July 1, 2021 |

Los Angeles International Airport

Analysis of the Terminal 4 Headhouse as a part of the LAX Landside Access Modernization Program

Prepared for:

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TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF TABLES

LIST OF EXHIBITS

1. PURPOSE

Los Angeles World Airports (LAWA) is modernizing Los Angeles International Airport (LAX or the Airport) to enhance passenger level of service through a series of improvements to LAX facilities and redevelopment of the ground access system to the Airport, including the local roadway network and connections to regional rail and transit. On March 2, 2017, the LAWA Board of Airport Commissioners (BOAC) certified the LAX Landside Access Modernization Program (Project) Final Environmental Impact Report (EIR), pursuant to the California Environmental Quality Act (CEQA), and this certification was subsequently affirmed on June 7, 2017, by the Los Angeles City Council. The certified Final EIR for the LAX Landside Access Modernization Program ("certified Final EIR") contained a project-level analysis of the LAX Landside Access Modernization Program Project, and a program-level analysis of the potential future related development that may occur on land that would become available after construction of Phase 1 of the Project.

Subsequent to certification of the certified Final EIR, BOAC considered an addendum (Addendum 1) to the Project to address inclusion of up to four backup power generators for the Automated People Mover (APM) system; addition of three emergency access point locations and one crossover switch on the APM system; additional billboard and parcel acquisition; relocation of the existing Security Badge Office (SBO) to space within the previously approved Intermodal Transportation Facility (ITF) West; merging of an alleyway east of the APM Maintenance and Storage Facility; and modification of Vesting Tract Map VTTM 73422. LAWA also considered the effects of initiating construction on residences or school children prior to the completion of parcel acquisition within the Manchester Square area. Addendum 1 was certified by BOAC on September 20, 2018.

During detailed design analysis conducted for the APM walkway systems and the vertical core between Terminal 4 (T4) and Terminal 5 (T5) to support the APM walkway system connections, LAWA concluded that demolition and reconstruction of the T4 East and Center Headhouse structures would be necessary to seamlessly connect and accommodate the vertical core for the APM walkway system connections, and to maintain functionality and passenger level of service. Specifically, the location established for the T4/T5 vertical core directly impacted the existing T4 inbound and outbound domestic baggage handling system (BHS) and American Airlines Baggage Operations, requiring demolition of two of the four existing baggage claim devices and associated inbound feed belts, along with other critical American Airlines and LAWA operational spaces. In addition, the American Airlines operations on the apron ramp adjacent to the T4 East Headhouse lost half of the existing baggage handling inbound work area. The T4/T5 vertical core provides no connection to the T4 Headhouse concourse level (Level 3), where the T4 Security Screening Checkpoint (SSCP) and offices are located, nor to Level 4, where airline offices are located.

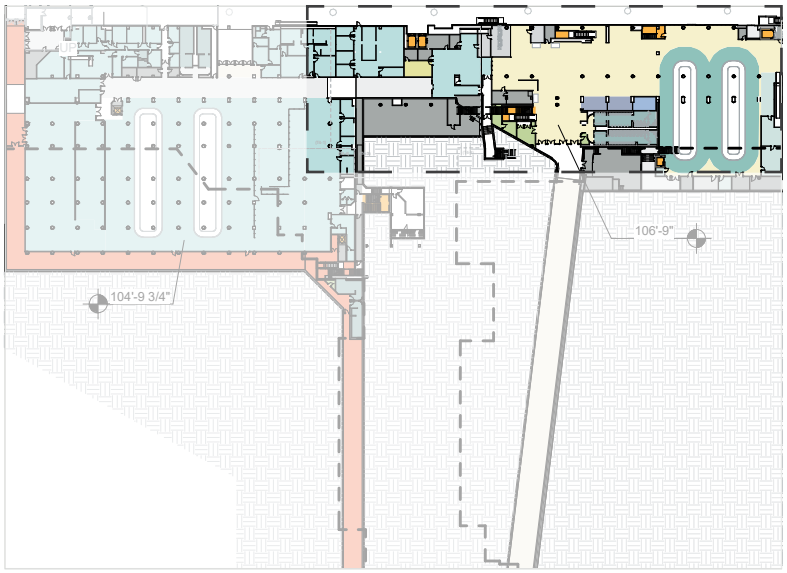
In order to accommodate the lost baggage handling functions and maintain passenger flows to the T4 SSCP and T4 Concourse (where passenger gates are located), portions of the T4 East and Center Headhouse structures need to be reconfigured and expanded. The expansion and reconfiguration of these areas triggers mandatory seismic strengthening to meet current seismic code. Retrofitting the existing T4 East Headhouse structure to meet current seismic code is not feasible; while the existing T4 Headhouse structures (T4 East Headhouse, T4 Central Headhouse, and T4 West Headhouse) are designed as separate structures above the Departures level (Level 2), they transfer their seismic forces to a common structure below the Departures level. Thus, no segment of the Headhouse structure can be structurally modified without affecting the adjacent structures. The proposed demolition and reconstruction of the T4 East and Center Headhouse structures would include reconfiguration of existing headhouse space to accommodate distribution of passengers and employees from the vertical core to a centralized SSCP at Terminal 4 and Terminal 5 via a secure connector between T4 and T5.

An analysis of the modifications to the T4 East and Center Headhouse structures and the T4 to T5 connector (Proposed Modifications) are provided below. For clarity, the T4 East and Center Headhouse structures will be reconfigured into one structural component, which shall become the T4 East Headhouse. The certified Final EIR, along with Addendum 1, serve as the environmental review of the proposed Project pursuant to the provisions of CEQA, Public Resources Code Section 21000 *et seq.*, and state and local CEQA guidelines.[1] The Proposed Modifications include the following:

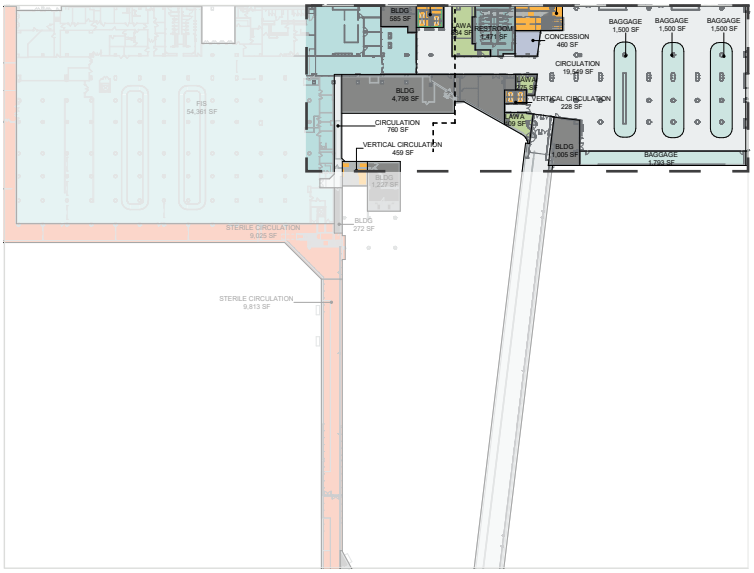
- Demolition of the approximately 94,600 square-feet of the T4 East and Center Headhouse structures. The existing T4 East and Center Headhouse structures would be largely demolished above the lowest existing level, the Arrivals Level (Level 1), to accommodate reconstruction of the internal building support structure to meet current seismic code and to accommodate connections to the vertical core, APM walkways, and T4 Concourse.
- Reconstruction of a five-level, approximately 217,400 square-foot T4 East Headhouse (see **Exhibit 1A** through **1E**). Reconstruction of the T4 East Headhouse would increase the Departures level, Concourse level, SSCP (Level 4), and Roof (Level 5) floor plates, resulting in a gross floor area increase of approximately 60 percent within the existing building footprint. The increased floor area would accommodate a new consolidated SSCP; enhancements to the landside and airside concessions program within the T4 East Headhouse; new airline and airport offices and support space; Transportation Security Administration and law enforcement (security services) offices and support space; connections to the T4/T5 vertical core; connections to the T4 concourse; and new passenger check-in and baggage claim facilities on the Departures and Arrivals Levels respectively. The reconstructed T4 East Headhouse would comply with the LAX Terminal Core and Façade Design requirements
- Construction of an approximately 3,500 square-foot T4 to T5 connector. A new secure airside connection would be constructed between T4/ T5 vertical core and T5 to allow screened outbound passengers secure circulation between T4 and T5 at the concourse level (see **Exhibit 2**).

[1] California Administrative Code, Title 14, Division 6, Chapter 3, Sections 15000-15387, *Guidelines for Implementation of the California Environmental Quality Act.*

EXISTING LEVEL 1



PROPOSED LEVEL 1



LEGEND

Modification Area

SOURCE: PGAL, April 2020; PGAL, March 2021.

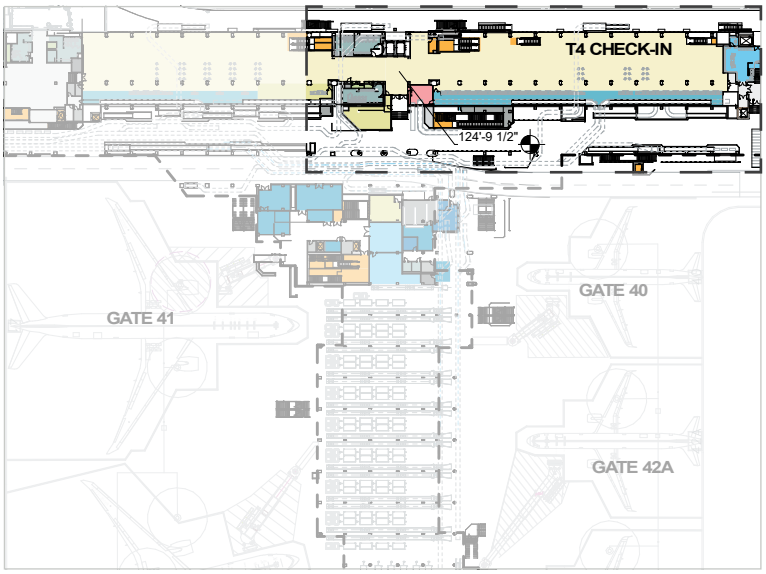
NORTH 0 00,000 ft.

EXHIBIT 1A

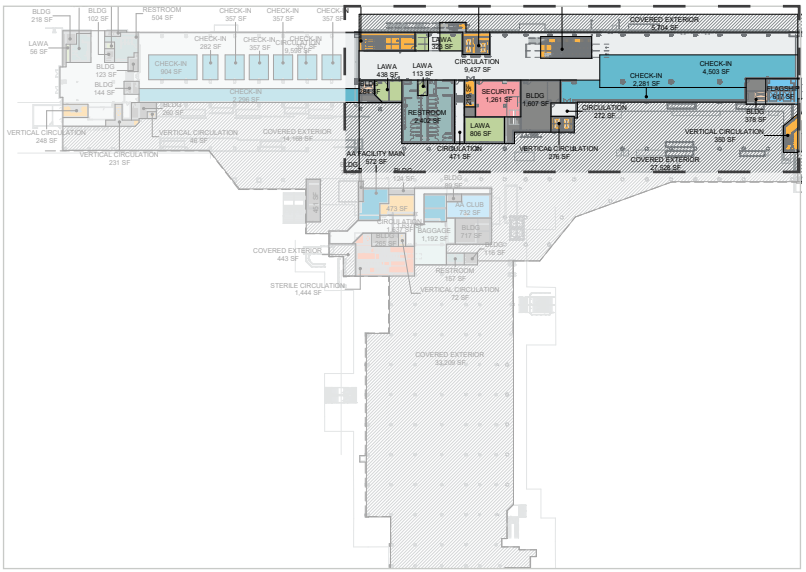
TERMINAL 4 EAST HEADHOUSE LEVEL 1 – ARRIVALS
(EXISTING VS. PROPOSED)

ricondo:Shared:oDrive:Corporate:Creative Services:01 Projects:01 Client Projects:2021:LAX:14140862-23-8_Exhibits:14140862-23-8_LAX_LAWA_Exhibits_V2.indd

EXISTING LEVEL 2



PROPOSED LEVEL 2



LEGEND

Modification Area

SOURCE: PGAL, April 2020; PGAL, March 2021.

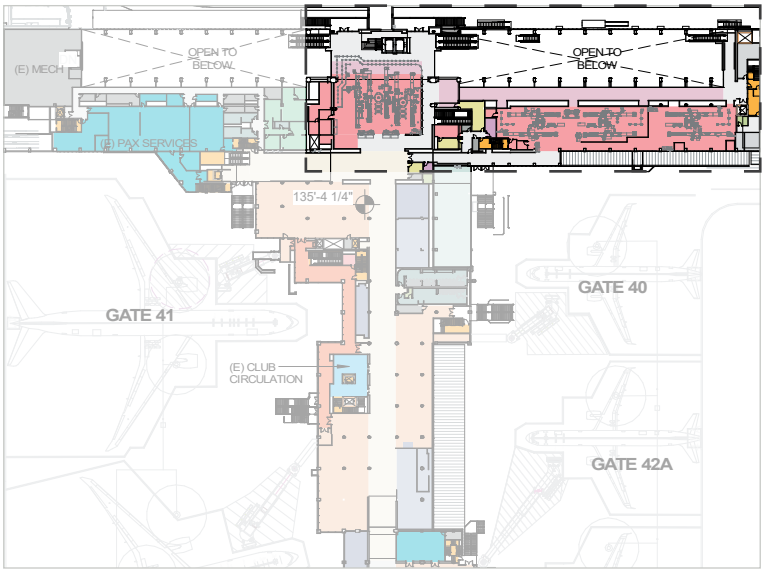
NORTH 0 00,000 ft.

EXHIBIT 1B

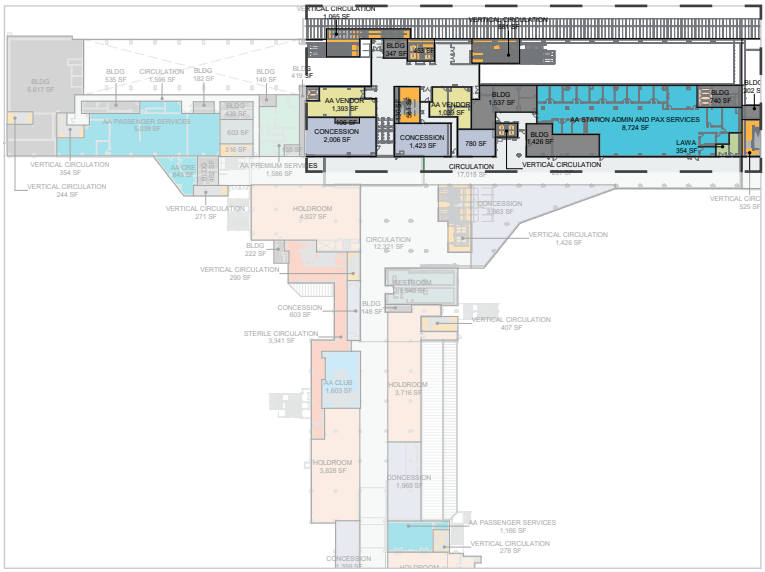
TERMINAL 4 EAST HEADHOUSE LEVEL 2 – DEPARTURES (EXISTING VS. PROPOSED)

ricondo:Shared:oDrive:Corporate:Creative Services:01 Projects:01 Client Projects:2021:LAX:14140862-23-8_Exhibits:14140862-23-8_LAX_LAWA_Exhibits_V2.indd

EXISTING LEVEL 3



PROPOSED LEVEL 3



LEGEND

Modification Area

SOURCE: PGAL, April 2020; PGAL, March 2021.

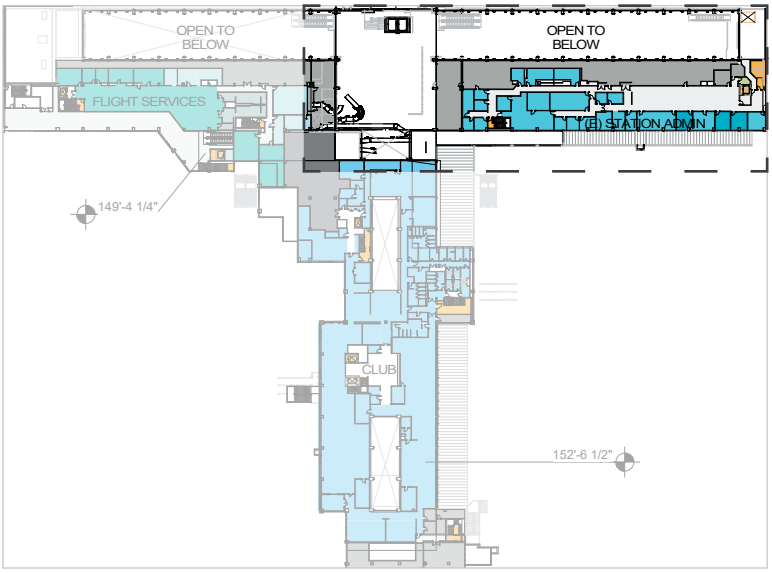
NORTH 0 00,000 ft.

EXHIBIT 1C

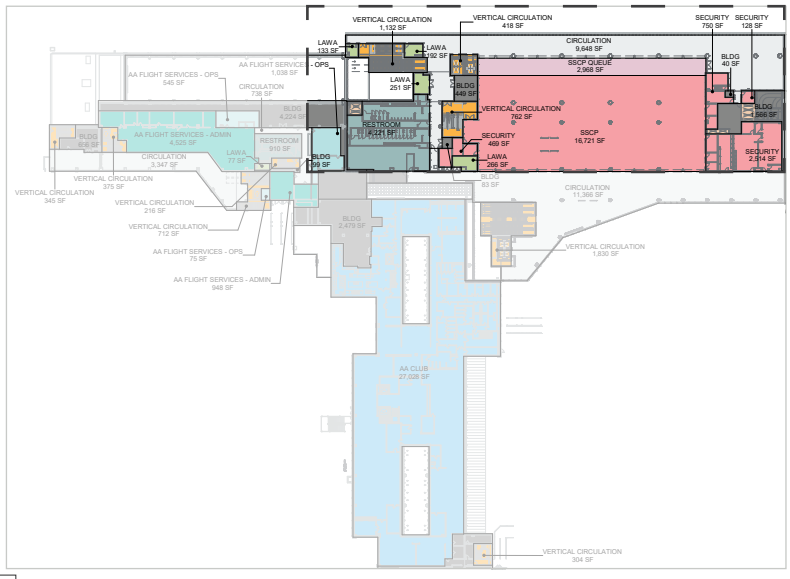
TERMINAL 4 EAST HEADHOUSE LEVEL 3 – CONCOURSE (EXISTING VS. PROPOSED)

ricondo:Shared:oDrive:Corporate:Creative Services:01 Projects:01 Client Projects:2021:LAX:14140862-23-8_Exhibits:14140862-23-8_LAX_LAWA_Exhibits_V2.indd

EXISTING LEVEL 4



PROPOSED LEVEL 4



LEGEND

Modification Area

SOURCE: PGAL, April 2020; PGAL, March 2021.

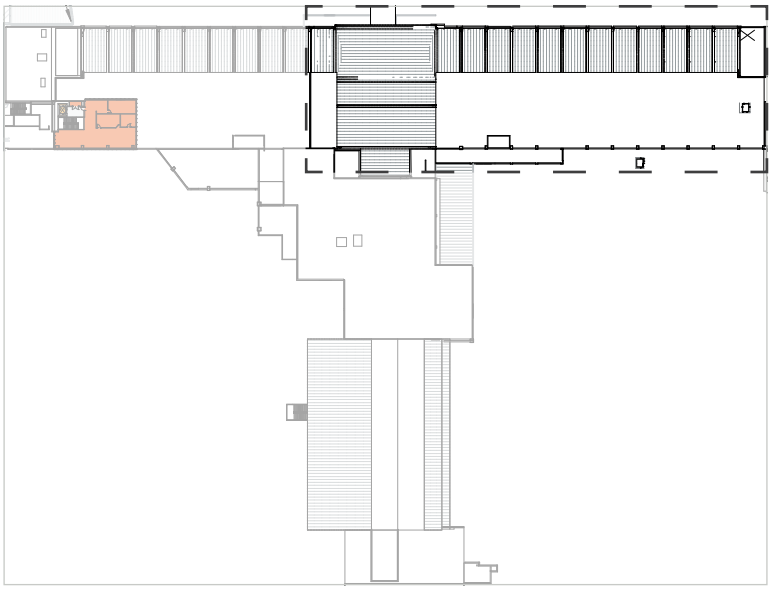
NORTH 0 00,000 ft.

EXHIBIT 1D

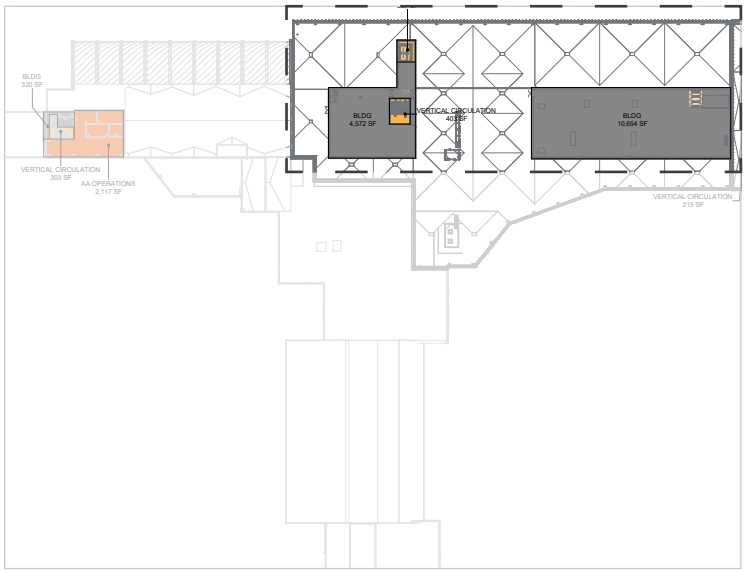
TERMINAL 4 EAST HEADHOUSE LEVEL 4 – OFFICES (EXISTING VS. PROPOSED)

ricondo:Shared:oDrive:Corporate:Creative Services:01 Projects:01 Client Projects:2021:LAX:14140862-23-8_Exhibits:14140862-23-8_LAX_LAWA_Exhibits_V2.indd

EXISTING LEVEL 5



PROPOSED LEVEL 5



LEGEND

Modification Area

SOURCE: PGAL, April 2020; PGAL, March 2021.

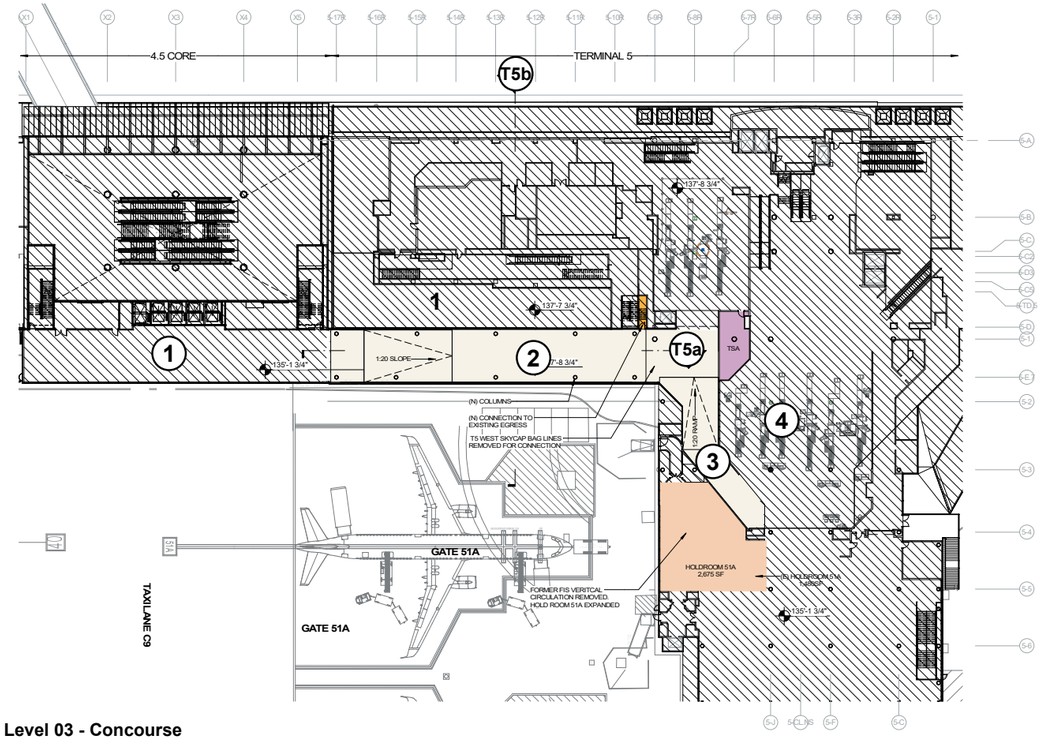
NORTH 0 00,000 ft.

EXHIBIT 1E

TERMINAL 4 EAST HEADHOUSE LEVEL 5 – ROOF AND OFFICES (EXISTING VS. PROPOSED)

ricondo:Shared:oDrive:Corporate:Creative Services:01 Projects:01 Client Projects:2021:LAX:14140862-23-8_Exhibits:14140862-23-8_LAX_LAWA_Exhibits_V2.indd

T4/T5 CONNECTOR (LEVEL 3) | PLAN VIEW

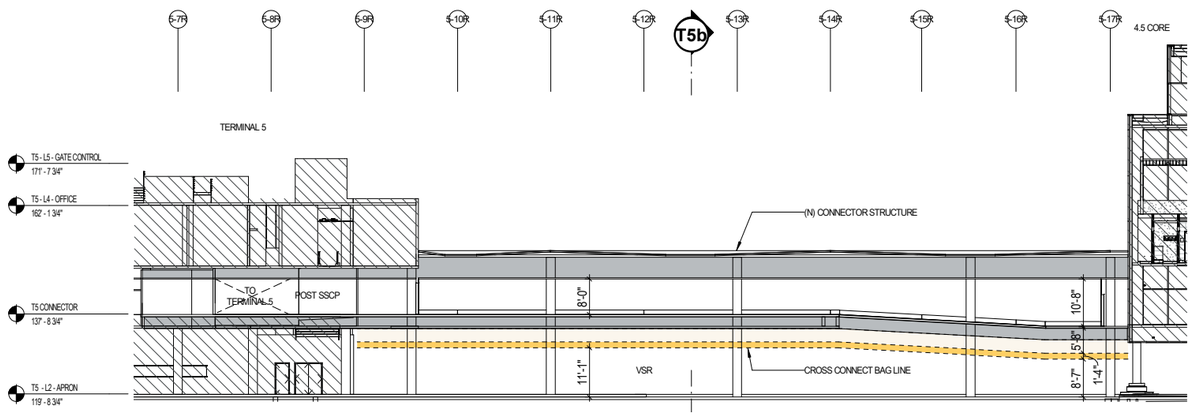


Level 03 - Concourse

PLAN VIEW LEGEND

1. 4.5 Core
2. T5 Secure Connector
3. Ramp down to T5 Level 03 - Concourse
4. T5 SSCP

T4/T5 CONNECTOR (LEVEL 3) | SECTION VIEW



SECTION T5a

LEGEND

Not in Scope

SOURCE: See Documentation Guide on proper sourcing.

NORTH 0 00,000 ft.

EXHIBIT 2

TERMINAL 4/TERMINAL 5 CONNECTOR

ricondo:Shared:oDrive:Corporate:Creative Services:01 Projects:01 Client Projects:2021:LAX:14140862-23-8_Exhibits:14140862-23-8_LAX_LAWA_Exhibit_2.indd

2. PREVIOUSLY APPROVED LAX LANDSIDE ACCESS MODERNIZATION PROGRAM

The LAX Landside Access Modernization Program Project, as described and analyzed in the certified Final EIR, included: 1) construction of an APM system; 2) construction of two ITFs; 3) construction of a Consolidated Rental Car Facility (CONRAC); 4) roadway improvements; (5) utilities that support the LAX Landside Access Modernization Program Project; (6) establishment of transportation policies at LAX; (7) enabling projects to allow for construction of the LAX Landside Access Modernization Program; and (8) development of design and sustainability guidelines. The LAX Landside Access Modernization Program Project components as identified and analyzed in the LAX Landside Access Modernization Program EIR are shown in **Exhibit 3**.

- **Automated People Mover.** The APM system is the primary component of the approved Project. The APM is designed to provide reliable, time-certain access to the Central Terminal Area (CTA) for passengers, employees, and other users. The APM will be a fully automated, grade-separated train system, consisting of an elevated dual-lane guideway with six stations; three located within the CTA and three outside of the CTA. The APM system also includes a Maintenance and Storage Facility (MSF), as well as the construction of up to four traction power substations (TPSSs) to provide power to the APM guideway and trains. The APM system includes passenger walkway systems connecting the APM stations to passenger terminals, parking garages, and ground transportation facilities. The certified Final EIR also included modifications to existing passenger terminals and parking garages to support the APM walkway system connections, including vertical circulation (elevators, escalators, and stairs) cores to garage levels and to the arrival, departure, and concourse levels at the terminals. The Addendum included construction of four backup generators, one near each TPSS and one at the APM MSF, and the addition of three emergency access point locations and one crossover switch on the APM system.
- **Intermodal Transportation Facilities.** The approved Project includes two ITFs: an ITF West and an ITF East, as shown on Figure 2. The ITFs will provide convenient locations outside of the CTA for passenger pick-up and drop-off by private vehicles, limousines, taxis, transportation network companies (e.g., Uber and Lyft), and other commercial vehicles or for passengers and employees to park and take the APM to the CTA, which will reduce traffic on the Airport entrance roads and within the CTA. The Addendum included relocation of the existing SBO to the ITF West Garage.
- **Consolidated Rental Car Facility.** The CONRAC will provide a centralized location for rental car agencies serving LAX. A CONRAC is a facility or complex that hosts multiple rental car agencies in one location. It typically provides facilities for customers to complete rental car contract paperwork, pick-up and drop-off their vehicles, and for the rental car companies to stage, store, and service the vehicles in preparation for renting them to the next customer. The CONRAC will be located south of W. Arbor Vitae Street, west of S. La Cienega Boulevard (and just west of I-405), north of the extended W. 98th Street, and east of the extended Concourse Way. The CONRAC will also be located just east of the ITF East and the future Metro AMC 96th Street Transit Station.
- **Roadway Improvements.** Improvements to roadways serving the CTA and the new ITFs and CONRAC including new roadway segments, additional lanes, realignment of segments of some existing roads, restriping, new or realigned driveways, roadway closures, streetscape improvements, landscaping, and intersection improvements. The Addendum included the merging of an existing alleyway with a new road, "D" Street, that would be constructed east of the APM MSF.

- **Utilities.** Utility improvements are required to support the operations of the approved Project facilities. In addition, the relocation of existing utility lines affected by construction of the approved Project will also be required. The approved Project will include new buildings and facilities generally located to the east of the CTA, requiring new utility connections for their operations. Such connections may require some level of new infrastructure within the adjacent roadways, depending on the quantity and quality of existing service. Each of the buildings will require new and/or upgraded reclaimed water, power, storm and wastewater drains, natural gas, communications, and other related utility services.
- **Transportation Policy Changes.** In addition to the approved Project components described above, LAWA will establish policy changes to fees, pricing, licenses, traffic patterns, and agreements with various commercial vehicle operators at LAX, as well as fees and prices for parking at LAX facilities as part of the approved Project. Additionally, LAWA may implement tolls for commercial vehicle operators and potentially to the public to access Airport facilities if needed to manage traffic during peak periods and for incident management. During construction, a variety of strategies were identified to alleviate roadway and curbside congestion, including encouraging use of the Departures level during the Arrivals level peak, making use of kiss-and-ride, remote passenger pick-up, and restricting vehicle recirculation within the CTA.
- **Enabling Projects.** The approved Project will require a series of enabling projects to allow for construction, including utility relocation and demolition of certain existing facilities, some of which will be reconstructed. Additionally, acquisition of approximately 60 properties and 27 billboards located along the proposed APM and roadway alignments will be required, including residential properties within the Belford and Manchester Square areas. Additionally, roadway improvements will require the construction of new driveways, curb cuts, and ramps, which will also require easements or property acquisition.
- **Design and Sustainability Guidelines.** LAWA has developed a set of design and sustainability guidelines to be incorporated into the design, construction, and operations of each approved Project component. The design guidelines establish LAWA's comprehensive vision for the passenger experience at LAX. They are intended to integrate the design of new and existing facilities and to create an improved passenger experience. The sustainability guidelines serve as a mechanism to promote LAWA's commitment to reduce its environmental footprint and promote energy efficient design requirements; water conservation and water quality improvement projects; natural resource protection efforts; waste reduction and recycling; and numerous air quality emissions reduction policies and programs. LAWA requires that all Airport building projects with a City of Los Angeles Department of Building and Safety (LADBS) permit-valuation over $200,000 shall achieve Los Angeles Green Building Code (LAGBC) Tier 1 conformance.

LEGEND

- Existing Airport Buildings
- Existing Airfield Pavement
- Automated People Mover (APM)
- APM Station
- APM Maintenance and Storage Facility
- APM Traction Power Substation
- Vertical Circulation Cores
- Pedestrian Walkway
- New/ Reconstructed Parking Garages
- New Roadway
- Improved/Modified Roadway
- Future Metro Facilities (By Others)
- Consolidated Rental Car Facility

NOTES

APM = Automated People Mover
CONRAC = Consolidated Rental Car Facility
ITF = Intermodal Transportation Facility
T = Terminal
ATCT = Airport Traffic Control Tower

Approved and under construction Metro Crenshaw/LAX Light Rail

APM Maintenance and Storage Facility

CONRAC

ITF West

ITF East

Central Terminal Area

Administration Building

1996 ATCT

1961 ATCT

TBIT

T1 T2 T3 T4 T5 T6 T7 T8

P1 P2A P2B P3 P4 P5 P6 P7

World Way

Westchester Pkwy

W. Arbor Vitae St.

New 'A' St.

New 'B' St.

New 'D' St.

Sepulveda Blvd.

Airport Blvd.

Aviation Blvd.

Concourse Way

W. 96th St.

W. 98th St.

W. Century Blvd.

W. 111th St.

New 'C' St.

S. La Cienega Blvd.

I-405

I-105

Imperial Hwy

NOTE: Improvements depicted are conceptual only and do not represent engineered design.
SOURCE: HNTB Corp., Los Angeles International Airport Layout Plan, July 2012; MapLAX, July 2016; Ricondo & Associates, Inc., September 2018.

NORTH 0 800 ft.

EXHIBIT 3

LAX Landside Access Modernization Program Components

Drawing: P:\project-chicago\LAWA\LAX Landside Transportation Program\04 - Documentation\CEQA\Note to File (202106)\5. Note to File June 2021\3. Project Description\Exhibits\CAD\LAMP_EIR Addendum_Project Components_20180806.dwgLayout: Fig 1 Plotted: Jun 23, 2021, 11:07AM

3. PROJECT CHANGES ADDRESSED IN THIS DOCUMENT

During detailed design of the APM walkway systems and the vertical core between T4 and T5 to support the APM walkway system analyzed under the certified Final EIR, LAWA determined demolition and reconstruction of the T4 East and Center Headhouse structures would be required to accommodate the lost baggage handling functions and maintain passenger flows to the T4 SSCP and T4 Concourse, as well as to meet current seismic code. This document addresses the following Proposed Modifications:

- Demolition of the existing T4 East and Center Headhouse structures
- Reconstruction of the new T4 East Headhouse
- Construction of a secure connector between T4 and T5

Construction of the T4/T5 vertical core and integration into the T4 Headhouse was analyzed in the certified Final EIR. The Proposed Modifications to the Project would allow the T4 East Headhouse improvements to meet seismic codes and to maintain functionality and passenger level of service. A reconstructed T4 East Headhouse would also accommodate enhanced passenger level of service through consolidated SSCP functions; improved vertical circulation; expanded and enhanced concessions areas; additional airline, airport, and security services office and support space; and modernized passenger check-in and baggage systems.

Construction of the Proposed Modification elements would occur during three different periods, within construction phases analyzed in the certified Final EIR. Demolition and construction of the first portion of the new T4 East Headhouse would occur in the first quarter of 2022 proceeding through the third quarter of 2024, and the second portion of the new T4 East Headhouse would occur in the third quarter of 2024 proceeding through the third quarter of 2026. Construction of the T4 to T5 connector would commence during the third quarter of 2026 and end in the first quarter of 2028.

3.1 DEMOLITION OF TERMINAL 4 EAST AND CENTER HEADHOUSE STRUCTURE

The Project evaluated in the certified Final EIR did not include demolition of the 94,600 square feet of T4 East and Center Headhouse structures. Improvements analyzed in the certified Final EIR would have required minor demolition to integrate the vertical core into the T4 Headhouse, and demolition of interior elements would have been required for renovations. However, the T4 East Headhouse would not have resulted in changes to the building footprint, interior floorplates, and facades.

3.2 CONSTRUCTION OF TERMINAL 4 EAST HEADHOUSE

As described above, the Project evaluated in the certified Final EIR comprised renovations to the existing T4 East Headhouse; therefore, reconstruction of a new 217,400 square-foot T4 East Headhouse (see Exhibits 1A through 1E) was not considered. The Proposed Modifications would reconstruct a five-level, 217,400 square-foot building within the existing T4 East and Central Headhouse building footprints. **Table 1**, below, provides a description of the existing T4 East Headhouse levels, the existing area of each proposed level, and the proposed increase in floor area by level. The new T4 East Headhouse would accommodate the lost baggage handling functions and connections to the T4 SSCP and T4 Concourse due to the construction of the T4/T5 vertical core, as well as meet current seismic code.

Although the T4 Headhouse building area would increase, the Proposed Modifications would not result in additional passenger capacity or significantly change the number of Airport employees once construction is completed and the modified T4 Headhouse operational. The number of air carrier, airport concessions, and safety and security employees at LAX are a function of passenger quantities. Passenger capacity at LAX is a function of aircraft operations, which would not increase as a result of the Proposed Modifications. Therefore, any increase in the number of airport employees associated with the Proposed Modifications would be nominal.

TABLE 1 TERMINAL 4 EAST HEADHOUSE EXISTING VS. PROPOSED AREA BY LEVEL

	EXISTING AREA (SQ. FT.)	PROPOSED MODIFICATIONS (SQ. FT.)	PERCENT CHANGE
Level 1 – Arrivals	39,300	37,300	-5%
Level 2 – Departures	45,000	61,800	37%
Level 3 – Concourse	32,300	46,000	42%
Level 4 – Offices / SSCP	17,300	56,400	226%
Level 5 – Roof/Mechanical	0	15,900	n/a
TOTAL	**133,900**	**217,400**	**62%**

SOURCE; Pierce Goodwin Alexander & Linville, Inc., American Airlines LAX T4/5 Modernization Program, Area Plans, March 19, 2021.

3.3 CONSTRUCTION OF TERMINAL 4/TERMINAL 5 SECURE CONNECTOR

The Project analyzed during preparation of the certified Final EIR did not include construction of a secure connector between T4 and T5 on the Concourse level. The proposed demolition and reconstruction of the T4 East and Center Headhouse structures would include reconfiguration of existing headhouse space to accommodate distribution of passengers and employees from the vertical core to a centralized SSCP at Terminal 4 and Terminal 5 via a secure connector between T4 and T5. The connector is needed to allow passengers exiting the reconfigured SSCP the ability to access both T4 and T5, a direct consequence of the vertical core associated with the LAX Landside Access Modernization Program interrupting the configuration of the existing SSCPs and the T4 Headhouse. The modified Project would include construction of an approximately 3,500 square-foot connector between the T4/T5 vertical core and T5 on the Concourse level, on the south side of the T5 Headhouse buildings. Additionally, approximately 4,300 square feet of building area within the existing T5 building footprint would be renovated to accommodate a ramp and connection to the Terminal 5 Concourse gates (see Exhibit 2).

4. REGULATORY REQUIREMENTS

Public Resources Code Section 21166 and Section 15162 of the State CEQA Guidelines identifies the circumstances that necessitate the preparation of a subsequent EIR. When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known, with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Pursuant to Section 15164 of the State CEQA Guidelines, if some changes or additions to a previously certified EIR are necessary but none of the conditions under Section 15162 of the CEQA Statute and Guidelines have occurred, the lead agency (in this case LAWA) may prepare an addendum detailing why no further environmental review is required. This analysis need not be circulated for public review but can be included in or attached to the Final EIR, which the decision-making body shall consider prior to making a decision on the project. A brief explanation supported by substantial evidence of why an agency decided not to prepare a subsequent EIR under Section 15162 should also be included in the documentation.

5. CALIFORNIA ENVIRONMENTAL QUALITY ACT ANALYSIS

In performing the required analysis pursuant to CEQA and determining that the criteria are met for use of an addendum, rather than a new EIR, this document compares impacts of the Proposed Modifications to impacts of the Project as previously approved and analyzed in the certified Final EIR and Addendum 1. For purposes of determining whether the Proposed Modifications trigger the need to prepare a subsequent EIR pursuant to State CEQA Guidelines Section 15162, this document relies on the evaluation of the environmental resources/issues below and summarizes the responses to whether any of the criteria presented in Section 4 of this document have been met. Section 6 contains the discussion/analysis relative to cumulative impacts. Justification for the appropriateness of additional CEQA documentation under the LAX Landside Access Modernization Program EIR is provided in

Section 7. Finally, the conclusion associated with the analysis of the additional CEQA documentation is provided in Section 8.

5.1 SUMMARY OF ENVIRONMENTAL TOPICS/RESOURCE AREAS THAT WOULD NOT BE AFFECTED BY THE PROPOSED MODIFICATIONS

The Notice of Preparation/Initial Study (NOP/IS) for the approved Project (refer to Appendix A of the LAX Landside Access Modernization Program Draft EIR) and the certified Final EIR determined that implementation of the approved Project would have no impact, a less than significant impact, or a less than significant impact after mitigation for a number of environmental topics/resource areas specified in Appendix G of the CEQA Statute and Guidelines. The subsequent Addendum to the proposed Project was determined to be consistent with the analysis completed in the Final EIR. LAWA would incorporate all feasible mitigation measures identified for the Landside Access Modernization Program developed in the certified Final EIR into Proposed Modifications. Consistent with the approved Project, the Proposed Modifications would not have impacts related to agricultural and forestry resources, geology/soils, mineral resources, and recreation and impacts of the Proposed Modifications would continue to be less than significant for aesthetics (shading, light and glare); biological resources; cultural resources (archaeological resources, paleontological resources, human remains); greenhouse gas emissions; hazards and hazardous materials; noise and vibration (vibration), hydrology, water quality, and groundwater; land use and planning; noise and vibration (road traffic and transit); population and housing; public services (fire protection and law enforcement); and utilities and service systems. There were several environmental topics/resource areas that were found to have significant and unavoidable impacts in the certified Final EIR but would not be affected by the Proposed Modifications; including: cultural resources (historic resources); transportation/traffic; and public services (schools). Since certification of the Final EIR, the list of CEQA environmental factors has been updated to include the following categories:

- Energy
- Tribal Cultural Resources
- Wildfire

Additionally, on January 3, 2019, the California Natural Resource Agency made effective new CEQA guidelines, including the new Section 15064.3 to the CEQA Statute and Guidelines, which established vehicle miles travelled (VMT) as the most appropriate measure of traffic and transportation impacts, rather than level of service. Although certification of the Final EIR for the approved Project occurred prior to implementation of the State's VMT analysis requirements, the certified Final EIR included VMT analysis associated with passenger vehicle traffic, which concluded the approved Project would reduce VMT within the Project Area.

Determination: *No Changes or New Information Requiring Preparation of a Subsequent EIR*

Conclusion Regarding Applicability of State CEQA Guidelines Section 15162:

As indicated above and in Section 5.2 below, the Proposed Modifications to the approved Project would not result in any new or substantially increased impacts or changes in circumstances or information identified in the certified Final EIR for environmental topics, including: aesthetics, agricultural and forestry resources, air quality and human health risk, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities and service systems, as well as those CEQA environmental resource categories added since the certification of the Final EIR. Therefore, the impacts to these

environmental resources as a result of the Proposed Modifications to the approved Project would not trigger any of the conditions described in State CEQA Statute and Guidelines Section 15162 requiring preparation of a subsequent EIR.

5.2 SUMMARY OF ENVIRONMENTAL TOPICS/RESOURCE AREAS THAT WOULD BE AFFECTED BY THE PROPOSED MODIFICATIONS

5.2.1 AESTHETICS (VISUAL CHARACTER)

The aesthetics (visual character) analysis for the LAX Landside Access Modernization Program is detailed in Section 4.1 of the certified Final EIR.

5.2.1.1 ANALYSIS

Construction

Construction of the approved Project would result in temporary changes to the visual character of the Project area, as viewed from nearby vantage points on and off-Airport. Construction activities would include demolition, site clearing, grading, and building construction of each of the Project components. Typical construction equipment would include tractors, backhoes, scrapers, pavers, cranes, and pile drivers, and other construction equipment typical of projects of similar scope and scale. Consistent with the Final EIR, temporary construction screening, pedestrian canopies, and other appropriate buffer mechanisms, would be placed along the periphery of sensitive use areas and each of the designated construction staging areas to screen much of the construction activity. While construction of the approved Project would introduce new features, the existing area is highly urbanized with airport buildings, hotels, offices, surface parking, vacant lots, scattered residential, and light industrial uses. As such, construction of the approved Project would not conflict or contrast with visual character or quality of the area or result in the obstruction of a valued scenic vista to or from any designated scenic highway, corridor, or parkway; thus, visual impacts were determined to be less than significant.

The Proposed Modifications to the approved Project would not result in a significant change to construction related impacts identified in the certified Final EIR. The Proposed Modifications would occur on developed Airport property in an urbanized area. The site is an active terminal with ticketing, passenger processing, and baggage processing and claims area, within an active airport terminal complex. The T4 East and Central Headhouses structures do not contain any valuable scenic features. Landscaping around the existing buildings is minimal and limited to ornamental vegetation consistent with the CTA. Scenic vistas in the vicinity of the approved Project site include the Pacific Ocean to the west and the Santa Monica Mountains to the north; however, views of these vistas are not available from the Proposed Modifications site as the topography, the distance between the Airport and the vistas, and existing Airport facilities obstruct viewsheds. While construction of the Proposed Modifications and the associated construction equipment would be visible in proximity of the Proposed Modifications site, it would be consistent with the construction activity analyzed in the certified Final EIR and the existing visual character and views at LAX. Therefore, impacts associated with the Proposed Modifications to aesthetics during construction would be less than significant.

Operations

The approved Project would involve the operation of an APM that would connect passengers with uses outside the CTA. Elements of the Proposed Project comprise an elevated APM guideway, APM stations, an APM MSF, APM traction power substations, ITFs, a CONRAC, roadway improvements, and other airport amenities, such as dining and concession services, baggage check facilities, and ticketing/information kiosks. The approved Project is within

a developed urban environment comprised of a variety of architectural styles and building materials, vehicle and pedestrian activities, and ongoing construction activities; therefore, the approved Project site was determined not to contain valued aesthetic resources or vistas. Based on the existing environment as well as adherence to the LAX Design Guidelines, the Century Boulevard Streetscape Plan and the LAX Plan, LAX Specific Plan, the Westchester–Playa del Rey Community Plan, and the Mobility Plan 2035, the development of the approved Project components would not obstruct, interrupt, or diminish a valued focal or panoramic view from any designated scenic highway, corridor, or parkway. While the approved Project would not substantially contrast with the visual character of the surrounding area and its aesthetic image or cause an inconsistency with applicable design guidelines, the introduction of the APM guideway and pedestrian walkway in proximity to the Theme Building would detract from the existing valued aesthetic quality of a neighborhood, community, or localized area by conflicting/contrasting with important aesthetic elements or the quality of the area (such as a theme, style, setbacks, density, massing, etc.) and, as such, impacts associated with the approved Project were determined to be significant.

As noted above, the Proposed Modifications site is an active terminal with ticketing, passenger processing, and baggage processing and claims area. Although the Proposed Modifications would result in the demolition and reconstruction of the T4 East Headhouse facade, all improvements would comply with the LAX Design Guidelines, and the Terminal Cores and Facade Design Requirements, which entail specific design intent, criteria, materials, and finishes in Airport projects to ensure continuity in the design of the facades at the CTA. Impacts associated with construction and operation of the APM guideway on the Theme Building were identified in the Final EIR; however, the Proposed Modifications are approximately 1,100-feet southwest of the Theme Building, separated by dense Airport development and World Way. Based on the distance to visual resources and required adherence to LAX Design Guidelines and the Terminal Cores and Facade Design Requirements, no impacts would occur to the Theme Building or the existing aesthetic quality of the area and overall impacts to aesthetics from operation of the Proposed Modifications would be less than significant.

5.2.1.2 DETERMINATION

Determination: *No New Significant Environmental Effects or a Substantial Increase in the Severity of Previously Identified Significant Effects Requiring Preparation of a Subsequent EIR*

Conclusion Regarding Applicability of State CEQA Guidelines Section 15162:

The Proposed Modifications to the approved Project would not substantially increase the severity of previously identified aesthetic impacts, nor would they result in any new significant effects that were not previously identified in the LAX Landside Access Modernization Program EIR. Additionally, adherence to LAX Design Guidelines, and the Terminal Cores and Facade Design Requirements would minimize any potential impacts. Therefore, the impacts to aesthetics as a result of the Proposed Modifications to the approved Project would not trigger any of the conditions described in State CEQA Guidelines Section 15162 requiring the preparation of a subsequent EIR.

5.2.2 AIR QUALITY, GREENHOUSE GAS, AND HUMAN HEALTH RISK

The air quality and human health risk analyses for the LAX Landside Access Modernization Program is detailed in Section 4.2 of the LAX Landside Access Modernization Program EIR.

5.2.2.1 ANALYSIS

Construction

Maximum unmitigated daily construction-related emissions for the approved Project, analyzed at the regional level, were estimated to be lower than the South Coast Air Quality Management District (SCAQMD) CEQA construction emission thresholds for carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter with a diameter less than or equal to 2.5 micrometers ($PM_{2.5}$), and particulate matter with a diameter less than or equal to 10 micrometers (PM_{10}). However, peak construction emissions for nitrogen oxides (NO_x), and volatile organic compounds (VOCs) would exceed thresholds and the EIR determined that emissions of these pollutants would be significant, as shown in Table 4.2.1-7 of the certified Final EIR. As shown in Table 4.2.1-8 of the certified Final EIR, the peak unmitigated construction concentrations, measured in micrograms per cubic meter of air at the local level, were estimated to be lower than the SCAQMD CEQA ambient air quality standards for CO, 1-hour NO_2 California Ambient Air Quality Standards (CAAQS), annual NO_2, SO_2, and $PM_{2.5}$, but would exceed the 24-hour and annual PM_{10} thresholds, and 1-hour NO_2 National Ambient Air Quality Standards (NAAQS). Therefore, the localized construction impacts of the proposed Project relative to NO_2 and PM_{10} emissions would be significant.

To reduce potential impacts associated with construction-related emissions, the certified Final EIR identified one Standard Control Measure (Mitigation Measure) LAX-AQ-1 - Construction-Related Air Quality Control Measures, and one project-specific Mitigation Measure, MM-AQ (LAMP)-1 – Preferential Use of Renewable Diesel Fuel. Although the inclusion of the measures would reduce construction-related emissions, project-related regional emissions of NO_X and VOCs would remain significant, as would peak annual concentrations of PM_{10}. However, the certified Final EIR determined that with mitigation, localized construction effects would be less than significant for NO_2 and 24-hour PM_{10}. Human health impacts (i.e., incremental cancer risks) associated with construction of the approved Project were found to be less than significant with the mitigation measures specified in Section 4.2.2 of the LAX Landside Access Modernization Program EIR.[2]

The certified Final EIR and detailed construction analysis included minor demolition and renovations to the T4 East Headhouse, however, it did not include the demolition and reconstruction of Levels 2 through 4 of the T4 East and Central Headhouse structures, construction of four levels comprising the proposed T4 East Headhouse modifications (Level 2 through Level 5), or construction associated with the proposed secure connector between T4 and T5 on the Concourse level[3]. Based on the Proposed Modifications to the approved Project, an increase in daily and annual construction emissions would occur from 2022 through 2028, as detailed in **Appendix A** of this document. However, the Proposed Modifications to the approved Project would not result in changes to unmitigated peak daily emissions (see **Table 2**), mitigated peak daily emissions (see **Table 3**), or peak annual emissions.

The majority of greenhouse gas emissions (GHGs) are associated with carbon dioxide (CO_2) from the burning of combustible fuels, but also include methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GHGs are measured in CO2-equivalent (CO_2e) as a combined quantity of the aforementioned gasses. The certified Final EIR found the approved Project would result in a significant and unavoidable increase in CO_2e. The Proposed Modifications are expected to result in an increase of approximately 491 metric tons per year of CO_2e

[2] Incremental chronic and acute *non-cancer* health hazards associated with construction of the approved Project were found to be less than significant even without implementation of Standard Control Measure (Mitigation Measure) LAX-AQ-1 - Construction-Related Air Quality Control Measures, and Mitigation Measure, MM-AQ (LAMP)-1 – Preferential Use of Renewable Diesel Fuel.

[3] Demolition planned for the Proposed Modifications would occur on Levels 2 through 4 of the existing T4 Headhouse, totaling approximately 94,600 square feet. The air quality model assumed demolition of Level 1 to account for changes proposed on Level 1, increasing demolition for the project to an area of approximately 134,000 square feet.

during peak construction of the T4 Headhouse; however, this increase is well below the peak year (2019) GHG emission of approximately 10,897 metric tons per year of CO_2e associated with the approved project, as described in Section 4.5.8.1.1 of the LAX Landside Access Modernization Program EIR. When combined with annual GHG emissions identified for the approved Project, demolition and construction associated with the Proposed Modifications would not exceed peak annual GHG emissions assessed in the certified Final EIR.

Based on the location of the Proposed Modifications within the existing CTA, incremental cancer risks and incremental chronic and acute non-cancer health hazards for the Proposed Modifications would be below the thresholds of significance for all receptors during the construction period.

TABLE 2 APPROVED PROJECT AND PROPOSED MODIFICATIONS UNMITIGATED CONSTRUCTION EMISSIONS

	PEAK DAILY EMISSIONS (POUNDS/DAY)															CEQA
POLLUTANT	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	MAX	THRESHOLD
LAX Landside Access Modernization Program EIR																
CO	32	308	340	323	260	137	124	60	78	102	111	93	47	19	340	550
ROG	11	88	106	74	43	48	12	14	18	36	50	29	17	7	**106**	75
NOx	65	474	616	654	464	233	138	51	84	110	112	85	42	17	**654**	100
SOx	0	1	1	2	1	1	1	0	0	0	1	0	0	0	2	150
PM_{10}	16	62	89	114	91	52	32	26	25	13	28	9	3	1	114	150
$PM_{2.5}$	6	27	34	34	29	15	12	6	7	6	10	5	2	1	34	55
Proposed Modifications																
CO						11	16	25	11	22	8	12			25	
ROG						1	2	26	1	14	1	2			26	
NOx						13	12	24	7	13	5	9			24	
SOx						0	0	0	0	0	0	0			0	
PM_{10}						1	1	2	1	2	1	2			2	
$PM_{2.5}$						1	1	1	1	1	0	1			1	
LAX Landside Access Modernization Program EIR + Proposed Modifications																
CO	32	308	340	323	260	148	140	85	89	124	119	105	47	19	340	No Change
ROG	11	88	106	74	43	49	14	40	19	50	51	31	17	7	**106**	No Change
NOx	65	474	616	654	464	246	150	75	91	123	117	94	42	17	**654**	No Change
SOx	0	1	1	2	1	1	1	0	0	0	1	0	0	0	2	No Change
PM_{10}	16	62	89	114	91	53	33	28	26	15	29	11	3	1	114	No Change
$PM_{2.5}$	6	27	34	34	29	16	13	7	8	7	10	6	2	1	34	No Change

SOURCE: LAX Landside Access Modernization Program Environmental Impact Report (EIR), Appendix F.1 (LAX Landside Access Modernization Program EIR construction emissions); Ricondo & Associates, Inc., June 2021, based on inputs to the Airport Construction Emissions Inventory Tool (ACEIT) and the California Emissions Estimator Model version 2020.4.0 (Proposed Modifications construction emissions).

TABLE 3 APPROVED PROJECT AND PROPOSED MODIFICATIONS MITIGATED CONSTRUCTION EMISSIONS

	PEAK DAILY EMISSIONS (POUNDS/DAY)															CEQA
POLLUTANT	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	MAX	THRESHOLD
LAX Landside Access Modernization Program EIR LAX																
CO	26	270	293	270	223	118	103	53	63	83	90	75	38	15	293	550
ROG	8	81	83	51	32	39	7	13	15	31	46	25	15	6	**83**	75
NOx	29	256	341	381	285	153	109	40	66	85	90	70	35	14	**381**	100
SOx	0	1	1	2	1	1	1	0	0	0	1	0	0	0	2	150
PM_{10}	10	40	63	84	67	40	26	20	18	8	20	6	2	1	84	150
$PM_{2.5}$	3	11	15	16	15	9	7	4	4	4	6	3	1	0	16	55
Proposed Modifications																
CO						15	17	28	12	23	9	12			25	
ROG						1	1	24	0	12	0	2			26	
NOx						12	11	13	7	7	2	7			24	
SOx						0	0	0	0	0	0	0			0	
PM_{10}						1	1	2	1	2	1	2			2	
$PM_{2.5}$						0	0	1	0	1	0	1			1	
LAX Landside Access Modernization Program EIR + Proposed Modifications																
CO	26	270	293	270	223	133	120	81	75	106	99	87	38	15	293	No Change
ROG	8	81	83	51	32	40	8	37	15	43	46	27	15	6	**83**	No Change
NOx	29	256	341	381	285	165	120	53	73	92	92	77	35	14	**381**	No Change
SOx	0	1	1	2	1	1	1	0	0	0	1	0	0	0	2	No Change
PM_{10}	10	40	63	84	67	41	27	22	19	10	21	8	2	1	84	No Change
$PM_{2.5}$	3	11	15	16	15	9	7	5	4	5	6	4	1	0	16	No Change

SOURCE: LAX Landside Access Modernization Program Draft Environmental Impact Report (EIR), Appendix F.1 (LAX Landside Access Modernization Program EIR construction emissions); Ricondo & Associates, Inc., June 2021, based on inputs to the Airport Construction Emissions Inventory Tool (ACEIT) and the California Emissions Estimator Model version 2020.4.0 (Proposed Modifications construction emissions).

Operations

Operationally, the approved Project would improve the local transportation system, eliminate most rental car shuttles, and result in more passengers and Airport-related employees accessing the Airport via transit. The primary sources of operational emissions are the vehicles traveling to and from the Airport, including those accessing the various Project elements. The operational air quality analysis included in the LAX Landside Access Modernization Program EIR compared emissions from the 2024 With and Without the approved Project, and 2035 With and Without the approved Project (Tables 4.2.1-10 and 4.2.1-11 of the certified Final EIR) and noted that the implementation of the approved Project would decrease regional operational emissions for all criteria pollutants when compared to future conditions without the approved Project. Therefore, the approved Project's regional operational emissions in 2024 and 2035 would be less than significant when compared to future conditions without the Project.

Local effects from operational emissions were evaluated at nearby sensitive receptor locations that could be affected by the approved Project. Tables 4.2.1-14 and 4.2.1-15 of the certified Final EIR compare the incremental increase in peak concentrations in pollutants for the 2024 Future With Project scenario to the 2024 Future Without Project scenario, and the 2035 Future With Project scenario to the 2035 Future Without Project scenario, respectively. The Project-related incremental changes in pollutant concentrations for the 2024 Future With Project scenario would not exceed local operational-based thresholds and, therefore, the approved Project would not result in a significant impact; however, the Project-related incremental changes in pollutant concentrations for the 2035 Future With Project scenario would exceed local operational thresholds for annual PM_{10}. Therefore, the approved Project's operational annual concentrations of PM_{10} would result in a significant impact compared to future conditions without the approved Project. As such, the certified Final EIR identified two Standard Control Measures (Mitigation Measures), Standard Control Measures (Mitigation Measures) LAX-AQ-2 - Transportation-Related Air Quality Control Measures, and LAX-AQ-3 - Operations-Related Air Quality Control Measure, and one project-specific Mitigation Measure, MM-GHG (LAMP)-1 – Incorporate Solar Energy into Landside Access Modernization Program Facilities, to address operational emissions associated with the approved Project. Although the inclusion of the measures would reduce operational-related emissions, localized annual PM_{10} impacts in 2035 would remain significant and unavoidable.

The Proposed Modifications do not have an operations component that would require emissions modeling, as the modifications consist of the demolition, reconstruction, and alteration of an existing facility within the CTA. Following construction, operation of the T4 Headhouse would be consistent with existing operations and the future operational scenarios analyzed in the certified Final EIR. As such, the Proposed Modifications would not have operational emissions different from existing operational emissions. The certified Final EIR identified that the approved Project would have a significant impact related to consistency with Greenhouse Gas Reduction Plans, specifically with the GHG reduction targets in AB 32, Executive Order S-3-05, Executive Order B-30-15, SB 32, Green LA, and Climate LA, calling for a statewide reduction in GHG emissions to 1990 levels by 2020. The approved Project would result in an overall reduction in GHG emissions, however, they would not reduce GHG emissions associated with LAX to 1990 levels. The Proposed Modifications would not result in a substantially more severe inconsistency, as the increase in GHG emissions associated with the Proposed Modifications is 69 $MTCO_2e$ per year, approximately 3 percent of the approved Project GHG emissions. Notably, the GHG emissions associated with the approved Project and Project Modifications would result in a reduction of approximately 12,295 $MTCO_2e$ per year in 2024 and 34,291 $MTCO_2e$ per year in 2035. Therefore, no significant change in operational air quality, greenhouse gas, or human health is anticipated from operation of the Proposed Modifications.

5.2.2.2 DETERMINATION

Determination: *No New Significant Environmental Effects or a Substantial Increase in the Severity of Previously Identified Significant Effects Requiring Preparation of a Subsequent EIR*

Conclusions Regarding Applicability of State CEQA Guidelines Section 15162:

The Proposed Modifications to the approved Project would not substantially increase the severity of previously identified air quality or human health risk impacts or result in any new significant effects that were not previously identified in the LAX Landside Access Modernization Program EIR. The mitigation measures previously adopted for the approved Project (LAX-AQ-1, LAX-AQ-2, LAX-AQ-3, MM-AQ (LAMP)-1, and MM-GHG (LAMP)-1) would be applied to the construction and operation of the Proposed Modifications, as applicable, in a manner consistent with those suggested in the EIR. No additional mitigation measures would be required for the Proposed Modifications. Therefore, the impacts to air quality and human health risk as a result of the Proposed Modifications to the approved Project would not trigger any of the conditions described in State CEQA Guidelines Section 15162 requiring preparation of a subsequent EIR.

5.2.3 CONSTRUCTION NOISE

The noise analysis for the LAX Landside Access Modernization Program is detailed in Section 4.9 of the LAX Landside Access Modernization Program EIR.

5.2.3.1 ANALYSIS

Noise

Section 4.9.3 of the certified Final EIR addresses potential noise impacts associated with construction-related traffic and operation of construction equipment during development of the approved Project. As detailed in Section 4.9.3.5 of the certified Final EIR, the daily transportation of construction workers and the hauling of materials on and off the approved Project site would cause increases in noise levels along study area roadways. However, construction-related trucks would be restricted to designated routes ensuring these vehicles utilize the nearby freeways and major arterials to the maximum extent and minimize use of local roadways. Construction traffic noise would be less than significant because noise increases would be less than the 3 dB(A) $L_{eq(h)}$ threshold.[4] Construction equipment noise levels were also calculated for noise-sensitive receptor locations. As detailed in Section 4.9.3.5 of the certified Final EIR, construction of several components of the approved Project including: ITF West; APM MSF; ITF East; demolition of the remaining buildings in Manchester Square; CONRAC and associated roadways; and several new roadway segments would result in increases in the ambient exterior noise levels at noise-sensitive land uses over the CEQA 5 dB(A) threshold, resulting in a significant impact.

The certified Final EIR identified one Standard Control Measure (Mitigation Measure), LAX-N-1 – Construction-Related Noise Control, and one Project-specific Mitigation Measure, MM-N (LAMP)-1 – Noise Curtains, to reduce construction-related noise impacts to nearby noise-sensitive receptors. Implementation of these measures would

[4] Equivalent Continuous Noise Level (L_{eq}): L_{eq} is the sound level, expressed in dBA, of a steady sound that has the same A-weighted sound energy as the time-varying sound over the averaging period. Unlike SEL, L_{eq} is the average sound level for a specified time period (e.g., 24 hours, 8 hours, 1 hour, etc.). L_{eq} is calculated by integrating the sound energy from all noise events over a given time period and applying a factor for the number of events. L_{eq} can be expressed for any time interval; for example, the L_{eq} representing an averaged level over an 8-hour period would be expressed as L_{eq} (8).

reduce impacts to a level that would be less than significant, and the approved Project's incremental contribution to significant construction equipment noise impacts would be less than cumulatively considerable.

Construction for the Proposed Modifications would result in a nominal change in the number of construction hauling and employee trips. The LAX Landside Access Modernization Program EIR noise analysis utilized the highest Average Daily Trip (ADT) data during the construction period from the Transportation/Traffic analysis, which is not affected by the refinements analyzed in this document (see certified Final EIR p. 4.9-6). Consistent with the certified Final EIR, construction-related trucks would be restricted to designated routes ensuring these vehicles utilize the nearby freeways and major arterials to the maximum extent and minimize use of local roadways. No significant change in construction-related traffic would result from the Proposed Modifications.

Additionally, the Project Modifications site is within a large-hub international airport with existing sources of significant noise, including aviation and vehicle traffic noise and is within the Airport's 75 dBA community noise equivalent level (CNEL) contour.[5] The Proposed Modifications would result in a temporary increase of noise levels at the Proposed Modifications site as a result of operation of construction equipment. Construction equipment would be used on a temporary and intermittent basis, would not result in substantial increases to the noise environment, and would be consistent with existing noise levels at the Airport and surrounding roadways. Construction of the Proposed Modifications would occur in an area generally removed from the sensitive receptors near LAX. The nearest noise-sensitive land use is residential development approximately 4,200 feet south of the CTA in in El Segundo. Based on the existing ambient noise levels of the active airfield and CTA, adherence to mitigation measures identified in the certified Final EIR, and the distance to sensitive receptors, it is not anticipated that noise associated with the Proposed Modifications would: expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; expose people to or generate excessive groundborne noise levels; create a substantial permanent increase in ambient noise levels compared to existing or future noise levels without the Proposed Modifications in proximity of the Proposed Modifications site; or, create a substantial temporary or periodic increase in ambient noise levels in proximity to the Proposed Modifications site above existing levels. The impact of the Proposed Modifications would be less than significant.

5.2.3.2 DETERMINATION

Determination: *No New Significant Environmental Effects or a Substantial Increase in the Severity of Previously Identified Significant Effects Requiring Preparation of a Subsequent EIR*

Conclusion Regarding Applicability of State CEQA Guidelines Section 15162:

The Proposed Modifications to the approved Project would not substantially increase the severity of previously identified noise or vibration impacts, nor would they result in any new significant effects that were not previously identified in the LAX Landside Access Modernization Program EIR with incorporation of Standard Control Measure (Mitigation Measure) LAX-N-1 and Mitigation Measure MM-N (LAMP)-1. The incremental contribution to significant construction equipment noise impacts as a result of the Proposed Modifications would be less than cumulatively considerable because construction activities would not exceed ambient exterior noise levels by 5 dB(A) at a noise-sensitive use. Therefore, the impacts from noise and vibration as a result of the Proposed Modifications to the

[5] Los Angeles World Airports. California State Airport Noise Standards Quarterly Report (2Q19) for Los Angeles International Airport. July 31, 2019.

approved Project would not trigger any of the conditions described in State CEQA Guidelines Section 15162 requiring the preparation of a subsequent EIR.

5.3 SUMMARY OF NEWLY INTRODUCED ENVIRONMENTAL FACTORS

Subsequent to the preparation of the 2015 Initial Study and 2017 certified Final EIR, the State CEQA Guidelines have been amended to include three additional environmental resource categories for consideration. An evaluation of the Proposed Modifications effects on those topics is presented in this section.

5.3.1 ENERGY

Construction of the Proposed Modifications would consume energy in the form of electricity and combustible fuels for transportation and use of construction equipment and materials, through employee commutes, and temporary lighting. Fuels associated with construction equipment and transportation are widely available. Per the certified Final EIR, construction of the approved Project was estimated to result in consumption of 2,400 gallons of gasoline and approximately 19,000 gallons of diesel during peak construction, which respectively represents 0.002 percent of the average weekly production of gasoline and 0.02 percent of the average weekly production of diesel fuel in Southern California. Construction of the Proposed Modifications would not exceed peak year construction related equipment use or vehicle traffic identified in the certified Final EIR when considered with previously analyzed construction activity associated with the LAX Landside Access Modernization Program. The Los Angeles Department of Water and Power (LADWP) has forecasted utility demand and concluded that excess capacity exists over the planning horizon through the year 2040.[6] Consistent with the approved Project, the Proposed Modifications would be required to meet new energy consumption standards prescribed for new structures in California Title 24 Building Energy Efficiency Standards and LAWA's Sustainable Design and Construction Policy. The Proposed Modifications would not result in an increase in electricity use beyond the excess capacity identified by the LADWP.

Operation of the Proposed Modifications would not require substantial additional energy in comparison to the existing T4 Headhouse structures and would not conflict with or obstruct any state or local plan for renewable energy or energy efficiency. The certified Final EIR for the LAX Landside Access Modernization Program found that the approved Project would reduce energy use at LAX. Construction and operation of the Proposed Modifications would adhere to all State and local requirements identified in the certified Final EIR and would not result in an increase in capacity at LAX. Therefore, any potential impacts would be less than significant.

5.3.2 TRIBAL CULTURAL RESOURCES

The Proposed Modifications would not result in an impact to historic or archaeological resources. Additionally, the Proposed Modifications site is within a fully developed area of LAX that has no known tribal cultural value.

The Proposed Modifications site is currently developed and the T4 Headhouse reconstruction would involve minimal ground disturbance. The Proposed Modifications are not anticipated to impact any archaeological or paleontological resource as defined in CEQA Guidelines Section 15064.5, any unique geologic feature, or disturb any human remains. Additionally, the certified Final EIR also includes LAWA Standard Control Measures, LAX-AR-1, Conformance with LAWA's Archaeological Treatment Plan; LAX-AR-2, Archaeological Resources Construction Personnel Briefing; LAX-PR-1, Conformance with LAWA's Paleontological Management Treatment Plan; and LAX-PR-2, Paleontological Resources Construction Personnel. Adherence to these standard control measures would

[6] Los Angeles Department of Water and Power. 2016 Power Integrated Resource Plan. January 13, 2017.

mitigate any effects to underground resources in the event of any unanticipated discoveries. Therefore, any potential impacts to tribal cultural resources would be less than significant.

5.3.3 WILDFIRE

LAX is not located within the vicinity of any wildland areas or other areas susceptible to wildfires and the Proposed Modifications site is not located within any identified wildfire hazard areas according to the City of Los Angeles General Plan Safety Element Exhibit D (Selected Wildfire Hazard Areas), or per the California Department of Forestry and Fire Protection data.[7,8] Therefore, no impacts would occur.

5.3.4 VEHICLE MILES TRAVELED

The certified Final EIR included analysis of VMT associated with on-road off-site vehicles, including employee trips and construction hauling to and from off-site locations. However, VMT impacts were not calculated for on-site construction vehicles. Construction of the Proposed Modifications would result in a minor and temporary increase in VMT for construction vehicles. The construction and demolition activity associated with the Proposed Modifications would not exceed peak levels identified in the certified Final EIR. The certified Final EIR analysis estimated a peak daily employee level associated with the LAX Landside Access Modernization Program of 840 employees in January 2020, as described in Section 4.12.3.4.2 of the Draft EIR. The Proposed Modifications were estimated to result in a daily peak of 70 employees. When combined with daily employee trips and VMT associated with the approved Project, neither vehicle miles travelled nor number of employee trips resulting from the Proposed Modifications are expected to exceed the peak daily employee trips analyzed in the certified Final EIR, as the peak period of construction associated with the approved Project will not overlap with the peak period of construction of the Proposed Modifications. The certified Final EIR analyzed and identified construction traffic impacts associated with 1,870 daily construction employee trips. The 70 daily construction trips associated with the Proposed Modifications, when combined with the construction employee trips for the approved Project in 2022 through 2028 would not equal or exceed 1,870 daily construction trips. Additionally, once operational, the approved Project would result in a reduction in VMTs; trips associated with any new Airport employees that might be triggered by the Proposed Modifications would be nominal and would not result in a significant change to the VMT reductions associated with the approved Project.

6. CUMULATIVE IMPACTS

As described above in Section 5, the Proposed Modifications to the approved Project would not result in any new significant or more severe impacts related to: aesthetics (shading, light and glare); agricultural and forestry resources; air quality; biological resources; cultural resources (archaeological resources, paleontological resources, human remains); greenhouse gas emissions; geology/soils; hazards and hazardous materials; human health; hydrology, water quality, and groundwater; land use and planning; mineral resources; noise and vibration (vibration); population and housing; public services (fire protection and law enforcement); recreation; and utilities and service systems.

[7] California Department of Forestry and Fire Protection. Fire Hazard Severity Zone Maps – Local Responsibility Area Map. September 2011.

[8] California Department of Forestry and Fire Protection. Fire Hazard Severity Zone Maps – State Responsibility Area Map. November 2007.

Additionally, there were several environmental topics/resource areas that were found to have significant and unavoidable impacts in the certified Final EIR but would not be affected by the Proposed Modifications, including: cultural resources (historic resources); transportation/traffic; and public services (schools).

The LAX Landside Access Modernization Program EIR determined that the approved Project would result in unmitigable cumulatively considerable impacts for air quality, greenhouse gas emissions, and transportation/traffic before mitigation. Since certification of the Final EIR, LAWA has proposed the Airfield Terminal and Modernization Project, which includes north airfield modifications, a new Concourse 0, a new Terminal 9, and modifications to the Airport roadway system. The certified Final EIR for the LAX Landside Access Modernization Program included consideration of the north airfield modifications and Concourse 0. The Proposed Modifications would not change the cumulative impact conclusions of the certified Final EIR. The analyses below provide additional information related to cumulative impacts in addition to the cumulative analysis provided in Section 5.

6.1 AESTHETICS (VISUAL CHARACTER)

The LAX Landside Access Modernization Program EIR determined that construction of the approved Project would result in a less than significant cumulative impact related to (1) the removal of one or more features that contribute to the valued aesthetic character or image of the neighborhood, community, or localized area such as demolition of structures or removal of street trees, a stand of trees, or other landscape features that contribute positively to the valued visual image of a community; or (2) the obstruction, interruption, or diminishment a valued focal or panoramic view from any designated scenic highway, corridor, or parkway. However, the approved Project, in combination with cumulative projects, would result in a significant cumulative impact related to the introduction of features within the CTA that would detract from the existing valued aesthetic quality of the Theme Building by conflicting/contrasting with important aesthetic elements or the quality of the area (such as a theme, style, setbacks, density, massing, etc.) or cause an inconsistency with applicable design guidelines. Therefore, the approved Project's contribution to the impact would be cumulatively considerable. Mitigation identified in the LAX Landside Access Modernization Program EIR would reduce the visual impact of the APM guideway to the Theme Building; although, impacts would remain significant. However, as there are no other feasible measures available to reduce impacts to visual character, further Project-related impacts to visual character would be significant and unavoidable. Based on the distance of the Proposed Modifications to the Theme Building and adherence to LAX Design Guidelines and the Terminal Cores and Facade Design Requirements, no impacts would occur to the Theme Building or the existing aesthetic quality of the area and impacts to aesthetics from the Proposed Modifications would be less then significant. The Proposed Modifications would not result in a change to cumulative impacts identified as part of the certified Final EIR.

6.2 AIR QUALITY AND GREENHOUSE GAS

The LAX Landside Access Modernization Program EIR determined that construction of the approved Project would be cumulatively considerable for VOC, NO_X, and PM_{10}. Additionally, operational contributions to air quality impacts would be cumulatively considerable for all analyzed criteria air pollutants except SO_2. Analysis provided in Appendix A of this documentation showed that the addition of emissions associated with Proposed Modifications would not change any significance determination presented in the EIR regarding regional or local operations emissions. Therefore, cumulative air quality impacts identified in the EIR would remain unchanged. As discussed in Section 4.2.1.6.3 of the LAX Landside Access Modernization Program EIR, project-related cumulative impacts are based on the regional significance of a project's emissions. Project-related significance did not change relative to regional emissions; therefore, the Project's cumulative impacts, including those attributable to the Proposed Modifications, would not differ from those presented in the LAX Landside Access Modernization Program EIR.

As noted in Section 4.5.2.1 of the certified Final EIR, construction emissions were amortized over the lifetime of the proposed Project, which is assumed to be 30 years. The total CO_2e amortized over the life of the approved Project improvements is equal to 1,997 $MTCO_2e$ per year. The addition of the Proposed Modifications would add 69 $MTCO_2e$ per year. As the LAX Landside Access Modernization Program would result in a net reduction of greenhouse gas emissions of -12,364 $MTCO_2e$ per year in 2024 and -34,360 $MTCO_2e$ per year in 2035, the Proposed Modifications would not result in a cumulative greenhouse gas impact.

The certified Final EIR identified that the approved Project would have a significant impact related to consistency with Greenhouse Gas Reduction Plans, specifically with the GHG reduction targets in AB 32, Executive Order S-3-05, Executive Order B-30-15, SB 32, Green LA, and Climate LA, calling for a statewide reduction in GHG emissions to 1990 levels by 2020. Emissions associated with operations of the approved Project would result in an overall reduction in GHG emissions, however, they would not reduce GHG emissions associated with LAX to 1990 levels. The Proposed Modifications would not result in a substantially more severe inconsistency, as the increase in GHG emissions associated with the Proposed Modifications is 69 $MTCO_2e$ per year, approximately 3 percent of the approved Project GHG emissions. Notably, the GHG emissions associated with the approved Project and Project Modifications would result in a reduction of approximately 12,295 $MTCO_2e$ per year in 2024 and 34,291 $MTCO_2e$ per year in 2035.

The mitigation measures recommended in the certified Final EIR would be applied to the construction and operation of the Proposed Modifications in a manner consistent with those suggested in the certified Final EIR.

6.3 CONSTRUCTION NOISE

As discussed in Section 4.9.3.6 of the certified Final EIR, cumulative noise impacts associated with the approved Project would be limited to the areas in proximity of the Metro Crenshaw/LAX Transit Corridor and Metro Airport Metro Connector Station. The Proposed Modifications are not in proximity of these cumulatively considerable projects. Additionally, while the Proposed Modifications would result in slight increases in construction noise in comparison to the approved Project, the existing high ambient noise environment, distance from noise sensitive receptors, and adherence to measures stipulated in the LAX Landside Access Modernization Program EIR would further reduce the likelihood that the Proposed Modifications would result in cumulative construction noise impacts. Implementation of Standard Control Measure (Mitigation Measure) LAX-N-1 and Mitigation Measure MM-N (LAMP)-1 would reduce significant Project-related construction equipment noise impacts to a level that would be less than significant, and the Project's incremental contribution to significant construction equipment noise impacts would be less than cumulatively considerable, as construction activities would not exceed ambient exterior noise levels by 5 dB(A) at a noise-sensitive use.

6.4 ANALYSIS OF THE PROPOSED CHANGE IN THE PROJECT

The Proposed Modifications to the approved Project do not represent a substantial change to the approved LAX Landside Access Modernization Program and, based on the discussions above, implementation of the refinements would not substantially affect the analysis or conclusions regarding cumulative impacts that are addressed in the certified Final EIR.

7. ASSESSMENT OF CHANGES IN IMPACTS

Section 15164 of the State CEQA Statute and Guidelines identifies the circumstances that require the preparation of an addendum to a previously certified EIR or adopted negative declaration. The State CEQA Statute and Guidelines state, "The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred." The State CEQA Statute and Guidelines also require that a brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in ancillary documentation to an EIR, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

An explanation of why none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR have occurred is provided below.

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

The Proposed Modifications analyzed in the additional CEQA documentation herein do not constitute substantial changes to the overall approved LAX Landside Access Modernization Program that would involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

There have not been any significant changes with respect to the circumstances under which the LAX Landside Access Modernization Program, including the Proposed Modifications, is undertaken, which would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects. There have been no changes in City regulations related to the Airport property or changes in the federal or State rules related to Airport operations.

(3) New information of substantial importance, which was not known and could not have been known, with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration.

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR.

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative.

There is no new information of substantial importance, which was not known and could not have reasonably been known at the time the previous EIR was certified, that shows that the LAX Landside Access Modernization Program, including the Proposed Modifications, would result in a new significant environmental impact or a substantial increase in the severity of previously identified significant effects. No mitigation measures previously found infeasible would now be feasible.

Further, all mitigation measures and Project Design Features identified in the LAX Landside Access Modernization Program EIR's Mitigation Monitoring and Reporting Program remain applicable.

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

No additional mitigation measures or alternatives have been identified that would substantially reduce the significant impacts identified in the LAX Landside Access Modernization Program EIR. Previously identified mitigation measures and Project Design Features contained in the LAX Landside Access Modernization Program EIR's Mitigation Monitoring and Reporting Program remain applicable.

8. CONCLUSION

Based on this analysis and the information contained in this document, the design, layout, and implementation of the Proposed Modifications would not result in a new significant impact or substantial increase in the severity of previously identified impacts in the LAX Landside Access Modernization Program EIR. There are no substantial changes to the circumstances under which the LAX Landside Access Modernization Program will be undertaken, and no new information of substantial importance which was not known and could not have been known when the LAX Landside Access Modernization Program EIR was certified has been identified. Therefore, substantial evidence, including the analysis and information contained in this document, supports the conclusion that none of the conditions described in State CEQA Statute and Guidelines Section 15162 calling for preparation of a subsequent EIR have occurred as a result of the Proposed Modifications.

APPENDIX A

Air Quality Analysis

APPENDIX A AIR QUALITY ANALYSIS

This document summarizes the methods, assumptions, and results of a construction emissions analysis conducted pursuant to the California Environmental Quality Act (CEQA) with regard to modifications to the Terminal 4 (T4) Headhouse and the T4 to T5 connector (Proposed Modifications) associated with the Los Angeles International Airport (LAX) Landside Access Modernization Program. Construction related emissions were estimated for carbon monoxide (CO), reactive organic gases (ROGs), oxides of nitrogen (NO_X), oxides of sulfur (SO_X), particulate matter less than ten microns in diameter (PM_{10}), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$).

The Proposed Modifications are anticipated to be phased over several years, with various construction activities beginning in January 2022 and ending in March 2028. Therefore, the analysis estimates construction emissions for the following construction years: 2022, 2023, 2024, 2025, 2026, 2027, and 2028.

Project Components

For purposes of this analysis, the Proposed Modifications include the following components:[1,2]

- Demolition of T4 Headhouse – Phase 1: 89,310 square feet | January 1, 2022 – February 28, 2023 (302 days)
- Construction of T4 Headhouse – Phase 1: 144,989 square feet | March 1, 2023 – September 30, 2024 (414 days)
- Demolition of T4 Headhouse – Phase 2: 44,655 square feet | July 1, 2024 – May 31, 2025 (240 days)
- Construction of T4 Headhouse – Phase 2: 72,494 square feet | June 1, 2025 – September 30, 2026 (348 days)
- Construction of T4/T5 Connector – 7,800 square feet | June 1, 2026 – March 31, 2028 (480 days)

Methodology

The Airport Construction Emissions Inventory Tool (ACEIT) was used to determine equipment types and hours for the building demolition and construction project components. ACEIT was developed in conjunction with the Transportation Research Board's Airport Cooperative Research Program Report 102, which provides guidance in developing airport construction emissions inventories.[3] ACEIT provides default values for most input data required to produce construction emissions inventories, including activity data, and allows for the manipulation of various parameters to better define and refine a project analysis.

ACEIT building demolition activities include equipment such as dump trucks, excavators, and bob cats. For building construction, ACEIT includes activities such as concrete foundations, construction mob and layout, exterior wall framing, interior buildout and finishes, roofing, security and safety systems, and structural steel erection. For each construction activity, default construction (nonroad) equipment and usage hours were assumed, as assigned by

[1] Days are workdays, assuming five workdays per week.

[2] Demolition planned for the Proposed Modifications would occur on Levels 2 through 4 of the existing T4 Headhouse, totaling approximately 94,600 square feet. This air quality model assumed demolition of Level 1 to account for changes proposed on Level 1, increasing demolition for the project to an area of approximately 134,000 square feet.

[3] Transportation Research Board, Airport Cooperative Research Program Report 102, *Guidance for Estimating Airport Construction Emissions*, 2014.

ACEIT. Default equipment usage hours are estimated in ACEIT based on the overall size of the project and activity rates based on expert engineering judgment.

Project parameters, including equipment and activity estimates from ACEIT, were input into the California Emissions Estimator Model (CalEEMod) version 2020.4.0 to estimate the construction emissions associated with the Proposed Modifications. CalEEMod was originally developed for the California Air Pollution Officers Association in collaboration with the South Coast Air Quality Management District (SCAQMD) as a modeling tool to assist local public agencies with estimating emissions from construction and operation of land use development projects. The model estimates emissions from a wide variety of land use development projects, such as residential neighborhoods, shopping centers, office buildings, etc. The model also identifies potential mitigation measures and associated emission reductions. CalEEMod calculates emissions for CO, ROG, NO_X, SO_2,[4] PM_{10}, $PM_{2.5}$, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) for both on-road and off-road construction sources. The model uses the California Air Resources Board's (CARB) EMFAC2017 model for on-road vehicle emissions and the CARB's OFFROAD2011 model for off-road vehicle emissions.

For purposes of inputting data into CalEEMod, construction equipment activity hours from ACEIT were converted to hours per day by dividing total estimated hours for each piece of equipment by the number of workdays assumed for each component of the Proposed Modifications. A summary of equipment types and usage hours for the Proposed Modifications components is presented in **Table 1**.

[4] For purposes of this analysis, it was assumed that estimates of SO_X emissions are equal to calculated emissions of SO_2.

TABLE 1: NONROAD EQUIPMENT AND HOURS OF OPERATION

EQUIPMENT TYPE	PHASE 1			PHASE 2		
	HOURS	COUNT	HOURS/DAY	HOURS	COUNT	HOURS/DAY
T4 Headhouse Demolition						
Excavators	1,072	1	4	536	1	3
Generator Sets	1,072	1	4	536	1	3
Off-Highway Trucks	2,143	1	8	1,072	1	5
Other Construction Equipment	1,250	1	5	625	1	3
Skid Steer Loaders	2,143	1	8	1,072	1	5
Total	**7,681**	**5**		**3,840**	**5**	
T4 Headhouse Construction						
Aerial Lifts	8,525	3	7	4,263	2	6
Air Compressors (Paint)	84	1	6	84	1	6
Cement and Mortar Mixers	609	1	2	304	1	1
Cranes	348	1	1	174	1	1
Excavators	232	1	1	116	1	1
Forklifts	5,162	2	6	2,581	1	8
Generator Sets	116	1	1	58	1	1
Other Construction Equipment	6,742	2	8	3,371	2	5
Pumps	348	1	1	174	1	1
Tractors/Loaders/Backhoes	696	1	2	348	1	1
Total	**22,862**	**14**		**11,473**	**12**	
T4/T5 Connector Construction						
Aerial Lifts	1,760	1	4			
Air Compressors (Paint)	84	1	6			
Cranes	240	1	1			
Forklifts	1,640	1	4			
Other Construction Equipment	470	1	1			
Tractors/Loaders/Backhoes	320	1	1			
Total	**4,514**	**6**				

SOURCE: Airport Construction Emissions Inventory Tool (ACEIT), based on project input selections by Ricondo & Associates, Inc., June 2021.

Onroad construction vehicle trips include construction worker vehicle trips to and from the job site, and off-site hauling trips. Assumptions regarding onroad vehicle trips associated with the Proposed Modifications are as follows:

- **Worker trips**—CalEEMod default values were used for worker trips. CalEEMod applies a factor of 1.25 workers per piece of construction equipment in each phase to estimate worker roundtrips. Worker vehicle trips were assumed to travel at the model default value of 14.7 miles per trip.

- **Hauling trips**—CalEEMod calculates required trips to haul demolished building material offsite based on the square footage of building to be demolished. The model does not include default assumptions regarding the hauling onsite of building construction materials. Construction of the T4 Headhouse (Phases 1 and 2) and the T4/T5 Connector were assumed to involve 2,000, 1,000, and 500 hauling trips, respectively, traveling at a default distance of 20 miles per trip.
- **Vehicle mix**—For worker vehicles, this analysis assumes the CalEEMod default mix of 50 percent light-duty auto, 25 percent LDT1, and 25 percent LDT2. Haul trips were assumed to be all HHDT vehicles.

Table 2 presents the on-road vehicle assumptions used in the emissions analysis for the Proposed Modifications.

TABLE 2: ESTIMATED ON-ROAD VEHICLE TRIPS – PAVEMENT PROJECTS

	NUMBER OF TRIPS		TRIP LENGTH (MILES ROUNDTRIP)	
PAVEMENT PROJECT (YEAR)	WORKER TRIPS/DAY	HAULING TRIPS	WORKER TRIPS	HAULING TRIPS
T4 Headhouse Demolition-Phase 1	20	8,831	14.7	20
T4 Headhouse Construction-Phase 1	70	2,000	14.7	20
T4 Headhouse Demolition-Phase 2	20	4,415	14.7	20
T4 Headhouse Construction-Phase 2	70	1,000	14.7	20
T4/T5 Connector Construction	70	0	14.7	20
T4 Headhouse Construction-Phase 1 (Paint)	14	0	14.7	20
T4 Headhouse Construction-Phase 2 (Paint)	14	0	14.7	20
T4/T5 Connector Construction (Paint)	14	500	14.7	20

SOURCES: Ricondo & Associates, Inc., June 2021, using the California Emissions Estimator Model version 2020.4.0.

In addition to nonroad and onroad construction equipment/vehicle emissions, CalEEMod calculates emissions from fugitive sources, such as dust from demolition, material movement, and the operation of vehicles on roadways. Default model factors were assumed for all fugitive dust emissions calculations.

CalEEMod also estimates evaporative emissions of ROG from painting activities. For all building construction activities, painting was assumed to occur over 18 days (CalEEMod assumption). It was assumed that 50 percent of the total interior square footage of the building would be painted. Exterior painting was estimated assuming that exterior wall area is equal to 25 percent of interior space, and that 50 percent of the total exterior square footage would be painted. CalEEMod default assumptions regarding the ROG content and application rate of paint was assumed.

Construction Emissions Analysis Results

Based on the methodologies and assumptions described in this document, **Table 3** summarizes unmitigated construction emissions for the Proposed Modifications in pounds per day. The table also compares the estimated emissions to applicable CEQA emissions thresholds to determine whether construction of the Proposed Modifications would represent a significant air quality impact. As shown, emissions are estimated to be below applicable CEQA significance levels.

TABLE 3: PROPOSED MODIFICATIONS UNMITIGATED CONSTRUCTION EMISSIONS INVENTORY

EMISSIONS BY CONSTRUCTION YEAR	EMISSIONS (POUNDS/DAY)						
	CO	ROG	NO_X	SO_X[1]	PM_{10}[2]	$PM_{2.5}$	CO_{2E}[3]
2022	11	1	13	0	1	1	4,174
2023	16	2	12	0	1	1	4,052
2024	25	26	20	0	2	1	5,883
2025	11	1	7	0	1	1	2,601
2026	22	14	13	0	2	1	4,122
2027	8	1	5	0	1	0	1,625
2028	12	2	9	0	2	1	3,719
Overall Maximum	**25**	**26**	**24**	**0**	**2**	**1**	**5,883**
de minimis Threshold	550	75	100	150	150	55	N/A
Significant?	**No**	**No**	**No**	**No**	**No**	**No**	

NOTES:
1 For purposes of this analysis, it was assumed that estimates of SO_x emissions are equal to calculated emissions of SO_2.
2 Includes fugitive sources.
3 CO_{2e} – Carbon Dioxide Equivalent.
SOURCE: Ricondo & Associates, Inc., June 2021, based on inputs to the Airport Construction Emissions Inventory Tool (ACEIT) and the California Emissions Estimator Model version 2020.4.0.

Table 4 presents the construction emissions analysis in terms of mitigated emissions. Mitigation options within CalEEMod were selected to approximate the mitigation measures assumed in the LAX Landside Access Modernization Program Final Environmental Impact Report (EIR). As such, mitigation of construction equipment emissions assumes that 30 percent of construction equipment meets U.S. EPA Tier 3 emissions standards, 35 percent of equipment meets Tier 4 Interim standards, and 35 percent of equipment meets Tier 4 Final standards.

TABLE 4: PROPOSED MODIFICATIONS MITIGATED CONSTRUCTION EMISSIONS INVENTORY

EMISSIONS BY CONSTRUCTION YEAR	EMISSIONS (POUNDS/DAY)						
	CO	ROG	NO_X	SO_X[1]	PM_{10}[2]	$PM_{2.5}$	CO_{2E}[3]
2022	15	1	12	0	1	0	4,174
2023	17	1	11	0	1	0	4,052
2024	28	24	13	0	2	1	5,883
2025	12	0	7	0	1	0	2,601
2026	23	12	7	0	2	1	4,122
2027	9	0	2	0	1	0	1,625
2028	12	2	7	0	2	1	3,719
Overall Maximum	**28**	**24**	**13**	**0**	**2**	**1**	**5,883**
CEQA Threshold	550	75	100	150	150	55	N/A
Significant?	**No**	**No**	**No**	**No**	**No**	**No**	

NOTES:
1 For purposes of this analysis, it was assumed that estimates of SO_x emissions are equal to calculated emissions of SO_2.
2 Includes fugitive sources.
3 CO_{2e} – Carbon Dioxide Equivalent.
SOURCE: Ricondo & Associates, Inc., June 2021, based on inputs to the Airport Construction Emissions Inventory Tool (ACEIT) and the California Emissions Estimator Model version 2020.4.0.

Table 5 presents an analysis whereby unmitigated peak daily emissions associated with construction of the Proposed Modifications are added to unmitigated peak daily emissions contained in the LAX Landside Access Modernization Program EIR. As shown, maximum daily emissions associated with the Landside Access Modernization Program occur in 2019 and 2020. When emissions associated with the Proposed Modifications are added, there is no change to these maximum daily emissions. While combined peak daily emissions increase during the Proposed Modifications construction period, those combined emissions do not exceed the maximum daily emissions levels reported in the EIR for 2019 and 2020.

Similar results and conclusions are shown in **Table 6**, which presents mitigated construction emissions reported in the Landside Access Modernization Program EIR, as well as estimated emissions for construction of the Proposed Modifications.

TABLE 5: APPROVED PROJECT AND PROPOSED MODIFICATIONS UNMITIGATED CONSTRUCTION EMISSIONS

	PEAK DAILY EMISSIONS (POUNDS/DAY)															CEQA
POLLUTANT	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	MAX	THRESHOLD
LAX Landside Access Modernization Program EIR																
CO	32	308	340	323	260	137	124	60	78	102	111	93	47	19	340	550
ROG	11	88	106	74	43	48	12	14	18	36	50	29	17	7	**106**	75
NOx	65	474	616	654	464	233	138	51	84	110	112	85	42	17	**654**	100
SOx	0	1	1	2	1	1	1	0	0	0	1	0	0	0	2	150
PM_{10}	16	62	89	114	91	52	32	26	25	13	28	9	3	1	114	150
$PM_{2.5}$	6	27	34	34	29	15	12	6	7	6	10	5	2	1	34	55
Proposed Modifications																
CO						11	16	25	11	22	8	12			25	
ROG						1	2	26	1	14	1	2			26	
NOx						13	12	24	7	13	5	9			24	
SOx						0	0	0	0	0	0	0			0	
PM_{10}						1	1	2	1	2	1	2			2	
$PM_{2.5}$						1	1	1	1	1	0	1			1	
LAX Landside Access Modernization Program EIR + Proposed Modifications																
CO	32	308	340	323	260	148	140	85	89	124	119	105	47	19	340	No Change
ROG	11	88	106	74	43	49	14	40	19	50	51	31	17	7	**106**	No Change
NOx	65	474	616	654	464	246	150	75	91	123	117	94	42	17	**654**	No Change
SOx	0	1	1	2	1	1	1	0	0	0	1	0	0	0	2	No Change
PM_{10}	16	62	89	114	91	53	33	28	26	15	29	11	3	1	114	No Change
$PM_{2.5}$	6	27	34	34	29	16	13	7	8	7	10	6	2	1	34	No Change

SOURCE: LAX Landside Access Modernization Program Draft Environmental Impact Report (EIR), Appendix F.1 (construction emissions); Ricondo & Associates, Inc., June 2021, based on inputs to the Airport Construction Emissions Inventory Tool (ACEIT) and the California Emissions Estimator Model version 2020.4.0 (Proposed Modifications construction emissions).

TABLE 6: APPROVED PROJECT AND PROPOSED MODIFICATIONS MITIGATED CONSTRUCTION EMISSIONS

	PEAK DAILY EMISSIONS (POUNDS/DAY)															CEQA
POLLUTANT	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	MAX	THRESHOLD
LAX Landside Access Modernization Program																
CO	26	270	293	270	223	118	103	53	63	83	90	75	38	15	293	550
ROG	8	81	83	51	32	39	7	13	15	31	46	25	15	6	**83**	75
NOx	29	256	341	381	285	153	109	40	66	85	90	70	35	14	**381**	100
SOx	0	1	1	2	1	1	1	0	0	0	1	0	0	0	2	150
PM_{10}	10	40	63	84	67	40	26	20	18	8	20	6	2	1	84	150
$PM_{2.5}$	3	11	15	16	15	9	7	4	4	4	6	3	1	0	16	55
Proposed Modifications																
CO						15	17	28	12	23	9	12			25	
ROG						1	1	24	0	12	0	2			26	
NOx						12	11	13	7	7	2	7			24	
SOx						0	0	0	0	0	0	0			0	
PM_{10}						1	1	2	1	2	1	2			2	
$PM_{2.5}$						0	0	1	0	1	0	1			1	
LAX Landside Access Modernization Program EIR + Proposed Modifications																
CO	26	270	293	270	223	133	120	81	75	106	99	87	38	15	293	No Change
ROG	8	81	83	51	32	40	8	37	15	43	46	27	15	6	**83**	No Change
NOx	29	256	341	381	285	165	120	53	73	92	92	77	35	14	**381**	No Change
SOx	0	1	1	2	1	1	1	0	0	0	1	0	0	0	2	No Change
PM_{10}	10	40	63	84	67	41	27	22	19	10	21	8	2	1	84	No Change
$PM_{2.5}$	3	11	15	16	15	9	7	5	4	5	6	4	1	0	16	No Change

SOURCE: LAX Landside Access Modernization Program Draft Environmental Impact Report (EIR), Appendix F.1 (construction emissions); Ricondo & Associates, Inc., June 2021, based on inputs to the Airport Construction Emissions Inventory Tool (ACEIT) and the California Emissions Estimator Model version 2020.4.0 (Proposed Modifications construction emissions).