



USE PERMIT 01-20-5331 LOCK & LEAVE SELF STORAGE PROJECT

PUBLIC REVIEW DRAFT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
JANUARY 2021

Prepared for:

City of Lake Forest
Community Development Department
100 Civic Center Drive
Lake Forest, CA 92630

Prepared by:

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D e N o v o P l a n n i n g G r o u p

A Land Use Planning, Design, and Environmental Firm





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Public Review Draft
Initial Study/Mitigated Negative Declaration

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January 2021

Table of Contents

1.0	INTRODUCTION.....	5
1.1	Statutory Authority and Requirements	5
1.2	Summary of Findings.....	6
1.3	Public Review Process.....	6
1.4	Incorporation by Reference	7
1.5	Report Organization.....	8
2.0	PROJECT DESCRIPTION.....	11
2.1	Project Location	11
2.2	Existing Setting.....	11
2.3	Proposed Project.....	15
2.4	Discretionary Actions	16
3.0	ENVIRONMENTAL CHECKLIST FORM	23
4.0	ENVIRONMENTAL ANALYSIS	27
4.1	Aesthetics.....	27
4.2	Agriculture and Forestry Resources.....	31
4.3	Air Quality	33
4.4	Biological Resources.....	45
4.5	Cultural Resources	49
4.6	Energy	53
4.7	Geology and Soils.....	63
4.8	Greenhouse Gas Emissions	71
4.9	Hazards and Hazardous Materials	81
4.10	Hydrology and Water Quality	85
4.11	Land Use and Planning.....	93
4.12	Mineral Resources	97
4.13	Noise	99
4.14	Population and Housing.....	115
4.15	Public Services.....	117
4.16	Recreation.....	121
4.17	Transportation	123
4.18	Tribal Cultural Resources	127
4.19	Utilities and Service Systems	131
4.20	Wildfire.....	137

4.21	Mandatory Findings of Significance	141
5.0	REFERENCES	143
6.0	REPORT PREPARATION PERSONNEL	145

Appendices

Appendix A – Air Quality, Greenhouse Gas, & Energy Impact Analysis

Appendix B – Tribal Consultation Communications

Appendix C – Limited Pavement Investigation

Appendix D – Noise Impact Analysis

Appendix E – VMT Screening Memorandum

List of Exhibits

Exhibit 2-1	Regional Vicinity.....	13
Exhibit 2-2	Project Location	14
Exhibit 2-3	Site Plan	17
Exhibit 2-4	First Floor Plan	18
Exhibit 2-5	Second Floor Plan	19
Exhibit 2-6	Building Elevations.....	20
Exhibit 2-7	Preliminary Planting Plan.....	21

List of Tables

Table 2-1	Existing Buildings	12
Table 4.3-1	South Coast Air Quality Management District Emissions Thresholds	34
Table 4.3-2	Local Significance Thresholds (Construction)	35
Table 4.3-3	Construction-Related Emissions (Pounds Per Day)	38
Table 4.3-4	Operational-Related Emissions (Pounds Per Day)	39
Table 4.3-5	Localized Significance – Construction.....	41
Table 4.6-1	Construction Equipment Fuel Consumption Estimates.....	57
Table 4.6-2	Construction Worker Fuel Consumption Estimates	58
Table 4.6-3	Construction Vendor Fuel Consumption Estimates (MHD Trucks).....	59
Table 4.6-4	Construction Vendor Fuel Consumption Estimates (HHD Trucks).....	59
Table 4.6-5	Estimated Vehicle Operations Fuel Consumption	61
Table 4.6-6	Project Annual Operational Energy Demand Summary	61
Table 4.8-1	Construction Greenhouse Gas Emissions	76
Table 4.8-2	Opening Year Project-Related Greenhouse Gas Emissions	77
Table 4.8-3	Project Consistency with CARB Scoping Plan Policies and Measures.....	78
Table 4.13-1	Short-Term Noise Measurement Data (dBA).....	104
Table 4.13-2	Land Use Compatibility for Community Noise Environment.....	105
Table 4.13-3	Performance Standards for Stationary Noise Sources, Including Affected Projects	106
Table 4.13-4	Project Traffic Noise Contributions to Existing Conditions.....	110

Table 4.13-5	Project Traffic Noise Contributions to Opening Year (2022) Scenario	110
Table 4.13-6	Guideline Vibration Damage Potential Threshold Criteria	113
Table 4.13-7	Vibration Source Levels for Construction Equipment.....	114

1.0 INTRODUCTION

1.1 Statutory Authority and Requirements

This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] Sections 21000, et seq.) and the State CEQA Guidelines (14 California Code of Regulations Title 14 Sections 15000, et seq.). This Initial Study is an informational document intended to be used as a decision-making tool for the Lead Agency and responsible agencies in considering and acting on the proposed Project.

Pursuant to CEQA Guidelines Section 15063, the City of Lake Forest, as Lead Agency, has prepared this Initial Study to determine if the proposed Lock & Leave Self Storage Project (Project) would have a significant effect on the environment. If, as a result of the Initial Study, the Lead Agency finds that there is evidence that mitigation cannot reduce the impact to a less than significant level for any aspect of the proposed Project, then the Lead Agency must prepare an Environmental Impact Report (EIR) to analyze project-related and cumulative environmental impacts. Alternatively, if the Lead Agency finds that there is no evidence that the proposed Project as proposed may cause a significant effect on the environment, the Lead Agency may prepare a Negative Declaration (ND). If the Lead Agency finds that there is evidence of a significant impact, but the impact can be reduced through mitigation, the Lead Agency may prepare a Mitigated Negative Declaration (MND). Such determination can be made only if “there is no substantial evidence in light of the whole record before the Lead Agency” that such significant environmental impacts may occur (PRC Section 21080(c)).

Pursuant to CEQA Guidelines Section 15063(c), the purposes of an Initial Study are to:

1. Provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR, MND or a ND;
2. Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a ND;
3. Assist in the preparation of an EIR, if one is required, by;
 - a. Focusing the EIR on the effects determined to be significant,
 - b. Identifying the effects determined not to be significant,
 - c. Explaining the reasons for determining that potentially significant effects would not be significant, and
 - d. Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project’s environment effects.
4. Facilitate environmental assessment early in the design of a project;
5. Provide documentation of the factual basis for the finding in a MND or ND that a project will not have a significant effect on the environment;
6. Eliminate unnecessary EIRs; and
7. Determine whether a previously prepared EIR could be used with the project.

The environmental documentation, which is ultimately selected by the City in accordance with CEQA, is intended as an informational document undertaken to provide an environmental basis for subsequent

discretionary actions upon the proposed Project. The resulting environmental documentation is not, however, a policy document and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and other discretionary approvals would be required.

1.2 Summary of Findings

Pursuant to State CEQA Guidelines Section 15367, the City of Lake Forest (City), as the Lead Agency, has the authority for environmental review and adoption of the environmental documentation, in accordance with CEQA. As set forth in State CEQA Guidelines Section 15070, an Initial Study leading to a Negative Declaration (IS/ND) or Mitigated Negative Declaration (IS/MND) can be prepared when:

- The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment (resulting in a Negative Declaration), or
- The Initial Study identifies potentially significant effects, but:
 - Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
 - There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment (resulting in a Mitigated Negative Declaration).

Based on the Environmental Checklist Form and supporting environmental analysis provided in Section 4.0, Environmental Analysis, the proposed Project would have no impact or a less than significant impact concerning all environmental issue areas, except the following, for which the Project would have a less than significant impact with mitigation incorporated:

- Biological Resources
- Noise

1.3 Public Review Process

The Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration has been provided to the Clerk of the County of Orange and mailed to responsible agencies and trustee agencies concerned with the Project and other public agencies with jurisdiction by law over resources affected by the Project. A 30-day public review period has been established for the IS/MND in accordance with State CEQA Guidelines Section 15073. During the public review period, the IS/MND, including the technical appendices, was made available for review at the following location:

- City of Lake Forest Website: <https://lakeforestca.gov/204/Planning>

In reviewing the IS/MND, affected public agencies and interested members of the public should focus on the document's adequacy in identifying and analyzing the potential environmental impacts and the ways in which the Project's potentially significant effects can be avoided or mitigated.

Written comments on this IS/MND may be sent to:

Ron Santos
Senior Planner
City of Lake Forest
Community Development Department
100 Civic Center Drive
Lake Forest, CA 92630
Email: rsantos@lakeforestca.gov

Following receipt and evaluation of comments from agencies, organizations, and/or individuals, the City will determine whether any substantial new environmental issues have been raised, and if further documentation may be required. If no new environmental issues have been raised or if the issues raised do not provide substantial evidence that the Project would have a significant effect on the environment, the IS/MND will be considered for adoption and the Project for approval.

1.4 Incorporation by Reference

Pursuant to State CEQA Guidelines Section 15150, a MND may incorporate by reference all or portions of another document which is a matter of public record or is generally available to the public. Where all or part of another document is incorporated by reference, the incorporated language shall be considered to be set forth in full as part of the MND's text.

The references outlined below were utilized during preparation of this Initial Study. Copies of these documents are available for review at Lake Forest City Hall, located at 100 Civic Center Drive, Lake Forest, California 92630.

Lake Forest 2040 General Plan, adopted June 2020. In 2020, the City adopted a comprehensive update to its 2006 General Plan. The *Lake Forest 2040 General Plan* (General Plan) serves as a long-term policy document which identifies the community's vision for the future and provides a framework to guide decisions on growth, development, and conservation of open space and resources in a manner consistent with the quality of life desired by residents and businesses. Each General Plan element provides a set of goals, policies, and implementation actions that will guide future decisions within the City. The General Plan is comprised of the following Elements:

- Land Use and Design
- Mobility
- Economic Development
- Recreation and Resources
- Public Safety
- Public Facilities
- Health and Wellness
- 2013 – 2021 Housing (under separate cover)

The General Plan also includes a land use diagram, which serves as a general guide to the distribution of land uses throughout the City.

In addition to the General Plan policy document, two important documents support the General Plan. The Existing Conditions Report and the General Plan Environmental Impact Report (EIR), are both intended to be used in conjunction with the General Plan.

City of Lake Forest Municipal Code. The *City of Lake Forest Municipal Code* (Municipal Code) consists of all the regulatory, penal, and administrative ordinances of the City of Lake Forest. It is the method the City uses to implement control of land uses in accordance with the General Plan goals and policies. The *City of Lake Forest Zoning Code* (Zoning Code), Title 9 of the Municipal Code, identifies land uses permitted and prohibited according to the zoning category of specific parcels.

Pacific Commercentre Planned Community District Regulations (ZC87-2P) Adopted by Ordinance No. 3651, July 22, 1987. The *Pacific Commercentre Planned Community District Regulations* (PC 6 District Regulations) constitute the land use regulations for development within the Pacific Commercentre Planned Community. In addition to providing general provisions and regulations, the PC 6 District Regulations identify the purpose and objectives; land use regulations; and site development standards for each Planning Area and associated Land Use Category within the Pacific Commercentre Planned Community.

City of Lake Forest CEQA Significance Thresholds Guide, Published November 20, 2001, Revised July 21, 2020. The *City of Lake Forest CEQA Significance Thresholds Guide* (CEQA Thresholds Guide) provides guidance for the review of projects and in the preparation of environmental documents pursuant to CEQA. CEQA requires the analysis of discretionary projects to disclose their potential effects on the environment. The CEQA Thresholds Guide is a tool that compiles information that is useful in the preparation of environmental documents, and improves the level of consistency, predictability, and objectivity of the City's environmental documents. This CEQA Thresholds Guide provides assistance in evaluating the significance of project impacts for six key topical issues in the City of Lake Forest: circulation/transportation, noise, air quality, land use, aesthetics, and water resources. For each topical issue the following information is provided: background information; discussion of relevant standards, planning guidelines, policies etc.; thresholds of significance; and potential mitigation.

City of Lake Forest Local Guidelines for Implementing the California Environmental Quality Act, 2020. The *City of Lake Forest Local Guidelines for Implementing the California Environmental Quality Act* (Local CEQA Guidelines), are procedures to implement CEQA, Public Resources Code Section 21000 et seq., and the State CEQA Guidelines (State CEQA Guidelines), 14 California Code of Regulations Section 15000 et seq. The Local CEQA Guidelines implement and tailor the general provisions of the State CEQA Guidelines to the specific operations of the City of Lake Forest and are intended to supplement the State CEQA Guidelines.

1.5 Report Organization

This document is organized into the following sections:

Section 1.0, Introduction, provides the CEQA Statute and Guidelines applicable to the Initial Study, summarizes the findings of the Initial Study, describes the public review process, and identifies documents incorporated by reference as part of the Initial Study.

Section 2.0, Project Description, provides a detailed description of the proposed Project, including Project location, environmental setting, Project characteristics, construction program and phasing, and requested entitlement, permits, and approvals.

Section 3.0, Environmental Checklist Form, provides Project background information and a summary of environmental factors potentially affected by the proposed Project and the Lead Agency Determination based on the analysis and impact determinations provided in Section 4.0. The impact evaluation criteria utilized in Section 4.0 is also provided.

Section 4.0, Environmental Analysis, provides a detailed analysis of the environmental impacts identified in the environmental checklist, and identifies mitigation measures, if necessary.

Section 5.0, References, identifies the information sources utilized in preparation of the IS to support the environmental analysis.

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2.0 PROJECT DESCRIPTION

2.1 Project Location

The Use Permit 01-20-5331 Lock & Leave Self Storage Project (Project) site is located in the City of Lake Forest within the County of Orange; refer to Exhibit 2-1, Regional Vicinity. The Project site is located in the western portion of the City, southwest of Commercentre Drive and northwest of Bake Parkway, at 25242 Arctic Ocean Drive. The Project site (also referred to as Building B) is part of a larger approximately 15.37-acre industrial development consisting of approximately 299,882 square feet of warehouse and office space that was completed in 1997; refer to Exhibit 2-2, Project Location.

Regional access to the site is provided via the Foothill Transportation Corridor (SR-241) located to the northeast and the Santa Ana Freeway (I-5) Freeway located to the southwest. Local access to the site is provided primarily from Commercentre Drive and Arctic Ocean Drive. Within the Project area, Alton and Bake Parkways provide access to Commercentre Drive. Arctic Ocean Drive is also accessed from Bake Parkway via Cooks Bay Drive and Crescent Bay Drive to the northeast and southwest of the Project site, respectively.

2.2 Existing Setting

ON-SITE LAND USES

The larger industrial development consists of two parcels. Parcel 1 is comprised of approximately 4.43 acres and is currently developed with two buildings (Building C and D) and Parcel 2 is comprised of approximately 10.92 acres and is currently developed with three buildings (Building A, B, and E); refer to Table 2-1, Existing Buildings. Access to the site occurs from two driveways on Commercentre Drive and one driveway on Arctic Ocean Drive. Surface parking for the on-site uses is distributed around the site perimeter and between the buildings; a total of 381 parking spaces are provided throughout the site. Landscaping is provided along the perimeter of the site and distributed within the parking areas. As shown in Table 2-1, Building B (the Project Site) consists of 64,329 square feet of office, manufacturing, and warehouse uses.

GENERAL PLAN AND ZONING

According to the Lake Forest 2040 General Plan Land Use Map (Lake Forest 2040 Land Use Element Figure LU-1), the Project site is designated Light Industrial. The Light Industrial designation provides for a variety of light industrial uses that are nonpolluting and can co-exist with surrounding land uses and which do not in their maintenance, assembly, manufacturing or operations create smoke, gas, dust, noise, vibration, soot or glare which might be obnoxious or offensive to persons residing or conducting business in the City. The maximum intensity of development is a floor area ratio of 0.6:1. Allowable uses include wholesale businesses, light manufacturing and processing, research and development uses, warehousing and storage, distribution and sales, high technology production, ancillary retail sales and related uses. Other uses that are determined to be compatible with the primary uses may also be allowed.

The City of Lake Forest Zoning Map identifies the zoning for the site as HT (High Technology) within the Pacific Commercentre Planned Community. The Pacific Commercentre Planned Community District Regulations (adopted July 1987) constitute the land use regulations under which development is governed within the Pacific Commercentre Planned Community.

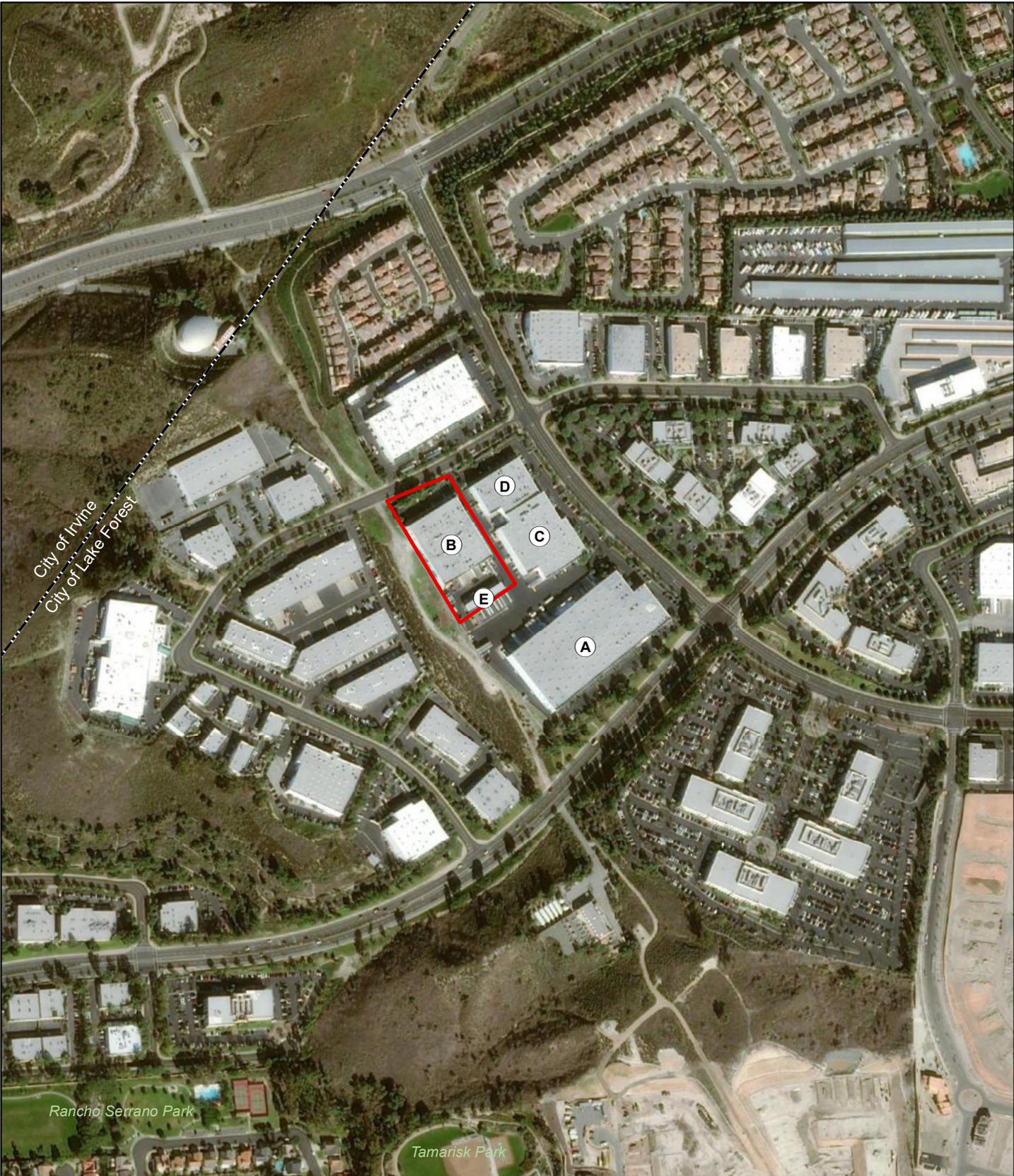
**Table 2-1
 Existing Buildings**

Building Description	Use	Square Feet
Parcel 1		
Building C – 25372 Commercentre Drive	Office	9,141
	Manufacturing	28,647
	Warehouse	24,239
Building C Subtotal		62,027
Building D – 25342 Commercentre Drive	Office	2,875
	Manufacturing	20,274
	Warehouse	6,515
Building D Subtotal		29,664
Parcel 1 Total		91,691
Parcel 2		
Building A – 25396 Commercentre Drive	Office	13,000
	Manufacturing	4,490
	Warehouse	122,510
Building A Subtotal		140,000
Building E – 25262 Arctic Ocean Drive	Area	3,862
Building E Subtotal		3,862
Building B – 25242 Arctic Ocean Drive (Project Site)		
First Floor	Office	7,806
	Manufacturing	9,243
	Warehouse	36,864
First Floor Subtotal		53,913
Second Floor (Mezzanine)	Office	10,416
	Second Floor Subtotal	
Building B Subtotal		64,329
Parcel 2 Total		208,191
Site Total		299,882
Source: Wallace Design Group, Business Park Site Plan, April 9, 2020.		
Note: Exhibit 2-2 depicts the location of each building.		

SURROUNDING USES

The larger industrial development is bounded by Arctic Ocean Drive to the north/northwest, Commercentre Drive to the north/northeast, Bake Parkway to the south/southeast, and a slope and open space area to the west/southwest. Light Industrial uses within the Pacific Commercentre Planned Community are located across Arctic Ocean Drive, Commercentre Drive, Bake Parkway, and the open space area. Further north/northwest of the Pacific Commercentre Planned Community, along Commercentre Drive, are single-family residential uses (Encanto) zoned R2 (Multifamily Dwellings) with PD (Planned Development) District and single-family residential uses (Baker Ranch) zoned R (Residential) within the Baker Ranch Planned Community.

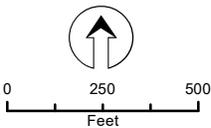
Building B (the Project site) is located within the northwest corner of the larger industrial development site. Building B is primarily surrounded by Buildings A, C, D, and E, and surface parking within the larger industrial development. Arctic Ocean Drive is located to the north/northwest and the slope and open space area is located immediately south/southeast of Building B.



Legend

-  Building
-  Project Site - Building B
-  Lake Forest City Boundary

Source: ArcGIS Online World Imagery Map Service; Orange County GIS. Map date: November 6, 2020.



**CITY OF LAKE FOREST
LOCK & LEAVE SELF STORAGE PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION**

Exhibit 2-2. Project Location

2.3 Proposed Project

The Project proposes to convert an existing 64,329 square foot warehouse building (Building B) into a 108,148 square foot climate controlled, Class “A” two-story self-storage facility consisting of 635 units, including a sales and rental office, break rooms, restrooms, and loading bays; refer to [Exhibit 2-3, *Site Plan*](#). No changes are proposed to any of the other buildings located within the larger industrial development.

In order to accommodate the two-story self-storage facility, some of the existing interior improvements would be removed including offices, restrooms, manufacturing areas, and a portion of the mezzanine. Some of the existing interior improvements would be maintained and used for offices, a security room, break room, and restroom. Interior improvements would include 1,438 square feet of office and 52,594 square feet of storage space on the first floor and 2,571 square feet of office and 51,387 square feet of storage space on the second floor. The 635 storage units would range in size from five feet by five feet to 10 feet by 30 feet; refer to [Exhibit 2-4, *First Floor Plan*](#) and [Exhibit 2-5, *Second Floor Plan*](#).

The storage units would be accessed from one of two loading areas along the eastern side of the building. The loading areas would be accessed from the existing driveway on Arctic Ocean Drive along the eastern side of the building and from the existing driveway on Commercentre Drive, behind the building through locked 20-foot-wide gates; refer to [Exhibit 2-3](#). Each entrance would have a secure vestibule with a secondary access to the elevator to the second-floor or the first-floor storage units. All units would be accessed from the interior of the building and there would be no storage units accessed from outside.

The existing easterly truck loading dock walls would be removed and the loading dock would be filled and paved to match adjacent grades and to facilitate improved loading access at the east side of the building. New loading zones would be provided adjacent to the building. Other improvements within the area include expanding an existing landscaped area, including constructing a curb and new wall to extend from the existing landscape planter and existing wall adjacent to the proposed gate; refer to [Exhibit 2-3](#).

With the western parking lot, new grades and paving would be provided to align with the existing building floor elevation. New striping within the parking lot would occur to provide parking stalls per City requirements, including the provision of stalls to meet ADA requirements. A new stair entry and access ramp would provide access from the parking area to the new storage entry. A concrete landing and steps would also be provided at the northeastern portion of the building. A concrete masonry retaining wall varying from six inches to 36 inches would be constructed along the western edge of the parking lot; refer to [Exhibit 2-3](#). A drainage channel is proposed west of the retaining wall, which would connect to the existing drainage channel to the south and the existing concrete channel to the north at Arctic Ocean Drive.

The exterior of the building would remain largely unchanged; refer to [Exhibit 2-6, *Building Elevations*](#). New painted metal canopies would be installed at all building entries and new storefront sliding doors would be provided at the front of the building. Interior improvements would require new exterior doors and removal of some existing exterior doors, which would involve painting of the doors and exterior to match the existing building color.

All existing landscaping is proposed to remain protected in place with the exception of three trees and a portion of the landscaping along the western frontage of the building; refer to [Exhibit 2-7, *Preliminary Planting Plan*](#). Three trees adjacent to the building would be permanently removed to provide access to the building entries and ramps. Two new trees would be provided within planters within the parking area.

One of the planters, closest to the building, would be a new planter constructed as part of the Project. Any trees and landscaping currently located adjacent to the parking area would be replaced as a result of damage associated with parking lot construction activities. Additionally, new trees and landscaping would be provided in a new landscaped planter area adjacent to the eastern parking lot and the proposed gate.

Upon restriping, 381 parking spaces would continue to be provided within the larger site.

At completion, the facility would have three to four employees during the sales office hours of 9:00 AM to 6:00 PM Monday through Saturday and 10:30 AM to 5:00 PM on Sundays; closed for employees on major holidays. Tenants would have access to the site through the secure vestibules and via a unique key code to access the building from 7:00 AM to 7:00 PM, seven days a week. Security cameras would also be provided throughout the facility for additional security.

PROJECT CONSTRUCTION AND PHASING

Construction activities are anticipated to commence in May 2021 and would be completed by December 2021.

2.4 Discretionary Actions

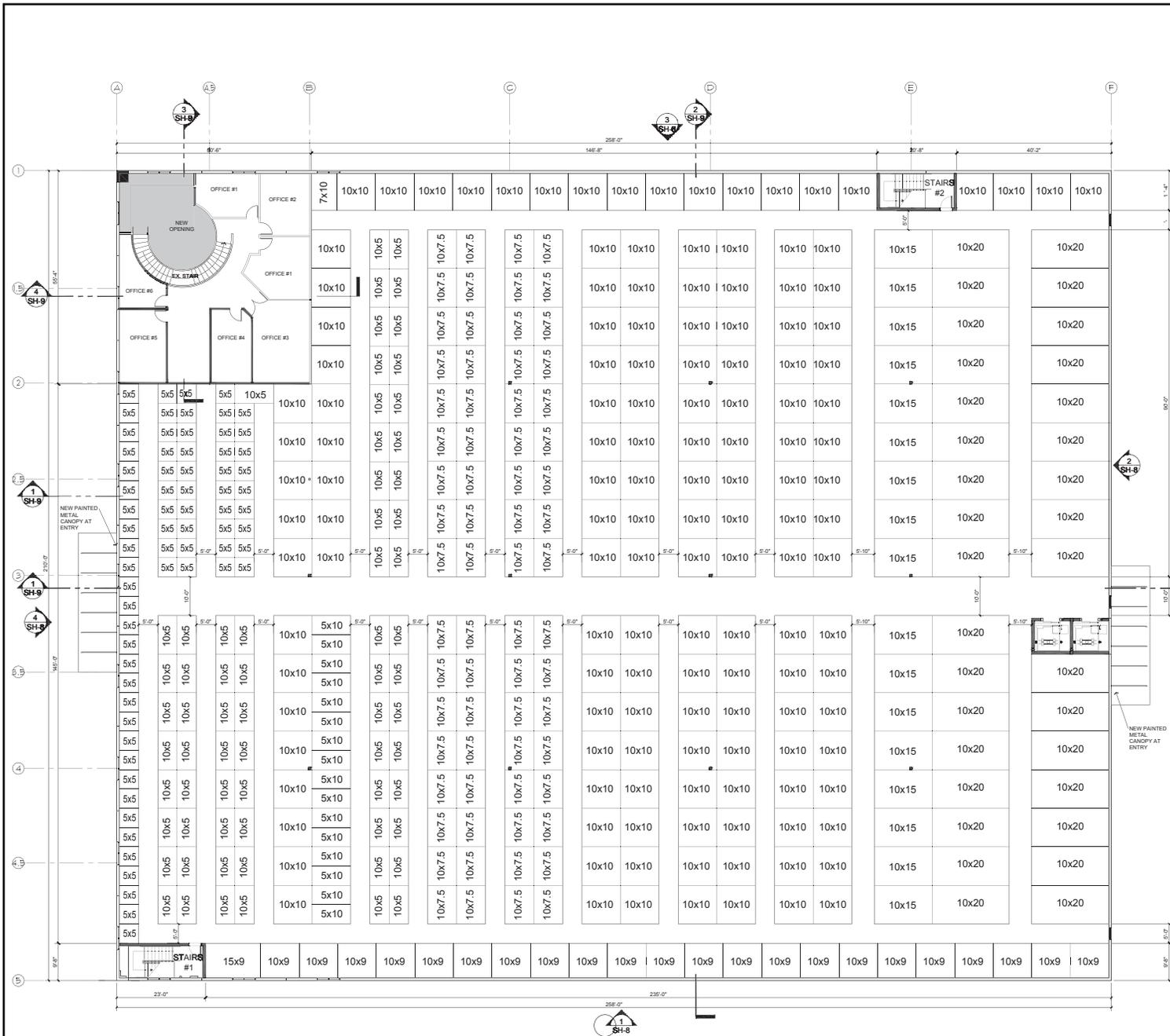
The City of Lake Forest, as the Lead Agency, has discretionary authority over the proposed Project. The Project would be subject to various City permits and approvals, including, but not limited to:

- Certification of a Final Mitigated Negative Declaration; and
- Approval of Use Permit (UP) 01-20-5331 by the Planning Commission.

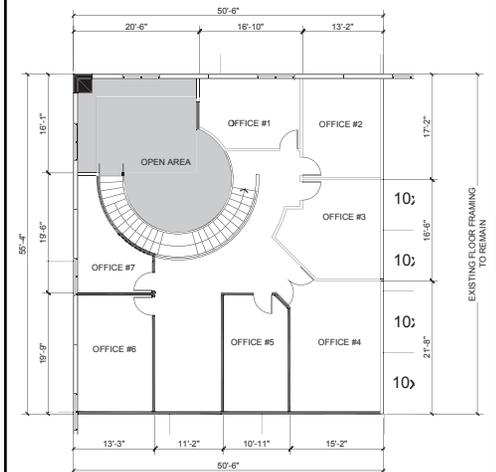
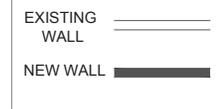
The Project would also require administrative approvals from the City for issuance of grading, building, and occupancy permits.

CITY OF LAKE FOREST
 LOCK & LEAVE SELF STORAGE PROJECT
 INITIAL STUDY/
 MITIGATED NEGATIVE DECLARATION

Exhibit 2-5.
 Second Floor Plan



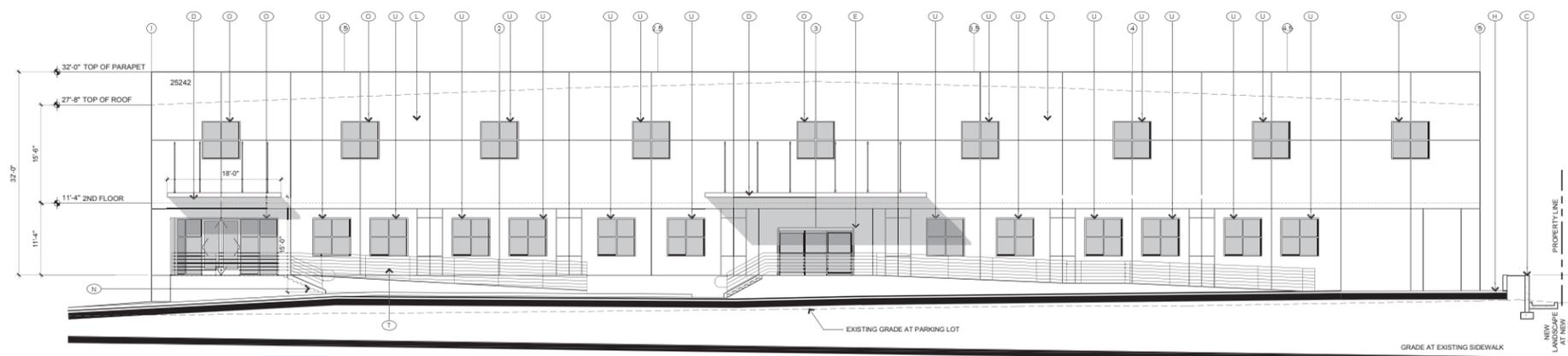
CONSTRUCTION LEGEND



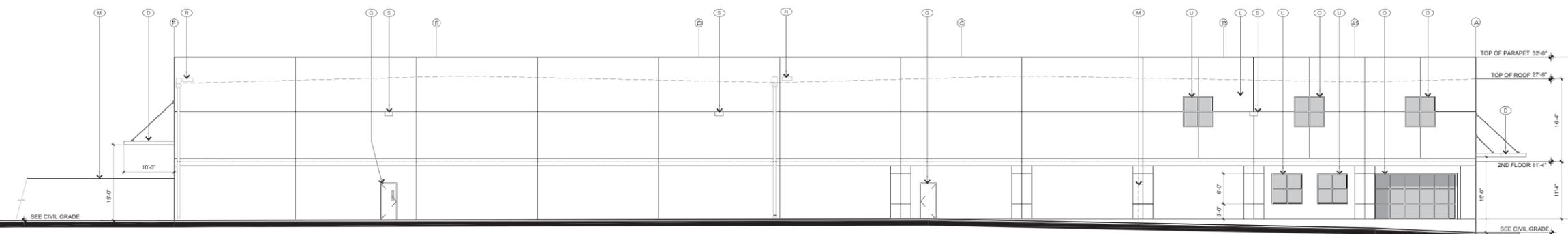
Source: Wallace Design Group, 4-2-2020. Map date: November 6, 2020.

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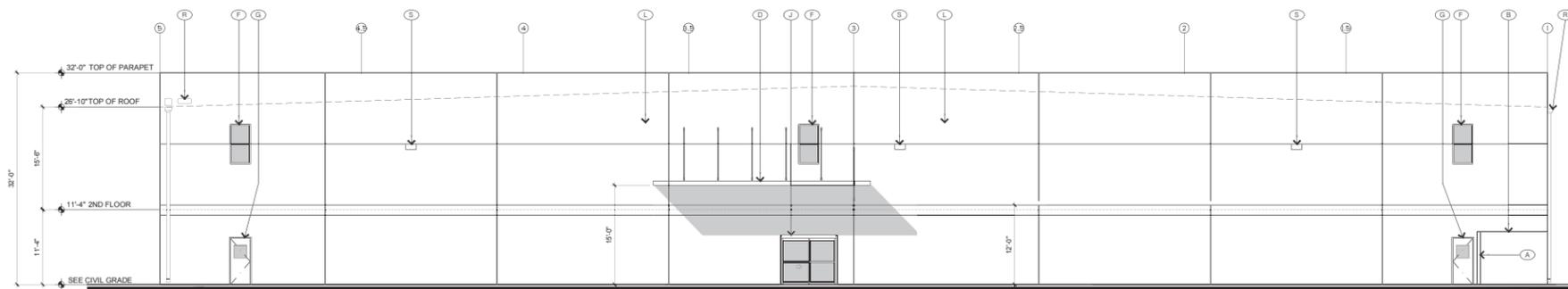
Exhibit 2-6. Building Elevations



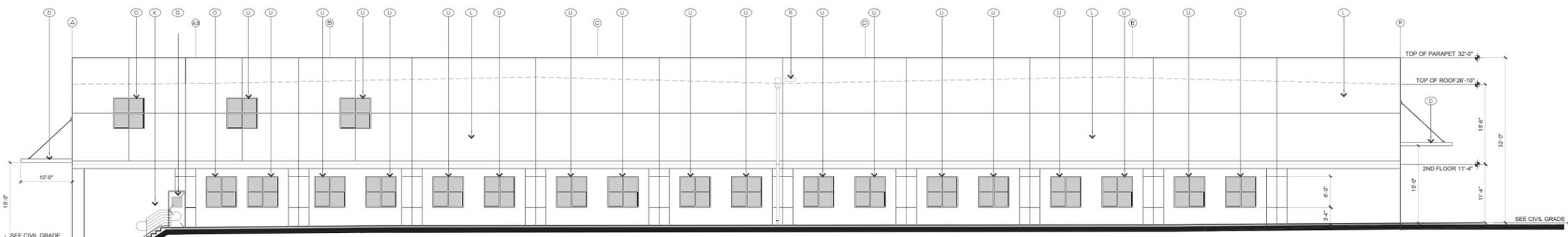
WEST ELEVATION 4 - FROM THE STREET



NORTH ELEVATION 3



EAST ELEVATION 2



SOUTH ELEVATION 1

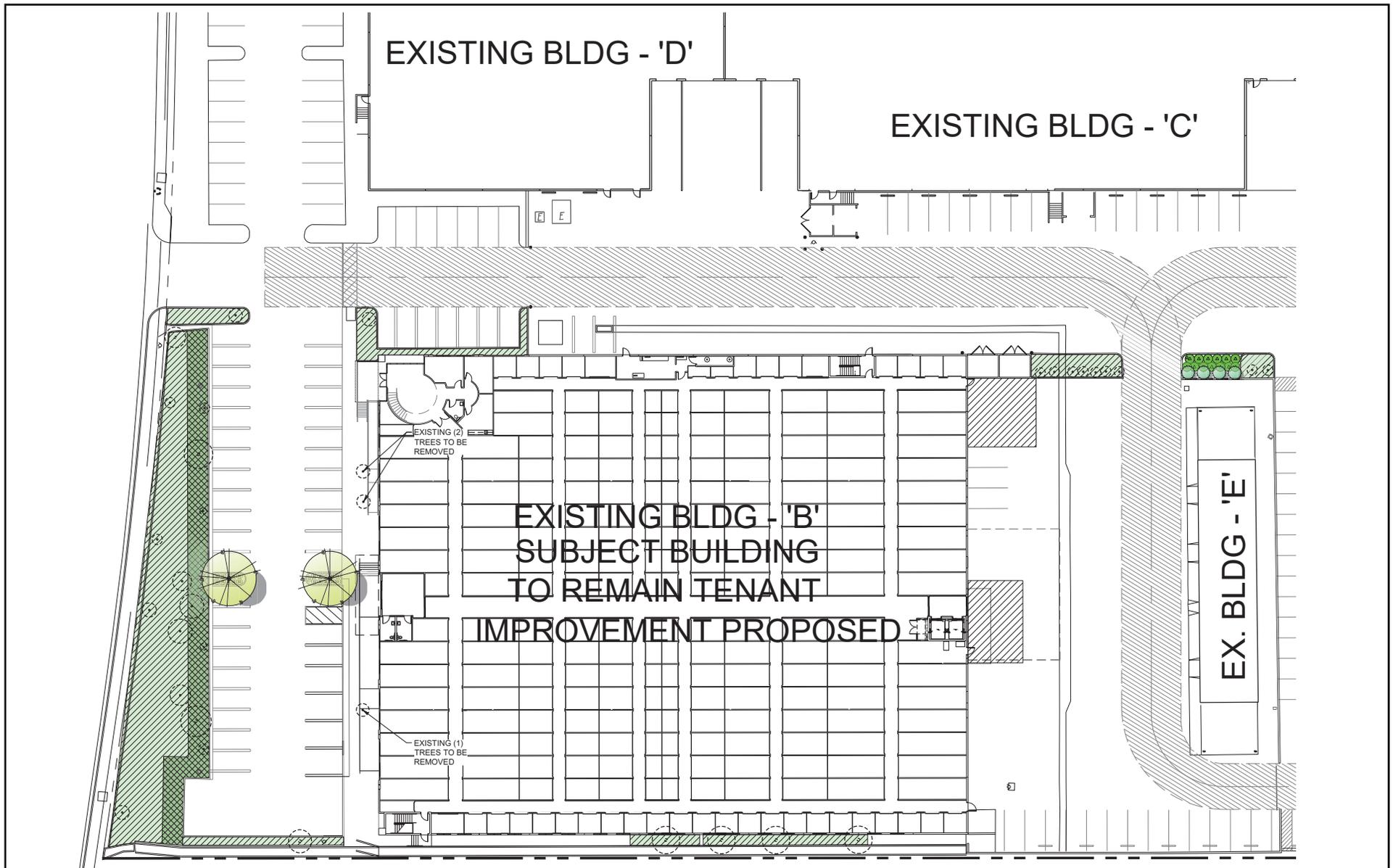
NEW MATERIALS

- (A) NEW WALL COLOR: NEW PAINT TO MATCH EXISTING COLOR
- (B) NEW TRASH ENCLOSURE COLOR: NEW PAINT TO MATCH EXISTING COLOR
- (C) NEW RETAINING WALL - SEE CIVIL
- (D) NEW METAL CANOPY WITH RODS
- (E) NEW STOREFRONT SLIDING DOORS
- (F) NEW STOREFRONT
- (G) NEW DOOR COLOR: NEW PAINT TO MATCH EXISTING COLOR
- (H) NEW ZERO CURB AT RAISED PARKING ELEVATION / GRADE
- (J) NEW RAMP AND GUARDRAIL AT STORAGE ENTRY
- (K) NEW CONC. LANDING STEPS, AND RAILING

EXISTING MATERIALS

- (L) (E) CONCRETE TILT UP WALL COLOR: NEW PAINT TO MATCH EXISTING COLOR
- (M) (E) WALL COLOR: NEW PAINT TO MATCH EXISTING ADJACENT COLOR
- (N) (E) STAIRS AND RAMP TO REMAIN
- (O) (E) STOREFRONT
- (P) (E) DOORS COLOR: NEW PAINT TO MATCH EXISTING COLOR
- (R) (E) DOWN SPOUTS AND OVER FLOWS
- (S) (E) WALL MOUNTED LIGHTS
- (T) (E) GUARDRAIL AT OFFICE ENTRY WALK
- (U) EXISTING GLAZING PROVIDE GRAY METAL PANEL OFFSET BEHIND INTERIOR FACE OF WALL

- SCHEDULE**
- (#) (E) = EXISTING
 - (#) = NEW CONSTRUCTION
 - (#) = PARKING STALL ROW COUNT QUANTITY



-  ITALIAN CYPRESS
-  BRISBANE BOX
-  EXISTING TREES
-  EUROPEAN GREY SEDGE
-  FORTNIGHT LILY
-  REPLACE ALL DAMAGED LIGUSTRUM TEXANUM AND CARISSA MACROCARPA FROM CONSTRUCTION IN-KIND WITH NEW 15 GAL. LIGUSTRUM. AND 5 GAL. CARISSA
-  EXISTING PLANTING TO REMAIN AND BE PROTECTED IN PLACE. ANY PLANTING DAMAGED DURING CONSTRUCTION TO BE REPLACED IN-KIND.

CITY OF LAKE FOREST
LOCK & LEAVE SELF STORAGE PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Exhibit 2-7. Preliminary Planting Plan

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3.0 ENVIRONMENTAL CHECKLIST FORM

BACKGROUND

1. Project Title: Use Permit 01-20-5331 Lock & Leave Self Storage Project
2. Lead Agency Name and Address: City of Lake Forest 100 Civic Center Drive Lake Forest, California 92630
3. Contact Person and Phone Number Ron Santos, Senior Planner City of Lake Forest, Community Development Department 949.461.3449
4. Project Location: The Project site is located in the western portion of the City, southwest of Commercentre Drive and northwest of Bake Parkway, at 25242 Arctic Ocean Drive. The Project site (referred to as Building B) is part of a larger approximately 15.37-acre industrial development consisting of approximately 299,882 square feet of warehouse and office space that was completed in 1997.
5. Project Sponsor's Name and Address: Mr. Bradley Kelly Makena Properties 25242 Arctic Ocean Drive Lake Forest, California 92630
6. General Plan Designation: Light Industrial
7. Zoning: HT (High Technology) within the Pacific Commercentre Planned Community
8. Description of the Proposed Project: Refer to Section 2.3 .
9. Surrounding Land Uses and Setting: Refer to Section 2.2 .
10. Other public agencies whose approval is required: Refer to Section 2.4 .
11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.? In compliance with AB 52, the City distributed letters to applicable Native American tribes informing them of the Project on November 5, 2020. At the time this Initial Study was made available for public review, no requests for consultation have been received; refer to Section 4.18 .

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a “Potentially Significant Impact” or “Less Than Significant With Mitigation Incorporated” as indicated by the checklist on the following pages.

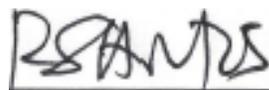
	Aesthetics		Agriculture and Forestry Resources		Air Quality
X	Biological Resources	X	Cultural Resources		Energy
	Geology and Soils		Greenhouse Gas Emissions		Hazards and Hazardous Materials
	Hydrology and Water Quality		Land Use and Planning		Mineral Resources
X	Noise		Population and Housing		Public Services
	Recreation		Transportation	X	Tribal Cultural Resources
	Utilities and Service Systems		Wildfire	X	Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

	I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

CITY OF LAKE FOREST



Ron Santos
Senior Planner



Date

EVALUATION OF ENVIRONMENTAL IMPACTS

The environmental analysis in this section is patterned after CEQA Guidelines Appendix G and the City of Lake Forest CEQA Significance Thresholds Guide. An explanation is provided for all responses. The responses consider the whole action involved, including on- and off-site project level and cumulative, indirect and direct, and short-term construction and long-term operational impacts. The evaluation of potential impacts also identifies the significance criteria or threshold, if any, used to evaluate each impact question. If applicable, mitigation measures are identified to avoid or reduce the impact to less than significant. There are four possible responses to each question:

- Potentially Significant Impact. This response is appropriate when there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries, upon completion of the Initial Study, an EIR is required.
- Less than Significant With Mitigation Incorporated. This response applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
- Less than Significant Impact. A less than significant impact is one which is deemed to have little or no adverse effect on the environment. Mitigation measures are, therefore, not necessary, although they may be recommended to further reduce a minor impact.
- No Impact. These issues were either identified as having no impact on the environment, or they are not relevant to the project.

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4.0 ENVIRONMENTAL ANALYSIS

4.1 Aesthetics

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Substantially damage scenic resources, including scenic vistas from public parks and views from designated state scenic highways or arterial roadways?				X
b. Create a new source of substantial night lighting that would result in “sky glow” (i.e. illumination of the night sky in urban areas) or “spill light” (i.e. light that falls outside of the area intended to be lighted) onto adjacent sensitive land uses.				X
c. Create a new source of substantial glare which would adversely affect daytime visibility and/or views in the area.				X
d. Degrade the existing visual character or quality of the site and its surroundings where:				
1) The project exceeds the allowed height or bulk regulations, or exceeds the prevailing height and bulk of existing structures?				X
2) The project is proposed to have an architectural style or use the building materials that will be in vivid contrast to an adjacent development where that development has been constructed adhering to a common architectural style or theme?				X
3) The project is located on a visually prominent site and, due to its height, bulk, architecture or signage, will be in vivid contrast to the surrounding development or environment degrading the visual unity of the area.				X
4) A project would include unscreened outdoor uses or materials.				X

<p>5) A project would result in the introduction of an architectural feature or building mass that conflicts with the character of the surrounding development.</p>				<p>X</p>
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a) Substantially damage scenic resources, including scenic vistas from public parks and views from designated state scenic highways or arterial roadways?

No Impact. The Project site is not located in proximity to any public parks with views of the site. Further, according to the General Plan, there are no state scenic highways located within the City of Lake Forest. Views of the Project Site from Commercentre Drive, a secondary arterial, are limited due to the structures located within the larger industrial development. Thus, the Project would not substantially damage scenic resources, including scenic vistas from public parks and views from designated scenic highways or arterial roadways.

Mitigation Measures: No mitigation measures are required.

b) Create a new source of substantial night lighting that would result in “sky glow” (i.e. illumination of the night sky in urban areas) or “spill light” (i.e. light that falls outside of the area intended to be lighted) onto adjacent sensitive land uses.

No Impact. The Project site and surrounding area are developed with a mix of industrial uses and currently experience lighting typical of an urbanized area, such as building interior and exterior lighting, parking lot security lighting, landscape lighting, and street lighting along surrounding roadways, including Commercentre Drive, Arctic Ocean Drive, and Bake Parkway. There are no sensitive land uses immediately adjacent to the Project site. The Project proposes to convert an existing warehouse building into a self-storage facility. The proposed improvements would not involve expansion of the exterior of the building or the introduction of significant new lighting within the building. The exterior of the building would remain largely unchanged and proposed improvements to the adjacent parking and loading areas, such as new grades and paving, new striping, new stair entry and access ramps, and new/expanded landscaped areas would not include new sources of lighting with the potential to result in substantial new or increased sky glow within the area. Thus, no impacts associated with a new source of substantial night lighting that would result in sky glow or spill light would occur.

Mitigation Measures: No mitigation measures are required.

c) Create a new source of substantial glare which would adversely affect daytime visibility and/or views in the area.

No Impact. The Project proposes to convert an existing warehouse building into a self-storage facility; proposed improvements would not involve expansion of the exterior of the building. The exterior of the building would remain largely unchanged. New painted metal canopies would be installed at all building entries and new storefront sliding doors would be provided at the front of the building. Interior improvements would require new exterior doors and removal of some existing exterior doors, which would involve painting of the doors and exterior to match the existing building color. The proposed

improvements would be consistent with the building's existing materials and would not create a new source of substantial glare which would adversely affect daytime visibility and/or views in the area.

Mitigation Measures: No mitigation measures are required.

d) *Degrade the existing visual character or quality of the site and its surroundings where:*

- 1) *The project exceeds the allowed height or bulk regulations, or exceeds the prevailing height and bulk of existing structures?***
- 2) *The project is proposed to have an architectural style or use the building materials that will be in vivid contrast to an adjacent development where that development has been constructed adhering to a common architectural style or theme?***
- 3) *The project is located on a visually prominent site and, due to its height, bulk, architecture or signage, will be in vivid contrast to the surrounding development or environment degrading the visual unity of the area.***
- 4) *A project would include unscreened outdoor uses or materials.***
- 5) *A project would result in the introduction of an architectural feature or building mass that conflicts with the character of the surrounding development.***

No Impact. The Project is not located on a visually prominent site. The Project proposes to convert an existing warehouse building into a self-storage facility. Proposed improvements would not involve expansion of the exterior of the building or any increase in height or bulk beyond existing conditions. The exterior of the building would remain largely unchanged. New painted metal canopies would be installed at all building entries and new storefront sliding doors would be provided at the front of the building. Interior improvements would require new exterior doors and removal of some existing exterior doors, which would involve painting of the doors and exterior to match the existing building color. However, the proposed improvements would be consistent with the building's existing materials and would not introduce new materials that would be in vivid contrast to the adjacent development or an architectural feature or building mass that conflicts with the character of the surrounding development. The Project would not involve unscreened outdoor uses or materials. The storage units would be accessed from one of two loading areas along the eastern side (rear) of the building. All units would be accessed from the interior of the building and there would be no storage units accessed from outside. Thus, the Project would not degrade the existing visual character or quality of the site.

Mitigation Measures: No mitigation measures are required.

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4.2 Agriculture and Forestry Resources

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526)?				X
d. Result in the loss of forest land or conversion of forest land to non-forest use?				X
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project site is completely developed and does not contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance pursuant to the Farmland Mapping and Monitoring Program.¹ Further, the Project site is zoned HT (High Technology) and is not zoned for agricultural use, nor is the site under a Williamson Act contract. Thus, the Project would not involve the conversion of farmland to a non-agricultural use or conflict with existing zoning for agricultural use or a Williamson Act contact.

¹ California Department of Conservation, *California Important Farmland Finder*, <https://maps.conservation.ca.gov/DLRP/CIFF/> accessed November 5, 2020.

Mitigation Measures: No mitigation measures are required.

c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

d) *Result in the loss of forest land or conversion of forest land to non-forest use?*

No Impact. The Project site is zoned HT (High Technology). According to the General Plan, no forest land, timberland, or timberland zoned Timberland Production occur within the City. The Project site is located within an urbanized area and is currently developed with a warehouse and surface parking. Thus, the proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use.

Mitigation Measures: No mitigation measures are required.

e) *Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

No Impact. Refer to Responses 4.2(a) through 4.2(d), above.

Mitigation Measures: No mitigation measures are required.

4.3 Air Quality

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?			X	
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? The SCAQMD construction and operational emission thresholds identified in Table 4-3 of the City of Lake Forest CEQA Significance Thresholds Guide are used for this assessment.			X	
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed qualitative thresholds for ozone precursors)?			X	
d. Expose sensitive receptors to substantial pollutant concentrations? Methodologies established by SCAQMD for assessing local impacts, including but not limited to Local Significance Thresholds and thresholds for PM2.5 are used for this assessment.			X	
e. Create objectionable odors affecting a substantial number of people?			X	
f. Result in a cumulatively considerable net increase of any criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) where the incremental effect of the project emissions, considered together with past, present, and reasonably anticipated further project emissions, increase the level of any criteria pollutant above the existing ambient level?			X	

This section is based on the *Arctic Ocean Storage Project Air Quality, Greenhouse Gas, and Energy Impact Analysis* (AQ, GHG & Energy Study) prepared by KW Air Quality & Noise, LLC, dated December 2, 2020 and included in its entirety as Appendix A, Air Quality, Greenhouse Gas, & Energy Impact Analysis.

South Coast Air Quality Management District Thresholds

Mass Emissions Thresholds

The South Coast Air Quality Management District (SCAQMD) significance criteria may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if a proposed project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SCAQMD has established thresholds of significance for air quality during project construction and operations, as shown in [Table 4.3-1, South Coast Air Quality Management District Emissions Thresholds](#).

**Table 4.3-1
 South Coast Air Quality Management District Emissions Thresholds**

Criteria Air Pollutants and Precursors (Regional)	Construction-Related	Operational-Related
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)
Reactive Organic Gases (ROG)	75	55
Carbon Monoxide (CO)	550	550
Nitrogen Oxides (NO _x)	100	55
Sulfur Oxides (SO _x)	150	150
Coarse Particulates (PM ₁₀)	150	150
Fine Particulates (PM _{2.5})	55	55

Source: KW Air Quality & Noise, LLC, *Arctic Ocean Storage Project Air Quality, Greenhouse Gas, & Energy Impact Analysis*, December 2, 2020.

Localized Carbon Monoxide

In addition to the daily thresholds listed above, the proposed Project would be subject to the ambient air quality standards. These are addressed through an analysis of localized CO impacts. The California 1-hour and 8-hour CO standards are:

- 1-hour = 20 ppm
- 8-hour = 9 ppm

If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more. The South Coast Air Basin (SCAB) has been designated as attainment under the 1-hour and 8-hour standards.

Localized Significance Thresholds

The SCAQMD has developed Local Significance Thresholds (LSTs) for emissions of NO₂, CO, PM₁₀, and PM_{2.5} generated from construction activities. LSTs represent the maximum emissions that can be generated at a project site without expecting to cause or substantially contribute to an exceedance of the most stringent national or state ambient air quality standards. LSTs are based on the ambient concentrations of that pollutant within the project source receptor area (SRA), as demarcated by the SCAQMD, and the distance to the nearest sensitive receptor. LST analysis for construction is applicable for all projects that

disturb 5.0 acres or less on a single day. The emission thresholds are based on the Saddleback Valley source receptor area (SRA 19) and a disturbance of two acres per day (as the Project site is approximately 2.5 acres) at a distance of 100 meters (328 feet), as the closest sensitive receptor is located approximately 465 feet (142 meters) northwest of the Project site; refer to Table 4.3-2, Local Significance Thresholds (Construction).

**Table 4.3-2
 Local Significance Thresholds (Construction)**

Project Size	Nitrogen Oxide (NOx) – lbs/day	Carbon Monoxide (CO) – lbs/day	Coarse Particulates (PM ₁₀) – lbs/day	Fine Particulates (PM _{2.5}) – lbs/day
2.0 acres	139	1,696	30	10
Source: KW Air Quality & Noise, LLC, <i>Arctic Ocean Storage Project Air Quality, Greenhouse Gas, & Energy Impact Analysis</i> , December 2, 2020.				

According to SCAQMD LST methodology, LSTs would apply to the operational phase of a project, if the project includes stationary sources, or attracts mobile sources (such as heavy-duty trucks) that may spend long periods queuing and idling at the site; such as industrial warehouse/transfer facilities. The proposed Project consists of a self-storage facility, and does not include such uses. Therefore, due the lack of stationary source emissions, no long-term localized significance threshold analysis is warranted.

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. As part of its enforcement responsibilities, the United States Environmental Protection Agency (USEPA) requires that each state with nonattainment areas prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under State law, the California Clean Air Act (CCAA) requires an air quality attainment plan to be prepared for areas designated as nonattainment regarding the federal and State ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The Project site is located within SCAB, which is under SCAQMD’s jurisdiction. The SCAQMD is required, pursuant to the Federal Clean Air Act (FCAA), to reduce emissions of criteria pollutants for which SCAB is in non-attainment. To reduce such emissions, the SCAQMD drafted the 2016 Air Quality Management Plan (AQMP). The 2016 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving State (California) and national air quality standards. The 2016 AQMP is a regional and multi-agency effort including the SCAQMD, the California Air Resources Board (CARB), the Southern California Association of Governments (SCAG), and the USEPA. The AQMP’s pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG’s 2016 RTP/SCS, updated emission inventory methodologies for various source categories, and SCAG’s growth forecasts. SCAG’s growth forecasts were defined in consultation with local governments and with reference to local general plans. The proposed project is subject to the SCAQMD’s AQMP.

Criteria for determining consistency with the AQMP are defined by the following indicators:

- **Consistency Criterion No. 1:** A proposed project would not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay the timely attainment of the AQMP's air quality standards or the interim emissions reductions.
- **Consistency Criterion No. 2:** A proposed project would not exceed the AQMP's assumptions or increments based on the years of the project build-out phase.

Consistency Criterion No. 1 refers to the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). As shown in Tables 4.3-3 and 4.3-4, the proposed Project construction and operational emissions would be below SCAQMD's thresholds. As the Project would not generate localized construction or regional construction or operational emissions that would exceed SCAQMD thresholds of significance, the Project would not violate any air quality standards. Thus, no impact is expected, and the Project would be consistent with the first criterion.

Consistency Criterion No. 2 refers to SCAG's growth forecasts and associated assumptions included in the AQMP. The future air quality levels projected in the AQMP are based on SCAG's growth projections, which are based, in part, on the general plans of cities located within the SCAG region. Therefore, projects that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds.

With respect to determining consistency with Consistency Criterion No. 2, it is important to recognize that air quality planning within the air basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed Project exceeds the assumptions utilized in preparing the forecasts presented in the 2016 AQMP. Determining whether or not a project exceeds the assumptions reflected in the 2016 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

1. *Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?*

Growth projections included in the 2016 AQMP form the basis for the projections of air pollutant emissions and are based on the General Plan land use designations and SCAG's 2016-2040 Regional Transportation Plan/Sustainability Communities Strategy (2016-2040 RTP/SCS) demographics forecasts. The population, housing, and employment forecasts within the 2016-2040 RTP/SCS are based on local general plans as well as input from local governments, such as the City of Lake Forest. The SCAQMD has incorporated these same demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment) into the 2016 AQMP.

The Project site is designated Light Industrial in the Lake Forest 2040 General Plan Land Use Map. The Project proposes to convert an existing warehouse building into a self-storage facility. The self-storage facility would be consistent with the Light Industrial land use designation for the site. Conversion of the existing warehouse use to a self-storage facility would not result in significant employment growth; at completion, the facility would have three to four employees. Thus, the Project would be consistent with the City's General Plan and would not exceed the AQMP assumptions for the Project site.

2. *Would the project implement all feasible air quality mitigation measures?*

The proposed Project would result in less than significant air quality impacts. Compliance with all feasible emission reduction measures identified by the SCAQMD would be required as identified in Responses 4.3(b) and (c). As such, the proposed Project meets this 2016 AQMP consistency criterion.

3. *Would the project be consistent with the land use planning strategies set forth in the AQMP?*

Land use planning strategies set forth in the 2016 AQMP are primarily based on the 2016-2040 RTP/SCS. As discussed in [Section 4.8, Greenhouse Gas Emissions](#), in order to assess the Project's consistency with the 2016-2040 RTP/SCS, the Project's land use assumptions are reviewed for consistency with those utilized by SCAG in its SCS. Generally, projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as the 2016-2040 RTP/SCS, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. The Project proposes to convert an existing warehouse building into a self-storage facility. The proposed Project is consistent with the General Plan Land Use and Zoning for the site; thus, the Project would be consistent with the land uses anticipated by the 2016-2040 RTP/SCS.

In conclusion, the determination of 2016 AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the air basin. The proposed Project would not result in a long-term impact on the region's ability to meet State and federal air quality standards. Further, the proposed Project's long-term influence on air quality in the air basin would also be consistent with the SCAQMD and SCAG's goals and policies and is considered consistent with the 2016 AQMP. Therefore, the Project would be consistent with the above criteria and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation? The SCAQMD construction and operational emission thresholds identified in Table 4-3 of the City of Lake Forest CEQA Significance Thresholds Guide are used for this assessment.*

Less Than Significant Impact.

Construction Emissions

Project construction activities would generate short-term emissions of criteria air pollutants. Construction-generated emissions are short term and temporary, lasting only while construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Construction-related emissions were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. The emissions incorporate SCAQMD Rule 402 and 403, which would ensure that proper dust control techniques are implemented during construction. Rule 402 and 403 are not considered mitigation measures as the Project by default is required to incorporate these rules during construction; refer to [Appendix A](#), for additional information regarding construction assumptions used in this analysis.

As shown in [Table 4.3-3, Construction-Related Emissions \(Pounds Per Day\)](#), the Project would not exceed the SCAQMD's daily emission thresholds at the regional level and therefore impacts associated with Project construction emissions would be less than significant.

**Table 4.3-3
Construction-Related Emissions (Pounds Per Day)**

Activity ¹	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Carbon Monoxide (CO)	Sulfur Oxides (SOx)	Coarse Particulates (PM10)	Fine Particulates (PM2.5)
Demolition	2.07	20.56	15.11	0.03	1.52	1.59
Site Preparation	1.62	18.47	8.08	0.02	3.19	1.91
Building Construction	1.91	14.33	13.62	0.03	0.93	0.73
Paving	0.83	7.77	9.25	0.01	0.56	0.42
Architectural Coating ²	20.43	1.54	1.94	0.00	0.14	0.11
Total of Overlapping Phases³	23.17	23.64	24.82	0.04	1.63	1.26
SCAQMD Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Source: KW Air Quality & Noise, LLC, <i>Arctic Ocean Storage Project Air Quality, Greenhouse Gas, & Energy Impact Analysis</i> , December 2, 2020. CalEEMod Version 2016.3.2						
Notes: 1. Includes on- and off-site emissions from equipment operated on-site and on public roads. 2. Architectural coating includes adherence to SCAQMD Rule 1113 limiting architectural coatings to 50 g/L VOC for buildings and 100 g/L VOC for parking lot striping. 3. Construction, architectural coatings, and paving phases may overlap.						

Operational Emissions

The Project's operational emissions would be associated with motor vehicle use and area sources. Area sources include natural gas for space and water heating, gasoline-powered landscaping and maintenance equipment, consumer products (such as household-type cleaners). Mobile sources emissions are generated from vehicle operations associated with Project operations. Project operational emissions are shown in [Table 4.3-4, *Operational-Related Emissions \(Pounds Per Day\)*](#). The operations-related criteria air quality impacts have been analyzed using CalEEMod. The operating emissions were based on an opening year of 2022; refer to [Appendix A](#), for additional information regarding assumptions used in this analysis.

Area Source Emissions

Area source emissions would be generated due to consumer products, architectural coating, and landscaping that were previously not present on the site. As shown in [Table 4.3-4](#), the Project's area source emissions would not exceed SCAQMD thresholds. Therefore, impacts would be less than significant and mitigation measures are not required.

**Table 4.3-4
Operational-Related Emissions (Pounds Per Day)**

Activity/Source	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Carbon Monoxide (CO)	Sulfur Oxides (SOx)	Coarse Particulates (PM ₁₀)	Fine Particulates (PM _{2.5})
Area Sources ¹	2.41	0.00	0.01	0.00	0.00	0.00
Energy Usage ²	0.01	0.11	0.10	0.00	0.01	0.01
Mobile Sources ³	0.27	1.15	4.02	0.02	1.49	0.41
Total Emissions	2.69	1.27	4.12	0.02	1.50	0.42
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No
Source: KW Air Quality & Noise, LLC, <i>Arctic Ocean Storage Project Air Quality, Greenhouse Gas, & Energy Impact Analysis</i> , December 2, 2020. CalEEMod Version 2016.3.2						
Notes: 1. Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment. 2. Energy usage consists of emissions from on-site natural gas usage. 3. Mobile sources consist of emissions from vehicles and road dust.						

Energy Source Emissions

Energy source emissions would be generated due to the Project’s natural gas usage. As shown in [Table 4.3-4](#), the Project’s energy source emissions would not exceed SCAQMD thresholds for criteria pollutants. As such, the Project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation. Therefore, the Project’s operational air quality impacts would be less than significant.

Mobile Source

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NOx, PM₁₀, and PM_{2.5} are all pollutants of regional concern. NOx and ROG react with sunlight to form O₃, known as photochemical smog. Additionally, wind currents readily transport PM₁₀ and PM_{2.5}. However, CO tends to be a localized pollutant, dispersing rapidly at the source. As shown in [Table 4.3-4](#), mobile source emissions would not exceed SCAQMD thresholds for criteria pollutants. Therefore, the Project’s air quality impacts associated with mobile source emissions would be less than significant.

Total Operational Emissions

As indicated in [Table 4.3-4](#), operational emissions from the proposed Project would not exceed SCAQMD thresholds. Thus, operational air quality impacts would be less than significant.

- c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed qualitative thresholds for ozone precursors)?**

Less Than Significant Impact. The Project area is out of attainment for both ozone and PM₁₀ particulate matter. Construction and operation of cumulative projects would further degrade the local air quality, as well as the air quality of the South Coast Air Basin. The greatest cumulative impact on regional air quality would be the incremental addition of pollutants mainly from increased traffic from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. Air quality would be temporarily degraded during construction activities that occur separately or simultaneously. However, in accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact. Further, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. As shown in Tables 4.3-3 and 4.3-4, the Project would not result in short-term construction or long-term operational air quality impacts. As a result, the proposed Project would not contribute to a cumulatively considerable net increase of any nonattainment criteria pollutant. Therefore, cumulative impacts associated with implementation of the proposed Project would be less than significant.

Mitigation Measures: No mitigation measures are required.

- d) Expose sensitive receptors to substantial pollutant concentrations? Methodologies established by SCAQMD for assessing local impacts, including but not limited to Local Significance Thresholds and thresholds for PM_{2.5} are used for this assessment.**

Less Than Significant Impact. Sensitive receptors are members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of land uses where sensitive receptors are typically located include residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The closest existing sensitive receptors to the Project site are residential uses within the Encanto gated community, located at Calle Elegante and Commercentre Drive, approximately 465 feet (142 meters) northwest of the Project site. To identify impacts to sensitive receptors, the SCAQMD recommends addressing localized significance thresholds (LSTs) for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with Project-specific emissions. The SCAQMD provides the LST lookup tables for one, two, and five-acre projects emitting CO, NO_x, PM_{2.5}, and PM₁₀. The Project site is located within the Saddleback Valley SRA 19.

Based on the SCAQMD guidance on applying CalEEMod to LSTs, the Project would disturb approximately 2.0 acres of land per day (as the Project site is approximately 2.5 acres). Therefore, the LST thresholds for two acres were utilized for the construction LST analysis. As the nearest sensitive receptor is located approximately 465 feet (142 meters) to the northwest of the Project site, the LST value of 100 meters (328 feet) was conservatively utilized. Table 4.3-5, Localized Significance – Construction, shows the localized construction-related emissions.

**Table 4.3-5
Localized Significance – Construction**

Phase	On-Site Pollutant Emissions (pounds/day) ¹			
	Nitrogen Oxides (NO _x)	Carbon Monoxide (CO)	Coarse Particulates (PM ₁₀)	Fine Particulates (PM _{2.5})
Demolition	19.70	14.49	1.32	1.01
Site Preparation	17.42	7.56	3.03	1.86
Building Construction	13.64	12.90	0.68	0.66
Paving	7.74	8.86	0.42	0.38
Architectural Coating	1.53	1.82	0.09	0.09
Total of Overlapping Phases ³	22.91	23.57	1.19	1.14
SCAQMD Local Significance Threshold	139	1,696	30	10
Exceeds SCAQMD Threshold?	No	No	No	No
Source: KW Air Quality & Noise, LLC, <i>Arctic Ocean Storage Project Air Quality, Greenhouse Gas, & Energy Impact Analysis</i> , December 2, 2020. Calculated from CalEEMod 2 and SCAQMD's Mass Rate Look-up Tables for two acres in Saddleback Valley Receptor Area (SRA 19) based on the Project site of 2.47 acres and nearest sensitive receptor located approximately 465 feet northwest of the Project site.				
Notes: 1. Emissions reflect on-site construction emissions only, per SCAQMD guidance.				

As shown in [Table 4.3-5](#), on-site emissions would not exceed the LSTs for SRA 19. Local air quality impacts associated with Project construction activities would be less than significant.

According to SCAQMD LST methodology, LSTs would apply to the operational phase of a project, if the project includes stationary sources, or attracts mobile sources (such as heavy-duty trucks) that may spend long periods queuing and idling at the site; such as industrial warehouse/transfer facilities. The proposed Project consists of a self-storage facility, and does not include such uses. Therefore, due the lack of stationary source emissions, no long-term localized significance threshold analysis is warranted.

The Project would not involve the use, storage, or processing of carcinogenic or non-carcinogenic toxic air contaminants, and no significant toxic airborne emissions would result from operation of the proposed Project. Construction activities are subject to the regulations and laws relating to toxic air pollutants at the regional, State, and federal level that would protect sensitive receptors from substantial concentrations of these emissions. Therefore, impacts associated with the release of toxic air contaminants would be less than significant.

Criteria Pollutant Health Impacts

On December 24, 2018, the California Supreme Court issued an opinion identifying the need to provide sufficient information connecting a project's air emissions to health impacts or explain why such information could not be ascertained (*Sierra Club v. County of Fresno [Friant Ranch, L.P.]* [2018] 6 Cal.5th 502). The SCAQMD has set its CEQA significance thresholds based on the FCAA, which defines a major stationary source (in extreme ozone nonattainment areas such as the SCAB) as emitting 10 tons per year.

The thresholds correlate with the trigger levels for the federal New Source Review (NSR) Program and SCAQMD Rule 1303 for new or modified sources. The NSR Program was created by the FCAA to ensure that stationary sources of air pollution are constructed or modified in a manner that is consistent with attainment of health-based federal ambient air quality standards. The federal ambient air quality standards establish the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Therefore, projects that do not exceed the SCAQMD's mass emissions thresholds would not violate any air quality standards or contribute substantially to an existing or projected air quality violation and no criteria pollutant health impacts would occur.

NOx and ROG are precursor emissions that form ozone in the atmosphere in the presence of sunlight where the pollutants undergo complex chemical reactions. It takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources. Breathing ground-level ozone can result in health effects that include: reduced lung function, inflammation of airways, throat irritation, pain, burning, or discomfort in the chest when taking a deep breath, chest tightness, wheezing, or shortness of breath. In addition to these effects, evidence from observational studies strongly indicates that higher daily ozone concentrations are associated with increased asthma attacks, increased hospital admissions, increased daily mortality, and other markers of morbidity. The consistency and coherence of the evidence for effects upon asthmatics suggests that ozone can make asthma symptoms worse and can increase sensitivity to asthma triggers.

According to the SCAQMD's 2016 AQMP, ozone, NOx, and ROG have been decreasing in the SCAB since 1975 and are projected to continue to decrease in the future. Although VMT in the SCAB continue to increase, NOx and ROG levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NOx emissions from electric utilities have also decreased due to the use of cleaner fuels and renewable energy. The 2016 AQMP demonstrates how the SCAQMD's control strategy to meet the 8-hour ozone standard in 2023 would lead to sufficient NOx emission reductions to attain the 1-hour ozone standard by 2022. In addition, since NOx emissions also lead to the formation of PM_{2.5}, the NOx reductions needed to meet the ozone standards will likewise lead to improvement of PM_{2.5} levels and attainment of PM_{2.5} standards.

The SCAQMD's air quality modeling demonstrates that NOx reductions prove to be much more effective in reducing ozone levels and will also lead to a significant decrease in PM_{2.5} concentrations. NOx-emitting stationary sources regulated by the SCAQMD include Regional Clean Air Incentives Market (RECLAIM) facilities (e.g., refineries, power plants, etc.), natural gas combustion equipment (e.g., boilers, heaters, engines, burners, flares) and other combustion sources that burn wood or propane. The 2016 AQMP identifies robust NOx reductions from new regulations on RECLAIM facilities, non-refinery flares, commercial cooking, and residential and commercial appliances. Such combustion sources are already heavily regulated with the lowest NOx emissions levels achievable but there are opportunities to require and accelerate replacement with cleaner zero-emission alternatives, such as residential and commercial furnaces, pool heaters, and backup power equipment. The AQMP plans to achieve such replacements through a combination of regulations and incentives. Technology-forcing regulations can drive development and commercialization of clean technologies, with future year requirements for new or existing equipment. Incentives can then accelerate deployment and enhance public acceptability of new technologies.

The 2016 AQMP also emphasized that beginning in 2012, continued implementation of previously adopted regulations will lead to NOx emission reductions of 68 percent by 2023 and 80 percent by 2031. With the addition of 2016 AQMP proposed regulatory measures, a 30 percent reduction of NOx from

stationary sources is expected in the 15-year period between 2008 and 2023. This is in addition to significant NO_x reductions from stationary sources achieved in the decades prior to 2008.

As previously discussed, Project emissions would be less than significant and would not exceed SCAQMD thresholds. Localized effects of on-site Project emissions on nearby receptors were also found to be less than significant. Therefore, sensitive receptors would not be exposed to criteria pollutant levels more than the health-based ambient air quality standards.

Carbon Monoxide Hotspots

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards.

To determine if the proposed Project could cause emission levels in excess of the CO standards, a sensitivity analysis is typically conducted to determine the potential for CO “hot spots” at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle queuing, “hot spots” potentially can occur at high traffic volume intersections with a Level of Service (LOS) E or worse.

Micro-scale air quality emissions have traditionally been analyzed in environmental documents where the air basin was a non-attainment area for CO. However, the SCAQMD has demonstrated in the CO attainment redesignation request to EPA that there are no “hot spots” anywhere in the air basin, even at intersections with much higher volumes, much worse congestion, and much higher background CO levels than anywhere in Orange County. If the worst-case intersections in the air basin have no “hot spot” potential, any local impacts will be below thresholds.

The Traffic Impact Analysis prepared for the Project determined that for the opening year (2022) with project scenario, the lowest level of service, LOS C would occur at the intersection of Bake Parkway at Commercentre Drive. The Project would not contribute to any high traffic volume intersections with a LOS E or worse. Therefore, no CO “hot spot” modeling is necessary and no significant long-term air quality impact is anticipated to local air quality with the on-going operation of the proposed Project.

Construction-Related Toxic Air Contaminant

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed Project. The Office of Environmental Health Hazard Assessment (OEHHA) has issued the Air Toxic Hot Spots Program Risk Assessment Guidelines and Guidance Manual for the Preparation of Health Risk Assessments, February 2015 to provide a description of the algorithms, recommended exposure variates, cancer and noncancer health values, and the air modeling protocols needed to perform a health risk assessment (HRA) under the Air Toxics Hot Spots Information and Assessment Act of 1987. Hazard identification includes identifying all substances that are evaluated for cancer risk and/or non-cancer acute, 8-hour, and chronic health impacts. In addition, identifying any multi-pathway substances that present a cancer risk or chronic non-cancer hazard via non-inhalation routes of exposure.

Given the relatively limited number of heavy-duty construction equipment and 8- to 10-month construction schedule, the proposed Project would not result in a long-term substantial source of toxic air contaminant emissions and corresponding individual cancer risk. Furthermore, construction-based

particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the proposed Project.

Mitigation Measures: No mitigation measures are required.

e) *Create objectionable odors affecting a substantial number of people?*

Less Than Significant Impact.

Construction

Odors that could be generated by construction activities are required to follow SCAQMD Rule 402 to prevent odor nuisances on sensitive land uses. SCAQMD Rule 402, Nuisance, states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

During construction, emissions from construction equipment, such as diesel exhaust, and volatile organic compounds from architectural coatings and paving activities may generate odors. However, these odors would be temporary, are not expected to affect a substantial number of people and would disperse rapidly. Therefore, impacts related to odors associated with potential construction-related activities would be less than significant.

Operational

The SCAQMD CEQA Air Quality Handbook identifies certain land uses as sources of odors. These land uses include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Project proposes to convert an existing warehouse building into a self-storage facility, which would not involve activities that would emit objectionable odors affecting substantial numbers of people. The Project would not include any of the land uses that have been identified by the SCAQMD as odor sources. Therefore, the proposed Project would not create objectionable odors and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

f) *Result in a cumulatively considerable net increase of any criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors) where the incremental effect of the project emissions, considered together with past, present, and reasonably anticipated further project emissions, increase the level of any criteria pollutant above the existing ambient level?*

Less Than Significant Impact. Refer to Response 4.3(c).

Mitigation Measures: No mitigation measures are required.

4.4 Biological Resources

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

- b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?***
- c) *Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

Less Than Significant Impact. The Project site is currently developed with a warehouse building and surface parking as part of a larger industrial development. Minimal landscaping occurs around the building and within the parking area. A landscaped area with ornamental trees, shrubs and grass is located adjacent to Commercentre Drive. Vegetation within the site is not associated with natural vegetation communities. West/southwest of the site is an open space corridor that separates the industrial uses further west/southwest. The disturbed and maintained condition of the Project site is generally not suitable for candidate, sensitive, or special status plant or wildlife species. Further, there are no riparian habitat or wetlands within the Project site and surrounding area. Therefore, the proposed Project would not have a substantial adverse effect, either directly or through habitat modifications, on any special status plant or wildlife species, any riparian habitat or other sensitive natural community, or on any state or federally protected wetlands.

Mitigation Measures: No mitigation measures are required.

- d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

Less Than Significant Impact With Mitigation Incorporated. The Project site is currently developed with a warehouse building and surface parking as part of a larger industrial development and does not contain an open body of water that serves natural habitat for any native resident or migratory fish. Minimal landscaping occurs around the building and within the parking area. A landscaped area with trees, shrubs and grass is located adjacent to Commercentre Drive. West/southwest of the site is a vegetated open space corridor that separates the industrial uses further west/southwest. The disturbed and maintained condition of the Project site is generally not suitable for wildlife species. However, there is the potential for vegetation within the site and within the adjacent open space corridor to provide nesting opportunities for migratory birds. Thus, the Project would have the potential to impact active bird nests if on-site vegetation is removed or construction activities occur within 300 feet of the vegetated corridor during the nesting season (February 1 to September 15).

All existing landscaping within the Project site is proposed to remain protected in place with the exception of three trees and a portion of the landscaping along the western frontage of the building; refer to Exhibit 2-7, Preliminary Planting Plan. Three trees adjacent to the building would be permanently removed to provide access to the building entries and ramps. Although no changes are proposed to the landscaped area adjacent to Commercentre Drive, construction activities associated with proposed improvements within the parking area would occur immediately adjacent to this area. Therefore, implementation of the proposed Project would be required to comply with the provisions of the Migratory Bird Treaty Act (MBTA), which prohibits disturbing or destroying active nests. If Project construction activities occur between February 1 and September 15, the Project would be required to comply with Mitigation Measure BIO-1, which requires that a qualified biologist conduct a nesting bird survey no more than three days prior to ground disturbing or vegetation disturbing activities to confirm the presence or absence of nesting

birds. If nesting birds are determined to be present, avoidance measures would be required to be implemented, such as establishing suitable buffers around any active nests. With implementation of Mitigation Measure BIO-1, potential impacts to nesting migratory birds would be reduced to a less than significant level.

Mitigation Measures:

BIO-1 In the event that Project construction or grading activities occur between February 1 and September 15, a qualified biologist shall conduct a nesting bird survey no more than three (3) days prior to commencement of construction activities to confirm the absence of nesting birds. If active nesting of birds is observed within 100 feet of the designated construction area prior to construction, the biologist shall establish suitable buffers around the active nests (typically as much as 500 feet for raptors and 300 feet for non-raptors, subject to the recommendations of the qualified biologist), and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests. Prior to commencement of grading activities and issuance of any building permits, the City of Lake Forest Director of Community Development, or designee, shall verify that all Project grading and construction plans include specific documentation regarding the requirements of the Migratory Bird Treaty Act (MBTA), that preconstruction surveys have been completed and the results reviewed by staff, and that the appropriate buffers (if needed) are noted on the plans and established in the field with orange snow fencing.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact. The Lake Forest Eucalyptus Tree Conservation Ordinance (Lake Forest Municipal Code Chapter 6.20), regulates the transportation and cutting of eucalyptus trees or logs during the period of April 1 through October 31 without a City Permit. The City of Lake Forest does not have any other local policies or ordinances specific to tree preservation, but the General Plan does include policies which support the provision of trees and protection of biological resources throughout the City.

The Project site does not contain any eucalyptus trees that would be removed. All existing landscaping within the Project site is proposed to remain protected in place with the exception of three trees and a portion of the landscaping along the western frontage of the building. The three trees adjacent to the building would be permanently removed to provide access to the building entries and ramps. However, two new trees (Brisbane box) would be provided within planters within the parking area. Additionally, new trees (Italian Cypress) and landscaping would be provided in a new landscaped planter area adjacent to the eastern parking lot and the proposed gate. As discussed above, the Project would not impact significant biological resources. Therefore, the Project would not conflict with any local policies or ordinances protection biological resources.

Mitigation Measures: No mitigation measures are required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The City is a participant in the Orange County Central and Coastal Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). The Project site is currently developed and within an urbanized area and is not located within the boundaries of the NCCP/HCP reserve system. The

proposed Project would not conflict with the NCCP/HCP or other approved local, regional, or state habitat conservation plan.

Mitigation Measures: No mitigation measures are required.

4.5 Cultural Resources

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?				X
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		X		
c. Disturb any human remains, including those interred outside of dedicated cemeteries?			X	

a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

No Impact. According to CEQA Guidelines Section 15064.5, a historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR); a resource included in a local register of historical resources; or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant. A resource shall be considered historically significant if it:

- Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

The Project proposes to convert an existing warehouse building into a self-storage facility. The building is part of a larger industrial development that was constructed in 1997; thus, the warehouse building and surrounding structures are less than 50 years old. The Project site and surrounding area does not include any structures that are eligible for listing in the CRHR, listed in a local register of historic resources, or identified by the City of Lake Forest as historically significant. The Project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.

Mitigation Measures: No mitigation measures are required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less Than Significant Impact With Mitigation Incorporated. The Project site is currently developed and has been extensively altered by previous ground disturbance associated with development of the Project site and larger industrial development. A Sacred Lands File (SLF) search was requested from the Native

American Heritage Commission (NAHC) on November 2, 2020. On November 4, 2020, the NAHC responded that a search of the SLF was completed with negative results. The NAHC also provided a list of Native American tribes who may have knowledge of cultural resources in the Project area. Correspondence was sent to all the Native American tribes on the list with a description of the proposed Project and a request to provide any knowledge of cultural resources within the Project site or area. No response was received. This correspondence was in addition to the correspondence sent in compliance with Assembly Bill (AB) 52; refer to [Section 4.18](#).

The Project proposes to convert an existing warehouse building into a self-storage facility. The existing loading dock on the east side of the building would be filled and repaved to match existing grades and a portion of the parking area on the west side of the building would be filled and paved to match the grade of the building's first floor. Minimal grading, resulting in approximately 10 cubic yards of cut, would occur within the Project site. The maximum depth of excavation would be two to three feet associated with the proposed retaining wall and drainage channel with the maximum depth occurring for the footings for the retaining wall. Borings conducted as part of the Limited Pavement Investigation (refer to [Appendix C](#)) encountered artificial fill soils beneath the existing payments extending to the maximum depth explored of approximately five feet below the existing site grades. Thus, excavation would occur within existing artificial fill soils.

Due to the extensive ground disturbance that occurred within the Project site and surrounding area associated with construction of the existing industrial development, the presence of engineered fill materials within the site, and the minimal grading that would occur with the proposed Project, the likelihood of encountering archaeological resources in the Project site is considered low. However, in the unlikely event that buried resources are encountered during ground disturbance activities, the Project would be required to comply with Mitigation Measure CUL-1, which would require all work in the immediate area of the discovery to be halted and the resources evaluated by a qualified archaeologist. With implementation of Mitigation Measure CUL-1, the Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5 and impacts would be reduced to less than significant.

For potential impacts related to tribal cultural resources, refer to [Section 4.18](#).

Mitigation Measures.

CUL-1 If previously unidentified cultural resources are encountered during ground-disturbing activities, work within 100 feet of the find shall cease and the Director of Community Development shall be notified and a qualified archaeologist, defined as an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology, shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for the California Register of Historical Resources (CRHR) or National Register of Historic Places (NRHP) eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the Project, additional work such as data recovery excavation may be warranted to mitigate any significant impacts. In the event an identified cultural resource is Native American in origin, the qualified archaeologist shall consult with the Project owner and the Director of Community Development, or designee, to implement Native American consultation procedures. Construction shall not resume in the area until appropriate protection and preservation measures are in place and have been approved by the Director of Community Development, or designee, and the qualified archaeologist states in writing that the proposed construction activities would not significantly damage any archaeological resources.

c) *Disturb any human remains, including those interred outside of dedicated cemeteries?*

Less Than Significant Impact. There are no dedicated cemeteries within the Project site or surrounding area and there is no information to suggest that the site has any undiscovered human remains. The Project site and surrounding area are developed. The Project proposes to convert an existing warehouse building into a self-storage facility. The existing dock on the east side of the building would be filled and repaved to match existing grades and a portion of the parking area on the west side of the building would be filled and paved to match the grade of the building's first floor. Minimal grading resulting in approximately 10 cubic feet of cut would occur within the Project site. The potential for the proposed Project to disturb previously undiscovered human remains is highly unlikely.

If human remains are found, the remains would require proper treatment in accordance with applicable laws, including State of California Health and Safety Code Sections 7050.5 to 7055 and Public Resources Code Section 5097.98 and Section 5097.99. Health and Safety Code Sections 7050.5 to 7055 describe the general provisions for treatment of human remains. Specifically, Health and Safety Code Section 7050.5 prescribes the requirements for the treatment of any human remains that are accidentally discovered during excavation of a site. Health and Safety Code Section 7050.5 also requires that all activities cease immediately, and a qualified archaeologist and Native American monitor be contacted immediately. As required by State law, the procedures set forth in Public Resources Code Section 5087.98 would be implemented, including evaluation by the County Coroner and notification of the NAHC. The NAHC would designate the "Most Likely Descendent" of the unearthed human remains. If human remains are found during excavation or construction, all activities would be halted near the find and any area that is reasonably suspected to overlay adjacent remains shall remain undisturbed until the County Coroner has investigated, and appropriate recommendations have been made for treatment and disposition of the remains. Following compliance with the established regulatory framework (Health and Safety Code Sections 7050.5 to 7055 and Public Resources Code Section 5097.98 and Section 5097.99), which detail the appropriate actions required in the event human remains are encountered, the Project's potential impacts concerning human remains would be less than significant.

Mitigation Measures. No mitigation measures are required.

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4.6 Energy

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

This section is based on the Arctic Ocean Storage Project Air Quality, Greenhouse Gas, and Energy Impact *Analysis* (AQ, GHG & Energy Study) prepared by KW Air Quality & Noise, LLC, dated December 2, 2020 and included in its entirety as Appendix A, Air Quality, Greenhouse Gas, & Energy Impact Analysis.

REGULATORY FRAMEWORK

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. On the state level, the PUC and the California Energy Commissions (CEC) are two agencies with authority over different aspects of energy. Key federal and state energy-related laws and plans are summarized below; also refer to Appendix A for a more detailed listing.

Corporate Average Fuel Economy (CAFE) Standards

First established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA) jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the “maximum feasible level” with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.

Intermodal Surface transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of intermodal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

The Transportation Equity Act of the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

Integrated Energy Policy Report (IEPR)

Senate Bill 1389 requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the State's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety. The Energy Commission prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The recently-approved 2017 Integrated Energy Policy Report Updated (2017 IEPR) was published in April 2018, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2016 IEPR focuses on a variety of topics such as implementation of Senate Bill 350, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency, transportation electrification, barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to Senate Bill 1383), updates on Southern California electricity reliability, natural gas outlook, and climate adaptation and resiliency.

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access.

California Code of Regulations Title 24, Part 6.

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2019 Title 24 standards, which became effective on January 1, 2020. The 2019 Title 24 standards include efficiency improvements

to the non-residential standards. For example, window operation is no longer a method allowed to meet ventilation requirements, continuous operation of central forced air system handlers used in central fan integrated ventilation system is not a permissible method of providing the dwelling unit ventilation airflow, and central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow to each dwelling unit. In addition, requirements for kitchen range hoods were also provided in the updated Section 120.1. Ventilation and Indoor Air Quality included both additions and revisions in the 2019 Code. This section now requires nonresidential and hotel/motel buildings to have air filtration systems that use forced air ducts to supply air to occupiable spaces to have air filters. Further, the air filter efficiency must be either MERV 13 or use a particle size efficiency rating specific in the Energy Code AND be equipped with air filters with a minimum 2-inch depth or minimum 1-inch depth if sized according to the equation 120.1-A. If natural ventilation is to be used the space must also use mechanical unless ventilation openings are either permanently open or controlled to stay open during occupied times.

New regulations were also adopted under Section 130.1 Indoor Lighting Controls. These included new exceptions being added for restrooms, the exception for classrooms being removed, as well as exceptions in regard to sunlight provided through skylights and overhangs.

All buildings for which an application for a building permit is submitted on or after January 1, 2020 must follow the 2019 standards. The 2016 residential standards were estimated to be approximately 28 percent more efficient than the 2013 standards, whereas the 2019 residential standards are estimated to be approximately seven percent more efficient than the 2016 standards. Furthermore, once rooftop solar electricity generation is factored in, 2019 residential standards are estimated to be approximately 53 percent more efficient than the 2016 standards. Under the 2019 standards, nonresidential buildings are estimated to be approximately 30 percent more efficient than the 2016 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

California Green Building Standards (CALGreen)

The 2019 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as CALGreen, went into effect on January 1, 2020. CALGreen is the first-in-the-nation mandatory green buildings standards code. The California Building Standards Commission developed CALGreen in an effort to meet the State's landmark initiative Assembly Bill (AB) 32 goals, which established a comprehensive program of cost-effective reductions of greenhouse gas (GHG) emissions to 1990 levels by 2020. CALGreen was developed to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, and healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the environmental directives of the administration. CALGreen requires that new buildings employ water efficiency and conservation, increase building system efficiencies (e.g., lighting, heating/ventilation and air conditioning [HVAC], and plumbing fixtures), divert construction waste from landfills, and incorporate electric vehicles charging infrastructure. There is growing recognition among developers and retailers that sustainable construction is not prohibitively expensive, and that there is a significant cost-savings potential in green building practices and materials (U.S. Green Building Council, 2020).

Senate Bill 100

Senate Bill (SB) 100 (Chapter 312, Statutes of 2018) requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt-hours (kWh) of those products sold to their retail end-use customers

achieve 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; 60 percent by December 31, 2030; and 100 percent by December 31, 2045. The bill requires the California Public Utilities Commission (CPUC), California Energy Commission (CEC), State board or the California Air Resources Board's (CARB), and all other State agencies to incorporate the policy into all relevant planning. In addition, SB 100 requires the CPUC, CEC, and CARB to utilize programs authorized under existing statutes to achieve that policy and, as part of a public process, issue a joint report to the Legislature by January 1, 2021, and every four years thereafter, that includes specified information relating to the implementation of SB 100.

a) *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Less Than Significant Impact. The means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, the proposed Project would be considered “wasteful, inefficient, and unnecessary” if it were to violate State and federal energy standards and/or result in significant adverse impacts related to project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

The Project site has been developed with the existing warehouse building since 1997. The Project proposes to convert the existing warehouse building into a self-storage facility. The Project does not propose expansion or significant modifications to the existing building footprint; however, the interior building floor area would be increased. Interior improvements would include 1,438 square feet of office and 52,594 square feet of storage space on the first floor and 2,571 square feet of office and 51,387 square feet of storage space on the second floor.

CONSTRUCTION

The construction schedule is anticipated to occur between the beginning of May 2021 and the end of December 2021 and be completed in one phase. Staging of construction vehicles and equipment would occur on-site.

Construction Equipment Electricity Usage Estimates

Electrical service would continue to be provided by Southern California Edison. The focus within this section is the energy implications of the construction process, specifically the power cost from onsite electricity consumption during construction of the proposed Project. Based on the 2017 National Construction Estimator, the typical power cost per 1,000 square feet of building construction per month is estimated to be \$2.32. The Project proposes to expand the interior of the building (by creating a second story) by 43,580 square feet to accommodate a self-storage facility, which would result in total Project construction power costs of \$909.95.

Construction Equipment Fuel Estimates

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. The Project's construction phase would consume electricity and fossil fuels as a single energy demand, that is, once construction is completed their use would cease. CARB's 2014

Emissions Factors Tables show that on average aggregate fuel consumption (gasoline and diesel fuel) would be approximately 18.5 horse power per hour per gallon (hp-hr-gal). As indicated in Table 4.6-1, Construction Equipment Fuel Consumption Estimates, Project construction activities would consume an estimated 17,588 gallons of diesel fuel. Project construction would represent a “single-event” diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

**Table 4.6-1
Construction Equipment Fuel Consumption Estimates**

Phase	# of Days	Off-road Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	HP hrs/day	Fuel Consumption (gal diesel fuel) ¹
Demolition	20	Concrete/Industrial Saws	1	8	81	0.73	473	511
	20	Rubber Tired Dozers	1	8	247	0.4	790	854
	20	Tractors/Loaders/Backhoes	3	8	97	0.37	861	931
Site Preparation	5	Graders	1	8	187	0.41	613	166
	5	Rubber Tired Dozers	1	8	247	0.4	790	214
	5	Tractors/Loaders/Backhoes	2	7	97	0.37	502	136
Building Construction	150	Cranes	1	6	231	0.29	402	3,259
	150	Forklifts	1	6	89	0.2	107	866
	150	Generator Sets	1	8	84	0.74	497	4,032
	150	Tractors/Loaders/Backhoes	2	6	97	0.37	431	3,492
	150	Welders	3	8	46	0.45	497	4,028
Paving	5	Cement and Mortar Mixers	1	6	9	0.56	30	8
	5	Pavers	1	8	130	0.42	328	89
	5	Paving Equipment	1	8	132	0.36	380	103
	5	Rollers	1	8	80	0.38	243	66
	5	Tractors/Loaders/Backhoes	1	8	97	0.37	287	78
Architectural Coating	10	Air Compressors	1	6	78	0.48	225	121
Total Construction Fuel Demand								17,588
Source: KW Air Quality & Noise, LLC, Arctic Ocean Storage Project Air Quality, Greenhouse Gas, & Energy Impact Analysis, December 2, 2020.								
Notes:								
1. Using Carl Moyer Guidelines Table D-21 Fuel consumption rate factors (bhp-hr/gal) for engines less than 750 hp. (Source: https://www.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_d.pdf)								

Construction Worker Fuel Estimates

It is assumed that all construction worker trips are from light duty autos (LDA) along area roadways. With respect to estimated vehicle miles traveled (VMT), the construction worker trips would generate an estimated 45,644 VMT. Data regarding Project related construction worker trips were based on CalEEMod 2016.3.2 model defaults.

Vehicle fuel efficiencies for construction workers were estimated using information generated from CARB’s 2017 EMFAC model; refer to Appendix A. An aggregate fuel efficiency of 30.1 miles per gallon (mpg) was used to calculate vehicle miles traveled for construction worker trips. Table 4.6-2, Construction Worker Fuel Consumption Estimates, shows that an estimated 1,515 gallons of fuel would be consumed for construction worker trips.

**Table 4.6-2
 Construction Worker Fuel Consumption Estimates**

Phase	# of Days	Worker Trips/Day	Trip Length (Miles) ¹	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Demolition	20	13	14.7	3,822	30.1	127
Site Preparation	5	8	14.7	588	30.1	20
Building Construction	150	18	14.7	39,690	30.1	1,317
Paving	5	13	14.7	956	30.1	32
Architectural Coating	10	4	14.7	588	30.1	20
Total Construction Worker Fuel Consumption						1,515
Source: KW Air Quality & Noise, LLC, Arctic Ocean Storage Project Air Quality, Greenhouse Gas, & Energy Impact Analysis, December 2, 2020.						
Notes:						
1. Assumptions for the worker trip length and vehicle miles traveled are consistent with CalEEMod 2016.3.2 defaults.						

Construction Vendor/Hauling Fuel Estimates

Tables 4.6-3, Construction Vendor Fuel Consumption Estimates (MHD Trucks) and Table 4.6-4, Construction Vendor Fuel Consumption Estimates (HHD Trucks), show the estimated fuel consumption for vendor and hauling during building construction and architectural coating for medium heavy duty (MHD) trucks and heavy-heavy duty (HHD) trucks. With respect to estimated VMT, the vendor and hauling trips would generate an estimated 8,945 VMT. Data regarding Project related construction worker trips were based on CalEEMod 2016.3.2 model defaults.

For the architectural coatings it is assumed that the contractors would be responsible for bringing coatings and equipment with them in their light duty vehicles. Therefore, vendors delivering construction material or hauling debris from the site during demolition or site preparation would use medium to heavy duty vehicles with an average fuel consumption of 8.93 mpg for medium heavy-duty trucks and 6.51 for heavy-heavy duty trucks; refer to Appendix A. As shown in Tables 4.6-3 and 4.6-4, an estimated 1,072 gallons of fuel would be consumed for vendor and hauling trips.

**Table 4.6-3
Construction Vendor Fuel Consumption Estimates (MHD Trucks)**

Phase	# of Days	Worker Trips/Day	Trip Length (Miles) ¹	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Demolition	20	0	6.9	0	8.93	0
Site Preparation	5	0	6.9	0	8.93	0
Building Construction	150	7	6.9	7,245	8.93	811
Paving	5	0	6.9	0	8.93	0
Architectural Coating	10	0	6.9	0	8.93	0
Total Construction Worker Fuel Consumption						811
Source: KW Air Quality & Noise, LLC, Arctic Ocean Storage Project Air Quality, Greenhouse Gas, & Energy Impact Analysis, December 2, 2020.						
Notes:						
1. Assumptions for the worker trip length and vehicle miles traveled are consistent with CalEEMod 2016.3.2 defaults.						

**Table 4.6-4
Construction Vendor Fuel Consumption Estimates (HHD Trucks)**

Phase	# of Days	Worker Trips/Day	Trip Length (Miles) ¹	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Demolition	20	65	20	1,300	6.51	200
Site Preparation	5	20	20	400	6.51	61
Building Construction	150	0	20	0	6.51	0
Paving	5	0	20	0	6.51	0
Architectural Coating	10	0	20	0	6.51	0
Total Construction Worker Fuel Consumption						261
Source: KW Air Quality & Noise, LLC, Arctic Ocean Storage Project Air Quality, Greenhouse Gas, & Energy Impact Analysis, December 2, 2020.						
Notes:						
1. Assumptions for the worker trip length and vehicle miles traveled are consistent with CalEEMod 2016.3.2 defaults.						

Construction Energy Efficiency/Conservation Measures

Construction equipment used over the approximately eight-month construction phase would conform to CARB regulations and California emissions standards and is evidence of related fuel efficiencies. There are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

The Project would utilize construction contractors which practice compliance with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with these measures would result in a more efficient use of construction related energy and would minimize or eliminate wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additionally, as required by California Code of Regulations Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby minimizing or eliminating unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

OPERATIONS

Energy consumption in support of or related to Project operations would include transportation energy demands (energy consumed by employee and patron vehicles accessing the Project site) and facility energy demands (energy consumed by building operations and site maintenance activities).

Transportation Fuel Consumption

It is assumed that an average trip for autos and light trucks to be 16.6 miles and 3- to 4-axle trucks were assumed to travel an average of 6.9 miles.² As the Project proposes to convert the existing warehouse building into a self-storage facility, which are frequently utilized on weekends, and in order to present a worst-case scenario, it was assumed that vehicles would operate 365 days per year. Table 4.6-5, *Estimated Vehicle Operations Fuel Consumption*, shows the estimated annual fuel consumption for all classes of vehicles from autos to heavy-heavy trucks.³

The proposed Project would generate 163 trips per day. The vehicle fleet mix was used from the CalEEMod output. Table 4.6-5 shows that an estimated 33,103 gallons of fuel would be consumed per year for the operation of the proposed Project.

² CalEEMod default distance for H-W (home-work) or C-W (commercial-work) is 16.6 miles; 6.9 miles for H-O (home-other) or C-O (commercial-other); refer to Appendix A.

³ Average fuel economy based on aggregate mileage calculated in EMFAC 2017 for opening year (2022); refer to Appendix A for EMFAC output.

**Table 4.6-5
Estimated Vehicle Operations Fuel Consumption**

Vehicle Type	Vehicle Mix	Number of Vehicles	Average Trip (miles) ¹	Daily VMT	Average Fuel Economy (mpg)	Total Gallons per Day	Annual Fuel Consumption (gallons)
Light Auto	Automobile	93	16.6	1,542	30.95	49.83	18,189
Light Truck	Automobile	7	16.6	108	26.47	4.09	1,492
Light Truck	Automobile	34	16.6	566	24.72	22.88	8,350
Medium Truck	Automobile	18	6.9	125	20.13	6.20	2,264
Light Heavy Truck	2-Axle Truck	2	6.9	17	13.53	1.25	455
Light Heavy Truck 10,000 lbs +	2-Axle Truck	1	6.9	6	13.88	0.46	169
Medium Heavy Truck	3-Axle Truck	4	6.9	29	9.22	3.15	1,149
Heavy Heavy Truck	4-Axle Truck	3	6.9	19	6.74	2.84	1,035
Total	--	163	--	2,412	--	90.69	--
Total Annual Fuel Consumption							33,103
Source: KW Air Quality & Noise, LLC, Arctic Ocean Storage Project Air Quality, Greenhouse Gas, & Energy Impact Analysis, December 2, 2020.							
Notes: 1. Based on the size of the site and relative location, trips were assumed to be local rather than regional.							

Facility Energy Demand (Electricity and Natural Gas)

Building operation and site maintenance (including landscape maintenance) would result in the consumption of electricity (provided by Southern California Edison) and natural gas (provided by Southern California Gas Company). The annual natural gas and electricity demands are provided in Table 4.6-6, Project Annual Operational Energy Demand Summary.

**Table 4.6-6
Project Annual Operational Energy Demand Summary**

Energy Source ¹	Project Annual Consumption ²
Natural Gas Consumption (kBTU/year)	424,401
Electricity Consumption (kWh/year)	449,238
Source: KW Air Quality & Noise, LLC, Arctic Ocean Storage Project Air Quality, Greenhouse Gas, & Energy Impact Analysis, December 2, 2020.	
Notes: 1. Unrefrigerated Warehouse – No Rail 2. Demand from the CalEEMod 2016.3.2 annual output; refer to <u>Appendix A</u> .	

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. In California, the California Building Standards Code Title 24 governs energy consumed by the built environment,

mechanical systems, and some types of fixed lighting. Non-building energy use, or “plugin” energy use can be further subdivided by specific end-use (refrigeration, cooking, appliances, etc.).

Conclusion

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. Furthermore, the energy demands of the Project can be accommodated within the context of available resources and energy delivery systems. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. Further, it should be noted that the operations analysis does not account for the energy demand that is currently being used by the existing warehouse use, which would partially offset the energy demand associated with the proposed Project.

Mitigation Measures: No mitigation measures are required.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The applicant is required to comply with the California Green Building Standard Code requirements for energy efficient buildings and appliances as well as utility energy efficiency programs implemented by Southern California Edison and Southern California Gas Company. CalGreen Standards require that buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials. Reuse of the existing warehouse building for use as a self-storage facility would improve energy efficiency through the modernization of systems and compliance with the most current CalGreen Standards. As demonstrated in Section 4.8, Greenhouse Gas Emissions, the proposed Project would be consistent with the applicable strategies of the City’s General Plan and the latest CARB Scoping Plan. Thus, the Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California.

Mitigation Measures: No mitigation measures are required.

4.7 Geology and Soils

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
2) Strong seismic ground shaking?			X	
3) Seismic-related ground failure, including liquefaction?			X	
4) Landslides?				X
b. Result in substantial soil erosion or the loss of topsoil?			X	
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

This section is based in part on the *Limited Pavement Investigation* prepared by Southern California Geotechnical, dated July 15, 2020 and included as Appendix C, Limited Pavement Investigation.

a) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- 1) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.***

No Impact. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act requires the State Geologist to establish regulatory zones, known as "Alquist-Priolo Earthquake Fault Zones," around the surface traces of active faults and to issue appropriate maps. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (typically 50 feet). According to the General Plan and California Department of Conservation Data Viewer, the Project site is not within an Alquist-Priolo Fault Zone as defined by the State of California in the Earthquake Fault Zoning Act.⁴ Therefore, the Project would not directly or indirectly cause potential substantial adverse effects involving rupture of a known earthquake fault.

Mitigation Measures: No mitigation measures are required.

- 2) *Strong seismic ground shaking?***

Less Than Significant Impact. The Project site is located in a seismically active area of southern California that has historically been affected by moderate to occasionally high levels of ground motion. As a result, it is likely the Project site has and would continue to experience ground shaking from nearby fault zones, as well as some background shaking from other seismically active areas of the southern California region. The intensity of ground shaking on the Project site would depend upon the earthquake's magnitude, distance to the epicenter, and geology of the area between the Project site and epicenter.

The Project site and surrounding area are currently developed with industrial uses. The Project site has been developed with the existing warehouse building since 1997. The Project proposes to convert the existing warehouse building into a self-storage facility. The Project does not propose expansion or significant modifications to the existing building. Interior improvements would include 1,438 square feet of office and 52,594 square feet of storage space on the first floor and 2,571 square feet of office and 51,387 square feet of storage space on the second floor. Additionally, the existing dock on the east side of the building would be filled and repaved to match existing grades and a portion of the parking area on the west side of the building would be filled and paved to match the grade of the building's first floor. A retaining wall and drainage channel would be constructed along the western side of the parking area located west of the building.

⁴ California Department of Conservation, *Data Viewer*, <https://maps.conservation.ca.gov/geologichazards/> accessed November 6, 2020.

A Limited Pavement Investigation was conducted to provide recommendations for preparing the design of the proposed pavements, as well as site walls. The existing pavements within the site improvement areas are in poor to fair condition with some areas of moderate to severe cracking throughout. Based on the testing conducted as part of the Limited Pavement Investigation, the near-surface soils possess fair pavement support characteristics. The Limited Pavement Investigation provides seismic, geotechnical design, and construction considerations, including specific recommendations for site grading, foundation design, retaining wall design and construction, and pavement design, amongst others, based on CBC seismic design standards in place at the time of the report.

The City of Lake Forest has adopted the California Building Code (Municipal Code Chapter 8.02), with amendments, which prescribes regulations for the erection, construction, enlargement, alteration, repair, improving, removal, conversion, demolition, occupancy, equipment, use, height, area and maintenance of all buildings and structures. The California Building Code (CBC) includes standards related to soils and foundations, structural design, building materials, and structural testing and inspections to minimize hazards during a seismic event. The Project would be required to comply with the applicable regulations in the CBC, which would reduce potential impacts associated with strong seismic ground shaking, as well as the Limited Pavement Investigation prepared for the Project. The City of Lake Forest Building Division would review Project construction plans for compliance with the Limited Pavement Investigation, CBC and the Lake Forest Municipal Code. Thus, compliance with the City's established regulatory framework and standard engineering practices and design criteria, which would be verified through the City's construction plan review process would ensure potential impacts associated with strong seismic ground shaking at the Project site would be reduced to a less than significant impact.

Mitigation Measures: No mitigation measures are required.

3) *Seismic-related ground failure, including liquefaction?*

Less Than Significant Impact. Liquefaction is a phenomenon where earthquake-induced ground vibrations increase the pore pressure in saturated, granular soils until it is equal to the confining, overburden pressure. Engineering research of soil liquefaction potential indicates that generally three basic factors must exist concurrently in order for liquefaction to occur. These factors include:

- A source of ground shaking, such as an earthquake, capable of generating soil mass distortions.
- A relatively loose silty and/or sandy soil.
- A relative shallow groundwater table (within approximately 50 feet below ground surface) or completely saturated soil conditions that will allow positive pore pressure generation.

The Project site is not mapped by the California Geologic Survey as being within a zone of potentially liquefiable soils.⁵ Therefore, the potential for liquefaction-induced damage at the Project site is not considered likely and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

⁵ Ibid.

4) Landslides?

No Impact. Landslides are mass movements of the ground that include rock falls, relatively shallow slumping and sliding of soil, and deeper rotational or transitional movement of soil or rock. Geologic hazards associated with landsliding are not anticipated as the Project site is not located within an area identified by the California Geologic Survey as having potential for seismic slope instability.⁶ The Project site and surrounding area have gently sloping topography. There are no significant hillsides or landforms capable of experiencing landslides.

Mitigation Measures: No mitigation measures are required.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The Project site is currently developed with a warehouse building and paved loading and parking areas. Landscaped planters occur within the parking areas and landscaping occurs adjacent to the western parking area and Arctic Ocean Drive. The Project proposes to convert an existing warehouse building into a self-storage facility. The Project does not propose expansion or significant modifications to the existing building. The existing dock on the east side of the building would be filled and repaved to match existing grades and a portion of the parking area on the west side of the building would be filled and paved to match the grade of the building's first floor. New and reconstructed landscaped planters within the parking areas are proposed, as well as a retaining wall and drainage channel along the western side of the parking area located west of the building. Significant grading and earthwork activities would not occur, as only minimal grading would be required. Specifically, approximately 10 cubic yards of cut would occur at the location of the proposed channel at the westerly corner of the site. Excavation would occur at a maximum depth of two to three feet for the proposed retaining wall and drainage channel.

Activities associated with the proposed Project could expose soils to potential short-term erosion by wind and water. The Project would be required to comply with water quality measures included in Lake Forest Municipal Code Chapter 8.30, *Grading and Excavation*, and Chapter 15.14, *Stormwater Quality Management*, which include conditions and requirements established by the City related to the reduction or elimination of storm water runoff pollutants during construction and operations of the Project. Following compliance with the established regulatory framework identified in the Lake Forest Municipal Code regarding stormwater and runoff pollution control, potential impacts associated with soil erosion and the loss of topsoil would be less than significant.

Mitigation Measures: No mitigation measures are required.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. Refer to Responses 4.7(a)(3) and (a)(4) regarding the potential for liquefaction and landslides, respectively. Lateral spreading is the horizontal movement or spreading of soil toward an open face. Lateral spreading may occur when soils liquefy during an earthquake event, and the

⁶ Ibid.

liquefied soils with overlying soils move laterally to unconfined spaces. Subsidence is the sudden sinking or gradual downward settling of the earth's surface with little or no horizontal movement. Subsidence is caused by a variety of activities, which include, but are not limited to, withdrawal of groundwater, pumping of oil and gas from underground, the collapse of underground mines, liquefaction, and hydrocompaction.

The Project site and surrounding area are currently developed with industrial uses. The Project site has been developed with the existing warehouse building since 1997 and is not located on a geologic unit or soil that is unstable, potentially resulting in lateral spreading, subsidence, or collapse. The Project does not include activities known to cause subsidence, such as groundwater or oil extraction. The Project proposes to convert the existing warehouse building into a self-storage facility. The Project does not propose expansion or significant modifications to the existing building. Interior improvements would include 1,438 square feet of office and 52,594 square feet of storage space on the first floor and 2,571 square feet of office and 51,387 square feet of storage space on the second floor. Additionally, the existing dock on the east side of the building would be filled and repaved to match existing grades and a portion of the parking area on the west side of the building would be filled and paved to match the grade of the building's first floor. A retaining wall and drainage channel would be constructed along the western side of the parking area located west of the building.

A Limited Pavement Investigation was conducted to provide recommendations for preparing the design of the proposed pavements, as well as site walls. Based on the testing conducted as part of the Limited Pavement Investigation, the near-surface soils possess fair pavement support characteristics. The Limited Pavement Investigation provides seismic, geotechnical design, and construction considerations, including specific recommendations for site grading, foundation design, retaining wall design and construction, and pavement design, amongst others, based on CBC seismic design standards in place at the time of the report. The proposed Project improvements would be required to comply with the Limited Pavement Investigation prepared for the Project and the CBC, as adopted by Lake Forest Municipal Code Chapter 8.02. The CBC includes standards related to soils and foundations, structural design, building materials, and structural testing and inspections to minimize geotechnical hazards. The City of Lake Forest Building Division would review Project construction plans for compliance with the Limited Pavement Investigation, CBC, and the Lake Forest Municipal Code. Thus, compliance with the City's established regulatory framework and standard engineering practices and design criteria, which would be verified through the City's construction plan review process would ensure potential impacts associated with a geologic unit or soil that is unstable or would become unstable at the Project site would be reduced to a less than significant impact.

Mitigation Measures: No mitigation measures are required.

d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Less Than Significant Impact. Expansive soils are defined as soils possessing clay particles that react to moisture changes by shrinking (when dry) or swelling (when wet). According to the General Plan, the Project site is located within an area having a low shrink-swell potential. The Project site and surrounding area are currently developed with industrial uses. The Project site has been developed with the existing warehouse building since 1997. The Project proposes to convert the existing warehouse building into a self-storage facility. The Project does not propose expansion or significant modifications to the existing building. Interior improvements would include 1,438 square feet of office and 52,594 square feet of

storage space on the first floor and 2,571 square feet of office and 51,387 square feet of storage space on the second floor. Additionally, the existing dock on the east side of the building would be filled and repaved to match existing grades and a portion of the parking area on the west side of the building would be filled and paved to match the grade of the building's first floor. A retaining wall and drainage channel would be constructed along the western side of the parking area located west of the building.

A Limited Pavement Investigation was conducted to provide recommendations for preparing the design of the proposed pavements, as well as site walls. Based on the testing conducted as part of the Limited Pavement Investigation, the near-surface soils possess fair pavement support characteristics. The Limited Pavement Investigation provides seismic, geotechnical design, and construction considerations, including specific recommendations for site grading, foundation design, retaining wall design and construction, and pavement design, amongst others, based on CBC seismic design standards in place at the time of the report. The proposed Project improvements would be required to comply with the Limited Pavement Investigation and CBC, as adopted by Lake Forest Municipal Code Chapter 8.02. The CBC includes standards related to soils and foundations, structural design, building materials, and structural testing and inspections to minimize geotechnical hazards. The City of Lake Forest Building Division would review Project construction plans for compliance with the CBC and the Lake Forest Municipal Code. Thus, compliance with the City's established regulatory framework and standard engineering practices and design criteria, which would be verified through the City's construction plan review process would further minimize any potential impacts related to expansive soils at the Project site. Impacts would be less than significant impact.

Mitigation Measures: No mitigation measures are required.

e) *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

No Impact. Development within the area, including existing warehouse building within the Project site, are connected to the City's existing sewer system. The proposed Project would not involve the use of septic tanks or alternative wastewater disposal systems.

Mitigation Measures: No mitigation measures are required.

f) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less Than Significant Impact. The Project site is currently developed and has been extensively altered by previous ground disturbance associated with development of the Project site and larger industrial development. The Project proposes to convert an existing warehouse building into a self-storage facility. The existing loading dock on the east side of the building would be filled and repaved to match existing grades and a portion of the parking area on the west side of the building would be filled and paved to match the grade of the building's first floor. Minimal grading, resulting in approximately 10 cubic yards of cut, would occur within the Project site. The maximum depth of excavation would be two to three feet associated with the proposed retaining wall and drainage channel with the maximum depth occurring for the footings for the retaining wall. Borings conducted as part of the Limited Pavement Investigation encountered artificial fill soils beneath the existing payments extending to the maximum depth explored of approximately five feet below the existing site grades. Thus, excavation would occur within existing artificial fill soils.

Due to the extensive ground disturbance that occurred within the Project site and surrounding area associated with construction of the existing industrial development, the presence of engineered fill materials within the site, and the minimal grading that would occur with the proposed Project, the likelihood of encountering paleontological resources in the Project site is considered low. As described in Section 4.5, in the unlikely event that buried resources are encountered during ground disturbance activities, the General Plan includes policies and actions that reduce impacts to paleontological resources. Specifically, General Plan policy RR-3b would require all new development, infrastructure, and other ground-disturbing projects to stop all work if construction or grading activities result in the discovery of paleontological resources and that the resources be examined by a qualified paleontologist. Thus, potential impacts pertaining to the direct or indirect destruction of a unique paleontological resource or site or unique geologic feature would be less than significant.

Mitigation Measures: No mitigation measures are required.

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4.8 Greenhouse Gas Emissions

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

This section is based on the Arctic Ocean Storage Project Air Quality, Greenhouse Gas, and Energy Impact *Analysis* (AQ, GHG & Energy Study) prepared by KW Air Quality & Noise, LLC, dated December 2, 2020 and included in its entirety as Appendix A, Air Quality, Greenhouse Gas, & Energy Impact Analysis.

GREENHOUSE GASES

Various gases in the Earth’s atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth’s surface temperature. Solar radiation enters Earth’s atmosphere from space, and a portion of the radiation is absorbed by the Earth’s surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation.

Naturally occurring GHGs include water vapor (H₂O), carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and ozone (O₃). Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also GHGs, but they are, for the most part, solely a product of industrial activities. Although the direct GHGs, including CO₂, CH₄, and N₂O, occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750) to 2011, concentrations of these three GHGs have increased globally by 40, 150, and 20 percent, respectively (IPCC, 2013).

Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), ozone (O₃), water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs).

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by the industrial sector (California Energy Commission, 2020).

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California produced 424 million gross metric tons of carbon dioxide equivalents (MMTCO₂e) in 2019

(California Energy Commission, 2019). Given that the U.S. EPA estimates that worldwide emissions from human activities totaled nearly 46 billion gross metric tons of carbon dioxide equivalents (BMTCO₂e) in 2010, California's incremental contribution to global GHGs is approximately 2% (U.S. EPA, 2014).

Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2014, accounting for 41% of total GHG emissions in the state. This category was followed by the industrial sector (24%), the electricity generation sector (including both in-state and out-of-state sources) (15%) and the agriculture sector (8%) (California Energy Commission, 2016).

REGULATORY FRAMEWORK

U.S. Environmental Protection Agency Endangerment Finding

The U.S. Environmental Protection Agency's (EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO₂, CH₄, N₂O, hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF₆]) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Clean Air Act and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500-38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to Assembly Bill (AB) 1493 (Pavley Bill) should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then the California Air Resources Board (CARB) should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Senate Bill 375

Senate Bill (SB) 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocations. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities' strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, is required to provide each affected region with GHG reduction targets emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets are to be updated every eight years but can be updated every four years if

advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding.

Executive Order S-3-05

Executive Order S-3-05 set forth a series of target dates by which Statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The Executive Order directed the California Environmental Protection Agency (Cal/EPA) Secretary to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary is required to submit biannual reports to the Governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with Executive Order S-3-05, the Cal/EPA Secretary created the California Climate Action Team, made up of members from various State agencies and commissions. The Climate Action Team released its first report in March 2006, which proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through State incentive and regulatory programs.

Title 24, Part 6

The California Energy Efficiency Standards for Residential and Nonresidential Buildings, Title 24, Part 6 of the California Code of Regulations (CCR) and commonly referred to as "Title 24" were established in 1978 in response to a legislative mandate to reduce California's energy consumption. Part 6 of Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Title 24 standards took effect on January 1, 2020.

Title 24, Part 11

The California Green Building Standards Code (CCR Title 24, Part 11), commonly referred to as CALGreen, is a Statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in five green building topical areas. The most recent update to the CALGreen Code went into effect on January 1, 2020.

Senate Bill 3

Signed into law on September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). SB 32 authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

CARB Scoping Plan

On December 11, 2008, CARB adopted its Climate Change Scoping Plan (Scoping Plan), which functions as a roadmap to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. The Scoping Plan contains the main strategies California will implement to reduce CO₂eq emissions by 174 million metric tons (MT), or approximately 30 percent, from the State's projected 2020 emissions levels of 596 million MTCO₂eq under a business as usual (BAU) scenario. This is a reduction of 42 million MTCO₂eq, or almost ten percent, from 2002 to 2004 average emissions, and requires the reductions in the face of population and economic growth through 2020.

The Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, industrial, commercial, and residential). CARB used three-year average emissions, by sector, from 2002 to 2004 to forecast emissions to 2020. The measures described in the Scoping Plan are intended to reduce projected 2020 BAU emissions to 1990 levels, as required by AB 32.

AB 32 requires CARB to update the Scoping Plan at least once every five years. CARB adopted the first major update to the Scoping Plan on May 22, 2014. The 2014 Scoping Plan summarizes recent science related to climate change, including anticipated impacts to California and the levels of GHG reduction necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32. The 2014 Scoping Plan also looks beyond 2020 toward the 2050 goal, established in Executive Order S-3-05, and observes that "a mid-term statewide emission limit will ensure that the State stays on course to meet our long-term goal." The 2014 Scoping Plan did not establish or propose any specific post-2020 goals, but identified such goals adopted by other governments or recommended by various scientific and policy organizations.

In December 2017, CARB approved the California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target (2017 Scoping Plan). This update focused on implementation of a 40-percent reduction in GHGs by 2030 compared to 1990 levels. To achieve this, the 2017 Scoping Plan draws on a decade of successful programs that addresses the major sources of climate changing gases in every sector of the economy:

- **More Clean Cars and Trucks:** The 2017 Scoping Plan establishes far-reaching programs to incentivize the sale of zero-emission vehicles, drive the deployment of zero-emission trucks, and shift to a cleaner system of handling freight Statewide.
- **Increased Renewable Energy:** California's electric utilities are ahead of schedule meeting the requirement that 33 percent of electricity come from renewable sources by 2020. The 2017 Scoping Plan guides utility providers to 50 percent renewables, as required under SB 350.
- **Slashing Super-Pollutants:** The 2017 Scoping Plan calls for a significant cut in super-pollutants, such as CH₄ and HFC refrigerants, which are responsible for as much as 40 percent of global warming.
- **Cleaner Industry and Electricity:** California's renewed cap-and-trade program extends the declining cap on emissions from utilities and industries and the carbon allowance auctions. The auctions will continue to fund investments in clean energy and efficiency, particularly in disadvantaged communities.

- **Cleaner Fuels:** The Low Carbon Fuel Standard will drive further development of cleaner, renewable transportation fuels to replace fossil fuels.
- **Smart Community Planning:** Local communities will continue developing plans which will further link transportation and housing policies to create sustainable communities.
- **Improved Agriculture and Forests:** The 2017 Scoping Plan also outlines innovative programs to account for and reduce emissions from agriculture, as well as forests and other natural lands.

South Coast Air Quality Management District Threshold Development

The South Coast Air Quality Management District (SCAQMD) has established recommended significance thresholds for greenhouse gases for local lead agency consideration (“SCAQMD draft local agency threshold”). SCAQMD has published a five-tiered draft GHG threshold which includes a 10,000-metric ton of CO₂e per year for stationary/industrial sources and 3,000 metric tons of CO₂e per year significance threshold for residential/commercial projects. Tier 3 is anticipated to be the primary tier by which the SCAQMD will determine significance for projects. The Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90-percent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to CEQA analysis. The 90-percent capture rate GHG significance screening level in Tier 3 for stationary sources was derived using the SCAQMD’s annual Emissions Reporting Program.

The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether or not the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 consists of screening values, which the lead agency can choose but must be consistent. A project’s construction emissions are averaged over 30 years and are added to a project’s operational emissions. If a project’s emissions are under one of the following screening thresholds, then the project is less than significant:
 - All land use types: 3,000 MTCO₂e per year
 - Based on land use types: residential is 3,500 MTCO₂e per year; commercial is 1,400 MTCO₂e per year; and mixed use is 3,000 MTCO₂e per year
- Tier 4 has the following options:
 - Option 1: Reduce emissions from business as usual by a certain percentage; this percentage is currently undefined
 - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
 - Option 3: Year 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO₂e/SP/year for projects and 6.6 MTCO₂e/SP/year for plans;
 - Option 3, 2035 target: 3.0 MTCO₂e/SP/year for projects and 4.1 MTCO₂e/SP/year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

To determine whether the Project’s GHG emissions are significant, this analysis uses the SCAQMD draft local agency tier 3 screening threshold of 3,000 MTCO₂e per year for all land use types.

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. The proposed Project would generate GHGs during the construction and operational phases. The greenhouse gas emissions from project construction equipment and worker vehicles are shown in Table 4.8-1, Construction Greenhouse Gas Emissions. The total construction emissions amortized over a period of 30 years are estimated at 6.54 metric tons of CO₂e per year; refer to Appendix A for annual CalEEMod output calculations.

**Table 4.8-1
 Construction Greenhouse Gas Emissions**

Activity	Emissions (MTCO ₂ e) ¹		
	Onsite	Offsite	Total
Demolition	21.2	3.7	24.9
Site Preparation	3.8	0.9	4.8
Building Construction ²	136.8	25.1	161.9
Paving	3.0	0.3	3.3
Architectural Coating	1.3	0.2	1.5
Total	166.0	30.2	196.2
Averaged over 30 years ²	6	1	6.54

Source: KW Air Quality & Noise, LLC, Arctic Ocean Storage Project Air Quality, Greenhouse Gas, & Energy Impact Analysis, December 2, 2020.
 CalEEMod output; refer to Appendix A.

Notes:
 1. MTCO₂e = metric tons of carbon dioxide equivalent (includes carbon dioxide, methane, and nitrous oxide).
 2. Building construction is estimated to last less than a year.
 3. The emissions are averaged over 30 years because the average is added to the operation emissions, pursuant to SCAQMD.

Operational emissions occur over the life of the Project. As shown in Table 4.8-2, Opening Year Project-Related Greenhouse Gas Emissions, the unmitigated operational emissions for the Project are 623.61 metric tons of CO₂e per year. The Project’s GHG emissions do not exceed the SCAQMD draft threshold of 3,000 metric tons CO₂e per year for all land uses. Therefore, the proposed Project’s GHG emissions are considered to be less than significant.

**Table 4.8-2
Opening Year Project-Related Greenhouse Gas Emissions**

Category	Greenhouse Gas Emissions (Metric Tons/Year) ¹					
	Bio-CO ₂	NonBio-CO ₂	CO ₂	CH ₄	N ₂ O	CO ₂ e
Area Sources ²	0.00	0.00	0.00	0.00	0.00	0.00
Energy Usage ³	0.00	165.78	165.78	0.01	0.00	166.42
Mobile Sources ⁴	0.00	261.36	261.36	0.01	0.00	261.62
Solid Waste ⁵	20.61	0.00	20.61	1.22	0.00	51.05
Water ⁶	7.92	103.61	111.53	0.82	0.02	137.97
Construction ⁷	0.00	6.51	6.51	0.00	0.00	6.54
Total Emissions	28.53	537.26	565.79	2.05	0.02	623.61
SCAQMD Draft Screening Threshold						3,000
Exceeds Threshold?						No
Source: KW Air Quality & Noise, LLC, Arctic Ocean Storage Project Air Quality, Greenhouse Gas, & Energy Impact Analysis, December 2, 2020.						
Notes:						
1. CalEEMod Version 2016.3.2						
2. Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment.						
3. Energy usage consist of GHG emissions from electricity and natural gas usage.						
4. Mobile sources consist of GHG emissions from vehicles.						
5. Solid waste includes the CO ₂ and CH ₄ emissions created from the solid waste placed in landfills.						
6. Water includes GHG emissions from electricity used for transport of water and processing of wastewater.						
7. Construction GHG emissions based on a 30-year amortization rate.						

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact.

California Air Resources Board Scoping Plan Consistency

The SCAQMD's tier 3 thresholds used Executive Order S-3-05 goal as the basis for deriving the screening level. The California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels
- 2020: Reduce greenhouse gas emissions to 1990 levels
- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels.

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which was phased in starting in 2012. Additionally, in the 2040 General Plan, the City of Lake Forest established communitywide per capita GHG reduction targets, in order to meet the requirements established by the state under AB 32 and SB 32, consistent with the CARB's Scoping Plan. The Project's consistency with the CARB Scoping Plan is analyzed in Table 4.8-3, Project Consistency with CARB Scoping Plan Policies and Measures.

**Table 4.8-3
 Project Consistency with CARB Scoping Plan Policies and Measures**

2008 and 2017 Scoping Plan Recommended Actions to Reduce Greenhouse Gas Emissions	Project Compliance with Recommended Action
California Light-Duty Vehicle Greenhouse Gas Standards – Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	<u>Consistent.</u> These are CARB enforced standards; vehicles that access the Project (that are required to comply with these standards) would comply with the strategy.
Energy Efficiency – Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	<u>Consistent.</u> The Project would be compliant with the current Title 24 standards.
Low Carbon Fuel Standard – Develop and adopt the Low Carbon Fuel Standard.	<u>Consistent.</u> These are CARB enforced standards; vehicles that access the Project (that are required to comply with these standards) would comply with the strategy.
Vehicle Efficiency Measures – Implement light-duty vehicle efficiency measures.	<u>Consistent.</u> These are CARB enforced standards; vehicles that access the Project (that are required to comply with these standards) would comply with the strategy.
Medium/Heavy-Duty Vehicles – Adopt medium and heavy duty vehicle efficiency measures.	<u>Consistent.</u> These are CARB enforced standards; vehicles that access the Project (that are required to comply with these standards) would comply with the strategy.
Green Building Strategy – Expand the use of green building practices to reduce the carbon footprint of California’s new and existing inventory of buildings.	<u>Consistent.</u> The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code in the CCR. Part 11 establishes voluntary standards, that are mandatory in the 2019 edition of the Code, on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The Project would be subject to these mandatory standards.
High Global Warming Potential Gases – Adopt measures to reduce high global warming potential gases.	<u>Consistent.</u> CARB identified five measures that reduce HFC emissions from vehicular and commercial refrigeration systems; vehicles that access the Project (that are required to comply with these measures) would comply with the strategy.
Recycling and Waste – Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	<u>Consistent.</u> The state is currently developing a regulation to reduce methane emissions from municipal solid waste landfills. The Project would be required to comply with City programs, such as City’s recycling and waste reduction program, which comply, with the 75 percent reduction required by 2020 per AB 341.

Table 4.8-3 (continued)
Project Consistency with CARB Scoping Plan Policies and Measures

2008 and 2017 Scoping Plan Recommended Actions to Reduce Greenhouse Gas Emissions	Project Compliance with Recommended Action
Water – Continue efficiency programs and use cleaner energy sources to move and treat water.	<u>Consistent</u> . The Project would comply with all applicable City ordinances and CAL Green requirements.
Implement Mobile Source Strategy: Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Car regulations.	<u>Consistent</u> . These are CARB enforced standards; vehicles that access the Project (that are required to comply with these standards) would comply with the strategy.
Implement Mobile Source Strategy: At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025 and at least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030.	<u>Consistent</u> . These are CARB enforced standards; vehicles that access the Project (that are required to comply with these standards) would comply with the strategy.
Implement Mobile Source Strategy: Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NOX standard.	<u>Consistent</u> . These are CARB enforced standards; vehicles that access the Project (that are required to comply with these standards) would comply with the strategy.
Implement Mobile Source Strategy: Last Mile Delivery: New regulation that would result in the use of low NOX or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.	<u>Consistent</u> . These are CARB enforced standards; vehicles that access the Project (that are required to comply with these standards) would comply with the strategy.
Implement SB 350 by 2030: Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.	<u>Consistent</u> . The Project would be compliant with the current Title 24 standards.
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	<u>Consistent</u> . The Project would be required to comply with City programs, such as City’s recycling and waste reduction program, which comply with the 75 percent reduction required by 2020 per AB 341.
Source: KW Air Quality & Noise, LLC, Arctic Ocean Storage Project Air Quality, Greenhouse Gas, & Energy Impact Analysis, December 2, 2020; CARB Scoping Plan (2008 and 2017).	

As shown in [Table 4.8-4](#), the Project would be consistent with the goals and policies of the CARB Scoping Plan. Since the Project's emissions meet the threshold for compliance with Executive Order S-3-05, the Project's emissions would also comply with the reduction goals of AB 32. Additionally, as the Project meets

the current interim emissions targets/thresholds established by SCAQMD, the Project would also be on track to meet the reduction target of 40 percent below 1990 levels by 2030 mandated by SB-32. Furthermore, all of the post 2020 reductions in GHG emissions are addressed via regulatory requirements at the State level and the Project would be required to comply with these regulations as they come into effect.

At a level of 623.61 MTCO₂e per year, the Project's GHG emissions do not exceed the SCAQMD draft threshold and is in compliance with the reduction goals of the goals of the City of Lake Forest General Plan, AB-32 and SB-32. Furthermore, the Project would comply with applicable Green Building Standards and City of Lake Forest's policies regarding sustainability (as dictated by the City's General Plan). Impacts are considered to be less than significant.

2016-2040 RTP/SCS Consistency⁷

At the regional level, the 2016-2040 RTP/SCS is adopted for the purpose of reducing GHGs resulting from vehicular emissions by passenger vehicles and light duty trucks. In order to assess the Project's consistency with the 2016-2040 RTP/SCS, the Project's land use assumptions are reviewed for consistency with those utilized by SCAG in its SCS. Generally, projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as the 2016-2040 RTP/SCS, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. The Project proposes to convert an existing warehouse building into a self-storage facility. The proposed Project is consistent with the General Plan Land Use and Zoning for the site; thus, the Project would be consistent with the land uses anticipated by the 2016-2040 RTP/SCS. Impacts are considered to be less than significant.

Mitigation Measures: No mitigation measures are required.

⁷ It is noted that following commencement of the technical analysis for the Project, SCAG adopted Connect SoCal, the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy. Projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as Connect SoCal, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. The Project proposes to convert an existing warehouse building into a self-storage facility. The proposed Project is consistent with the General Plan Land Use and Zoning for the site; thus, the Project would also be consistent with the land uses anticipated by Connect SoCal.

4.9 Hazards and Hazardous Materials

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. Generally, the exposure of persons to hazardous materials could occur in the following manners: 1) improper handling or use of hazardous materials or hazardous wastes during construction or operation of future development, particularly by untrained personnel; 2) an accident during transport; 3) environmentally unsound disposal methods; or 4) fire, explosion or other emergencies. The severity of potential effects varies with the activity conducted, the concentration and type of hazardous material or wastes present, and the proximity of sensitive receptors.

Project construction activities would involve the routine transport, use, or disposal of hazardous materials, such as petroleum-based fuels or hydraulic fluid used for construction equipment with the potential of accidental release. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law.

A self-storage facility does not typically involve the routine transport, use, or storage of hazardous materials or upset and accident conditions involving the release of such materials. Operation of the proposed self-storage facility would involve the use of minor cleaning products and the occasional use of pesticides and herbicides for landscape maintenance. However, the use of these materials already occurs within the site associated with the existing warehouse building and larger industrial development. Further, the use of these common materials in small quantities would not pose a significant hazard to the public or the environment. Any transport, storage, use or disposal of hazardous materials would be subject to applicable state and federal laws, minimizing the potential for upset and accident conditions to occur within the site. The proposed Project would not introduce new uses that would involve new or increased use of hazardous materials within the site and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The Project site is not located within 0.25-mile of an existing or proposed school. The closest school to the Project site is Fulbright Montessori Academy, which is located approximately 0.6-mile east of the Project site. Thus, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25-mile of an existing or proposed school.

Mitigation Measures: No mitigation measures are required.

- d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

No Impact. Government Code Section 65962.5, commonly referred to as the “Cortese List”, requires the DTSC and the State Water Resources Control Board (SWRCB) to compile and update a regulatory sites list (pursuant to the criteria of the Section). The California Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Health and Safety Code Section 116395. Government Code Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of Regulations, to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste. The Project site is not included on any of the data resources identified as meeting the Cortese List requirements.⁸ Therefore, the Project site has not been included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

Mitigation Measures: No mitigation measures are required.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?***

No Impact. The Project site is not located within an airport land use plan, nor is the Project site located within two miles of a public airport or public use airport. The closest airport to the Project site is John Wayne Airport, located approximately 10 miles to the west of the site. Thus, the Project would not result in a safety hazard or excessive noise for people residing or working in the Project area.

Mitigation Measures: No mitigation measures are required.

- f) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

Less Than Significant Impact. According to the General Plan, the City is a member of the Orange County Operation Area and the Orange County Emergency Management Organization. Both of these entities provide mutual aid to communities via the Orange County Sheriff's Department, Orange County Fire Authority and the State of California Office of Emergency Services. The General Plan ensures that the City's emergency access routes, emergency contact lists, and public information regarding designated facilities and routes are regularly reviewed to ensure that up to date information is available to the City and the public in the event of an emergency.

Within the Project area, Alton and Bake Parkways provide access to Commercentre Drive. Arctic Ocean Drive is also accessed from Bake Parkway via Cooks Bay Drive and Crescent Bay Drive to the northeast and southwest of the Project site, respectively. Local access to the Project site is provided primarily from

⁸ California Department of Toxic Substances Control, EnviroStor, <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Sacramento&tour=True> accessed November 10, 2020.

Commercentre Drive and Arctic Ocean Drive. Construction vehicles and equipment would be staged within the Project site. Construction activities are not anticipated to result in significant traffic or queuing along Commercentre Drive or other roadways within the area that could potentially impede emergency vehicles or impair any emergency evacuation plan.

The Project does not propose any construction activities or improvements within the adjacent roadways or to the existing driveways used to access the Project site. The proposed loading areas would be accessed from the existing driveway on Arctic Ocean Drive along the eastern side of the building and from the existing driveway on Commercentre Drive, behind the building through locked 20-foot-wide gates. Each entrance would have a secure vestibule. The gate controls would be operable by a Knox emergency override key switch allowing for emergency access by the Orange County Fire Authority (OCFA) to the eastern portion of the building. Therefore, construction and operation of the Project would not impair implementation of or physically interfere an adopted emergency response plan or emergency evacuation plan and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant Impact. According to the General Plan, the Project site is not located within a Very High Fire Hazard Severity Zone (VHFHSZ); however, the open space corridor that extends along the western boundary of the Project site is identified as a VHFHSZ. The General Plan identifies the Project site and surrounding area as having a very high threat or extreme threat to people. The Project site and surrounding area are currently developed with industrial uses. The Project site has been developed with the existing warehouse building since 1997. The Project proposes to convert the existing warehouse building into a self-storage facility. At completion, the facility would have three to four employees. Thus, the Project does not propose expansion or significant modifications to the existing building that would result in an increase in the exposure of people or structures to wildland fires beyond existing conditions. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

4.10 Hydrology and Water Quality

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Surface Water and Flooding				
a. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			X	
b. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems?			X	
c. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
d. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
e. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
f. Cause inundation by a seiche, tsunami, or mudflow?				X
g. Deposit sediment and debris materials within existing channels obstructing flows?			X	
h. Exceed the capacity of a channel and cause overflow during design storm conditions.			X	
Groundwater				
i. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level			X	

which would not support existing land uses or planned uses for which permits have been granted)?				
j. Adversely change the rate, direction or flow of groundwater?			X	
k. Have an impact on groundwater that is inconsistent with a groundwater management plan prepared by the water agencies with the responsibility for groundwater management?			X	
Water Quality				
l. Violate any water quality standards or waste discharge requirements?			X	
m. Cause a significant alteration of receiving water quality during or following construction?			X	
n. Substantially degrade groundwater quality?			X	
o. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			X	
p. Create or contribute runoff water which would generate substantial additional sources of polluted runoff?			X	
q. Substantially degrade water quality by discharge which affects the beneficial uses (i.e, swimming, fishing, etc.) of the receiving or downstream waters?			X	
r. Increase in any pollutant for which the receiving water body is already impaired as listed on the Clean Water Act Section 303(d) list.			X	

SURFACE WATER AND FLOODING

- a) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?***

b) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems?*

Less Than Significant Impact. The larger industrial development site has gently sloping topography and is currently developed with urban uses. An existing channel west of the Project site (Building B) drains northerly and discharges onto the frontage parking lot at the westerly corner of the site. The channel's flow joins sheet flow from the parking lot and drains northerly into an existing frontage v-gutter. The v-gutter flows northeasterly towards the existing parkway drain and discharges onto Arctic Ocean Drive. The runoff south of the existing warehouse building flows into the existing v-gutter, which drains northeast towards and through an existing stormwater quality planter where the required treatment occurs. The existing loading dock south of the existing warehouse building flows into its grated inlet, which is then pumped to surface and drains towards the existing v-gutter described above.

As part of the proposed Project, the existing easterly truck loading dock walls would be removed and the loading dock would be filled to match adjacent grades to facilitate improved loading access at the east side of the building. Other improvements within the area include expanding an existing landscaped area, including constructing a curb and new wall to extend from the existing landscape planter and existing wall adjacent to the proposed gate. With the western parking lot, new grades would be provided to align with the existing building floor elevation. The finished grade within the parking lot would prevent the outflow from the existing channel onto the parking lot at the building's westerly corner. The Project proposes to construct a channel along the site's westerly boundary to match the dimensions (width and depth) of the existing channel west of the building and redirect existing channel flow to the existing parkway drain located at the west corner of the Project site. The flow through the existing channel and parkway drain at the westerly corner of the Project site would increase, while the flow through the existing channel and parkway drain located west of the existing driveway (north of the existing building) would decrease by the same amount. Thus, the total flow leaving the site frontage would not change under the proposed condition.

The drainage modifications would not result in higher amounts of storm flow being discharged to the existing channel and parkway drain on Arctic Ocean Drive, or the development of additional impervious surfaces. The total flow leaving the site frontage would not change compared to existing conditions. Thus, the proposed changes to the existing drainage pattern and the potential to increase surface runoff above pre-development conditions or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems would be less than significant.

Mitigation Measures: No mitigation measures are required.

c) *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

d) *Place within a 100-year flood hazard area structures which would impede or redirect flood flows?*

No Impact. The Project site is not located within a 100-year Federal Emergency Management Agency (FEMA) flood zone. The General Plan identifies the Project site and surrounding area as located within an area of minimal flood hazard as delineated on the FEMA flood hazard maps. The Project does not propose any housing and would not place any structures within a 100-year flood zone.

Mitigation Measures: No mitigation measures are required.

e) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. The Project site is not located within an area identified as having the potential for significant flooding as delineated on FEMA flood hazard maps. The Project site is not located within proximity to a levee or dam. The closest water retention facilities to the Project site are the Upper Oso Reservoir and Lake Mission Viejo, which are located more than three miles from the Project site. The Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

Mitigation Measures: No mitigation measures are required.

f) Cause inundation by a seiche, tsunami, or mudflow?

No Impact. Tsunamis are sea waves that are generated in response to large-magnitude earthquakes, which can result in coastal flooding. Seiches are the oscillation of large bodies of standing water, such as lakes, that can occur in response to ground shaking. The Project site is approximately ten miles inland of the Pacific Ocean and there are no large bodies of standing water near the Project site. As a result, tsunamis and seiches do not pose hazards due to the Project site's inland location and lack of nearby bodies of standing water. The Project site and surrounding area have gently sloping topography; there are no significant hillsides or landforms that would result in inundation associated with mudflow.

Mitigation Measures: No mitigation measures are required.

g) Deposit sediment and debris materials within existing channels obstructing flows?

Less Than Significant Impact. Soil disturbance would temporarily occur during Project construction due to grading activities. Disturbed soils would be susceptible to increased rates of erosion from wind and rain, resulting in sediment transport via stormwater runoff from the Project site. The Project would be subject to compliance with the requirements set forth in Chapter 8.30, Grading and Excavation, and Chapter 15.14, Stormwater Quality Management, of the Municipal Code. Compliance with the Municipal Code would reduce the volume of sediment-laden runoff discharging from the site during construction activities. As noted in Responses 4.10(a) and (b), operational runoff from the Project site would match existing conditions and increased site runoff associated with the proposed Project is not anticipated.

Given the nature of proposed use and the urbanized Project setting, long-term operation of the Project would not have the potential to result in a substantial increase in erosion or siltation offsite. The Project does not include large areas of exposed soils that would be subject to runoff; rather, any unpaved areas would retain existing landscaping and or areas would be improved with groundcover and landscaping to minimize the potential for erosion/siltation. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

h) Exceed the capacity of a channel and cause overflow during design storm conditions.

Less Than Significant Impact. As discussed above in Responses 4.10(a) and (b), the proposed Project would not increase the impervious surface area compared to existing conditions. In addition, the Project would not result in an increase in flow rate of runoff for the 2-year, 10-year, 25-year, and 100-year storm events when compared to existing conditions. Therefore, runoff from the Project would not exceed the

capacity of the downstream storm drains. The Project proposes to construct a channel along the site's westerly boundary to match the dimensions (width and depth) of the existing channel west of the building and redirect existing channel flow to the existing parkway drain located at the west corner of the Project site. The flow through the existing channel and parkway drain at the westerly corner of the Project site would increase, while the flow through the existing channel and parkway drain located west of the existing driveway (north of the existing building) would decrease by the same amount. Thus, the total flow leaving the site frontage would not change under the proposed conditions. Therefore, impacts related to exceedance of the capacity of a channel (or storm drain) or channel overflow during design storm conditions would be less than significant.

Mitigation Measures: No mitigation measures are required.

GROUNDWATER

- i) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*
- j) Adversely change the rate, direction or flow of groundwater?*
- k) Have an impact on groundwater that is inconsistent with a groundwater management plan prepared by the water agencies with the responsibility for groundwater management?*

Less Than Significant Impact. Irvine Ranch Water District (IRWD) provides water to the Project site. According to IRWD's 2015 Urban Water Management Plan (UWMP), IRWD receives its water supplies from a mix of purchased imported water, surface water, groundwater and recycled water. Over 50 percent of IRWD's overall supply comes from local groundwater wells in the Orange County Groundwater Basin (Basin), and the Irvine and Lake Forest Sub-basins. IRWD is an operator of groundwater-producing facilities in the main portion of the Basin and the Sub-basins. The Orange County Water District (OCWD) manages the areas of the Basin that are located within the OCWD boundary. The Irvine Sub-basin is located within the OCWD boundary; however, the Lake Forest area Sub-basin is located outside of the OCWD boundary.

The Project proposes to convert the existing building from a warehouse to a self-storage facility, which would be consistent with the General Plan land use designation and zoning for the site. Employment-generating uses currently occur within the site and due to the nature of the proposed use (self-storage facility) significant new employment opportunities would not be generated. At completion, the facility would have three to four employees during the sales office hours. Operation of the building as a self-storage facility would not require a significant increase in water demand beyond existing conditions. Further, IRWD's UWMP indicates adequate water supplies would be available to serve future water demands during normal, dry and multiple years, which includes water demand associated with the existing site. Thus, Project implementation would not substantially decrease groundwater supplies.

The Project site is almost entirely paved and does not currently provide for significant groundwater recharge. The Project proposes conversion of an existing warehouse building into a self-storage facility. Minor modifications would also occur within the parking and loading areas, including the addition/expansion of landscape planter areas. The proposed Project would not increase the impervious area when compared to existing conditions. Thus, the Project would not interfere substantially with

groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table; adversely change the rate, direction or flow of groundwater; or have an impact on groundwater that is inconsistent with a groundwater management plan. Impacts to groundwater would be less than significant.

Mitigation Measures: No mitigation measures are required.

WATER QUALITY

- l) Violate any water quality standards or waste discharge requirements?***
- m) Cause a significant alteration of receiving water quality during or following construction?***
- p) Create or contribute runoff water which would generate substantial additional sources of polluted runoff?***
- q) Substantially degrade water quality by discharge which affects the beneficial uses (i.e., swimming, fishing, etc.) of the receiving or downstream waters?***
- r) Increase in any pollutant for which the receiving water body is already impaired as listed on the Clean Water Act Section 303(d) list.***

Less Than Significant Impact. The Project proposes to convert the existing 64,329 square foot warehouse building into a 108,148 square foot two-story self-storage facility. No changes are proposed to any of the other buildings located within the larger industrial development. The Project would not increase impervious surfaces or introduce new uses to the site that would potentially increase pollutants at the site. The Project site is currently developed and within an area that is developed; the amount and type of runoff generated by the Project would be similar to the existing site conditions.

Waters that are listed under Section 303(d) of the CWA are known as “impaired.” CWA Section 303(d) lists four water bodies within the City of Lake Forest: Aliso Creek, Serrano Creek, Borrego Creek (from SR 241 to Irvine Boulevard), and San Diego Creek Reach 2. The total maximum daily load (TMDL) is a tool that establishes the allowable loadings or other quantifiable parameters for a waterbody and thereby the basis for the States to establish water quality-based controls. The purpose of TMDLs is to ensure that beneficial uses are restored and that water quality objectives are achieved. The TMDLs for surface waters within Lake forest are described below (with estimated Total Maximum Daily Load completion date in parenthesis):

- Aliso Creek is listed as impaired from the following pollutants: benthic community effects (2025), indicator bacteria (2011), malathion (2029), nitrogen (2019), phosphorus (2019), selenium (2021), and toxicity (2019).
- Serrano Creek is listed as impaired from the following pollutants: ammonia (2021), benthic community effects (2027), indicator bacteria (2021), and toxicity (2027).
- Borrego Creek (from SR 241 to Irvine Boulevard) is listed as impaired from the following pollutants: ammonia (2021), and indicator bacteria (2021).
- San Diego Creek Reach 2 is listed as impaired from the following pollutants: benthic community effects (2027), indicator bacteria (2021), nutrients (1999), and sedimentation/siltation (1999).

Additionally, the Lower Newport Bay is impaired for chlordane, copper, DDT, indicator bacteria, nutrients, PCBs, pesticides, and sediment toxicity.

Construction

The proposed Project may result in water quality impacts during short-term construction activities. The grading and site preparation required for Project implementation would result in limited exposed soils that may be subject to wind and water erosion. Minimal grading resulting in approximately 10 cubic yards of cut would occur within the Project site associated with the proposed retaining wall and drainage channel. The retaining wall and drainage channel would have a maximum excavation depth of approximately two to three feet, with the maximum depth needed to accommodate the retaining wall's footing. Since the Project impact area would be less than one acre in size, the proposed Project would not be subject to the requirements of the Construction General Permit under the NPDES program including the preparation of a stormwater pollution prevention plan (SWPPP). However, construction activities would be required to comply with water quality measures included in Lake Forest Municipal Code Chapter 8.30, *Grading and Excavation*, and Chapter 15.14, *Stormwater Quality Management*. These regulations would require the Project contractor to include best management practices (BMPs) to ensure that the discharge of pollutants from the site would be effectively prohibited and would not cause or contribute to an exceedance of water quality standards or alter water quality during construction. Thus, through adherence to the Municipal Code regulations, water quality impacts associated with Project construction activities would be less than significant.

Operation

The Project site is located within the jurisdiction of the Santa Ana Regional Water Quality Control Board (SARWQCB) and would be subject to compliance with the Phase I Municipal Separate Storm Sewer System (MS4) permit. Under the MS4 permit issued by the Santa Ana RWQCB (Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and Incorporated Cities of Orange County within the Santa Ana Region Areawide Urban Storm Water Runoff, Order No. R8-2009-0030), co-permittees, including the City of Lake Forest, must require BMPs, where feasible, to capture and treat stormwater prior to discharge to their MS4 facilities. As discussed in the Limited Pavement Investigation, site preparation would involve grinding of the existing pavements to facilitate the placement of fill, aggregate base, asphalt, and Portland cement concrete. However, demolition of the existing concrete flatwork or pavements may be necessary to facilitate the construction of new site walls. Concrete and asphalt debris may be pulverized to a maximum two-inch particle size, well mixed with the on-site soils, and incorporated into new structural fills or it may be crushed and made into crushed miscellaneous base (CMB). Based on the proposed site preparation activities and limited area associated with the proposed improvements, the Project would not require preparation of a Water Quality Management Plan (WQMP). The Project would not increase impervious surfaces or significantly alter the drainage pattern of the site beyond existing conditions. Project implementation would not violate any water quality standards or waste discharge requirements upon compliance with the requirements of the NPDES and City water pollution regulations. Further, operation of a self-storage facility would not result in an increase in any pollutant for which the receiving water body is already impaired as listed on the Clean Water Act Section 303(d) list beyond existing conditions. Potential water quality impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

n) Substantially degrade groundwater quality?

Less Than Significant Impact. The Project site is not in a designated groundwater recharge area and due to minimal site preparation required by the proposed Project, groundwater is not anticipated to be

encountered during construction. Borings conducted as part of the Limited Pavement Investigation did not encounter groundwater. According to the Limited Pavement Investigation, the lack of water within the borings and the moisture content of the recovered soil samples indicates groundwater is considered to have existed at a depth in excess of five feet at the time of the subsurface exploration. Further, review of available groundwater data indicates that the historic high groundwater level for the site is 10 feet below the ground surface. Water level data obtained from the California State Water Resources Control Board as part of the Limited Pavement Investigation identified several monitoring wells located approximately 2,500 feet west of the Project site. Water level readings within these monitoring wells indicate a high groundwater level of 72± feet below the ground surface.

The proposed Project would not increase impervious surface areas on-site, and infiltration would be expected to remain the same as under existing site conditions. Use of the site as a self-storage facility would not result in additional levels of pollutants or other materials that could potentially leach into groundwater. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

- o) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*

Less Than Significant Impact. Refer to Responses 4.10(a), (b), and (g). As discussed above, the Project would not substantially alter the existing drainage pattern of the site or area. Stormwater flow from the site would remain unchanged from existing conditions. There are no streams or rivers located near the Project site and the Project would not increase erosion or siltation on- or off-site. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

4.11 Land Use and Planning

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?				X
b. Substantially conflict with existing on-site or adjacent land use due to project-related significant unavoidable indirect effects (e.g., noise, aesthetics, etc.) that preclude use of the land as it was intended by the General Plan?			X	
c. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, planned community, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
d. Conflict with the Central and Coastal Natural Communities Conservation Program/Habitat Conservation Plan (NCCP/HCP) of which the City of Lake Forest is a participant?				X

a) Physically divide an established community?

No Impact. The Project site is currently developed with 64,329 square feet of office, manufacturing, and warehouse uses and is part of a larger approximately 15.37-acre industrial development consisting of approximately 299,882 square feet of warehouse and office space that was completed in 1997. The site is designated Light Industrial and is zoned HT (High Technology) within the Pacific Commercentre Planned Community.

The Project proposes to convert the existing 64,329 square foot warehouse building into a 108,148 square foot climate controlled, Class “A” two-story self-storage facility consisting of 635 units, including a sales and rental office, break rooms, restrooms, and loading bays. No changes are proposed to any of the other buildings located within the larger industrial development. The proposed warehouse use would be consistent with the existing General Plan land use and zoning for the site. Further, the proposed use would be consistent with the larger industrial development. The Project would not involve any roadways or significant infrastructure systems that would physically divide the site or separate the site from surrounding uses. The proposed Project would provide a continuation of existing uses that occur within the site and the surrounding area. Thus, no impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) *Substantially conflict with existing on-site or adjacent land use due to project-related significant unavoidable indirect effects (e.g., noise, aesthetics, etc.) that preclude use of the land as it was intended by the General Plan?*

Less Than Significant Impact. According to the Lake Forest 2040 Land Use Map (Lake Forest 2040 Land Use Element Figure LU-1), the Project site is designated Light Industrial. The Light Industrial designation provides for a variety of light industrial uses that are nonpolluting and can co-exist with surrounding land uses and which do not in their maintenance, assembly, manufacturing or operations create smoke, gas, dust, noise, vibration, soot or glare which might be obnoxious or offensive to persons residing or conducting business in the City. The City of Lake Forest Zoning Map identifies the zoning for the site as HT (High Technology) within the Pacific Commercentre Planned Community.

The Project proposes to convert the existing 64,329 square foot warehouse building into a 108,148 square foot climate controlled, Class “A” two-story self-storage facility consisting of 635 units, including a sales and rental office, break rooms, restrooms, and loading bays. No changes are proposed to any of the other buildings located within the larger industrial development. The proposed warehouse use would be consistent with the existing General Plan land use and zoning for the site and would not require a General Plan amendment or zone change. Further, the proposed use would be consistent with the larger industrial development and as demonstrated throughout this Initial Study, would not result in significant unavoidable indirect effects that would impact an existing on-site or adjacent land use precluding use of the land as it was intended by the General Plan. Thus, less than significant impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

c. *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, planned community, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

Less Than Significant Impact. As discussed in Responses 4.11(a) and (b), the Project site’s Light Industrial land use designation provides for a variety of light industrial uses that are nonpolluting and can co-exist with surrounding land uses and which do not in their maintenance, assembly, manufacturing or operations create smoke, gas, dust, noise, vibration, soot or glare which might be obnoxious or offensive to persons residing or conducting business in the City. The proposed Project would be an allowed use per the City’s General Plan land use designation and no amendments to the General Plan would be required. Thus, the proposed Project would not conflict with the City’s General Plan and impacts would be less than significant.

The site’s HT zone within the Pacific Commercentre Planned Community provides for a broad selection of permitted uses from the M1 (Light Industrial), C1 (General Business), PA (Professional and Administrative) and CR (Commercial Regional) Districts of the Zoning Code. Land Use regulations for the HT zoning district are subject to the regulations in Lake Forest Municipal Code Section 9.72.090, Non-Residential Land Use Matrix, Column I. Self-storage facilities are a permitted use with a Use Permit (UP). In accordance with Lake Forest Municipal Code Chapter 9.184, *Discretionary Permits*, a UP provides for public review of detailed final plans for a proposed use. A UP is a precise plan of development and is required to include a description of the use(s) and operating characteristics; a plot plan showing the location of all uses; supplementary exhibits, as necessary, to show other information which may be required such as building elevations, landscaping, and grading; and conditions of approval. Processing of a UP would require a public

hearing. Thus, with approval of the UP, the Project would be consistent with the zoning for the site and impacts would be less than significant.

The Pacific Commercentre Planned Community District Regulations (adopted July 1987) establishes the Site Development Standards to regulate the design and development of uses within the HT zone. The Project would be required to comply with the applicable development standards. The Project proposes to convert the existing 64,329 square foot warehouse building into a 108,148 square foot climate controlled, Class "A" two-story self-storage facility. The overall building height, footprint, and setbacks would not change and would continue to be consistent with the HT development standards. Similarly, loading areas and trash and storage areas would continue to be screened from view, as the storage units would be accessed from one of two loading areas along the eastern side of the building. With the western parking lot, new grades and paving would be provided to align with the existing building floor elevation. New striping within the parking lot would occur to provide parking stalls per City requirements, including the provision of stalls to meet ADA requirements. Upon restriping, the 381 parking spaces that are currently provided within the larger site, would continue to be provided, in compliance with the City's off-street parking requirements. All existing landscaping currently located adjacent to Arctic Ocean Drive is proposed to remain protected in place. If any trees and landscaping are damaged associated with parking lot construction activities they would be replaced. Thus, the Project would be consistent with the site development standards of the HT zone and impacts would be less than significant.

As discussed, the Project would be consistent with the General Plan land use designation and with approval of the UP, it would be consistent with the zoning for the Project site. Further, the Project would be consistent with the development standards for the HT zone. Thus, the proposed Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Mitigation Measures: No mitigation measures are required.

d. Conflict with the Central and Coastal Natural Communities Conservation Program/Habitat Conservation Plan (NCCP/HCP) of which the City of Lake Forest is a participant?

No Impact. Refer to Response 4.4(f).

Mitigation Measures: No mitigation measures are required.

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4.12 Mineral Resources

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

- a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?***
- b) *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?***

No Impact. The State Mining and Geology Board (SMGB) establishes Mineral Resources Zones (MRZs) to designate lands that contain mineral deposits. The following classifications are used by the State to define MRZs:

- **MRZ-1:** Areas where the available geologic information indicates no significant likelihood of significant mineral deposits.
- **MRZ-2a:** Areas where the available geologic information indicates that there are significant mineral deposits.
- **MRZ-2b:** Areas where the available geologic information indicates that there is a likelihood of significant mineral deposits.
- **MRZ-3a:** Areas where the available geologic information indicates that mineral deposits exist. However, the significance of the deposit is undetermined.
- **MRZ-3b:** Areas where the available geologic information indicates that mineral deposits are likely to exist. However, the significance of the deposit is undetermined.
- **MRZ-4:** Areas where there is not enough information available to determine the presence or absence of mineral deposits.

The General Plan EIR indicates approximately 62 acres of land in the eastern portion of the City was previously designated MRZ-2. The area was classified as an important MRZ for Portland cement concrete (PCC) grade aggregate by the State Department of Conservation. This resource area was previously mined for sand and gravel materials by the El Toro Materials Sand and Gravel Operation. However, the aggregate mining operation is no longer active and the area has since been developed.

The Project site is currently developed with a warehouse building and surface parking as part of a larger industrial development that was completed in 1997. The Project site and surrounding area are not identified as MRZs and conversion of the existing warehouse building into a self-storage facility and associated improvements, as proposed, would not result in the loss of availability of a known mineral resources of value to the region or result in the loss of a locally-important mineral resource recovery site

delineated on a local general plan, specific plan, or other land use plan. No impact to mineral resources would occur.

Mitigation Measures: No mitigation measures are required.

4.13 Noise

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. A proposed project would normally have a significant offsite traffic noise impact if both of the following criteria are met:				
1) Project traffic will cause a noise level increase of 3dB or more on a roadway segment adjacent to a noise sensitive land use. Noise sensitive land uses include the following: residential (single-family, multi-family, mobile home); hotels; motels; nursing homes; hospitals; parks, playgrounds and recreation areas; and schools.			X	
2) The resulting “future with project” noise level exceeds the noise standard for sensitive land uses as identified in the City of Lake Forest General Plan (refer to Table 3-1 in Section 3.3 Interior and Exterior Noise Standards).			X	
b. Exceed the stationary noise criteria for the City of Lake Forest as specified by the exterior noise standards set forth in the Noise Control Chapter of the Lake Forest Municipal Code?		X		
c. Generation of excessive groundborne vibration or groundborne noise levels?			X	
d. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

This section is based on *the Arctic Ocean Storage Project Noise Impact Analysis* (Noise Study) prepared by KW Air Quality & Noise, LLC, dated December 1, 2020 and included in its entirety as Appendix D, Noise Impact Analysis.

FUNDAMENTALS OF NOISE

Sound, Noise, Acoustics

Sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. Sound may be thought of as mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic, or stationary noise, the medium of concern is air. Noise is defined as sound that is loud, unpleasant, unexpected, or unwanted.

Frequency and Hertz

A continuous sound is described by its frequency (pitch) and its amplitude (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding) and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch starting out at 20 Hz all the way to the high pitch of 20,000 Hz.

Sound Pressure Levels and Decibels

The amplitude of a sound determines its loudness. The loudness of sound increases or decreases as the amplitude increases or decreases. Sound pressure amplitude is measured in units of micro-Newton per square inch meter (N/m²), also called micro-Pascal (μ Pa). One μ Pa is approximately one hundred billionths (0.0000000001) of normal atmospheric pressure. Sound pressure level (SPL or Lp) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called decibels abbreviated dB.

Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two sounds of equal SPL are combined, they will produce an SPL 3 dB greater than the original single SPL. In other words, sound energy must be doubled to produce a 3 dB increase. If two sounds differ by approximately 10 dB, the higher sound level is the predominant sound.

Human Response to Changes in Noise Levels

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, (A-weighted scale) and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this analysis, the A-scale weighting is typically reported in terms of A-weighted decibel (dBA). Typically, the human ear can barely perceive the change in noise level of 3 dB. A change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g., doubling the volume of traffic on a highway) would result in a barely perceptible change in sound level.

Noise Descriptors

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns, others are random. Some noise levels are constant while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels.

A-Weighted Sound Level: The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

Ambient Noise Level: The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Community Noise Equivalent Level (CNEL): The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five (5) decibels to sound levels in the evening from 7:00 PM to 10:00 PM and after addition of ten (10) decibels to sound levels in the night before 7:00 AM and after 10:00 PM.

Decibel (dB): A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

dB(A): A-weighted sound level (see definition above).

Equivalent Sound Level (LEQ): The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time varying noise level. The energy average noise level during the sample period.

Habitable Room: Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms and similar spaces.

L(n): The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 in the sound level exceeded 10 percent of the sample time. Similarly, L50, L90 and L99, etc.

Noise: Any unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

Outdoor Living Area: Outdoor spaces that are associated with residential land uses typically used for passive recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and, outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas).

Percent Noise Levels: Refer to the description for L(n), above.

Sound Level (Noise Level): The weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum.

Sound Level Meter: An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Single Event Noise Exposure Level (SENEL): The dB(A) level which, if it lasted for one second, would produce the same A-weighted sound energy as the actual event.

Traffic Noise Prediction

Noise levels associated with traffic depends on a variety of factors: (1) volume of traffic, (2) speed of traffic, (3) auto, medium truck (2–3 axle) and heavy truck percentage (4 axle and greater), and sound propagation. The greater the volume of traffic, higher speeds, and truck percentages equate to a louder volume in noise. A doubling of the Average Daily Traffic (ADT) along a roadway will increase noise levels by approximately 3 dB.

Sound Propagation

As sound propagates from a source it spreads geometrically. Sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates at a rate of 6 dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of 3 dB per doubling of distance.

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt or landscaping attenuate noise at a rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 4.5 dB per doubling of distance for a line source and 7.5 dB per doubling of distance for a point source.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet from a noise source. Wind, temperature, air humidity and turbulence can further impact how far sound can travel.

GROUND-BORNE VIBRATION FUNDAMENTALS

Vibration Descriptors

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

Several different methods are used to quantify vibration amplitude.

- PPV – Known as the peak particle velocity (PPV) which is the maximum instantaneous peak in vibration velocity, typically given in inches per second.
- RMS – Known as root mean squared (RMS) can be used to denote vibration amplitude.
- VdB – A commonly used abbreviation to describe the vibration level (VdB) for a vibration source.

Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Outdoor sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible groundborne noise or vibration. To counter the effects of ground-borne vibration, the Federal Transit Administration (FTA) has published guidance relative to vibration impacts. According to the FTA, fragile buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage.

There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. This drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

EXISTING NOISE ENVIRONMENT

Stationary Sources

Stationary noise sources within the Project site and vicinity are primarily those associated with surface parking, loading/unloading activities, and mechanical equipment (e.g., heating ventilation and air condition [HVAC] equipment). The noise associated with these sources and other nearby sources may represent a single-event noise occurrence or short-term noise.

Sensitive Receptors

Noise exposure standards and guidelines for various types of land uses reflect the varying noise sensitivities associated with each of these uses. Residences, hospitals, schools, guest lodging, libraries, and churches are treated as the most sensitive to noise intrusion and therefore have more stringent noise exposure targets than do other uses, such as manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance. Sensitive receptors near the Project site consist of residential uses.

Noise Measurements

Noise measurements are taken to determine the existing noise levels. A noise receiver or receptor is any location in the noise analysis in which noise might produce an impact. Three short-term noise measurements were conducted at, and around the site. The short-term noise measurements measured the 1-hour Leq, Lmin, Lmax and other statistical data (e.g., L2, L8); refer to [Table 4.13-1, *Short-Term Noise*](#)

Measurement Data (dBA). As indicated in [Table 4.13-1](#), ambient noise levels range between 46.6 and 64.4 dBA Leq. Maximum levels reached 75.3 dBA at noise measurement location 3.

**Table 4.13-1
 Short-Term Noise Measurement Data (dBA)**

Location	Start Time	Leq	Lmax	Lmin	L(2)	L(8)	L(25)	L(50)
1	2:57 PM	46.6	55.4	39.7	51.9	50.0	47.7	45.3
2	2:19 PM	58.3	69.7	44.2	67.0	62.7	58.0	54.9
3	1:46 PM	64.4	75.3	58.9	71.0	71.0	64.7	63.6
Source: Source: KW Air Quality and Noise, LLC, <i>Arctic Ocean Storage Project Noise Impact Analysis</i> , December 1, 2020.								
Notes:								
1. Measurements taken over a 15-minute interval.								
2. Noise measurements performed on August 31, 2020.								

REGULATORY FRAMEWORK

Lake Forest General Plan

The City of Lake Forest outlines their noise regulations and standards within the Public Safety Element from the General Plan and the Noise Ordinance from the Municipal Code. Applicable policies and standards governing environmental noise in the City are set forth in the General Public Safety Element.

Public Safety Element Table PS-1 identifies the maximum allowable noise exposure standards to ensure acceptable noise levels for existing and future development and performance standards for stationary noise sources; refer to [Table 4.13-2, *Land Use Compatibility for Community Noise Environment*](#) and [Table 4.13-3, *Performance Standards for Stationary Noise Sources, Including Affected Projects*](#).

**Table 4.13-2
 Land Use Compatibility for Community Noise Environment**

Land Use	Outdoor Activity Areas ^{2,3}	Interior Spaces	
		Ldn/CNEL, dB	Leq, dB ⁴
Residential	60	45	--
Motels/Hotels	65	45	--
Mixed-Use	65	45	--
Hospitals, Nursing Homes	60	45	--
Theaters, Auditoriums	--	--	34
Churches	60	--	40
Office Buildings	65	--	45
Schools, Libraries, Museums	70	--	45
Playgrounds, Neighborhood Parks	70	--	--
Industrial	75	--	45
Golf Courses, Water Recreation	70	--	--

Source: Source: KW Air Quality and Noise, LLC, *Arctic Ocean Storage Project Noise Impact Analysis*, December 1, 2020.

Notes:

1. Where a proposed use is not specifically listed, the use shall comply with the standards for the most similar use as determined by the City.
2. Outdoor activity areas for residential development are considered to be the backyard patios or decks of single-family units and the common areas where people generally congregate for multi-family developments. Where common outdoor activity areas for multi-family developments comply with the outdoor noise level standard, the standard will not be applied at patios or decks of individual units provided noise-reducing measures are incorporated (e.g., orientation of patio/deck, screening of patio with masonry or other noise-attenuating material). Outdoor activity areas for non-residential developments are the common areas where people generally congregate, including pedestrian plazas, seating areas, and outside lunch facilities; not all residential developments include outdoor activity areas.
3. In areas where it is not possible to reduce exterior noise levels to achieve the outdoor activity area standard using a practical application of the best noise-reduction technology, an increase of up to 5 Ldn over the standard will be allowed provided that available exterior noise reduction measures have been implemented and interior noise levels are in compliance with this table.
4. Determined for a typical worst-case hour during periods of use.

**Table 4.13-3
 Performance Standards for Stationary Noise Sources, Including Affected Projects**

Noise Level Descriptor	Daytime 7 am to 10 pm	Nighttime 10 pm to 7 am
Hourly Leq, dBA	55	50
Source: Source: KW Air Quality and Noise, LLC, <i>Arctic Ocean Storage Project Noise Impact Analysis</i> , December 1, 2020.		
Notes:		
1. Each of the noise levels specified above should be lowered by 5 dB for simple noise tones, noises consisting primarily of speech or music, or recurring impulsive noises. Such noises are generally considered to be particularly annoying and are a primary source of noise complaints. 2. No standards have been included for interior noise levels. Standard construction practices should, with the exterior noise levels identified, result in acceptable interior noise levels. 3. Stationary noise sources which are typically of concern include, but are not limited to, the following: HVAC Systems Cooling Towers/Evaporative Condensers Pump Stations Lift Stations Emergency Generators Boilers Steam Valves Steam Turbines Generators Fans Air Compressors Heavy Equipment Conveyor Systems Transformers Pile Drivers Grinders Drill Rigs Gas or Diesel Motors Welders Cutting Equipment Outdoor Speakers Blowers 4. The types of uses which may typically produce the noise sources described above include but are not limited to: industrial facilities, pump stations, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, and athletic fields.		

Policy PS-6d states: In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels have a substantial increase. Generally, a 3 dB increase in noise levels is barely perceptible, and a 5 dB increase in noise levels is clearly perceptible. Therefore, increases in noise levels shall be considered to be substantial when the following occurs:

- When existing noise levels are less than 60 dB, a 5 dB increase in noise will be considered substantial;
- When existing noise levels are between 60 dB and 65 dB, a 3 dB increase in noise will be considered substantial;
- When existing noise levels exceed 65 dB, a 1.5 dB increase in noise will be considered substantial.

Policy PS-6e states: Update the City’s Noise Ordinance (Chapter 11.16) to reflect the noise standards established in this General Plan and proactively enforce the City’s Noise Ordinance, including requiring the following measures for construction:

- Restrict construction activities to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturdays. No construction shall be permitted outside of these hours or on Sundays or federal holidays, without a specific exemption issued by the City.

- A Construction Noise Management Plan shall be submitted by the applicant for construction projects, when determined necessary by the City. The Construction Noise Management Plan shall include proper posting of construction schedules, appointment of a noise disturbance coordinator, and methods for assisting in noise reduction measures.
- Noise reduction measures may include, but are not limited to, the following:
 - Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) wherever feasible.
 - Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. This muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available. this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.
 - Temporary power poles shall be used instead of generators where feasible.
 - Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City of provide equivalent noise reduction.
 - The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.
 - Delivery of materials shall observe the hours of operation described above. Truck traffic should avoid residential areas to the extent possible.
- Require new development to minimize vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, a vibration limit of 0.08 in/sec PPV (peak particle velocity) will be used to minimize the potential for cosmetic damage to the building. A vibration limit of 0.30 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction.

Lake Forest Municipal Code

Operational Noise Regulations

The Project operational noise impacts are governed by the Lake Forest Municipal Code, Title 11, *Peace and Safety, Division II – Offenses Against Public Peace*, Chapter 11.16, *Noise Control*. Municipal Code Section 11.16.040, *Exterior Noise Standards*, identifies the maximum permissible exterior noise levels for residential uses shall be no greater than 55 dBA 7:00 a.m. to 10:00 p.m. and no greater than 50 dBA 10:00 p.m. to 7:00 a.m. for a period of 30 minutes. Further thresholds that are dependent on the duration of activity are described below. In order to properly assess the impact of events at an exterior residential

property that occur for periods of time less than 30 minutes within a given hour, Section 11.16.040(B) provides the following noise level additions:

1. The noise standard for a cumulative period of more than 30 minutes in any hour; or
2. The noise standard plus 5 dBA for a cumulative period of more than 15 minutes in any hour; or
3. The noise standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour; or
4. The noise standard plus 15 dBA for a cumulative period of more than 1 minute in any hour; or
5. The noise standard plus 20 dBA for any period of time.

If the ambient noise level exceeds any of the first four noise limit categories above, the cumulative period applicable to said category shall be increased to reflect that ambient noise level. If the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under the fifth category shall be increased to reflect the maximum ambient noise level. Additionally, in the event the alleged offensive noise consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by 5 dBA.

Construction Noise Regulations

Section 11.16.060 of the Noise Ordinance identifies specific activities that would be exempt from the provisions of the noise restrictions. Exempted activities include, but are not limited to, construction, repair, remodeling and grading, provided such activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or legal City of Lake Forest holiday.

Thresholds of Significance

According to the City of Lake Forest CEQA Significance Thresholds Guide:

Traffic Noise - A proposed project would normally have a significant offsite traffic noise impact if both of the following criteria are met:

- Project traffic will cause a noise level increase of 3 dB or more on a roadway segment adjacent to a noise sensitive land use. Noise sensitive land uses include the following: residential (single-family, multi-family, mobile home); hotels; motels; nursing homes; hospitals; parks, playgrounds and recreation areas; and schools.
- The resulting "future with project" noise level exceeds the noise standard for sensitive land uses as identified in the City of Lake Forest General Plan.

Stationary Noise - The Noise Ordinance sets limits on the level and duration of time a stationary noise source may impact a residential area. The determination that a project has the potential to exceed the City's established noise limits is typically based on a noise technical report prepared by a qualified acoustical consultant. The project would normally have a significant noise impact if it would:

- Exceed the stationary source noise criteria for the City of Lake Forest as specified by the Exterior noise standards set forth in the Noise Control Chapter of the Lake Forest Municipal Code.

- a) ***A proposed project would normally have a significant offsite traffic noise impact if both of the following criteria are met:***
- 1) ***Project traffic will cause a noise level increase of 3dB or more on a roadway segment adjacent to a noise sensitive land use. Noise sensitive land uses include the following: residential (single-family, multi-family, mobile home); hotels; motels; nursing homes; hospitals; parks, playgrounds and recreation areas; and schools.***
 - 2) ***The resulting “future with project” noise level exceeds the noise standard for sensitive land uses as identified in the City of Lake Forest General Plan (refer to Table 3-1 in Section 3.3 Interior and Exterior Noise Standards).***

Less Than Significant Impact.

Mobile Source Noise

Existing and Existing Plus Project traffic noise levels were modeled utilizing the FHWA Traffic Noise Prediction Model at a distance of 50 feet from the roadway centerline. Roadway input parameters are based on average daily traffic volumes (ADTs), speeds, and vehicle distribution data. Table 4.13-4, Project Traffic Noise Contributions to Existing Conditions, provides a comparison of existing and existing plus project noise conditions. As indicated in Table 4.13-4, the Project would not result in an increase in mobile source noise when compared to existing conditions.

Opening Year (2022) Without and With Project traffic noise levels were also modeled utilizing the FHWA Traffic Noise Prediction Model at a distance of 50 feet from the roadway centerline. Table 4.13-5, Project Traffic Noise Contributions to Opening Year (2022) Scenario, provides a comparison of opening year 2022 without and opening year (2022) with the proposed Project noise conditions. As indicated in Table 4.13-5, the Project-related increase in traffic noise would not exceed 3 dBA; thus, the Project would not contribute to a substantial permanent increase in ambient noise levels in the Project vicinity. Impacts from Project-related mobile source noise would be less than significant.

**Table 4.13-4
Project Traffic Noise Contributions to Existing Conditions**

Road Segments	Existing		Existing Plus Project			Is the Increase Significant?
	ADT	dB CNEL	ADT	dB CNEL	Project-Specific Increase	
North/South						
Commercentre Drive						
s/o Alton Parkway	9,500	67.5	9,600	67.5	0.0	No
n/o Bake Parkway	8,800	67.1	8,800	67.1	0.0	No
s/o Bake Parkway	12,600	68.7	12,600	68.7	0.0	No
East/West						
Alton Parkway						
w/o Commercentre Drive	30,100	72.5	30,100	72.5	0.0	No
e/o Commercentre Drive	24,300	71.6	24,300	71.6	0.0	No
Bake Parkway						
w/o Commercentre Drive	28,200	72.2	28,200	72.2	0.0	No
e/o Commercentre Drive	21,900	71.1	21,900	71.1	0.0	No
Source: KW Air Quality and Noise, LLC, Arctic Ocean Storage Project Noise Impact Analysis, December 1, 2020.						

**Table 4.13-5
Project Traffic Noise Contributions to Opening Year (2022) Scenario**

Road Segments	Opening Year (2022) Without Project		Opening Year (2022) With Project			Is the Increase Significant?
	ADT	dB CNEL	ADT	dB CNEL	Project-Specific Increase	
North/South						
Commercentre Drive						
s/o Alton Parkway	9,900	67.7	10,000	67.7	0.0	No
n/o Bake Parkway	9,200	68.3	9,200	67.3	0.0	No
s/o Bake Parkway	13,100	68.9	13,100	68.9	0.0	No
East/West						
Alton Parkway						
w/o Commercentre Drive	31,300	72.7	31,400	72.7	0.0	No
e/o Commercentre Drive	25,300	71.7	25,300	71.7	0.0	No
Bake Parkway						
w/o Commercentre Drive	29,300	72.4	29,400	72.4	0.0	No
e/o Commercentre Drive	22,800	71.3	22,800	71.3	0.0	No
Source: KW Air Quality and Noise, LLC, Arctic Ocean Storage Project Noise Impact Analysis, December 1, 2020.						

Mitigation Measures: No mitigation measures are required.

b) *Exceed the stationary noise criteria for the City of Lake Forest as specified by the exterior noise standards set forth in the Noise Control Chapter of the Lake Forest Municipal Code?*

Less Than Significant Impact With Mitigation Incorporated.

Short-Term Construction Noise Impacts

Construction noise is considered a short-term impact and would be considered significant if construction activities are taken outside the allowable times as described in the City's Municipal Code (Section 11.16.040 D). Construction is anticipated to occur during the permissible hours in accordance with the City's Municipal Code. Construction noise would have a temporary or periodic increase in the ambient noise level above existing conditions within the Project vicinity.

Construction activities generally are temporary and have a short duration, resulting in periodic increases in the ambient noise environment. Ground-borne noise and other types of construction-related noise impacts would typically occur during the initial construction phases. These phases of construction have the potential to create the highest levels of noise. Typical operating cycles for the types of construction equipment that would be used at the Project site may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Noise levels would be loudest during the demolition phase. A likely worst-case construction noise scenario during demolition assumes the use of a concrete/industrial saw, a dozer, and three tractor/loader/backhoes operating at 690 feet from the façade of nearest sensitive receptor.⁹ Construction noise associated with the Project was calculated utilizing methodology presented in the FTA Transit Noise and Vibration Impact Assessment Manual together with several key construction parameters including: distance to each sensitive receiver, equipment usage, percent usage factor, and baseline parameters for the project site. Distances to receptors were based on the acoustical center of the proposed construction activity. Construction noise levels were calculated for each phase. To be conservative, the noise generated by each piece of equipment was added together for each phase of construction; however, it is unlikely (and unrealistic) that every piece of equipment would be used at the same time, at the same distance from the receptor, for each phase of construction.

Assuming a usage factor of 20 percent for the concrete/industrial saw, 40 percent for the rubber-tired dozer and 25 percent for each of the tractor/loader/backhoes, unmitigated noise levels at 690 feet have the potential to reach 62.3 dBA Leq at the nearest sensitive receptors during demolition. Noise levels for the other construction phases would be lower and range between 51.2 to 61.5 dBA Leq. These noise levels do not take into account the attenuation afforded by intervening buildings and structures between the Project site and the closest sensitive receptor, or that a portion of the demolition would occur inside the existing building and would involve hand tools.

To further ensure that construction activities do not disrupt adjacent land uses, Mitigation Measure NOI-1 would be implemented to incorporate best management practices during construction activities. Thus, noise impacts associated with Project construction activities would be less than significant.

⁹ Construction noise projected from the center of the Project site to the structural façade of the nearest sensitive use.

Long-Term Operational Noise Impacts

The Project site is currently developed with a warehouse and is part of a larger industrial development that was completed in 1997. The Project proposes to convert the existing 64,329 square foot warehouse building into a 108,148 square foot two-story self-storage facility. Typical noise associated with the proposed use includes noise associated with the parking areas and mechanical equipment.

Noise levels within the parking areas would fluctuate with the amount of automobile and human activity. Parking areas have the potential to generate noise due to cars entering and exiting, engines accelerating, braking, car alarms, squealing tires, and other general activities associated with people using the parking areas (i.e., talking, opening/closing doors, etc.). However, noise from vehicles entering and exiting would occur at low exiting and entering speeds, which would not generate high noise levels. During these times, the noise levels can range from 44 to 63 dBA Leq. As shown by the data in Table 4.13-1, the ambient hourly noise level ranged between 46.6 dBA to 64.4 dBA at the closest sensitive receptor and at the Project site, respectively. At a distance of 482 feet from the edge of the parking area to the façade of the closest sensitive receptor, noise level from parking-related activities would be approximately 23 dBA. Therefore, parking noise would not exceed the 55 dBA daytime or 50 dBA nighttime stationary noise standards at the closest sensitive receptors. Impacts would be less than significant.

As part of the Project, it is anticipated that new HVAC units and/or exhaust fans would be installed for the proposed interior expansion of the existing use. Although the operation of this equipment would generate noise, the design of all mechanical equipment would be required to comply with the regulations under Section 11.16.040 of the Lake Forest Municipal Code, which prohibits any person at any location to create any noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, when the foregoing causes the noise level exceed the noise standards by:

1. The noise standard for a cumulative period of more than 30 minutes in any hour; or
2. The noise standard plus 5 dBA for a cumulative period of more than 15 minutes in any hour; or
3. The noise standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour; or
4. The noise standard plus 15 dBA for a cumulative period of more than 1 minute in any hour; or
5. The noise standard plus 20 dBA for any period of time.

As any new HVAC and/or exhaust fans installed on-site would generate similar or lower noise levels (as modern air conditioners are quieter than their predecessors) than the HVAC and/or exhaust fans currently in use on-site and in the Project vicinity, the Project-related increase in stationary noise levels would be negligible. Therefore, impacts are considered to be less than significant.

Mitigation Measures:

NOI-1 Prior to Grading Permit issuance, the Applicant shall demonstrate, to the satisfaction of the Lake Forest Public Works Department that the Project complies with the following:

- Construction shall occur during the permissible hours as defined in Lake Forest Municipal Code Section 11.16.060 D.
- During construction, the contractor shall ensure all construction equipment is equipped with appropriate noise attenuating devices.
- The contractor shall locate equipment staging areas in order to create the greatest distance between construction-related noise/vibration sources and sensitive receptors nearest the Project site during all Project construction.

- Idling equipment shall be turned off when not in use.
- Equipment shall be maintained so that vehicles and their loads are secured from rattling and banging.

c) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Construction activities can produce vibration that may be felt by adjacent land uses. Project construction would not require the use of equipment, such as pile drivers, which are known to generate substantial construction vibration levels. The primary vibration source during construction would be from a bull dozer. A large bull dozer has a vibration impact of 0.089 inches per second peak particle velocity (PPV) at 25 feet, which is perceptible, but below any risk to architectural damage. The Caltrans Transportation and Construction Induced Vibration Guidance Manual provides general thresholds and guidelines as to the vibration damage potential from vibration impacts. Table 4.13-6, Guideline Vibration Damage Potential Threshold Criteria, identifies the thresholds and Table 4.13-7, Vibration Source Levels for Construction Equipment, identifies the approximate vibration levels for particular construction activities at a distance of 25 feet.

The closest building is approximately 70 feet northeast of the Project site. At this distance, a vibratory roller would yield a worst-case 0.045 PPV (in/sec), which below the threshold of perception and any risk of damage. As the closest sensitive receptor is located much further than 70 feet from the Project site, construction-related vibrations at the sensitive receptor location would be even lower. Therefore, the impact from construction-related vibration is considered to be less than significant.

**Table 4.13-6
Guideline Vibration Damage Potential Threshold Criteria**

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some older buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5
Source: Caltrans, <i>Transportation and Construction Vibration Guidance Manual</i> , Table 19, September 2013.		
Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.		

**Table 4.13-7
 Vibration Source Levels for Construction Equipment**

Equipment	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level LV (dVB) at 25 feet
Pile driver (impact)	1.518 (upper range)	112
	0.644 (typical)	104
Pile driver (sonic)	0.734 (upper range)	105
	0.170 (typical)	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill	0.008 (in soil)	66
Slurry wall	0.017 (in rock)	75
Vibratory roller	0.21	94
Hoe ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

The closest building is approximately 70 feet northeast of the Project site. At this distance, a vibratory roller would yield a worst-case 0.045 PPV (in/sec), which is below the threshold of perception and any risk of damage. As the closest sensitive receptor is located much further than 70 feet from the Project site, construction-related vibrations at the sensitive receptor location would be even lower. Therefore, the impact from construction-related vibration is considered to be less than significant.

Mitigation Measures: No mitigation measures are required.

d) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project site is not located within an airport land use plan, nor is the Project site located within two miles of a private airstrip, public airport or public use airport. Thus, the Project would not result in a safety hazard or excessive noise for people residing or working in the Project area.

Mitigation Measures: No mitigation measures are required.

4.14 Population and Housing

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

a) *Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

Less Than Significant Impact. The Project would not induce substantial unplanned population growth directly through new homes or indirectly through the extension of roads or other infrastructure. The Project site is currently developed with a warehouse and is part of a larger industrial development that was completed in 1997. The Project proposes to convert the existing 64,329 square foot warehouse building into a 108,148 square foot two-story self-storage facility. The proposed use of the building as a self-storage facility would be consistent with the General Plan land use designation and zoning for the site. Employment-generating uses currently occur within the site and have been anticipated by the General Plan. Further, due to the nature of the proposed use (self-storage facility) significant new employment opportunities would not be generated. At completion, the facility would have three to four employees during the sales office hours. Thus, the Project would not induce substantial unplanned population growth to the area and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b) *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

No Impact. The Project site is currently developed with a warehouse and is part of a larger industrial development that was completed in 1997. The site does not contain any housing. Thus, the proposed Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Mitigation Measures: No mitigation measures are required.

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4.15 Public Services

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1) Fire protection?			X	
2) Police protection?			X	
3) Schools?			X	
4) Parks?			X	
5) Other public facilities?			X	

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

1) *Fire protection?*

Less Than Significant Impact. The Orange County Fire Authority (OCFA) provides fire protection and emergency response services to the City, including the Project site. There are three fire stations within Lake Forest. Fire Station 54, located at 19811 Pauling Avenue, approximately 2.7 miles from the Project site, is the nearest fire station to the site. Fire Station 54 is staffed with three Fire Captains; three Fire Apparatus Engineers; and three Firefighters and is equipped with an urban search and rescue unit and paramedic assessment unit (PAU) Engine 54.¹⁰

The Project site is currently developed with a warehouse and is part of a larger industrial development that was completed in 1997. The Project proposes to convert the existing warehouse building into a self-storage facility; the overall building footprint would not change. The proposed loading areas would be

¹⁰ Orange County Fire Authority, *Operations Division 5*, <https://ocfaorg/AboutUs/Departments/OperationsDirectory/Division5.aspx> accessed November 25, 2020.

accessed from the existing driveway on Arctic Ocean Drive along the eastern side of the building and from the existing driveway on Commerce Center Drive, behind the building through locked 20-foot-wide gates. Each entrance would have a secure vestibule. The gate controls would be operable by a Knox emergency override key switch allowing for emergency access by OCFA to the eastern portion of the building.

The proposed Project would not result in the construction of new or physically altered fire facilities. Service to the Project site by OCFA occurs under existing conditions and conversion of the building from a warehouse use to a self-storage facility is not anticipated to increase calls for service or alter response times or other performance objectives that would result in the need for new or substantially altered OCFA facilities. In addition, the Project would be required to comply with the California Fire Code, as amended, in accordance with Lake Forest Municipal Code Chapter 8.24, *California Fire Code*. Implementation of all Fire Code requirements would further reduce potential impacts concerning fire protection services. As part of the development review process, OCFA would review the proposed site plan to ensure the Project meets all fire safety requirements and that adequate access is provided. The Project would not require the need for new or physically altered fire station facilities in order to maintain acceptable service ratios, response times or other performance objectives and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

2) Police protection?

Less Than Significant Impact. Orange County Sheriff's Department (OCSD) provides law enforcement services to the City, including the Project site. Police Services for the City are located at 100 Civic Center Drive, approximately 1.2 miles from the Project site. OCSD staff includes five Sergeants, three Investigators, 37 Deputies, an Investigative Assistant, five Community Services Officers, and a Crime Prevention Specialist.¹¹

The proposed Project would not result in the construction of new or physically altered police facilities. Similar to fire protection services, OCSD currently provides services to the Project site under existing conditions and conversion of the building from a warehouse use to a self-storage facility is not anticipated to increase calls for service or alter response times or other performance objectives that would result in the need for new or substantially altered OCSD facilities. The Project is consistent with the General Plan land use and zoning identified for the site and would not require the need for new or physically altered police facilities in order to maintain acceptable service ratios, response times or other performance objectives; impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

3) Schools?

Less Than Significant Impact. The Project does not propose the development of residential uses; therefore, the Project would not directly result in new students to the Saddleback Valley Unified School District (SVUSD). Additionally, the conversion of the existing warehouse building to a self-storage facility would not result in significant new employees to the Project site, indirectly resulting in an increase in

¹¹ Orange County Sheriff's Department, *Lake Forest*, <https://www.ocsheriff.gov/patrol-areas/lake-forest> accessed November 25, 2020.

potential new students to the SVUSD. The Project would not require the need for new or physically altered school facilities and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

4) Parks?

Less Than Significant Impact. According to the General Plan EIR, the City of Lake Forest maintains approximately 294 acres of public parkland. The Project proposes conversion of an existing warehouse to a self-storage facility. A self-storage facility would not induce population growth within the City that would potentially result in a significant increase in the use of existing parks within the area. The proposed Project would not involve the construction of new park facilities nor would it result in the need for new or physically altered park facilities. Therefore, the Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered park facilities.

Mitigation Measures: No mitigation measures are required.

5) Other public facilities?

Less Than Significant Impact. As described in [Section 4.14, Population and Housing](#), the Project would not involve a significant new increase in residents to the City of Lake Forest, as the Project proposes to convert an existing warehouse into a self-storage facility. The proposed use of the building as a self-storage facility would be consistent with the General Plan land use designation and zoning for the site. Employment-generating uses currently occur within the site and have been anticipated by the General Plan. Further, due to the nature of the proposed use (self-storage facility) significant new employment opportunities would not be generated. At completion, the facility would have three to four employees during the sales office hours. The proposed Project would not result in the need for new or physically altered public facilities. Therefore, the Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered public facilities.

Mitigation Measures: No mitigation measures are required.

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4.16 Recreation

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Less Than Significant Impact. Refer to Response to 4.15(a)(4).

Mitigation Measures: No mitigation measures are required.

b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

Less Than Significant Impact. Refer to Response to 4.15(a)(4). The Project proposes the conversion of an existing warehouse building into a self-storage facility. The development of recreational facilities, are not proposed as part of the Project. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

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4.17 Transportation

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. A proposed project would normally have a significant circulation/traffic impact if: 1) The proposed project does not meet any of the screening criteria set forth in the City of Lake Forest Transportation Analysis Guidelines?			X	
2) The proposed project exceeds the vehicle-miles of travel (VMT) thresholds of significance set forth in the City of Lake Forest Transportation Analysis Guidelines?			X	
b. Conflict with the General Plan or other applicable program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
c. Include design features or uses that may cause traffic hazards such as sharp curves, tight turning radii from streets, limited roadway visibility, short merging lanes, uneven road grades, or any other conditions determined by the City engineer to be a hazard?				X
d. Result in inadequate emergency access?			X	

This section is based in part on the *Vehicle Miles of Travel Screening Memo for the Arctic Ocean Storage Project* (VMT Screening Memo), prepared by Kunzman Associates, dated December 8, 2020 and included in its entirety as [Appendix E, VMT Screening Memorandum](#).

- a) A proposed project would normally have a significant circulation/traffic impact if:**
- 1) The proposed project does not meet any of the screening criteria set forth in the City of Lake Forest Transportation Analysis Guidelines?**
 - 2) The proposed project exceeds the vehicle-miles of travel (VMT) thresholds of significance set forth in the City of Lake Forest Transportation Analysis Guidelines?**

Less Than Significant Impact. The City of Lake Forest Transportation Analysis Guidelines (July 21, 2020) identifies screening thresholds to identify whether or not a project should be expected to have a less than significant impact without conducting a detailed study. The screening thresholds include Small Project Screening, where Small Projects can be presumed to have a less than significant impact if there is evidence that it would not generate a potentially significant level of VMT and is consistent with the Lake Forest 2040 General Plan, since the Lake Forest 2040 General Plan is consistent with the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). A proposed project can demonstrate that it will generate a less than significant level of VMT if the project generates fewer than 110 new daily trips per day. Trip generation estimates are to be prepared using the current version of the Institute of Transportation Engineers (ITE) Trip General Manual.

The Project proposes to convert an existing 64,329 square foot warehouse/office building into a 108,148 square foot climate controlled, Class "A", two story self-storage facility. As part of the VMT Screening Memorandum, trip generation rates were determined for the existing warehouse use and for the proposed self-storage facility using ITE trip generation rates; refer to Appendix E. The existing warehouse use generates approximately 319 daily vehicle trips. The proposed self-storage facility would generate approximately 163 daily vehicle trips, resulting in a net reduction of approximately 156 trips. Further, the proposed Project is consistent with the General Plan land use designation for the site. Therefore, the Project meets the screening threshold of a Small Project, as it is consistent with the Lake Forest 2040 General Plan and would generate less than 110 new daily trips. In accordance with the City's Transportation Analysis Guidelines, a detailed VMT analysis is not required and the Project can be presumed to have a less than significant impact on VMT.

Mitigation Measures: No mitigation measures are required.

b) *Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

Less Than Significant Impact.

Transit Facilities

Orange County Transportation Authority (OCTA) provides public transportation services within the area of the Project site. Bus Route 206 provides express service between Santa Ana and Lake Forest. Within the Project area Bus Route 206 travels on Bake Parkway and Commercentre Drive. Bus Route 480 provides service between the Irvine Metrolink Station to Lake Forest via Alton Parkway, Bake Parkway, and Lake Forest Drive.¹² Bus stops for route 480 and 206 are located at Bake Parkway and Commercentre Drive, southeast of the Project site and larger industrial development.

The Project site would continue to be served by the existing transit system and no modifications to routes or the bus stops within the area would occur as a result of the proposed Project. Employees of the proposed self-storage facility may utilize existing transit services; however, their use would not conflict

¹² OCTA, OCBUS, October 11, 2020 Bus Book, www.octa.net/ebusbook/CompleteBusBook.pdf accessed December 22, 2020.

with a program plan, ordinance or policy addressing the circulation system specific to transit facilities. Impacts would be less than significant.

Roadway Facilities

Within the Project area, Alton and Bake Parkways provide access to Commercentre Drive. Arctic Ocean Drive is also accessed from Bake Parkway via Cooks Bay Drive and Crescent Bay Drive to the northeast and southwest of the Project site, respectively. Local access to the Project site is provided primarily from Commercentre Drive and Arctic Ocean Drive. The Project does not propose any modifications to the driveways accessing the site or to existing roadway facilities. Thus, the Project would not conflict with a program plan, ordinance or policy addressing the circulation system, including roadway facilities. Impacts would be less than significant.

Bicycle Facilities

Lake Forest 2040 General Plan EIR Figure 3.14-3, Existing Bicycle/Pedestrian Facilities, identifies existing bicycle and pedestrian facilities within the City. Class II Bike Lanes are located on Alton Parkway and Bake Parkway within the Project area. Class II Bike Lanes are striped and stenciled lanes for one-way bicycle travel on a street or highway. There are no designated bicycle facilities on Commercentre Drive or Arctic Ocean Drive. The Project does not propose any modifications to roadways within the area, including Alton Parkway and Bake Parkway that would impact an existing or potential bicycle facility. Employees associated with the proposed self-storage facility could use existing bicycle facilities within the Project area and throughout the City. The Project would not conflict with a program plan, ordinance, or policy addressing bicycle facilities and impacts would be less than significant.

Pedestrian Facilities

Sidewalks are currently provided along Arctic Ocean Drive and Commercentre Drive, adjacent to the Project site. The Project would not involve modifications to the existing sidewalks. During Project construction activities, portions of the sidewalk on Arctic Ocean Drive immediately adjacent to the Project site may be blocked for pedestrian access; however, this would be temporary and sidewalks would continue to be available on the northern side of Arctic Ocean Drive. The Project would not conflict with a program, plan, ordinance or policy addressing pedestrian facilities and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

- c) ***Include design features or uses that may cause traffic hazards such as sharp curves, tight turning radii from streets, limited roadway visibility, short merging lanes, uneven road grades, or any other conditions determined by the City engineer to be a hazard?***

No Impact. The Project proposes to convert an existing 64,329 square foot warehouse/office building into a 108,148 square foot, two story self-storage facility. The Project site is part of a larger industrial development that is currently served by local roadways and access driveways. The Project site would continue to be accessed by these existing roadways and driveways and no modifications are proposed to these facilities. Thus, the proposed Project does not include any design features or uses that may cause traffic hazards such as sharp curves, tight turning radii from streets, limited roadway visibility, short merging lanes, uneven road grades, or any other conditions determined by the City engineer to be a hazard. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

d) Result in inadequate emergency access?

Less Than Significant Impact. Within the Project area, Alton and Bake Parkways provide access to Commercentre Drive. Arctic Ocean Drive is also accessed from Bake Parkway via Cooks Bay Drive and Crescent Bay Drive to the northeast and southwest of the Project site, respectively. Local access to the Project site is provided primarily from Commercentre Drive and Arctic Ocean Drive. Construction vehicles and equipment would be staged within the Project site. Construction activities are not anticipated to result in significant traffic or queuing along Commercentre Drive or other roadways within the area that could potentially impede emergency vehicles or impair any emergency evacuation plan.

The Project does not propose any construction activities or improvements within the adjacent roadways or to the existing driveways used to access the Project site. The proposed loading areas would be accessed from the existing driveway on Arctic Ocean Drive along the eastern side of the building and from the existing driveway on Commercentre Drive, behind the building through locked 20-foot-wide gates. Each entrance would have a secure vestibule. The gate controls would be operable by a Knox emergency override key switch allowing for emergency access by the Orange County Fire Authority (OCFA) to the eastern portion of the building. Therefore, construction and operation of the Project would result in inadequate emergency access and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

4.18 Tribal Cultural Resources

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or		X		
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

a) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*

- 1) *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?***
- 2) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

Less Than Significant Impact With Mitigation Incorporated. Assembly Bill (AB) 52 requires that lead agencies evaluate a project’s potential impact on “tribal cultural resources”, which include “[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources”. AB 52 also gives lead agencies the discretion to determine, based on substantial evidence, whether a resource qualifies as a “tribal cultural resource.” AB 52 applies whenever a lead agency adopts an environmental impact report, mitigated negative declaration, or negative declaration.

AB 52 also establishes a formal consultation process for California tribes regarding tribal cultural resources. Under AB 52 the lead agencies are required to “begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project”. Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

In compliance with AB 52, the City of Lake Forest provided formal notification via email and hardcopy mailing via the United States Postal Service (USPS) to those California Native American Tribal representatives requesting notification in accordance with AB 52; refer to [Appendix B](#). The consultation letters provided information regarding the proposed Project and contact information for the Project Planner. Under AB 52, Native American tribes have 30 days to respond and request further project information and formal consultation. The 30-day consultation was initiated on November 5, 2020; a response or request for consultation has not been received. Further, as discussed in [Section 4.5](#), a Sacred Lands File (SLF) search was requested from the Native American Heritage Commission (NAHC) on November 2, 2020. On November 4, 2020, the NAHC responded that a search of the SLF was completed with negative results. The NAHC also provided a list of Native American tribes who may have knowledge of cultural resources in the Project area. Correspondence was sent to all the Native American tribes on the list with a description of the proposed Project and a request to provide any knowledge of cultural resources within the Project site or area. No response was received. This correspondence was in addition to the correspondence sent in compliance with AB 52, described above.

The Project proposes to convert an existing warehouse building into a self-storage facility. The existing loading dock on the east side of the building would be filled and repaved to match existing grades and a portion of the parking area on the west side of the building would be filled and paved to match the grade of the building’s first floor. Minimal grading, resulting in approximately 10 cubic yards of cut, would occur within the Project site. The maximum depth of excavation would be two to three feet associated with the proposed retaining wall and drainage channel with the maximum depth occurring for the footings for the retaining wall. Borings conducted as part of the Limited Pavement Investigation encountered artificial fill soils beneath the existing pavements extending to the maximum depth explored of approximately five feet below the existing site grades. Thus, excavation would occur within existing artificial fill soils.

Due to the extensive ground disturbance that occurred within the Project site and surrounding area associated with construction of the existing industrial development, the presence of engineered fill materials within the site, and the minimal grading that would occur with the proposed Project, the likelihood of encountering cultural or tribal cultural resources in the Project site is considered low. However, in the unlikely event that buried resources are encountered during ground disturbance activities, the Project would be required to implement Mitigation Measure CUL-1, which would require all work in the immediate area of the discovery to be halted and the resources evaluated by a qualified archaeologist. With implementation of Mitigation Measure CUL-1, the Project would not cause a

substantial adverse change in the significance of tribal cultural resource and impacts would be reduced to less than significant.

Mitigation Measures: Refer to Mitigation Measure CUL-1.

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4.19 Utilities and Service Systems

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

a) *Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

Less Than Significant Impact.

Water

The Project site is within the service area of Irvine Ranch Water District (IRWD). The existing warehouse use currently receives water service from IRWD. The Project proposes to convert the existing building from a warehouse to a self-storage facility. The proposed use of the building as a self-storage facility would be consistent with the General Plan land use designation and zoning for the site. Employment-generating uses currently occur within the site and due to the nature of the proposed use (self-storage facility) significant new employment opportunities would not be generated. At completion, the facility would have three to four employees during the sales office hours. Operation of the building as a self-storage facility

would not require the relocation or construction of new or expanded IRWD water facilities. Interior improvements may require extension or movement of water lines within the building; however, these improvements would occur within the interior of the building and would not involve ground disturbance activities. Existing IRWD water lines located within Arctic Ocean Drive would remain unchanged and continue to serve the Project site. Impacts would be less than significant.

Refer to Response 4.19(b) regarding water supply.

Wastewater and Wastewater Treatment

In addition to providing water service to the Project site, IRWD provides wastewater service to the Project site. The Project proposes to convert the existing building from a warehouse to a self-storage facility, which would be consistent with the General Plan land use designation and zoning for the site. Employment-generating uses currently occur within the site and due to the nature of the proposed use (self-storage facility) significant new employment opportunities would not be generated. At completion, the facility would have three to four employees during the sales office hours. Operation of the building as a self-storage facility would not require the relocation or construction of new or expanded IRWD wastewater facilities. Similar to water facilities, interior improvements may require extension or movement of sewer lines within the building; however, these improvements would occur within the interior of the building and would not involve ground disturbance activities. Existing IRWD wastewater lines located within Arctic Ocean Drive would remain unchanged and continue to serve the Project site. Impacts would be less than significant.

Refer to Response 4.19(c), regarding wastewater treatment.

Stormwater Drainage

As discussed in Responses 4.10(a) and (b), the proposed Project would not increase the impervious surface area compared to existing conditions. In addition, the Project would not result in an increase in flow rate of runoff for the 2-year, 10-year, 25-year, and 100-year storm events when compared to existing conditions. Therefore, runoff from the Project would not exceed the capacity of the downstream storm drains. The Project proposes to construct a channel along the site's westerly boundary to match the dimensions (width and depth) of the existing channel west of the building and redirect existing channel flow to the existing parkway drain located at the west corner of the Project site. The flow through the existing channel and parking drain at the westerly corner of the Project site would increase, while the flow through the existing channel and parkway drain located west of the existing driveway (north of the existing building) would decrease by the same amount. Therefore, the total flow leaving the site frontage would not change under the proposed conditions. The potential environmental effects associated with construction and operation of the Project, including the proposed storm drain channel, are analyzed within this Initial Study and impacts have been determined to be less than significant with compliance with regulatory requirements and implementation of mitigation measures. Thus, the proposed Project would not require or result in relocation or construction of new or expanded storm water drainage facilities, the construction or relocation of which could cause significant environmental effects.

Refer to Section 4.10 regarding drainage patterns and the Project's hydrology and drainage conditions.

Electricity, Natural Gas, and Telecommunications

The City, including the Project site, is within the service area of Southern California Edison (SCE) and Southern California Gas (SoCalGas). Telecommunication services are provided by a variety of companies

and are typically selected by the individual customer. Transmission lines/infrastructure for these services are provided within the Project area and currently serve the Project site and adjacent uses.

The existing warehouse use currently receives electricity and natural gas service. The proposed conversion of the building from a warehouse use to a self-storage facility would not require the relocation or construction of new or expanded electrical, natural gas or telecommunications facilities. The Project would connect to existing electrical, natural gas, and telecommunications infrastructure, and no off-site improvements are proposed. The potential environmental effects associated with the Project's energy demand are analyzed within this Initial Study and impacts have been determined to be less than significant. Thus, the proposed Project would not require or result in relocation or construction of electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Mitigation Measures: No mitigation measures are required.

b) *Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Less Than Significant Impact. IRWD supplies water to the Project site. In order to determine IRWD's full buildout demands, IRWD coordinates with the cities within its service area on the respective cities' general planning, which takes into consideration future growth of undeveloped areas. According to IRWD's 2015 Urban Water Management Plan (UWMP), IRWD receives its water supplies from a mix of purchased imported water, surface water, groundwater and recycled water. IRWD's supply model indicates adequate supplies exist to meet demands. IRWD's supplies remain essentially constant between normal, single-dry, and multiple-dry years due to its diversified water supply portfolio. The UWMP indicates that IRWD will have reserve water supplies (excess of supplies over demands) through 2035 during normal, single-dry, and multiple-dry years. The excess supplies serve as a buffer against inaccuracies in demand projections, future changes in land use or alterations in supply availability. The UWMP water supply predictions are based in part on existing development and General Plan designations for future growth. The Project proposes to convert the existing building from a warehouse to a self-storage facility, which would be consistent with the General Plan land use designation and zoning for the site. Employment-generating uses currently occur within the site and due to the nature of the proposed use (self-storage facility) significant new employment opportunities would not be generated. At completion, the facility would have three to four employees during the sales office hours. Operation of the building as a self-storage facility would not require a significant increase in water demand beyond existing conditions. Further, IRWD's UWMP indicates adequate water supplies would be available to serve future water demands during normal, dry and multiple years, which includes water demand associated with the existing site. Thus, impacts to water supplies would be less than significant.

Mitigation Measures: No mitigation measures are required.

c) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Less Than Significant Impact. The existing warehouse use currently generates wastewater requiring conveyance and treatment by IRWD. The Project proposes conversion of the building from a warehouse use to a self-storage facility, which would be consistent with the General Plan land use designation and zoning for the site. Employment-generating uses currently occur within the site and due to the nature of

the proposed use (self-storage facility) significant new employment opportunities would not be generated. At completion, the facility would have three to four employees during the sales office hours. Thus, operation of the building as a self-storage facility would not result in a significant increase in the generation of wastewater requiring treatment by IRWD. Adequate wastewater treatment would be available to serve the proposed Project and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

- d) ***Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?***
- e) ***Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?***

Less Than Significant Impact. CR&R provides solid waste and recycling collection services to the City of Lake Forest, including the Project site. Construction activities associated with the Project would generate solid waste requiring disposal. The Project would be required to comply with Lake Forest Municipal Code Chapter 16.12, *Construction and Demolition Debris Diversion*, which promotes the recycling of construction and demolition debris to meet the City's obligations under the California Integrated Waste Management Act of 1989 (AB 939) and the California Building Standards Code. Projects are required to reuse, recycle, salvage or divert a minimum percentage or amount of construction and demolition debris in accordance with the requirements of the California Building Standards Code. Compliance with the Lake Forest Municipal Code would ensure the Project's construction-related solid waste impacts would be less than significant.

The existing warehouse use currently generates solid waste that is collected by CR&R and disposed of at local landfills serving the City. The Project proposes conversion of the building from a warehouse use to a self-storage facility, which would be consistent with the General Plan land use designation and zoning for the site. Employment-generating uses currently occur within the site and due to the nature of the proposed use (self-storage facility) significant new employment opportunities would not be generated. At completion, the facility would have three to four employees during the sales office hours. Operation of the self-storage facility is not anticipated to significantly increase the amount of solid waste generated and disposed of at the Project site. The Project site is located within Orange County Waste & Recycling (OCWR) service area. OCWR owns and operates three landfills in Orange County that accepts municipal solid waste – Olinda Alpha Landfill, Frank R. Bowerman Landfill and the Prima Deshecha Landfill.¹³ The landfills have a combined maximum permitted daily refuse of 23,500 tons.¹⁴ Based on the Project's air quality and greenhouse gas modeling, Project operations are expected to generate approximately 101.51 tons of waste per year, or approximately 0.28 tons per day; refer to Appendix A. This represents less than 0.007 percent of any landfill's maximum permitted daily refuse. Thus, the Project is not anticipated to generate solid waste in excess of State or local standards, or in excess of the capacity of local

¹³ County of Orange, OC Waste and Recycling, *About OC Waste & Recycling*, About OC Waste & Recycling | OC Waste & Recycling (oclandfills.com), <https://www.oclandfills.com/about-us> accessed December 1, 2020.

¹⁴ County of Orange, OC Waste and Recycling, *Fact Sheets*, Fact Sheets, Active Landfills, | OC Waste & Recycling (oclandfills.com) <https://www.oclandfills.com/landfills/fact-sheets> accessed December 1, 2020.

infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

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4.20 Wildfire

<i>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

a) *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

Less Than Significant Impact. The Project site is not identified by Cal Fire as being located within a Very High Fire Hazard Severity Zone (VHFHSZ).¹⁵ However, the open space corridor that extends along the western boundary of the Project site is identified as a VHFHSZ. The General Plan identifies the Project site and surrounding area as having a very high threat or extreme threat to people. The Project site and surrounding area are currently developed with industrial uses. The Project site has been developed with the existing warehouse building since 1997. The Project proposes to convert the existing warehouse building into a self-storage facility.

According to the General Plan, the City is a member of the Orange County Operation Area and the Orange County Emergency Management Organization. Both of these entities provide mutual aid to communities via the Orange County Sheriff's Department, Orange County Fire Authority and the State of California Office of Emergency Services. The General Plan ensures that the City's emergency access routes, emergency contact lists, and public information regarding designated facilities and routes are regularly

¹⁵ CalFire, *Fire Hazard Severity Zones Maps*, https://osfm.fire.ca.gov/media/5889/c30_lakeforest_vhfhshz.pdf accessed December 1, 2020.

reviewed to ensure that up to date information is available to the City and the public in the event of an emergency.

Within the Project area, Alton and Bake Parkways provide access to Commercentre Drive. Arctic Ocean Drive is also accessed from Bake Parkway via Cooks Bay Drive and Crescent Bay Drive to the northeast and southwest of the Project site, respectively. Local access to the Project site is provided primarily from Commercentre Drive and Arctic Ocean Drive. Construction vehicles and equipment would be staged within the Project site. Construction activities are not anticipated to result in significant traffic or queuing along Commercentre Drive or other roadways within the area that could potentially impede emergency vehicles or impair any emergency evacuation plan.

The Project does not propose any construction activities or improvements within the adjacent roadways or to the existing driveways used to access the Project site. The proposed loading areas would be accessed from the existing driveway on Arctic Ocean Drive along the eastern side of the building and from the existing driveway on Commercentre Drive, behind the building through locked 20-foot-wide gates. Each entrance would have a secure vestibule. The gate controls would be operable by a Knox emergency override key switch allowing for emergency access by the Orange County Fire Authority (OCFA) to the eastern portion of the building. Therefore, construction and operation of the Project would not impair implementation of or physically interfere an adopted emergency response plan or emergency evacuation plan and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b) *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

Less Than Significant Impact. The Project site is not located within a SRA and is not located within a VHFHSZ within a LRA. The Project site is located adjacent to an open space corridor that extends along the western boundary and is identified as a VHFHSZ within a LRA. The Project site and surrounding area are currently developed with industrial uses. The Project site has been developed with the existing warehouse building since 1997. The Project proposes to convert the existing warehouse building into a self-storage facility. Minor modifications to the adjacent surface parking and loading areas are also proposed; however, the Project would not create or alter slopes or make any modifications to the adjacent open space area. Continued use of the existing building would not exacerbate wildfire risks or expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire beyond existing conditions. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

c) *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

Less Than Significant Impact. The Project site is not located within a SRA and is not located within a VHFHSZ within a LRA. The Project site is located adjacent to an open space corridor that extends along the western boundary and is identified as a VHFHSZ within a LRA. The Project site and surrounding area are currently developed with industrial uses. The Project site has been developed with the existing warehouse building since 1997. The Project proposes to convert the existing warehouse building into a

self-storage facility. Infrastructure, including roadways, water sources, power lines and utilities occur within the area. The Project would not require the installation or maintenance of new infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant Impact. The Project site and surrounding area are currently developed with industrial uses. The Project site has been developed with the existing warehouse building since 1997. The Project site and surrounding area have gently sloping topography; there are no significant landforms within the surrounding area. The Project site is not located within an area identified as being at risk for flooding or landslides. The Project proposes to convert the existing warehouse building into a self-storage facility. No new structures are proposed. The Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

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4.21 Mandatory Findings of Significance

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		X		
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact With Mitigation Incorporated. As discussed throughout this Initial Study, the Project does not have the potential to substantially degrade the quality of the environment or result in significant environmental impacts that cannot be reduced to a less than significant level with compliance with the established regulatory framework and implementation of mitigation measures.

As discussed in Section 4.4, Biological Resources, the Project would not substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. The Project would be required to implement Mitigation Measure BIO-1 to address the potential for nesting migratory birds within the trees proposed to be removed as part of the Project, which would reduce potential impacts to a less than significant level.

As discussed in Section 4.5, Cultural Resources, the Project would not eliminate important examples of the major periods of California history or prehistory. As also concluded in Section 4.5 and Section 4.18, Tribal Cultural Resources, the Project is not anticipated to result in impacts to known cultural or tribal cultural resources. However, in the unlikely event that buried resources are encountered during ground disturbance activities, the Project would be required to implement Mitigation Measure CUL-1, which would require construction activities to halt until a qualified archaeologist can evaluate the find. Impacts would be less than significant.

The Project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Impacts would be less than significant with the implementation of mitigation.

Mitigation Measures: No additional mitigation measures are required.

b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant Impact With Mitigation Incorporated. Based on the analysis contained in this Initial Study, the proposed Project would not have cumulatively considerable impacts with implementation of Project mitigation measures. Compliance with the regulatory requirements and implementation of mitigation measures at the Project-level would reduce the potential for the incremental effects that would occur with construction and operation of the proposed Project relevant to the environmental topical areas discussed within this Initial Study.

Mitigation Measures: No additional mitigation measures are required.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact With Mitigation Incorporated. Previous sections of this Initial Study reviewed the proposed Project’s potential impacts to human beings related to several environmental topical areas. As determined throughout this Initial Study, the proposed Project would not result in any potentially significant impacts that cannot be mitigated or reduced with compliance with the established regulatory requirements and implementation of mitigation measures by the City. The Project would not cause a substantial adverse effect on human beings, either directly or indirectly and impacts would be less than significant.

Mitigation Measures: No additional mitigation measures are required.

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