selected pollutants presented represent those with the highest individual HQs. Total Risk HI reflects the highest combined risk for pollutants which impact the same target organ systems or tissues in the human body.

**Table 5-24: Construction and Operations-Related Acute (8-Hour) Non-Cancer Health Hazards Under Alternative 4**

	Arsenic HQ <sup>1</sup>	Manganese HQ <sup>1</sup>	Nickel HQ <sup>1</sup>	Acrolein HQ <sup>1</sup>	Benzene HQ <sup>1</sup>	Formaldehyde HQ <sup>1</sup>	Total Risk HI <sup>2, 3</sup>	Significance Threshold	Exceeds Threshold?
MEI (Construction)	0.02	0.09	0.02	<0.001	0.04	0.1	0.2	1	No
MEI (Operations)	0.001	0.02	0.02	0.2	0.04	0.1	0.4	1	No

Source: Appendix R-D of this EIR.

Notes:

1. Hazard indices are unitless.
2. Total risk may not add up exactly due to trace risk from unlisted pollutants.
3. Selected Pollutants presented represent those with the highest individual HQs. Total Risk HI reflects the highest combined risk for pollutants which impact the same target organ systems or tissues in the human body.

**Table 5-25: Incremental Chronic Non-Cancer Human Health Hazards for Maximally Exposed Individuals Under Alternative 4**

Year	Resident HI <sup>1</sup>	Worker HI <sup>1</sup>	Significance Threshold	Exceeds Threshold?
Peak Construction Year, 2024	0.03	0.2	1	No
First Year of Buildout Operations, 2035	0.2	0.3	1	No

Source: Appendix R-D of this EIR.

Note:

1. Hazard indices are unitless.

**Table 5-26: Incremental Peak Cancer Risks for Maximally Exposed Individuals Under Alternative 4**

Receptor Type	Cancer Risks <sup>1,2,3</sup> (per million people)	Threshold (per million people)	Exceeds Threshold?
30-Year Resident	20	10	Yes
Adult Resident, 30 years	10	10	Yes
Off-Airport Adult Worker, 25 years	15	10	Yes

Source: CDM Smith, 2019.

Note:

1. The peak cancer risk occurred for the 30-year resident MEI at the location of the nearest residential use east of the project area with an exposure period beginning in the 4<sup>th</sup> year of overlapping construction and operations (2024) and continuing through the 26<sup>th</sup> year of operations (2053).
2. The peak cancer risk occurred for the 30-year adult resident MEI at the location of the United States Coast Guard Sector south of the project area with an exposure period beginning in the 4<sup>th</sup> year of overlapping construction and operations (2024) and continuing through the 26<sup>th</sup> year of operations (2053).
3. The peak cancer risk occurred for the 25-year worker MEI at the location of commercial structures south of the project area with an exposure period beginning in 2035 and continuing through the 32<sup>nd</sup> year of operations (2059).

**Table 5-27: Incremental Peak Cancer Risks for Maximally Exposed Individuals Under Alternative 4 after the Application of Mitigation**



Receptor Type	Cancer Risks <sup>1,2,3</sup> (per million people)	Threshold (per million people)	Exceeds Threshold?
30-Year Resident	6	10	No
Adult Resident, 30 years	2	10	No
Off-Airport Adult Worker, 25 years	7	10	No

Source: CDM Smith, 2019.

Note:

1. The peak cancer risk occurred for the 30-year resident MEI after mitigation at the location of the nearest residential use east of the project area with an exposure period beginning in the 3<sup>rd</sup> year of overlapping construction and operations (2023) and continuing through the 25<sup>th</sup> year of operations (2052).
2. The peak cancer risk occurred for the 30-year adult resident MEI after mitigation at the location of the United States Coast Guard Sector south of the project area with an exposure period beginning in the 3<sup>rd</sup> year of overlapping construction and operations (2023) and continuing through the 25<sup>th</sup> year of operations (2052).
3. The peak cancer risk occurred for the 25-year worker MEI after mitigation at the location of commercial structures south of the project area with an exposure period beginning in the 4<sup>th</sup> year of overlapping construction and operations (2024) and continuing through the 21<sup>st</sup> year of operations (2048).

As described in Section 3.4.6, the generation of construction and operations-related TAC associated with implementation of the proposed project would result in a significant cancer burden human health impact. This significant cancer risk human health impact would be primarily due to diesel exhaust associated with GSE (which would be converted to alternative fuels with the proposed project and under Alternative 4 through Mitigation Measure MM-AQ/GHG-1). Under Alternative 4, the population-based cancer burden risk, when summed across all census tracts within the 1 in 1 million contour, would result in a total cancer burden of 0.5, which would reach the significance threshold of 0.5. After the application of mitigation, population-based cancer burden risk, when summed across all census tracts within the 1 in 1 million contour, would be reduced to a total cancer burden of 0.09, less than the significance threshold of 0.5.

#### 5.6.4.4 Biological Resources

##### *Construction*

The development area associated with Alternative 4 would be the same as the eastern portion of the proposed project's development area and both scenarios include development of the proposed on-airport access road. As such, both scenarios would place construction activities in the same proximity to the California least tern habitat areas (i.e., "the ovals") and the potential for indirect impacts to that sensitive biological resource would be the same. Construction under either scenario would include compliance with existing applicable measures specified in the 1993 Biological Opinion and in the 2013 and 2018 Informal Section 7 Consultations between the FAA and USFWS regarding potential effects of the SDIA Northside Improvements Project and the Taxiway B Object-Free Area Improvement Project, respectively, listed in Section 3.5.4.1, as well as the additions and refinements to those measures that are presented in Section 3.5.6.1.3 (Mitigation Measure MM-BIO-1: California Least Tern: Construction Measures). As such, potential indirect impacts to sensitive biological resources would be reduced to less than significant under both Alternative 4 and the proposed project in the same manner, and implementation of Alternative 4

would not avoid or substantially reduce potential indirect significant impacts to biological resources.

### *Operations*

Operations under Alternative 4 would be the same as under the proposed project. As discussed in Section 5.5.4.3 above, as part of Alternative 4, a dedicated airport shuttle service between the Old Town Transit Center and the Airport would be established to provide improved access to local and regional transit for airport passengers and employees. The shuttle from the Old Town Transit Center and the SDIA terminal area would use the Terminal Link Roadway, immediately adjacent to the south end of nesting Oval 03-S; the Terminal Link Roadway currently supports buses on approximate five-minute intervals, or 12 buses per hour. With implementation of the proposed service between the Old Town Transit Center and SDIA, there would be an increase of four bus (shuttle) trips per hour in the frequency of buses traveling on the Terminal Link Roadway. The shuttle service vehicle would be powered by electric motors, which are quieter than the diesel buses that currently travel on the roadway in proximity to the subject oval. The increase in vehicular travel on the roadway, with potential noise/disturbance impacts to the oval area being offset by the use of clean quiet shuttles,<sup>8</sup> is not expected to inhibit California least tern commuting over the Terminal Link Roadway to the foraging areas in San Diego Bay (see Appendix R-E). This same dedicated shuttle service from the Old Town Transit Center to SDIA is included as part of a mitigation measure (MM-TDM-1) for the proposed project, as discussed in Section 3.14, Traffic and Circulation. As such, potential impacts to sensitive biological resources would be the same for both scenarios. Both would be subject to the existing applicable measures specified in the 1993 Biological Opinion and in the 2013 and 2018 Informal Section 7 Consultations between the FAA and USFWS regarding potential effects of the SDIA Northside Improvements Project and the Taxiway B Object-Free Area Improvement Project, respectively, listed in Section 3.5.4.1 to avoid potential indirect impacts to California least tern during operation of the proposed project, as well as measures presented in Section 3.5.6.1.3 (Mitigation Measure MM-BIO-2: California Least Tern: Operations Measures) to avoid potential significant indirect impacts during operation as related to perching for predatory species. Such would also be the case for the proposed project. Neither Alternative 4 nor the proposed project would result in significant impacts (after mitigation) to biological resources.

### **5.6.4.5 Cultural Resources**

#### *Construction*

Similar to the proposed project, the development proposed under Alternative 4 would require removal of the existing Terminal 1, a significant historical building. Removal of the existing Terminal 1 would be a significant and unavoidable impact. Similar to the proposed project, Alternative 4 would result in the removal and relocation (as a mitigation measure) of the former United Airlines Hangar and Terminal Building, which is also a significant historical building. With mitigation, impacts to the United Airlines Hangar and Terminal Building would be reduced to a

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<sup>8</sup> In addition to Mitigation Measure MM-BIO-2, operational impacts of the proposed project and Alternative 4 would be further reduced with implementation of Mitigation Measure MM-AQ/GHG-8, Electric On-Airport Shuttles, which requires that on-airport shuttles, including the existing Rental Car Center shuttles that utilize the Terminal Link Roadway on the south side of the Airport that runs along the southern portion of the southernmost California least tern oval, be transitioned to (quieter) electric vehicles (all-electric or plug-in hybrid) by 2026.

level less than significant. However, under Alternative 4, there would be no removal of the existing Terminal 2-East (a significant historical building) that would otherwise be removed under the proposed project. As such, Alternative 4 would avoid the unavoidable significant impact to this historic resource that would occur with implementation of the proposed project.

#### *Operations*

Operation of Alternative 4 would not affect any historic resources, which would also be the case for the proposed project; consequently, there would be no impact under either scenario.

### **5.6.4.6 Tribal Cultural Resources**

#### *Construction*

As discussed in Section 3.7.4, there are no known tribal cultural resources, as defined in Public Resources Code Section 21074, on the project site. Based on formal consultation with Viejas described in Section 3.7.4.2, ground disturbance associated with construction of the proposed project could disturb previously unidentified tribal cultural resources on the project site. To address this contingency, the SDCRAA has voluntarily agreed to implement Excavation Monitoring as part of the construction program for the proposed project. Under the agreed-upon Excavation Monitoring program, a Kumeyaay Cultural Monitor will be present onsite during ground disturbing activities that involve soils that are not previously dredged/filled materials below the airport for the proposed project. Such monitoring would serve to address the potential, if any, for tribal cultural resources to be unexpectedly encountered during project-related excavation activities. As such, the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074. Thus, impacts on tribal cultural resources from construction of the proposed project would be less than significant. Excavation Monitoring for tribal cultural resources would also be implemented under Alternative 4, which would include excavation for the development of new airport facilities, albeit less excavation than the proposed project as Alternative 4 does not include the “Stinger” included in the proposed project. As such, there would be no significant construction-related impacts to tribal cultural resources under either the proposed project or Alternative 4.

#### *Operations*

Continued operation of SDIA under Alternative 4 would not affect tribal cultural resources, which would also be the case for the proposed project; consequently, there would be no impact under either scenario.

### **5.6.4.7 Geology and Soils**

#### *Construction*

Under Alternative 4, the existing T1 would be replaced with new construction, but there would be no modifications to the existing T2. As such, Alternative 4 would involve less construction than the proposed project. As described in Section 3.8.6, construction of the proposed project would not result in any significant impacts related to geology and soils, which would also be the case for Alternative 4. As such, there would be no significant construction-related geology and soils impacts under either the proposed project or Alternative 4.

### *Operations*

As described in Section 3.8.6, although the proposed project would expose people or structures to risk related to seismic hazards including rupture of a known earthquake fault, seismic ground shaking, liquefaction, and dynamic settlement, the effect would not constitute a substantial adverse impact. Further, although the proposed project would expose people or property to risk from unstable geologic and related conditions including liquefaction, ground settlement, lateral spreading or landsliding; subsidence; collapse; corrosive soils; compressible materials; and/or shallow groundwater, the effect(s) would not constitute a substantial adverse impact. Lastly, the proposed project would not be located on expansive soil that could result in direct or indirect risks to life and property. In summary, geology and soil impacts for the proposed project would be less than significant. This would also be the case for operation of Alternative 4, whereby the existing T1 would be replaced with new construction. As with the proposed project, the new T1, along with the other new construction, would be designed, located, and built in compliance with the most up-to-date building code requirements of the CBC and City of San Diego Building Code applicable at the time of development. As such, there would be no significant operational-related geology and soils impacts under either the proposed project or Alternative 4. Further, both the proposed project and Alternative 4 would result in new/replacement construction that would comply with current applicable building codes and recommendations contained in the site-specific geotechnical investigation, thereby providing safety improvements in comparison to the existing conditions.

#### **5.6.4.8 Hazards and Hazardous Materials**

##### *Construction*

Under Alternative 4, the overall amount and duration of construction activities would be much less than under the proposed project. While less areas that potentially have existing contaminated groundwater and soils would be disturbed, the potential for significant impacts to occur would remain. Additionally, while less building square footage would be demolished under Alternative 4 (i.e., no modifications to T2-East and T2-West would occur), the potential for hazardous building materials to be encountered during demolition would remain. Similar to the proposed project, implementation of mitigation measures to address soil and groundwater contamination and hazardous building materials would reduce impacts to less than significant.

##### *Operations*

Similar to the proposed project, construction of a new T1 could create a potential hazard to the public or the environment associated with possible soil gas vapor intrusion into the new building. As with the proposed project, implementation of mitigation would reduce this impact to less than significant. Similar to the proposed project, Alternative 4 would not significantly impair implementation of an emergency response plan or evacuation plan or result in a significant safety hazard to the people residing or working in the project area due to its location at an airport. However, as with the proposed project, operation of Alternative 4 would result in significant aircraft noise impacts, which could expose people residing or working in the project area to excessive aircraft noise. As with the proposed project, even with implementation of proposed Mitigation Measures MM-NOI-1 through MM-NOI-5, the impact would be significant and unavoidable.

#### 5.6.4.9 Hydrology and Water Quality

##### *Construction*

Under Alternative 4, the overall amount and duration of construction activities would be less than under the proposed project which, in turn, would reduce the potential for temporary construction-related hydrology and water quality impacts. As indicated in Section 3.10.6, however, construction of the proposed project would not result in any significant impacts to hydrology or water quality.

##### *Operations*

Under Alternative 4, the amounts of terminal development and apron area construction would be less than those of the proposed project; however, given the relatively flat and already developed condition of SDIA, neither the development of the proposed project nor development of Alternative 4 would result in a notable change to the existing drainage patterns and volumes of the Airport. Under Alternative 4, the same expansion of the SAN Stormwater Capture and Reuse System improvements would occur as under the proposed project and, as such, Alternative 4 would have the same water quality benefits as the proposed project.

#### 5.6.4.10 Land Use and Planning

##### *Construction*

Under Alternative 4, there would be less demolition and new construction than would otherwise occur under the proposed project. However, construction of the proposed project would not result in any significant impacts to land use and planning.

##### *Operations*

Under Alternative 4 there would still be continued future growth in aircraft activity and passenger activity to the same degree as under the proposed project. As such, and as further described below in Sections 5.6.2.12 and 5.6.2.14, there would still be the same significant aircraft noise impacts, significant roadway noise impacts, and significant traffic impacts as the proposed project. The related impacts, in terms of how such noise and traffic impacts would conflict with policies in the General Plan, local community plans, and the existing ALUCP under Alternative 4 would also occur under the proposed project. However, under Alternative 4, proposed transit improvements are anticipated to reduce the number of daily trips to and from the Airport as compared to the proposed project (prior to implementation of mitigation). While no significant impacts would be reduced to less than significant, the level of impact would be less due to the reduced number of daily trips. Implementation of Alternative 4 would, therefore, reduce but not avoid or substantially reduce the operations-related significant impacts of the proposed project as related to land use and planning.

Additionally, while under the proposed project there would be no significant impacts relative to consistency with the California Coastal Act, Alternative 4 includes several elements that are more supportive of California Coastal Act policies than the proposed project (see Section 3.11.1 in Section 3.11, Land Use and Planning). Specifically, as described in Section 5.5.4 above and in Section 1.2 in Chapter 1, Introduction, Alternative 4 includes elements supportive of increasing transit opportunities and alternative access to SDIA. These elements serve to indirectly support public access to coastal areas by improving access to SDIA (a coastal-supporting use as discussed in Section 3.11) and reducing the number of vehicle trips on North Harbor Drive (a major coastal access roadway). Additional Alternative 4 elements supportive of the California Coastal Act



Chapter 3 policies include a reduction in the size/footprint and number of spaces in the T1 parking structure and a reduction in the height of the airport administration building. Both of these structures are visible from North Harbor Drive and, as discussed in Section 5.6.4.1, above, the reduced size of the T1 Parking Structure and reduced height of the airport administration building would reduce visibility of these structures. Further, the 400,000 square foot commercial development opportunity area proposed adjacent to the new (replacement) Terminal 1 under the proposed project would not be implemented and thus, no new land uses would be established.

However, because less construction would occur than under the proposed project, there would be less opportunity to implement improvements consistent with the Climate Resilience Plan.

Therefore, while the proposed project would not have significant impacts relative to the consistency with the California Coastal Act, Alternative 4 is generally more supportive of the Act's Chapter 3 policies because of increased support for transit and alternative transportation, and reduced size/height of buildings visible from North Harbor Drive.

#### **5.6.4.11 Noise**

##### *Construction*

Although the overall construction intensity and construction duration of Alternative 4 would be less than that of the proposed project, there would be no material difference in the potential for significant construction noise impacts. The area of development for Alternative 4 is the same as the eastern portion of the development area associated with the proposed project, at which there are no noise-sensitive receptors nearby. The type of construction equipment to be used, and the type of construction activities to occur (i.e., demolition of existing uses, site preparation, building construction, apron and taxiway construction) would be similar between Alternative 4 and the proposed project. As indicated in Section 3.12.5, implementation of the proposed project would not result in any significant construction noise impacts, which would also be the case for Alternative 4.

##### *Operations*

Operations-related aircraft noise impacts associated with Alternative 4 would be the same as those of the proposed project because the number, nature, and timing of aircraft operations would be the same between the two scenarios. As such, the estimated population and housing counts, as well as other types of noise-sensitive receptors such as churches (places of worship) and schools, exposed to the various CNEL aircraft noise levels, the changes in CNEL, and the changes in nighttime flights (sleep disturbance) presented in Section 3.12.3 for the proposed project would be the same for Alternative 4, which would include unavoidable significant aircraft noise impacts, even after implementation of feasible mitigation measures. Alternative 4 would also have the same noise impacts as the proposed project relative to aircraft noise impacts to schools, in terms of the amount of time above certain exterior noise levels, which would be less than significant.

Operations-related roadway noise impacts associated with the Alternative 4 would be less than those of the proposed project because Alternative 4 includes certain transportation system improvements and services designed to improve transit access and use, which would reduce airport-related traffic around SDIA, with an associated reduction in roadway noise levels. Table 5-

27 presents the estimated roadway CNELs along roadways in the vicinity of SDIA for Alternative 4 and the proposed project.

**Table 5-27: Predicted Traffic CNELs for Alternative 4 and Proposed Project**

Roadway Segment	Existing CNEL at 50 ft from Edge of Road	2024 CNEL (dB)		2026 CNEL (dB)		2030 CNEL (dB)		2035 CNEL (dB)		2050 CNEL (dB)	
		Proposed Project	Alternative 4	Proposed Project	Alternative 4	Proposed Project	Alternative 4	Proposed Project	Alternative 4	Proposed Project	Alternative 4
Pacific Highway											
Kurtz St to Barnett Ave	69.7	69.9	69.9	70.0	70.0	70.2	70.1	70.3	70.3	70.8	70.8
Barnett Ave to Washington St	73.4	74.2	74.2	74.3	74.3	74.4	74.4	74.6	74.5	74.8	74.8
Washington St to Sassafras St	66.3	66.7	66.6	66.8	66.7	67.1	66.9	68.0	67.8	70.7	70.6
Sassafras St to Palm St	66.2	66.8	66.7	67.0	66.8	67.4	67.2	67.7	67.5	68.1	67.9
Palm St to Laurel St	66.5	67.0	66.8	67.2	67.0	67.7	67.4	68.2	68.0	69.1	68.8
Laurel St to Juniper St	63.6	64.9	64.7	65.1	64.9	65.5	65.3	66.1	65.9	66.9	66.7
Kettner Boulevard											
Vine St to Sassafras St	68.7	69.7	69.4	70.0	69.7	70.6	70.2	71.0	70.7	70.5	70.1
Sassafras St to Palm St	67.1	69.2	69.0	69.5	69.3	70.2	69.9	70.8	70.6	70.9	70.6
Palm St to Laurel St	67.1	68.3	68.1	68.6	68.4	69.2	69.0	69.6	69.4	69.8	69.6
India Street											
Sassafras St to Laurel St	66.1	68.0	67.7	68.4	68.0	69.2	68.8	69.5	69.1	69.9	69.5
Laurel St to Juniper St	60.3	60.5	60.5	60.5	60.5	60.6	60.6	60.7	60.7	61.1	61.1
Washington Street											
West of Pacific Hwy	57.5	58.7	58.4	58.9	58.7	59.4	59.1	59.8	59.6	60.6	60.4
Hancock St to San Diego Ave	67.7	68.1	68.1	68.3	68.2	68.5	68.4	68.7	68.6	69.0	68.9
East of India St	68.0	68.8	68.8	68.9	68.9	69.2	69.1	69.3	69.2	69.7	69.6
Admiral Boland Way											
Washington St to Terminal Link Rd	64.5	66.7	66.3	67.0	66.6	67.5	67.1	67.9	67.6	68.2	67.9
Terminal Link Rd to Pacific Hwy	64.5	66.7	66.4	67.0	66.7	67.5	67.2	67.9	67.6	68.2	67.9
Sassafras Street											
Pacific Hwy to Kettner Blvd	61.9	63.4	63.2	63.7	63.4	64.2	63.9	65.1	64.8	65.4	65.2
Palm Street											
Pacific Hwy to Kettner Blvd	53.5	59.6	59.5	59.8	59.6	60.0	59.8	61.6	61.5	61.7	61.7
Laurel Street											
Harbor Dr to Pacific Hwy	69.5	71.0	70.7	71.4	71.1	72.2	71.8	72.6	72.2	73.0	72.6
Pacific Hwy to India St	64.3	65.1	64.8	65.4	65.1	66.1	65.8	66.4	66.1	66.8	66.5
Columbia St to State St/ Reynard Wy	61.3	61.4	61.3	61.5	61.4	61.8	61.6	62.0	61.8	62.3	62.2
Hawthorn Street											
Harbor Dr to Pacific Hwy	65.6	65.9	65.7	66.1	65.8	66.6	66.2	67.2	66.9	67.6	67.3

**Table 5-27: Predicted Traffic CNELs for Alternative 4 and Proposed Project**

Roadway Segment	Existing CNEL at 50 ft from Edge of Road	2024 CNEL (dB)		2026 CNEL (dB)		2030 CNEL (dB)		2035 CNEL (dB)		2050 CNEL (dB)	
		Proposed Project	Alternative 4	Proposed Project	Alternative 4	Proposed Project	Alternative 4	Proposed Project	Alternative 4	Proposed Project	Alternative 4
Pacific Hwy to India St	66.3	66.6	66.4	67.0	66.7	67.6	67.3	68.9	68.7	69.2	69.0
India St to State St	66.3	66.7	66.5	67.0	66.8	67.7	67.4	68.9	68.7	69.3	69.1
State St to Albatross St	61.6	61.8	61.8	61.8	61.8	61.9	61.9	62.0	62.0	62.4	62.4
<b>Grape Street</b>											
Harbor Dr to Pacific Hwy	68.2	69.0	68.7	69.4	69.0	70.1	69.7	71.7	71.4	72.0	71.8
Pacific Hwy to India St	68.9	70.3	70.1	70.6	70.4	71.2	70.9	72.4	72.2	72.7	72.5
India St to State St	69.6	71.3	71.1	71.6	71.4	72.2	72.0	73.3	73.1	73.7	73.5
Albatross St to Front St	54.8	56.4	56.4	56.8	56.8	57.9	57.9	58.9	58.9	59.2	59.2
<b>Harbor Drive</b>											
Scott Rd to Nimitz Blvd	64.8	66.2	66.2	66.3	66.2	66.5	66.4	66.7	66.6	67.1	66.9
Nimitz Blvd to Laning Rd	66.3	67.5	67.4	67.7	67.5	68.0	67.8	68.2	68.0	68.6	68.4
Laning Rd to McCain Rd	68.0	68.2	68.0	68.4	68.2	69.0	68.7	69.2	69.0	69.6	69.3
McCain Rd to Spanish Landing	68.1	68.2	68.1	68.5	68.3	69.0	68.8	69.2	69.0	69.6	69.3
Spanish Landing to Harbor Island Dr	68.2	68.0	68.1	68.3	68.3	68.7	68.6	68.9	68.8	69.2	69.1
Harbor Island Dr to Winship Ln	72.3	66.1	66.4	67.0	67.2	69.2	69.3	69.3	69.4	70.1	70.2
Winship Ln to Liberator Way	72.9	71.7	71.5	72.2	71.9	73.3	73.0	73.6	73.3	74.0	73.8
Liberator Way to Cell Phone Lot	73.2	71.8	71.6	72.3	72.0	73.4	73.1	73.7	73.4	74.1	73.9
Cell Phone Lot to Laurel St/ Solar Turbines	73.2	71.9	71.7	72.3	72.1	73.4	73.2	73.8	73.5	74.2	73.9
Laurel St/ Solar Turbines to W Laurel St	72.2	71.6	71.4	72.1	71.8	73.2	72.9	73.5	73.3	74.0	73.7
Laurel St to Hawthorn St	71.1	71.6	71.4	72.0	71.7	72.9	72.5	74.1	73.8	74.4	74.1
Hawthorn St to Grape St	69.2	69.8	69.5	70.2	69.9	71.2	70.9	72.5	72.3	72.8	72.6
Grape St to Ash St	70.1	70.4	70.3	70.7	70.6	71.4	71.2	71.6	71.4	71.9	71.8
<b>Harbor Island Drive</b>											
Harbor Dr to Old Rent A Car Access	60.9	61.1	61.1	62.2	62.2	64.9	64.9	65.0	65.0	65.1	65.1
West of Harbor Island Dr	58.6	61.1	61.1	61.2	61.2	61.3	61.3	61.5	61.4	61.8	61.8
Harbor Island Dr to Parking Lot	56.6	58.2	58.2	58.3	58.3	58.3	58.3	58.9	58.9	61.0	61.0
East of Parking Lot	55.7	58.2	58.2	58.3	58.3	58.3	58.3	58.9	58.9	61.0	61.0

Source: HMMH, 2019.

As indicated above, the roadway CNEL noise levels along the vast majority of roadway segments would be lower under Alternative 4, as compared to those associated with the proposed project, in all of the horizon years (2024, 2026, 2030, 2035, and 2050). The reductions would range from 0.1

dB to 0.6 dB. The subject reductions in roadway noise levels would not, however, be sufficient to avoid or substantially reduce the significant roadway noise impacts of the proposed project.

Implementation of the proposed project would result in future roadway noise levels along Grape Street on two segments (i.e., Pacific Highway to India Street and India Street to State Street) to increase above 70 CNEL, which is the noise compatibility threshold for multifamily residential development located along those segments. As indicated above in Table 5-27, the future noise levels along those segments under Alternative 4 would still exceed 70 CNEL and the reduction in roadway noise along those segments, compared to the proposed project, would only be 0.2 dB.

In addition, the proposed project's future increase in traffic along India Street between Sassafras Street and Laurel Street would result in increases of more than 3 dB in roadway noise levels along that segment in 2030, 2035, and 2050. Although the existing baseline noise level along that segment already exceeds the noise compatibility threshold for residential development, an increase of 3 dB or more is considered to be a significant impact. As can be derived from Table 5-27 above, the increases in CNEL in 2030, 2035, and 2050, compared to existing baseline conditions, under Alternative 4 would be 2.7, 3.0, and 3.4, respectively. As such, the significant impact associated with the proposed project would be avoided in 2030, but would still occur in 2035 and 2050 under Alternative 4.

#### **5.6.4.12 Public Services**

##### *Construction*

Although the overall construction intensity and construction duration of Alternative 4 would be less than that of the proposed project, there would be no material difference in the potential for significant impacts to public services. During construction of the proposed project, SDHPD and SDPD would continue to provide law enforcement services at SDIA, and SDFD would provide fire services. Throughout the construction period, public access to the Airport terminals and public parking outside of the construction activities would be maintained, which would ensure that adequate access for emergency vehicles would be available. As indicated in Section 3.13, implementation of the proposed project would not result in any significant impacts on public services, which would also be the case for Alternative 4.

##### *Operations*

Under Alternative 4 the SDPD, SDHPD, and SDFD would define staffing needs through their ongoing assessments of service levels, which is also the case for the proposed project; there would be no significant impact to public services under either scenario. However, while newer structures, such as T2-West, have sprinkler systems, the existing T1 does not. The new T1 would comply with the current Uniform Fire Code, including installation of a fire sprinkler system, and as such, the fire suppression benefits that would occur with the proposed project would also be realized under Alternative 4.

#### **5.6.4.13 Traffic and Circulation**

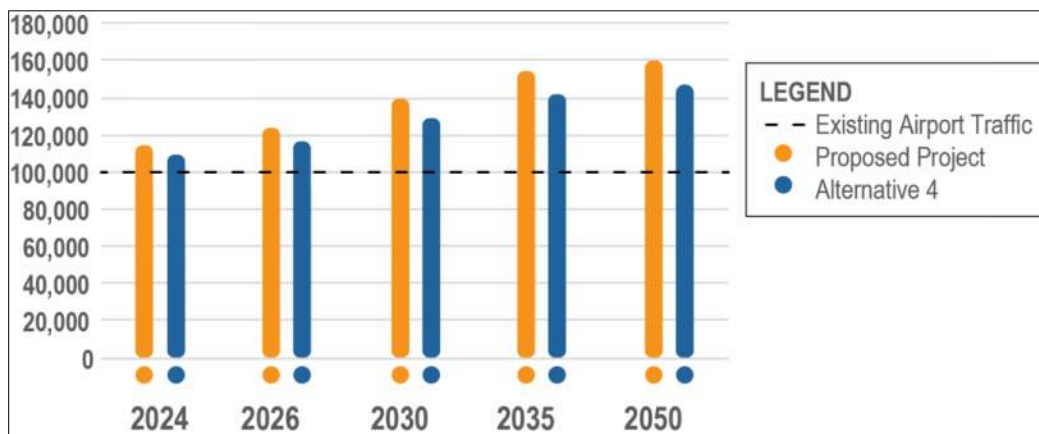
The following summarizes the key differences and impacts of Alternative 4 as compared to the proposed project. A full analysis of Alternative 4 is provided in Appendix R-H.

- Transportation Features of Alternative 4

- Alternative 4 includes transit service between the Old Town Transit Center and Airport facilities, such as T1, T2, and the Rental Car Center. This route would use Pacific Highway and on-airport roadways to provide a quick connection between existing Amtrak, COASTER, light rail transit, and bus lines.
- Alternative 4 implements Transportation Demand Management (TDM) measures for airport workers, including both SDCRAA employees and tenants.
- Alternative 4 involves less construction activity that can be completed in two phases of construction instead of four phases. This would reduce the duration of construction impacts by about nine years.
- Alternative 4 provides a transit-ready site between the terminals that could be used for any type of high-quality transit service including light rail, people mover, aerial transitway, or bus rapid transit.

### *Reduces Trip Generation*

Due to the provision of transit service and TDM measures described above, Alternative 4 would reduce vehicle trip generation. Under Alternative 4, Vehicle trip generation would be reduced by over 5,000 daily trips during opening day (2024), as compared to the proposed project. By 2050, the reduction would be over 12,000 daily trips. The figure below compares the vehicle trip generation for both Alternative 4 and the proposed project for each year evaluated.



Source: Kimley-Horn, June 2019.

**Figure 5-18 Trip Generation – Proposed Project and Alternative 4**

### *Reduces Traffic Impacts*

Traffic impacts of Alternative 4 are generally reduced as compared to the proposed project, due to trip reduction measures such as transit and TDM. Since these measures are project features of the alternative, the benefits are particularly noticeable in the earlier evaluation scenarios.

As compared to the proposed project, Alternative 4 would result in reduced impacts to intersections as summarized below:



- Under Existing with Project conditions, the number of significantly impacted intersections would be the same.
- Under 2024 conditions, the number of significantly impacted intersections would be the same.
- Under 2026 conditions, the number of significantly impacted intersections would be the same.
- Under 2030 conditions, the number of significantly impacted intersections would be the same.
- Under 2035 conditions, there would be three fewer intersections significantly impacted by the project.
- Under 2050 conditions, there would be one fewer intersection significantly impacted by the project..

As compared to the proposed project, Alternative 4 would result in reduced impacts to roadways as summarized below:

- Under Existing with Project conditions, the number of roadway segments significantly impacted by the project would be the same.
- Under 2024 conditions, there would be three fewer roadway segment significantly impacted by the project.
- Under 2026 conditions, there would be one fewer roadway segment significantly impacted by the project.
- Under 2030 conditions, there would be two fewer roadway segments significantly impacted by the project.
- Under 2035 conditions, the number of roadway segments significantly impacted by the project would be the same.
- Under 2050 conditions, the number of roadway segments significantly impacted by the project would be the same.

As compared to the proposed project, Alternative 4 would result in reduced impacts to freeways as summarized below:

- Under Existing with Project conditions, there would be one fewer freeway segment significant impact.
- Under 2024 conditions, the number of freeway segment significant impacts would be the same.
- Under 2026 conditions, there would be one fewer freeway segment significant impact.

- Under 2030 conditions, the number of freeway segment significant impacts would be the same.
- Under 2035 conditions, the number of freeway segment significant impacts would be the same.
- Under 2050 conditions, the number of freeway segment significant impacts would be the same.

As compared to the proposed project, Alternative 4 would result in reduced Vehicle Miles Travelled (VMT) as summarized below:

- Under 2024 conditions, Alternative 4 would reduce VMT by 0.7 VMT/passenger.
- Under 2026 conditions, Alternative 4 would reduce VMT by 1.1 VMT/passenger.
- Under 2030 conditions, Alternative 4 would reduce VMT by 1.5 VMT/passenger.
- Under 2035 conditions, Alternative 4 would reduce VMT by 1.4 VMT/passenger.
- Under 2050 conditions, Alternative 4 would reduce VMT by 1.4 VMT/passenger.

Alternative 4 makes more efficient use of the T1 parking structure by reducing the amount of parking from 7,500 spaces to 5,500 spaces, which more closely matches passenger demand. The reduced footprint of the parking structure has been reserved for a potential transit station serving the terminals. As such, this alternative is more compatible with regional efforts to improve multi-modal mobility connections to the airport.

#### **5.6.4.14 Utilities**

##### *Construction*

Under Alternative 4, there would be changes and upgrades to the existing utilities (potable water, wastewater, storm drains, solid waste, electricity, natural gas, and telecommunications) associated with utility connections to the replacement T1. However, this would occur to a lesser degree than the proposed project, because the modifications to T2-West and T2-East would not occur. For example, given that the new construction associated with the T2-West (i.e., the “Stinger”) and the demolition and replacement of the existing T2-East would not be implemented, less re-routing of existing utility lines and pipelines would occur. Additionally, because less construction would occur, the amount of construction and demolition debris requiring disposal at landfills would be less. Additionally, water demand and energy use associated construction would be less. Therefore, construction impacts associated with utilities would be reduced under Alternative 4 as compared to the proposed project, although neither Alternative 4 nor the proposed project would result in significant impacts related to utilities.

##### *Operations*

As described in Section 3.15.6, while increased demand for utilities would occur under the proposed project, such impacts would be less than significant. Under Alternative 4, increased demand for utilities would also occur; however, under Alternative 4, there would be no commercial development opportunity area and the total amount of new building area would be approximately

31 percent less than that of the proposed project. Under Alternative 4, the demand for utilities would be approximately 36 percent less than the proposed project as shown in Tables 5-28 through 5-38. Under Alternative 4, the 400,000 square feet designated for the commercial development opportunity area under the proposed project would be incorporated into the overall T1 square footage, which would have a less intensive energy demand.<sup>9</sup>

While the amount of new construction would be less under Alternative 4, it should also be noted that 350,000 square feet less terminal area would be demolished under Alternative 4 as compared to the proposed project. Energy demand associated with the 350,000 square feet would remain under Alternative 4, and this existing square footage to remain would not be replaced with newer more energy/water efficient construction.

Tables 5-28 through 5-38 below show the reduced utility demand that would occur with operation of Alternative 4 as compared to the proposed project. Where applicable, reductions in utility demand associated with demolition of facilities under Alternative 4 is also shown (i.e., solid waste generation and electricity and natural gas associated with building square footage).

#### Water Demand

As described in Section 3.15.6.2.2, the water provider (i.e., PUD) prepared a water supply assessment for the proposed project and determined water demand based on the number of Airport employees, commercial development opportunity area employees, annual number of passengers, and the CUP expansion. Under Alternative 4, the number of Airport employees, annual number of passengers, and the CUP expansion would remain the same, but there would be no commercial development opportunity area employees. Therefore, as shown on Table 5-28 below, the water demand associated with Alternative 4 is slightly less than the proposed project (213 acre feet per year [afy] compared to 221 afy). As described in Section 3.15.6.2.2, the City determined that adequate supplies are available to serve the proposed project; likewise, adequate supplies would be available to serve Alternative 4.

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<sup>9</sup> The terminal square footage shown in Table 5-28 is greater than Alternative 4 because it includes a total of both T1 and T2 improvements (i.e., Phase 1 and 2).

**Table 5-28: Projected Water Demand - Proposed Project and Alternative 4**

	2015		2040		Net Increase		Demand Factor	Demand, gpd		Demand, afy		Notes
	Proposed Project	Alternative 4	Proposed Project	Alternative 4	Proposed Project	Alternative 4		Proposed Project	Alternative 4	Proposed Project	Alternative 4	
Factors Affecting Future Demand												1
Airport Employees	6,054	6,054	11,847		5,793	5,793	8.7 gpcd	50,399	50,399	56	56	2, 4
Commercial Development Area Employees	NA	NA	800	NA	800	NA	8.7 gpcd	NA	6,960	8	NA	3, 4
Annual Number of Passengers	20,322,000	20,322,000	39,760,000	800	19,438,000	19,438,000	2 gpcd	106,510	106,510	119	119	5, 4
Central Utility Plant Expansion (sf)	14,500	14,500	26,500	39,760,000	12,000	12,000	2.8 gal/sf/day	33,600	33,600	38	38	6
<b>Total Net Increase in Water Demand</b>								<b>197,469</b>	<b>190,509</b>	<b>221</b>	<b>213</b>	
<b>% of UWMP Forecasted City Demands</b>										<b>0.08%</b>	<b>0.08%</b>	7

Source: Appendix R-I

Notes:

1. Future water demand assumed to be the net increase in 2040 over existing conditions in 2015 when the 2015 UWMP was prepared.
  2. Airport employment estimate for 2015 is based on the combination of aviation, concessions, and government employees at SDIA in 2017 per Table 5-1 of the *San Diego International Airport Economic Impact Study* completed in June 2018 by CDM Smith for the San Diego County Regional Airport Authority, as adjusted to the passenger activity level at SDIA in 2015 (i.e., 2017 employment of 6,667 reduced to 6,054 in 2015, in proportion with annual passenger activity level at SDIA in 2015 being approximately 20,322,000 compared to 22,370,000 in 2017). The airport employees for 2040 were estimated based on that same ratio of employees to passengers.
  3. One (1) employee per 500 feet is the acceptable standard for estimating commercial employment density.
  4. Airport employee and passenger gpd demand factors are based SDIA Domestic Water use for the 5-year average water consumption during 2013-2017. Passenger demand is estimated at 2 gpcd and Airport employee demand is estimated at 8.7 gpcd. The factors are considered to be conservative in that they don't account for increased presence of water conservation features in new construction (i.e., low flow toilets, sensor activated faucets, etc.).
  5. The number of passengers in 2015 is based on the SDIA Annual Activity Report. Available: [https://www.san.org/DesktopModules/Bring2mind/DMX/Download.aspx?EntryId=12777&Command=Core\\_Download&language=en-US&PortalId=0&TabId=403](https://www.san.org/DesktopModules/Bring2mind/DMX/Download.aspx?EntryId=12777&Command=Core_Download&language=en-US&PortalId=0&TabId=403). The number of passengers projected for 2040 is based on the San Diego County Regional Airport Authority Final Technical Memorandum Aviation Activity Forecast Update – San Diego International Airport prepared by Leigh Fisher, April 2019.
  6. CUP (Central Utility Plant) expansion is based on Applicant data and additional 12,000 sf resulting in an increase of 2.8 gallons/sf in water demand.
  7. See Appendix R-I tables in Availability of Sufficient Supplies section.
- Abbreviations: NA – not applicable, gpd – gallons per day, afy – acre feet per year, gpcd – gallons per capita daily, sf – square feet

### Wastewater Generation

Because water demand would be somewhat less, wastewater generation would also be less. Wastewater generation disposed into the sewer is estimated to be 171,458 gallons per day or 63 million gallons per year (mgy) under Alternative 4 as compared to 177,746 gallons per day of wastewater that would be disposed of in the sewer under the proposed project.

### Solid Waste Generation

As shown in Table 5-29 below, overall Alternative 4 would generate almost 3 tons less per day and over one thousand tons less per year in solid waste as compared to the proposed project. When factoring in (subtracting) the square footage to be demolished shown Table 5-30, Alternative 4 would generate approximately 829.56 tons per year, compared with the proposed project, which would generate approximately 1,575.06 tons per year.

**Table 5-29: Estimated Solid Waste Generation Associated with New Building Square Footage – Proposed Project and Alternative 4**

Land Use <sup>a,b,c</sup>	New Construction (sq. ft.)		Generation Rate – Tons /1000 sq.ft./Year	Tons Per Day <sup>d</sup>		Tons Per Year <sup>d</sup>	
	Proposed Project	Alternative 4		Proposed Project	Alternative 4	Proposed Project	Alternative 4
Terminal	1,910,000	1,210,000	0.93	4.87	3.08	1,776.30	1,125.30
Office	150,000	150,000	0.93	0.38	0.38	139.50	139.50
Commercial Development Opportunity	400,000	-	1.05	1.15	0.00	420.00	0.00
Parking Structure	2,780,000	2,250,000	0.0 <sup>b</sup>	0	0	0.00	0.00
<b>Total</b>	<b>5,240,000</b>	<b>3,610,000</b>		<b>6.40</b>	<b>3.47</b>	<b>2,335.80</b>	<b>1,264.80</b>

Demand Factors source: CalEEMod. Appendix D Default Data, Table 10.1, Solid Waste Disposal Rates. October 2017.

Notes:

a. Land use types used to calculate solid waste generation:

Terminal – Office Park (includes general offices and support services such as restaurants and service stations)

Office – General Office Building

Commercial Development Opportunity – Regional Shopping Center (integrated group of commercial establishments)

Parking Structure – Enclosed Parking Structure with Elevator (includes lighting and ventilation and more than one story)

b. Operation of the 12,000 square-foot expansion of the CUP that would occur under both the proposed project and Alternative 4 would not generate solid waste and is not listed in the table above.

c. Solid waste generation factors are associated with use that generates the solid waste and not the location where the wastes are deposited for disposal. Thus, while users of the proposed parking structure may deposit trash in receptacles at the parking structure, the parking structure use itself would not be an independent solid waste generator. Thus, the solid waste generation rate for the parking structure is assumed to be “0”.

d. Totals may not add due to rounding.

Abbreviation:

sq.ft. – square foot



**Table 5-30: Estimated Solid Waste Generation Associated with Building Square Footage to be Demolished Proposed Project and Alternative 4**

Land Use <sup>a,b,c</sup>	New Construction (sq. ft.)		Generation Rate – Tons /1000 sq.ft./Year	Tons Per Day <sup>d</sup>		Tons Per Year <sup>d</sup>	
	Proposed Project	Alternative 4		Proposed Project	Alternative 4	Proposed Project	Alternative 4
Terminal	686,000	336,000	0.93	1.75	0.86	637.98	312.48
Office	132,000	132,000	0.93	0.34	0.34	122.76	122.76
<b>Total</b>				<b>2.08</b>	<b>1.19</b>	<b>760.74</b>	<b>435.24</b>

Demand Factors source: CalEEMod. Appendix D Default Data, Table 10.1, Solid Waste Disposal Rates. October 2017.

Notes:

a. Land use types used to calculate solid waste generation:

Office – General Office Building

Terminal – Office Park (includes general offices and support services such as restaurants and service stations)

b. Approximately 79,000 square feet of cargo uses, 75,000 square feet of maintenance uses, and 10,000 square feet of office uses would be demolished within the new T1 footprint under the proposed project and Alternative 4. These uses would be consolidated into new cargo facilities to be developed separate from the proposed project/Alternative 4. Although the consolidation of the uses is expected to result in a small reduction in solid waste generation, because these cargo, maintenance, and office uses would be maintained at SDIA, the solid waste generation associated with operation of these uses is assumed to stay the same with implementation of the proposed project or Alternative 4. Solid waste generation associated with the cargo, maintenance, and office uses to be demolished is estimated to be 70.5 tons per year (0.19 tons per day), 301.78 tons per year (0.83 tons per day), and 9.3 tons per year (0.03 tons per day), respectively, or a total of 381.58 tons per year (1.05 tons per day).

d. Totals may not add due to rounding.

Abbreviation:

sq.ft. – square foot

## Energy Demand

### Transportation Related Fuel

As shown in Table 5-31 below, overall Alternative 4 would have less fuel consumption for motor vehicles and slightly less aircraft fuel consumption than the proposed project. Fuel consumption associated with auxiliary power units (APE) and ground support equipment (GSE) would be the same.

**Table 5-31: Mobile Source and Equipment Fuel Consumption – Proposed Project and Alternative 4**

Year	Source	Fuel Type	Fuel Consumption (gallons)		Change Compared to Existing Conditions	
			Proposed Project	Alternative 4	Proposed Project	Alternative 4
<b>2024</b>	Aircraft	Jet A	29,262,872	29,672,923	3,672,718	4,082,769
	APUs	Jet A	256,923	256,923	28,923	28,923
	GSE	Diesel	1,221,450	1,221,450	37,218	37,218
	Motor Vehicles	Gasoline	6,377,107	5,603,872	63,440	-709,795
<b>2026</b>	Aircraft	Jet A	30,844,513	30,663,077	5,254,359	5,072,923
	APUs	Jet A	264,615	264,615	36,615	36,615
	GSE	Diesel	1,351,518	1,351,518	167,287	167,287
	Motor Vehicles	Gasoline	6,955,695	6,097,494	642,027	-216,173

**Table 5-31: Mobile Source and Equipment Fuel Consumption – Proposed Project and Alternative 4**

Year	Source	Fuel Type	Fuel Consumption (gallons)		Change Compared to Existing Conditions	
			Proposed Project	Alternative 4	Proposed Project	Alternative 4
<b>2030</b>	Aircraft	Jet A	34,046,154	33,982,974	8,456,000	8,392,821
	APUs	Jet A	269,026	269,026	41,026	41,026
	GSE	Diesel	1,313,320	1,313,320	129,089	129,089
	Motor Vehicles	Gasoline	6,793,850	5,973,576	480,182	-340,091
<b>2035</b>	Aircraft	Jet A	40,589,026	40,142,051	14,998,872	14,551,897
	APUs	Jet A	321,949	321,949	93,949	93,949
	GSE	Diesel	1,319,785	1,319,785	135,553	135,553
	Motor Vehicles	Gasoline	5,808,884	5,411,845	-504,784	-901,822
<b>2050</b>	Aircraft	Jet A	42,817,231	42,361,231	17,227,077	16,771,077
	APUs	Jet A	350,462	350,462	122,462	122,462
	GSE	Diesel	1,176,396	1,176,396	-7,835	-7,835
	Motor Vehicles	Gasoline	5,087,358	4,713,440	-1,226,310	-1,600,228

Demand Factor Source: U.S. Environmental Protection Agency. Final Mandatory Reporting of Greenhouse Gases Rule Table C-1. October 2009.

Abbreviations: APU – Auxiliary Power Unit; GSE – Ground Support Equipment

### *Electricity and Natural Gas*

As shown in Tables 5-32 below, Alternative 4 would result in less electricity and natural gas consumption compared to the proposed project. When factoring in the square footage to be demolished, as shown Table 5-33, new buildings under Alternative 4 would have an electricity demand of approximately 27,218,640 kWh, compared with the proposed project, which would have an electricity demand of approximately 40,871,440 kWh per year.

Additionally, as with the proposed project, implementation of Alternative 4 would result in infrastructure facilitating the replacement of existing fossil fuel powered shuttles with electric powered shuttles. This would result in a reduction in operational dependence of fossil fuels and would result in a small increase in annual electrical demand that would be same as the proposed project, which is 485,061 kWh per year in 2050.

**Table 5-32: Electricity Demand Associated with New Construction – Proposed Project and Alternative 4**

Land Use <sup>a</sup>	New Construction (sq.ft.) <sup>b</sup>		Demand Factor (kWh per sq.ft.) <sup>c</sup>						Estimated Total Demand (kWh/year) <sup>d</sup>	
	Proposed Project	Alt 4	Title 24 Sources		Non-Title 24 Sources		Non-Title 24 Lighting Sources		Proposed Project	Alt 4
Terminal	,910,000	1,210,000	1,192,600	7,090,600	11,479,100	7,272,100	7,468,100	4,731,100	30,139,800	19,093,800
Office	150,000	150,000	699,000	699,000	745,500	745,500	751,500	571,500	2,016,000	2,016,000
Commercial Development Opportunity	400,000	-	1,272,000	0	1,264,000	0	2,488,000	0	5,024,000	0
Parking Structure	,780,000	2,250,000	10,897,600	8,820,000	528,200	427,500	4,865,000	3,937,500	16,290,800	13,185,000
<b>Total</b>	<b>,240,000</b>	<b>3,610,000</b>							<b>53,470,600</b>	<b>34,294,800</b>

Demand Factors source: CalEEMod. Appendix D Default Data, Table 8.1, Energy Use by Climate Zone and Land Use Type. October 2017.

Notes:

a. Land use types used to calculate electricity demand

Terminal – Office Park (includes general offices and support services such as restaurants and service stations)

Office – General Office Building

Commercial Development Opportunity – Regional Shopping Center (integrated group of commercial establishments)

Parking Structure – Enclosed Parking Structure with Elevator (includes lighting and ventilation and more than one story)

b. Square footage associated with the 12,000 square-foot expansion of the CUP that would occur under the proposed project and Alternative 4 is not included in the calculation, as the new CUP square footage would accommodate increased CUP capacity and would not increase energy demand.

c. Different demand factors are used for the following:

1. The Title 24 demand factor accounts for energy use from systems covered by California Code of Regulations Title 24, Part 6, including heating, ventilating, and air conditioning (HVAC) system, water heating system, and some types of fixed lighting systems.

2. The Non-Title 24 demand factors account for sources not covered by Title 24, such as office equipment, appliances, and plug-ins.

3. The Lighting demand factors account for lighting not covered under Title 24.

d. Estimated total demand includes demand generated by Title 24, non-Title 24, and non-Title 24 lighting sources.

e. Estimated electricity demand does not account for additional conservation measures that would be and are currently implemented by SDIA beyond those required by 2016 CALGreen.

Abbreviations:

sq.ft. – square feet; kWh – kilowatt hour

**Table 5-33: Electricity Demand Associated with Square Footage to be Demolished – Proposed Project and Alternative 4**

Land Use <sup>a</sup>	New Construction (sq.ft.) <sup>b</sup>		Demand Factor (kWh per sq.ft.) <sup>c</sup>						Estimated Total Demand (kWh/year) <sup>d</sup>	
	Proposed Project	Alternative 4	Title 24 Sources		Non-Title 24 Sources		Non-Title 24 Lighting Sources		Proposed Project	Alternative 4
			Proposed Project	Alt 4	Proposed Project	Alt 4	Proposed Project	Alt 4		
Terminal	686,000	336,000	4,019,960	1,968,960	4,122,860	2,019,360	2,682,260	1,313,760	10,825,080	5,302,080
Office	132,000	132,000	615,120	615,120	656,040	656,040	502,920	502,920	1,774,080	1,774,080
<b>Total</b>									<b>12,599,160</b>	<b>7,076,160</b>

Demand Factors source: CalEEMod. Appendix D Default Data, Table 8.1, Energy Use by Climate Zone and Land Use Type. October 2017.

Notes:

a. Land use types used to calculate electricity demand:

Office – General Office Building

Terminal – Office Park (includes general offices and support services such as restaurants and service stations)

b. Approximately 79,000 square feet of cargo uses, 75,000 square feet of maintenance uses, and 10,000 square feet of office uses would be demolished within the new T1 footprint under the proposed project and Alternative 4. These uses would be consolidated into new cargo facilities to be developed separate from the proposed project/Alternative 4. Although the consolidation of the uses and replacement of older construction with new more energy efficient construction is expected to result in a reduction in electricity demand and more efficient cargo movement due to the consolidation, because the cargo, maintenance, and office uses would be maintained at SDIA, the electricity demand associated with operation of these uses is assumed to stay the same with implementation of the proposed project or Alternative 4. Electricity demand associated with these cargo, maintenance, and office uses to be demolished is estimated to be 381,490 kWh per year.

c. Different demand factors are used for the following:

1. The Title 24 demand factor accounts for energy use from systems covered by California Code of Regulations Title 24, Part 6, including heating, ventilating, and air conditioning (HVAC) system, water heating system, and some types of fixed lighting systems.
2. The Non-Title 24 demand factors account for sources not covered by Title 24, such as office equipment, appliances, and plug-ins.
3. The Lighting demand factors account for lighting not covered under Title 24.

d. Estimated total demand includes demand generated by Title 24, non-Title 24, and non-Title 24 lighting sources.

Abbreviations:

sq.ft. – square feet; kWh – kilowatt hour

In addition to the electricity demand described above, indirect electricity demand associated with water supply and water treatment would be less as shown in Table 5-34.

**Table 5-34: Indirect Electricity Demand Associated with the Water Cycle – Proposed Project and Alternative 4**

	Estimated Demand/ Generation Increase over Existing Conditions (mgd)		Supply (kWh/mg)	Treatment (kWh/mg)	Distributio n (kWh/mg)	Total (kWh/yr)	
	Proposed Project	Alternative 4				Proposed Project	Alternative 4
Water	72	70	9,727	111	1,272	799,920	777,700
Wastewater	65	63	-	1,911	-	124,251	120,393
<b>Total</b>						<b>924,135</b>	<b>898,093</b>

Demand factor source: California Energy Commission. Refining Estimates of Water-Related Energy Use in California. Prepared by Navigant Consulting, Inc. December, 2006.

Notes:

mgd – million gallons per year

kWh/mg – kilowatt hours per million gallon

kWh/yr – kilowatt hours per year

When factoring in the square footage to be demolished, as shown Table 5-37, new buildings under Alternative 4 would have a natural gas demand of approximately 29,202,000 kBtu, compared with the proposed project, which would have an electricity demand of approximately 41,552,000 kBtu per year.

**Table 5-35: Natural Gas Demand Associated with New Construction – Proposed Project and Alternative 4**

Land Use <sup>a,b</sup>	New Construction (sq.ft.)		Demand Factor (kBtu per sq.ft.) <sup>c</sup>				Estimated Total Demand (kBtu/year) <sup>d</sup>	
	Proposed Project	Alternative 4	Title 24 Sources		Non-Title 24 Sources		Proposed Project	Alternative 4
			Proposed Project	Alt 4	Proposed Project	Alt 4		
Terminal	1,910,000	1,210,000	49,660,000	31,460,000	13,370,000	8,470,000	63,030,000	39,930,000
General Office	150,000	150,000	2,400,000	2,400,000	600,000	600,000	3,000,000	3,000,000
Commercial Development Opportunity	400,000	-	400,000	0	400,000	0	800,000	0
Parking Structure	2,780,000	2,250,000	0	0	0	0	0	0
<b>Total</b>	<b>5,240,000</b>	<b>3,610,000</b>					<b>66,830,000</b>	<b>42,930,000</b>

Demand Factors source: CalEEMod. Appendix D Default Data, Table 8.1, Energy Use by Climate Zone and Land Use Type. October 2017.

Notes:

a. Land use types used to calculate natural gas demand:

Terminal – Office Park (includes general offices and support services such as restaurants and service stations)

Office – General Office Building

Commercial Development Opportunity – Regional Shopping Center (integrated group of commercial establishments)

Parking Structure – Enclosed Parking Structure with Elevator (includes lighting and ventilation and more than one story)

b. Square footage associated with the 12,000 square-foot expansion of the CUP that would occur under the proposed project and Alternative 4 is not included in the calculation, as the new CUP square footage would accommodate increased CUP capacity and would not increase energy demand.

c. Different demand factors are used for the following:

1. The Title 24 demand factor accounts for energy use from systems covered by California Code of Regulations Title 24, Part 6, including heating, ventilating, and air conditioning (HVAC) system, water heating system, and some types of fixed lighting systems.

2. The Non-Title 24 demand factors account for sources not covered by Title 24, such as office equipment, appliances, and plug-ins.

3. The Lighting demand factors account for lighting not covered under Title 24.

d. Estimated total demand includes demand generated by Title 24, non-Title 24, and non-Title 24 lighting sources.

Abbreviations: sq.ft. – square feet; kBtu – British thermal unit

**Table 5-36: Natural Gas Demand Associated with Square Footage to be Demolished – Proposed Project and Alternative 4**

Land Use <sup>a,b</sup>	New Construction (sq.ft.)	Demand Factor (kBtu per sq.ft.) <sup>c</sup>	Estimated Total Demand
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							(kBtu/year) <sup>d</sup>	
	Proposed Project	Alternative 4	Title 24 Sources		Non-Title 24 Sources		Proposed Project	Alternative 4
			Proposed Project	Alt 4	Proposed Project	Alt 4		
Terminal	686,000	336,000	17,836,000	8,736,000	4,802,000	2,352,000	22,638,000	11,088,000
General Office	132,000	132,000	2,112,000	2,112,000	528,000	528,000	2,640,000	2,640,000
<b>Total</b>							<b>25,278,000</b>	<b>13,728,000</b>

Demand Factors source: CalEEMod. Appendix D Default Data, Table 8.1, Energy Use by Climate Zone and Land Use Type. October 2017.

Notes:

a. Land use types used to calculate natural gas demand:

Office – General Office Building

Terminal – Office Park (includes general offices and support services such as restaurants and service stations)

b. Approximately 79,000 square feet of cargo uses, 75,000 square feet of maintenance uses, and 10,000 square feet of office uses would be demolished within the new T1 footprint under the proposed project and Alternative 4. These uses would be consolidated into new cargo facilities to be developed separate from the proposed project/Alternative 4. Although the consolidation of the uses and replacement of older construction with new more energy efficient construction is expected to result in a reduction in natural gas demand and more efficient cargo movement due to the consolidation, because the cargo, maintenance, and office uses would be maintained at SDIA, the natural gas demand associated with operation of these uses is assumed to stay the same with implementation of the proposed project or Alternative 4. Natural gas demand associated with these cargo, maintenance, and office uses to be demolished is estimated to be 1,183,000 kBtu per year.

c. Different demand factors are used for the following:

1. The Title 24 demand factor accounts for energy use from systems covered by California Code of Regulations Title 24, Part 6, including heating, ventilating, and air conditioning (HVAC) system, water heating system, and some types of fixed lighting systems.

2. The Non-Title 24 demand factors account for sources not covered by Title 24, such as office equipment, appliances, and plug-ins.

3. The Lighting demand factors account for lighting not covered under Title 24.

d. Estimated total demand includes demand generated by Title 24, non-Title 24, and non-Title 24 lighting sources.

Abbreviations:

sq.ft.– square feet; kBtu – British thermal unit

**Table 5-37: Total Energy Demand Associated with Operation of Alternative 4 Compared with Operation of the Proposed Project**

	Transportation Related Fuel Consumption (gallons)			Electricity Demand (kWh)				Natural Gas Demand (kBtu)
	Jet A	Diesel	Gasoline	Electric Shuttles	Building-Related	Indirect Water Cycle	Total Demand	Building-Related
Existing Conditions <sup>a</sup>	25,590,154	1,184,231	6,313,667	0	12,599,160 <sup>a</sup>	N/A <sup>b</sup>	12,599,160	25,278,000 <sup>a</sup>
Proposed Project	40,589,026	1,319,785	5,808,884	484,300	53,470,600	924,135	53,954,900	66,830,000
<b>Proposed Project minus Existing Conditions</b>	<b>14,998,872</b>	<b>135,553</b>	<b>-504,784</b>	<b>484,300</b>	<b>40,871,440</b>	<b>924,135</b>	<b>41,355,740</b>	<b>41,552,000</b>
Existing Conditions <sup>a</sup>	25,590,154	1,184,231	6,313,667	0	7,076,160 <sup>a</sup>	N/A <sup>b</sup>	7,076,160	13,728,000 <sup>a</sup>
Alternative 4	40,142,051	1,319,785	5,411,845	484,300	34,294,800	898,093	27,702,940	42,930,000

<b>Alternative 4 minus Existing Conditions</b>	<b>14,551,897</b>	<b>135,553</b>	<b>-901,822</b>	<b>484,300</b>	<b>27,218,640</b>	<b>898,093</b>	<b>15,103,780</b>	<b>29,202,000</b>
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Demand factor source: California Energy Commission. Refining Estimates of Water-Related Energy Use in California.  
Prepared by Navigant Consulting, Inc. December, 2006.

Notes:

- a. Existing conditions for building related electricity and natural demand is associated with building square footage to be demolished as part of the proposed project or Alternative 4 only.
- b. Water use is calculated for the increase associated with the proposed project only, and does not account for existing water use.

mgd – million gallons per year

kWh/mgd – kilowatt hours per million gallon

kWh/yr – kilowatt hours per year

Energy and water conservation measures that would be implemented under the proposed project, including compliance with third-party rating systems and adherence to the SDIA's sustainability policies, would also be implemented under Alternative 4, however to a less degree because the existing T2-East would not be replaced with new more energy and water efficient construction and fixtures.

Therefore, while utility demand would be reduced under Alternative 4 as compared to the proposed project, neither Alternative 4 nor the proposed project would result in significant impacts related to utilities. Further, under Alternative 4, the water and energy-conservation benefits that would otherwise occur under the proposed project would also be reduced.

## 5.7 Summary Comparison of Alternatives

A comparative summary of the environmental impacts under each alternative with the environmental impacts associated with the proposed project is provided in Table 5-38. A more detailed description of the potential impacts associated with each alternative is provided above. Pursuant to Section 15126.6(c) of the State CEQA Guidelines, the analysis below addresses the ability of the alternatives to “avoid or substantially lessen one or more of the significant effects” of the proposed project.

**Table 5-38: Comparison of Impacts Associated with the Alternatives and Impacts of the Proposed Project**

Environmental Resource	Proposed Project Impact	Alternative 1: No Project	Alternative 2: Reduced Scale of Development	Alternative 3: Revised Implementation Phasing	Alternative 4: T1 Replacement and Transportation Improvements
<b>Aesthetics and Visual Resources</b>					
<b>Construction</b>	Less Than Significant	No Impact	Less Than Significant	Less Than Significant	Less Than Significant
<b>Operations</b>	Less Than Significant	No Impact	Less Than Significant	Less Than Significant	Less Than Significant
<b>Air Quality</b>					
<b>Construction</b>	Less Than Significant Project Impact; Significant and Unavoidable cumulatively considerable contribution to significant cumulative impact.	No Impact	Less Than Significant Project Impact; Significant and Unavoidable cumulatively considerable contribution to significant cumulative impact.	Less Than Significant Project Impact; Significant and Unavoidable cumulatively considerable contribution to significant cumulative impact.	Less Than Significant Project Impact; Significant and Unavoidable cumulatively considerable contribution to significant cumulative impact.
<b>Operations</b>	Significant and Unavoidable (VOCs, NO <sub>x</sub> , CO, and SO <sub>x</sub> ) Also, PM <sub>10</sub> emissions would be significant relative to contributing to ambient PM <sub>10</sub> concentrations, which already exceed the CAAQS.)	Significant and Unavoidable (VOCs, NO <sub>x</sub> , CO, PM <sub>10</sub> , and SO <sub>x</sub> ) (emissions greater than those of proposed project in all future years)	Significant and Unavoidable (VOCs, NO <sub>x</sub> , CO, PM <sub>10</sub> , and SO <sub>x</sub> ) (emissions slightly less than those of proposed project in all future years)	Significant and Unavoidable (VOCs, NO <sub>x</sub> , CO, PM <sub>10</sub> , and SO <sub>x</sub> ) (emissions generally greater than those of the proposed project in 2024 and 2026, and comparable to those of proposed project in 2030, 2035, and 2050)	Significant and Unavoidable (VOCs, NO <sub>x</sub> , CO, PM <sub>10</sub> , and SO <sub>x</sub> ) (emissions less than those of proposed project in all future years except 2024, and Alternative 4 would avoid the proposed project's exceedance of the CO threshold in 2050)
<b>Greenhouse Gas Emissions</b>					
<b>Construction and Operations</b>	Significant and Unavoidable	Significant and Unavoidable (no construction GHG emissions; greater operational GHG emissions than proposed project in all future years)	Significant and Unavoidable (reduced construction GHG emissions; slightly reduced operational GHG emissions compared to proposed project)	Significant and Unavoidable (slightly greater construction GHG emissions; slightly reduced operational GHG emissions compared to proposed project in 2024, comparatively greater GHG emissions in 2026 and 2030, and the same GHG emissions as those of the proposed project in 2035 and 2050)	Significant and Unavoidable (reduced construction GHG emissions; reduced operational GHG emissions compared to proposed project in all future years)
<b>Human Health Risk</b>					

**Table 5-38: Comparison of Impacts Associated with the Alternatives and Impacts of the Proposed Project**

Environmental Resource	Proposed Project Impact	Alternative 1: No Project	Alternative 2: Reduced Scale of Development	Alternative 3: Revised Implementation Phasing	Alternative 4: T1 Replacement and Transportation Improvements
<b>Construction</b>	Less Than Significant	No Impact	Less Than Significant	Less Than Significant	Less Than Significant
<b>Operations</b>	Less Than Significant with mitigation	Significant and Unavoidable	Less Than Significant with mitigation	Less Than Significant with mitigation	Less Than Significant with mitigation
<b>Biological Resources</b>					
<b>Construction</b>	Less Than Significant with mitigation	No Impact	Less Than Significant with mitigation	Less Than Significant with mitigation	Less Than Significant with mitigation
<b>Operations</b>	Less Than Significant with mitigation	Less Than Significant	Less Than Significant with mitigation	Less Than Significant with mitigation	Less Than Significant with mitigation
<b>Cultural Resources</b>					
<b>Construction</b>	Significant and Unavoidable	No Impact	No Impact	Significant and Unavoidable (same as those of the proposed project)	Significant and Unavoidable (would avoid the unavoidable significant impact to one historic resource (T2-East) that would occur with implementation of the proposed project)
<b>Operations</b>	No Impact	No Impact	No Impact	No Impact	No Impact
<b>Tribal Cultural Resources</b>					
<b>Construction</b>	Less Than Significant	No Impact	Less Than Significant	Less Than Significant	Less Than Significant
<b>Operations</b>	No Impact	No Impact	No Impact	No Impact	No Impact
<b>Geology and Soils</b>					
<b>Construction</b>	Less Than Significant	No Impact	Less Than Significant	Less Than Significant	Less Than Significant
<b>Operations</b>	Less Than Significant	Less Than Significant	Less Than Significant	Less Than Significant	Less Than Significant
<b>Hazards and Hazardous Materials</b>					
<b>Construction</b>	Less Than Significant with mitigation	No impact	Less Than Significant with mitigation	Less Than Significant with mitigation	Less Than Significant with mitigation
<b>Operations</b>	Significant and Unavoidable	Significant and Unavoidable (impacts would be	Significant and Unavoidable (impacts	Significant and Unavoidable (impacts would be	Significant and Unavoidable (impacts

**Table 5-38: Comparison of Impacts Associated with the Alternatives and Impacts of the Proposed Project**

Environmental Resource	Proposed Project Impact	Alternative 1: No Project	Alternative 2: Reduced Scale of Development	Alternative 3: Revised Implementation Phasing	Alternative 4: T1 Replacement and Transportation Improvements
		comparable to those of proposed project)	would be comparable to those of proposed project)	comparable to those of proposed project)	would be comparable to those of proposed project)
<b>Hydrology and Water Quality</b>					
<b>Construction</b>	Less Than Significant	No Impact	Less Than Significant	Less Than Significant	Less Than Significant
<b>Operations</b>	Less Than Significant	Less Than Significant	Less Than Significant	Less Than Significant	Less Than Significant
<b>Land Use/Planning</b>					
<b>Construction</b>	Less Than Significant	No Impacts	Less Than Significant	Less Than Significant	Less Than Significant
<b>Operations</b>	Significant and Unavoidable	Significant and Unavoidable (noise and traffic impacts would be worse than those of proposed project)	Significant and Unavoidable (noise and traffic impacts would be comparable to those of proposed project)	Significant and Unavoidable (noise and traffic impacts would be comparable to those of proposed project)	Significant and Unavoidable (noise impacts would be comparable to those of proposed project; traffic impacts would be less than those of the proposed project)
<b>Noise</b>					
<b>Construction</b>	Less Than Significant	No Impact	Less Than Significant	Less Than Significant	Less Than Significant
<b>Operations – Aircraft Noise</b>	Significant and Unavoidable	Significant and Unavoidable (impacts would be comparable to those of proposed project)	Significant and Unavoidable (impacts would be comparable to those of proposed project)	Significant and Unavoidable (impacts would be comparable to those of proposed project)	Significant and Unavoidable (impacts would be comparable to those of proposed project)
<b>Operations – Roadway Noise</b>	Significant and Unavoidable	Significant and Unavoidable (impacts would be comparable to those of the proposed project)	Significant and Unavoidable (impacts would be comparable to those of proposed project)	Significant and Unavoidable (impacts would be comparable to those of proposed project)	Significant and Unavoidable (impacts would be generally comparable to those of proposed project, although one significant roadway noise impact of the proposed project in 2030 would be avoided under Alternative 4)
<b>Public Services</b>					



**Table 5-38: Comparison of Impacts Associated with the Alternatives and Impacts of the Proposed Project**

Environmental Resource	Proposed Project Impact	Alternative 1: No Project	Alternative 2: Reduced Scale of Development	Alternative 3: Revised Implementation Phasing	Alternative 4: T1 Replacement and Transportation Improvements
<b>Construction</b>	Less Than Significant	No Impact	Less Than Significant	Less Than Significant	Less Than Significant
<b>Operations</b>	Less Than Significant	Less Than Significant	Less Than Significant	Less Than Significant	Less Than Significant
<b>Traffic/Circulation</b>					
<b>Construction</b>	Significant and Unavoidable	No Impact	Significant and Unavoidable (intersection impacts less than those of proposed project)	Significant and Unavoidable	Significant and Unavoidable (duration of construction impacts and intersection impacts less than those of proposed project)
<b>Operations</b>	Significant and Unavoidable	Significant and Unavoidable (impacts would be worse than those of proposed project)	Significant and Unavoidable (impacts would be comparable to those of proposed project)	Significant and Unavoidable (impacts would be comparable to those of proposed project)	Significant and Unavoidable (impacts would be less than those of proposed project)
<b>Utilities</b>					
<b>Construction</b>	Less Than Significant	No Impact	Less Than Significant	Less Than Significant	Less Than Significant
<b>Operations</b>	Less Than Significant	Less than Significant	Less Than Significant	Less Than Significant	Less Than Significant

Source: CDM Smith, 2018.

As depicted in Table 5-38, Alternative 1, the No Project Alternative, would avoid all of the construction-related impacts of the proposed project, but would have greater operations-related impacts than those of the proposed project, particularly with regard to air quality, GHG, and human health risk impacts.

For Alternative 2, Reduced Scale of Development, the construction impacts would, for most environmental issue areas, be comparable to those of the proposed project; however, GHG emissions would be less, and relative to historic resources, Alternative 2 would avoid the significant impacts of the project and, relative to construction-related traffic, would reduce significant impacts, including avoiding the significant construction traffic impacts projected to occur from the proposed project in development phases 1b, 2a, and 2b. The operations-related impacts of Alternative 2 would be generally comparable to those of the proposed project; however, air pollutant emissions and GHG emissions would be slightly reduced compared to the proposed project.

For Alternative 3, Revised Phasing Implementation, the construction impacts would, overall, be comparable to those of the proposed project, as would also the operations-related impacts.

For Alternative 4, T1 Replacement and Transportation Improvements, the construction-related impacts would be less than those of the proposed project, particularly as related to air quality, GHG emissions, and traffic. Additionally, Alternative 4 would avoid the unavoidable significant impact to one historic resource (T2-East) that would occur with implementation of the proposed project. The operations-related impacts of Alternative 4 would also be less than those of the proposed project with respect to air quality (including avoiding the proposed project's exceedance of the CO threshold in 2050), GHG emissions and traffic. Additionally, one significant roadway noise impact of the proposed project in 2030 would be avoided under Alternative 4.

## 5.8 Environmentally Superior Alternative

Section 15126.6(e)(2) of the State CEQA Guidelines indicates that an analysis of alternatives to a proposed project shall identify an environmentally superior alternative among the alternatives evaluated in an EIR. The State CEQA Guidelines also state that should it be determined that the No Project Alternative is the environmentally superior alternative, the EIR shall identify another environmentally superior alternative among the remaining alternatives. With respect to identifying an environmentally superior alternative among those analyzed in this EIR, the range of alternatives includes: Alternative 1: No Project; Alternative 2: Reduced Scale of Development; Alternative 3: Revised Implementation Phasing; and Alternative 4: T1 Replacement and Transportation Improvements. The following evaluates each alternative relative to being the environmentally superior alternative.

### **Alternative 1: No Project**

Alternative 1: No Project would avoid all the construction-related impacts of the proposed project; however, most of the proposed project's construction impacts are less than significant, with the exception of GHG emissions (when combined with operations-related impacts), construction-related traffic impacts, and a significant and unavoidable cumulatively considerable contribution to significant air quality cumulative impact. Moreover, several operational impacts of the No

Project Alternative, including those related to human health risk and air quality and GHG emissions, would be greater than the unavoidable significant impacts of the proposed project. Alternative 1 would not result in any terminal, roadway, airfield, or other improvements that would occur under the proposed project to improve operational efficiency and environmental sustainability, and better accommodate future activity levels and coordinating of transit services and facilities, and therefore, would not meet any of the Project Objectives.

### **Alternative 2: Reduced Scale of Development**

Implementation of Alternative 2: Reduced Scale of Development would result in construction-related impacts that would, for most environmental issue areas, be generally comparable to those of the proposed project; however, relative to historic resources, Alternative 2 would avoid the significant impacts of the project, and, relative to construction-related traffic and GHG emissions, would reduce significant impacts. The operations-related impacts of Alternative 2 would be generally comparable to those of the proposed project; however, air pollutant emissions and GHG emissions would be slightly reduced compared to the proposed project. Overall, in comparison to the other alternatives, Alternative 2 is the environmentally superior alternative. Implementation of Alternative 2 would not, however, meet most of the Project Objectives. The following summarizes the relationship between Alternative 2 and the Project Objectives.

- Goal: Develop passenger terminal facilities to efficiently accommodate future activity levels and maintain high levels of passenger satisfaction that reflect the local feel and uniqueness of San Diego. *Alternative 2 – Development of a new stand-alone terminal east of existing T1 would provide a limited improvement to passenger service and efficiency, but SDIA would still rely on the existing T1 which is relatively old and inefficient, and would not provide the quality of passenger satisfaction that SDCRAA is seeking for both existing and future activity levels.*
  - Objectives:
    - Maintain appropriate level of service on the curbside, security checkpoints, passenger holdrooms, and bag claim areas. *Alternative 2 – Existing T1, as retained under Alternative 2, would provide less than desired levels of service based on limitations associated with the existing size and design of the T1 facilities, although development of the new stand-alone terminal would help compensate for those limitations.*
    - Optimize airport concessions to meet demand and generate revenue for SDIA. *Alternative 2 – This objective could be met under Alternative 2.*
    - Minimize walking distances and mode changes from curbside to aircraft gate. *Alternative 2 – The design of the stand-alone terminal under Alternative 2 has an elongated concourse that extends well east of the passenger processing area and curbside, which would not meet the objective to minimize walking distances. Additionally, its physical separation from T1 and T2 would require passengers on connecting flights to or from those other terminals to walk quite a distance or would require bussing of connecting passengers between terminals.*

- Address T1 functional deficiencies, including replacement if necessary. *Alternative 2 – This objective would not be met under Alternative 2.*
- Develop a plan that can be implemented in a phased manner. *Alternative 2 – This objective could be met under Alternative 2.*
- Make the terminal a showplace of functionality and design that reflects the local feel and uniqueness of San Diego. *Alternative 2 – The new stand-alone terminal could meet this objective; however, retaining the existing T1 under Alternative 2 would not respond to the objective relative to a showplace of functionality and design.*
- Goal: Plan for an operationally efficient airfield that meets FAA standards
  - Objectives:
    - Improve and optimize airfield configuration for safety, efficiency, and capacity. *Alternative 2 – Retaining the existing T1 under Alternative 2 would substantially limit the proposed improvement of Taxiway A (i.e., the end gates on T1 are located where the new Taxiway A extension is proposed); hence, the ability to achieve this objective would be compromised.*
    - Develop a plan to eliminate any existing modifications to standards as soon as feasibly practical and do not create conditions warranting additional modifications or waivers from the FAA. *Alternative 2 – Alternative 2 does not affect this objective.*
    - Provide flexibility to respond to future aircraft, technology, and industry changes. *Alternative 2 – Alternative 2 does not affect this objective.*
- Goal: Provide a plan that is fiscally and environmentally sustainable. *Alternative 2 – Retaining existing T1, which relatively old and inefficient, requiring substantial maintenance and upkeep, is not considered to be fiscally or environmentally sustainable.*
  - Objectives:
    - Wherever prudent, make use of existing facilities through renewal or modernization to meet future demand. *Alternative 2 – Based on the age, condition, size, and nature of existing T1, renewal and modernization of that facility, in lieu of replacement, is not considered prudent. Further, the footprint of existing T1 cannot be modified to accommodate an increase in the number of security screening lanes without a major structural modification that would affect the number of gates.*
    - Ensure the development plan is fiscally responsible from both the capital and operational cost perspectives. *Alternative 2 – Based on the age, condition, size, and nature of existing T1, renewal and modernization of that facility, in lieu of replacement, is not considered fiscally responsible from an operational cost perspective.*
    - Provide plans that will diversify airport revenues and strengthen the financial position of SDIA. *Alternative 2 – Similar to above, the long-term costs of ongoing*

*maintenance and operation associated with retaining existing T1, instead of replacing it, would not strengthen the financial position of the Airport.*

- Maximize funding resources through appropriate facility planning. *Alternative 2 – Same as above.*
- Continue to implement sustainability measures at SDIA, and monitor and report on those measures consistent with Global Reporting Initiative (GRI) Sustainability Reporting Standards. *Alternative 2 – Alternative 2 does not affect this objective.*
- Goal: Optimize the productive use of SDIA properties.
  - Objectives:
    - Maximize non-airline revenues. *Alternative 2 – Alternative 2 does not affect this objective.*
    - Identify opportunities for increased commercial utilization. *Alternative 2 – Alternative 2 does not affect this objective.*
- Goal: Provide a plan that meets the aviation need of the San Diego region in a socially responsible manner.
  - Objectives:
    - Support increases in air service demand for commercial passenger service to meet the needs of the San Diego regional economy and businesses. *Alternative 2 – Alternative 2 could meet this objective.*
    - Implement airport improvements in a sustainable manner and consider the total cost of ownership including financial, environmental, and social costs. *Alternative 2 – Based on the age, condition, size, and nature of existing T1, renewal and modernization of that facility, in lieu of replacement, implementation of Alternative 2 is not considered to provide for airport improvements in a sustainable manner and considers the total cost of ownership.*
- Goal: Improve ground access to SDIA, including coordination of transit service and facilities that interface with regional systems, and accommodate parking demand. *Alternative 2 – Alternative 2 would provide for improved ground access with the new on-airport roadway and includes a new surface lot for parking nearby, but does not provide improvements to enhance transit service.*
  - Objectives:
    - Provide enhanced vehicular access from Harbor Drive to SDIA. *Alternative 2 – Alternative 2 meets this objective.*



- Improve mobility for private vehicles, transit users, and bicyclist/pedestrians along the North Harbor Drive corridor. *Alternative 2 – Alternative 2 does not meet this objective.*
- Improve transit connections to the existing transit system planned by the San Diego Association of Governments (SANDAG) and operated by the San Diego Metropolitan Transit System (MTS) including bus shuttle service to light rail stations and transit centers (Santa Fe Depot and Old Town Transit Centers). *Alternative 2 – Alternative 2 does not meet this objective.*
- Accommodate demand for short-term and long-term parking spaces on- airport to ensure sufficient passenger satisfaction and appropriate revenue generation. *Alternative 2 – Alternative 2 includes a new surface lot for parking nearby.*

In summary, Alternative 2 could avoid or reduce certain significant impacts associated with the proposed project, but would not meet most of the project objectives.

### **Alternative 3: Revised Implementation Phasing**

Implementation of Alternative 3 does not avoid or reduce the significant impacts of the project. Alternative 3 includes all the elements of the proposed project but with modified phasing. Therefore, as with the proposed project, it would meet all the Project Objectives. However, the timing on meeting several of the objectives would change. For example, under Alternative 3, the completion of the new T1 would occur in Phase 2a, instead of Phase 1b as would occur under the proposed project. Therefore, while Alternative 3 would still meet the objective of addressing T1 functional deficiencies, the completion of the new T1 improvements would occur in 2030 under Alternative 3, instead of 2026 as would occur under the proposed project.

### **Alternative 4: T1 Replacement and Transportation Improvements**

Implementation of Alternative 4: T1 Replacement and Transportation Improvements, would result in construction-related impacts that would, for most environmental issue areas, be generally comparable to those of the proposed project; however, relative to construction-related air pollutant emissions, would reduce significant impacts. The operations-related impacts of Alternative 4 would be less than those of the proposed project relative to traffic, air quality, greenhouse gas, cultural resources, and noise. Implementation of Alternative 4 would meet all of the Project Objectives, as summarized below.

- Goal: Develop passenger terminal facilities to efficiently accommodate future activity levels and maintain high levels of passenger satisfaction that reflect the local feel and uniqueness of San Diego. *Alternative 4 – As with the proposed project, the new T1 would provide improvement to passenger service and efficiency. No new stinger would be constructed and no improvements to T2 would occur under Alternative 4, although interior renovations and upgrades would likely occur in the future as normal business practice.*
- Objectives:

- Maintain appropriate level of service on the curbside, security checkpoints, passenger holdrooms, and bag claim areas. *Alternative 4 – the new T1 would provide the desired levels of service.*
  - Optimize airport concessions to meet demand and generate revenue for SDIA. *Alternative 4 – This objective could be met under Alternative 4.*
  - Minimize walking distances and mode changes from curbside to aircraft gate. *Alternative 4 – the design of the new T1 would meet this objective, although not linear concourse between the new T1 and the existing T2-West would be implemented.*
  - Address T1 functional deficiencies, including replacement if necessary. *Alternative 4 – this objective would be met under Alternative 4 through the replacement of the existing T1 with a new T1.*
  - Develop a plan that can be implemented in a phased manner. *Alternative 4 – This objective would be met under Alternative 4.*
  - Make the terminal a showplace of functionality and design that reflects the local feel and uniqueness of San Diego. *Alternative 4 – the new T1 would meet this objective.*
- Goal: Plan for an operationally efficient airfield that meets FAA standards
    - Objectives:
      - Improve and optimize airfield configuration for safety, efficiency, and capacity. *Alternative 4 – Alternative 4 would meet this objective.*
      - Develop a plan to eliminate any existing modifications to standards as soon as feasibly practical and do not create conditions warranting additional modifications or waivers from the FAA. *Alternative 4 – Alternative 4 does not affect this objective.*
      - Provide flexibility to respond to future aircraft, technology, and industry changes. *Alternative 4 – Alternative 4 does not affect this objective.*
  - Goal: Provide a plan that is fiscally and environmentally sustainable. *Alternative 4– Replacing the existing T1, which relatively old and inefficient, with new environmentally efficient construction would meet this objective. Although there would be no improvements to T2-East under Alternative 4, interior renovations and upgrades would likely occur in the future as a normal business practice.*
    - Objectives:
      - Wherever prudent, make use of existing facilities through renewal or modernization to meet future demand. *Alternative 4 – Based on the age, condition, size, and nature of existing T1, renewal and modernization of that facility, in lieu of replacement, is not considered prudent. Further, the footprint of existing T1 cannot be modified to accommodate an increase in the number of security screening lanes without a major structural modification that would affect the number of gates. As*

*such, replacement of T1 with a new facility is more appropriate. There would be no improvements to T2-East under Alternative 4, however, interior renovations and upgrades would likely occur in the future as a normal business practice.*

- Ensure the development plan is fiscally responsible from both the capital and operational cost perspectives. *Alternative 4 – the replacement of T1 with a new facility and the resultant reduction of long-term costs of ongoing maintenance and operation, as compared with retaining the existing T1, would strengthen the financial position of the Airport.*
  - Provide plans that will diversify airport revenues and strengthen the financial position of SDIA. *Alternative 4 – Same as above, Alternative 4 would meet this objective.*
  - Maximize funding resources through appropriate facility planning. *Alternative 4 – Same as above, Alternative 4 would meet this objective.*
  - Continue to implement sustainability measures at SDIA, and monitor and report on those measures consistent with Global Reporting Initiative (GRI) Sustainability Reporting Standards. *Alternative 4 – the replacement of the existing T1 with new construction that exceeds the State of California’s current energy efficiency requirements would meet this goal.*
- Goal: Optimize the productive use of SDIA properties.
    - Objectives:
      - Maximize non-airline revenues. *Alternative 4 – Alternative 4 does not affect this objective.*
      - Identify opportunities for increased commercial utilization. *Alternative 4 – Alternative 4 does not affect this objective.*
  - Goal: Provide a plan that meets the aviation need of the San Diego region in a socially responsible manner.
    - Objectives:
      - Support increases in air service demand for commercial passenger service to meet the needs of the San Diego regional economy and businesses. *Alternative 4 – Alternative 4 meets this objective.*
      - Implement airport improvements in a sustainable manner and consider the total cost of ownership including financial, environmental, and social costs. *Alternative 4 – Alternative 4 would provide for airport improvements in a sustainable manner and considers the total cost of ownership.*
  - Goal: Improve ground access to SDIA, including coordination of transit service and facilities that interface with regional systems, and accommodate parking demand. *Alternative 4 –*

*Alternative 4 would provide for improved ground access with the new on-airport roadway and parking structure. Additionally, Alternative 4 provides improvements to enhance transit service. In addition to transit improvements that would occur under the proposed project, Alternative 4 includes preservation of a portion of SDIA as a “transit-ready” area to accommodate potential future regional transit system improvements that would link to SDIA.*

– Objectives:

- Provide enhanced vehicular access from Harbor Drive to SDIA. *Alternative 4 – Alternative 4 meets this objective.*
- Improve mobility for private vehicles, transit users, and bicyclist/pedestrians along the North Harbor Drive corridor. *Alternative 4 – Alternative 4 meets this objective.*
- Improve transit connections to the existing transit system planned by the San Diego Association of Governments (SANDAG) and operated by the San Diego Metropolitan Transit System (MTS) including bus shuttle service to light rail stations and transit centers (Santa Fe Depot and Old Town Transit Centers). *Alternative 4 – Alternative 4 meets this objective.*
- Accommodate demand for short-term and long-term parking spaces on- airport to ensure sufficient passenger satisfaction and appropriate revenue generation. *Alternative 4 – Alternative 4 includes a parking structure and would meet this objective.*