SITE DEVELOPMENT PERMIT 12-20-5391
APPLIED MEDICAL EXPANSION AND BRIDGE PROJECT

PUBLIC REVIEW DRAFT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
OCTOBER 2021

Prepared for:

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

Prepared by:

De Novo Planning Group
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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

SITE DEVELOPMENT PERMIT 12-20-5391 APPLIED MEDICAL EXPANSION AND BRIDGE PROJECT

Public Review Draft

Initial Study/Mitigated Negative Declaration

LEAD AGENCY: CITY OF LAKE FOREST

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October 2021

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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 Applied Medical Expansion and Bridge 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 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:

- Air Quality
- Biological Resources
- Cultural Resources
- Noise
- Transportation
- Tribal Cultural Resources

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 issued 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.

The Baker Ranch Planned Community Development Plan and Supplemental Text District Regulations Adopted by Ordinance No. 3699 on April 20, 1988. The Baker Ranch Planned Community Developmental Plan and Supplemental Text (Baker Ranch Community Development Plan) constitute the land use regulations under which development is governed within the Baker Ranch Planned Community. According to the Development Plan, the Project site is located within Urban Activity Center Planning Area 4. Planning Area 4 consists of 49.6 developable acres with Urban Activity (UA), C (Commercial), and BP (Business Park) land uses with a floor area ratio (FAR) of 0.27 and maximum floor area of 650,974 square feet. In addition to providing general provisions and regulations, the Development Plan establishes the land use regulations and site development standards for the Urban Activity Center.

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 Site Development Permit 12-20-5391 (Applied Medical Expansion and Bridge) Project (referenced herein as "Project" or "Applied Medical Expansion 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 approximately 12.9 acres located in the northeastern portion of the City, north of Rancho Parkway, between Lake Forest Drive and Portola Parkway, at 20161, 20162, and 20202 Windrow Drive; refer to Exhibit 2-2, *Project Location*. It is noted that 20191 Windrow Drive, is not part of the proposed Project.

Regional access to the site is provided via the Foothill Transportation Corridor (SR-241) located north of the Project site and the Santa Ana Freeway (I-5) Freeway located to the southwest. Local access to the site is provided from Rancho Parkway. Within the Project area, Lake Forest Drive and Portola Parkway provide access to Rancho Parkway.

2.2 Existing Setting

ON-SITE LAND USES

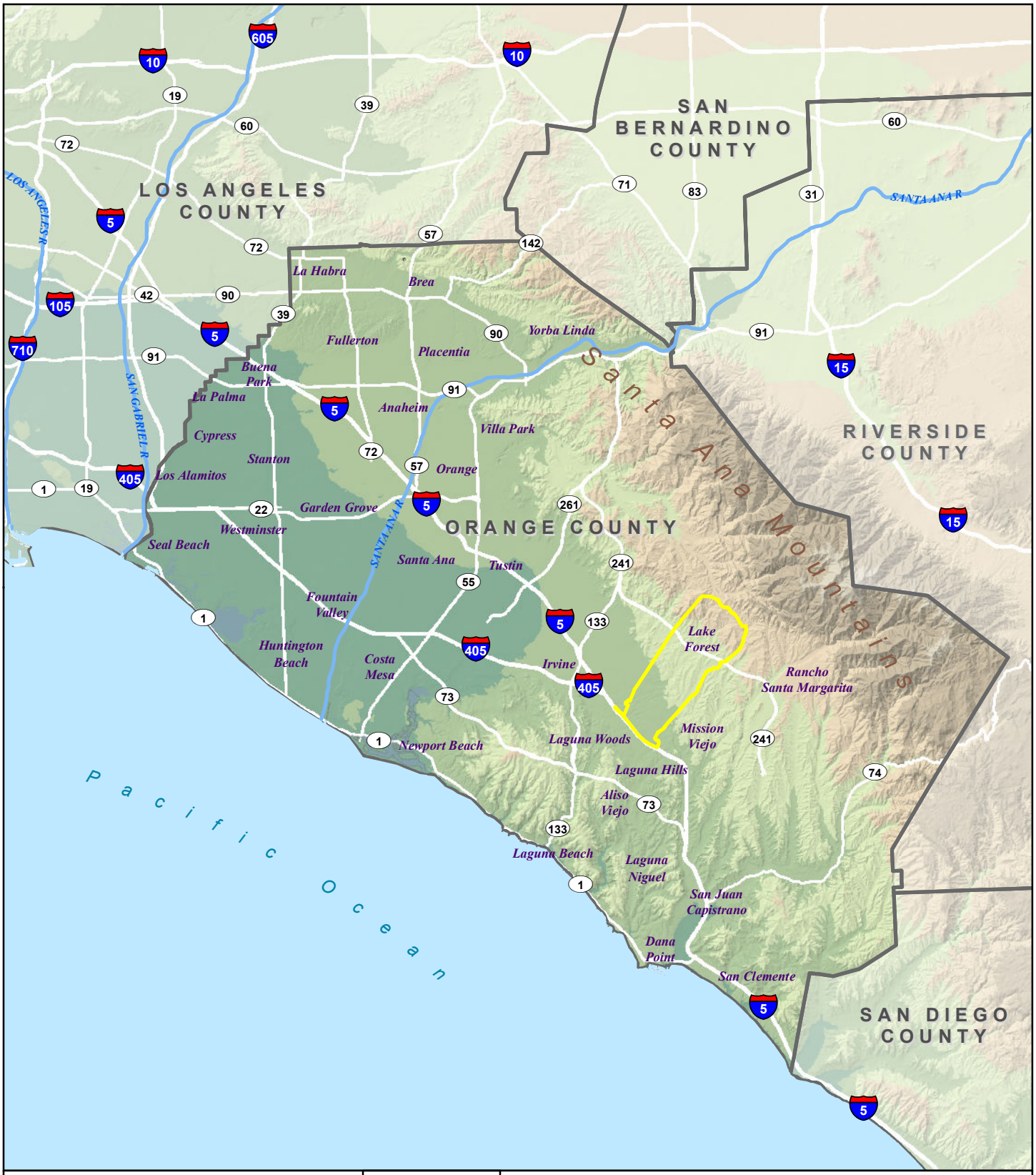
The Project site consists of two parcels (APNs 612-012-10, -11), which together comprise the Applied Medical Lake Forest Campus; refer to Table 2-1, *Existing Project Site Development*.

Table 2-1
Existing Project Site Development

Building Description	Use	Square Feet
Building L201 – 20161 Windrow Drive	Office/Manufacturing	89,984
Bridge (Connecting Buildings L201 and L202)	Manufacturing	12,696
Building L202 – 20162 Windrow Drive	Office/Manufacturing	39,776
Building L203 – 20202 Windrow Drive	Unoccupied	73,168
	OCSD	51,292
Project Site Total		**266,916**

Source: TD Architects, Inc., Plans dated May 14, 2021/received June 1, 2021.
Note: Exhibit 2-2 depicts the location of each building.

Building L201 (20161 Windrow) and Building L202 (20162 Windrow) currently house Applied Medical Resources (AMR) facilities and are connected by a bridge. Building L203 (20202 Windrow Drive) is comprised of two suites. One of the suites (73,168 square feet located on the ground floor) is currently unoccupied. The second suite (51,292 square feet on the first and second floor) is leased by the Orange County Sheriff's Department (OCSD). Surface parking, pedestrian walkways, and landscaping are distributed throughout the Project site. Access to the Project site is provided via three driveways at the northern terminus of Windrow Drive and one driveway along Rancho Parkway, near the easterly property line.



Legend

Project Boundary/Lake Forest City Boundary

County Boundary

0 2½ 5
Miles

Sources: CalAtlas; Orange County. Map date: November 3, 2020. Retitled: September 8, 2021.

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Exhibit 2-1. Regional Location Map

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

Legend

Project Boundary

0 250 500
Feet

Source: ArcGIS Online World Imagery Map Service; Orange County GIS; Google Maps. Map date: June 18, 2021. Retitled: September 8, 2021.

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Exhibit 2-2. Project Location

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GENERAL PLAN AND ZONING

According to the Lake Forest 2040 Land Use Map (Lake Forest 2040 Land Use Element Figure LU-1), the Project site is designated Business Park. The Business Park designation provides opportunities for a mixture of uses allowed under the Commercial, Professional Office, and Light Industrial land use designations. The Commercial land use designation provides for a variety of retail, professional office, medical, service-oriented business activities, and hospitality facilities. The Professional Office land use designation provides for professional, legal, medical, general financial, administrative, corporate, and general business offices, as well as supportive commercial uses such as restaurants, medical services, community facilities, and similar uses. Also included are small convenience or service commercial activities intended to meet the needs of the on-site employee population. 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 for the Business Park designation is a floor area ratio of 1.0:1.

The City of Lake Forest Zoning Map identifies the zoning for the site as UA (Urban Activity) within the Baker Ranch Planned Community. The Baker Ranch Planned Community Developmental Plan and Supplemental Text (adopted April 1988) constitute the land use regulations under which development is governed within the Baker Ranch Planned Community. According to the Development Plan, the Project site is located within Planning Area 4, which allows for UA, C (Commercial), and BP (Business Park) land uses.

SURROUNDING USES

The Project site is bounded by SR-241 to the north, the Parkside residential development zoned R (Residential) within the Baker Ranch Planned Community to the east, Rancho Parkway to the south, and open space, Serrano Creek, and Etnies Skate Park zoned OS (Open Space) within the Baker Ranch Planned Community to the west. Business park uses are located south of Rancho Parkway, east and west of Windrow Drive. The Lake Forest Sports Park is also located south of Rancho Parkway, across from the Parkside residential development.

2.3 Proposed Project

The Project consists of tenant improvements on the first floor, a building addition on the first floor, and a new second floor to the L203 building (20202 Windrow Drive), as further described below. The Project also includes a new 13,253 square foot bridge that would connect the L203 and L202 buildings (20162 Windrow Drive); refer to Exhibit 2-3, *Proposed Site Plan*. No changes are proposed to the L201 building (20161 Windrow Drive).

Building L203 is comprised of two suites. One of the existing suites (73,168 square feet) is currently unoccupied and would be occupied by AMR upon Project completion. As part of the proposed Project, the first floor would undergo tenant improvements, a 7,101 square foot building addition would be constructed on the first floor and a new 26,830 square foot second floor would be added; refer to Exhibit 2-4, *Proposed Floor Plan – First Floor* and Exhibit 2-5, *Proposed Floor Plan – Second Floor*. A 12 foot tall (above the existing parapet) roof screen addition to Building L203 would bring the overall building height to 44 feet. This height would be required to screen the rooftop equipment and to attenuate noise generated from the equipment at the easterly property line.

AMR would utilize Building L203 for manufacturing and storage purposes. The manufacturing operations would consist of various processes, such as extrusion, manufacturing of rubber parts, automated assembly, heat treat, metal injection molding, film manufacturing, etc. The storage operations would include storage of raw materials and semi-finished goods for the operations previously described.

No changes would occur to the adjacent suite that is currently leased by the OCSD. Upon completion of the proposed additions, Building L203 would be 158,391 square feet (107,099 square feet occupied by AMR and 51,292 square feet occupied by OCSD) and the Project site would consist of 314,100 square feet distributed between three buildings and two bridges; refer to Table 2-2, *Project Site with Proposed Additions*.

Table 2-2
Project Site with Proposed Additions

Building Description	Use	Square Feet
Building L201 – 20161 Windrow Drive	Office/Manufacturing	89,984
Bridge (Connecting Buildings L201 and L202)	Manufacturing	12,696
Building L202 – 20162 Windrow Drive	Office/Manufacturing	39,776
Bridge (Connecting Buildings L202 and L203)	Manufacturing	13,253
Building L203 – 20202 Windrow Drive	Manufacturing	107,099
	OCSD	51,292
Project Site Total		**314,100**
Source: TD Architects, Inc., February 26, 2021.		

The roof of Building L203 would be strengthened in order to provide proper structural support for the new rooftop mechanical equipment, as well as to bring the building into compliance with the current seismic strengthening requirements. The new rooftop mechanical equipment would include exhaust fans, air handler units, and ductwork. A new roof screen would be provided to screen the rooftop equipment and provide noise attenuation. The height of the roof screen would be 12 feet above the existing parapet walls. The roof screen material would match the existing roof screens at Buildings L201 and L202.

The proposed bridge would connect Buildings L202 and L203. The bridge would support a mechanical central plant as well as cogen and central plant equipment to support Building L203 operations; refer to Exhibit 2-6, *Proposed Bridge Plan*. A walkway would also be provided to allow AMR team members to travel between the two buildings. Building L203 would house key manufacturing equipment in sensitive environments that risk disruption when dependent upon outside sources of energy. The cogen technology would allow AMR to continue its operations while providing in-house energy security. The cogen plant features dual-mode operation, operating 24 hours a day, seven days a week in an interconnected mode and grid-parallel with the serving utility; however, it can also operate in island mode to provide power to the building during a power outage. The cogen facility would not exceed 50 megawatts capacity. The central plant in conjunction with a cogen system (turbines and absorption chiller) would provide heating and cooling of water for the building and operations.

In order to serve the new cogen equipment, new electrical equipment would be installed at the parking lot level between Building L203 and SR-241. The electrical equipment that would be placed adjacent to Building L203 would be painted to match the building colors. The equipment, placed across the drive aisle, closest to SR-241, would be screened from view from SR-241 by new landscaping.

The exterior of the new additions to Building L203 would have finishes to match the existing building exterior; refer to Exhibit 2-7a and Exhibit 2-7b, *Building Elevations*. Additionally, the design of the proposed bridge would mimic the existing bridge connecting Buildings L201 and L202. The new bridge façade facing SR-241 would match the design of the existing bridge. The new bridge façade facing Windrow Drive would have a straight wall and an overall height of 35 feet, consistent with the height of the existing bridge; refer to Exhibit 2-8, *Bridge Elevations*.

Additional site improvements would include new walkways, an extended ADA path of travel, new paving, new curbs and parking stall striping to provide the 498 required parking spaces. New landscaping would also be provided around Building L203, between Buildings L202 and L203, and within some of the parking areas; refer to Exhibit 2-9, *Proposed Landscape Plan*.

The Project would maintain existing grades and drainage patterns across the site. As part of the proposed improvements, new drain inlets would be placed downstream of new concrete v-gutters, which would be used to direct stormwater runoff to new designated drainage areas that would be fitted with a water quality treatment system; Refer to Section 4.10, Hydrology and Water Quality.

Access to the Project site would remain unchanged with access to the Project site continuing to be provided via three driveways at the northern terminus of Windrow Drive and one driveway along Rancho Parkway. As part of the Project, the northbound and southbound approach of Windrow Drive would be restriped from one shared left-turn/through/right-turn lane to consist of one shared left-turn/through lane and one dedicated right-turn lane so that vehicles turning right out of Windrow Drive do not have to wait behind vehicles waiting to make a left-turn onto Rancho Parkway. Parking would also be restricted along both sides of Windrow Drive for approximately 100 feet from Rancho Parkway.

PROJECT CONSTRUCTION AND PHASING

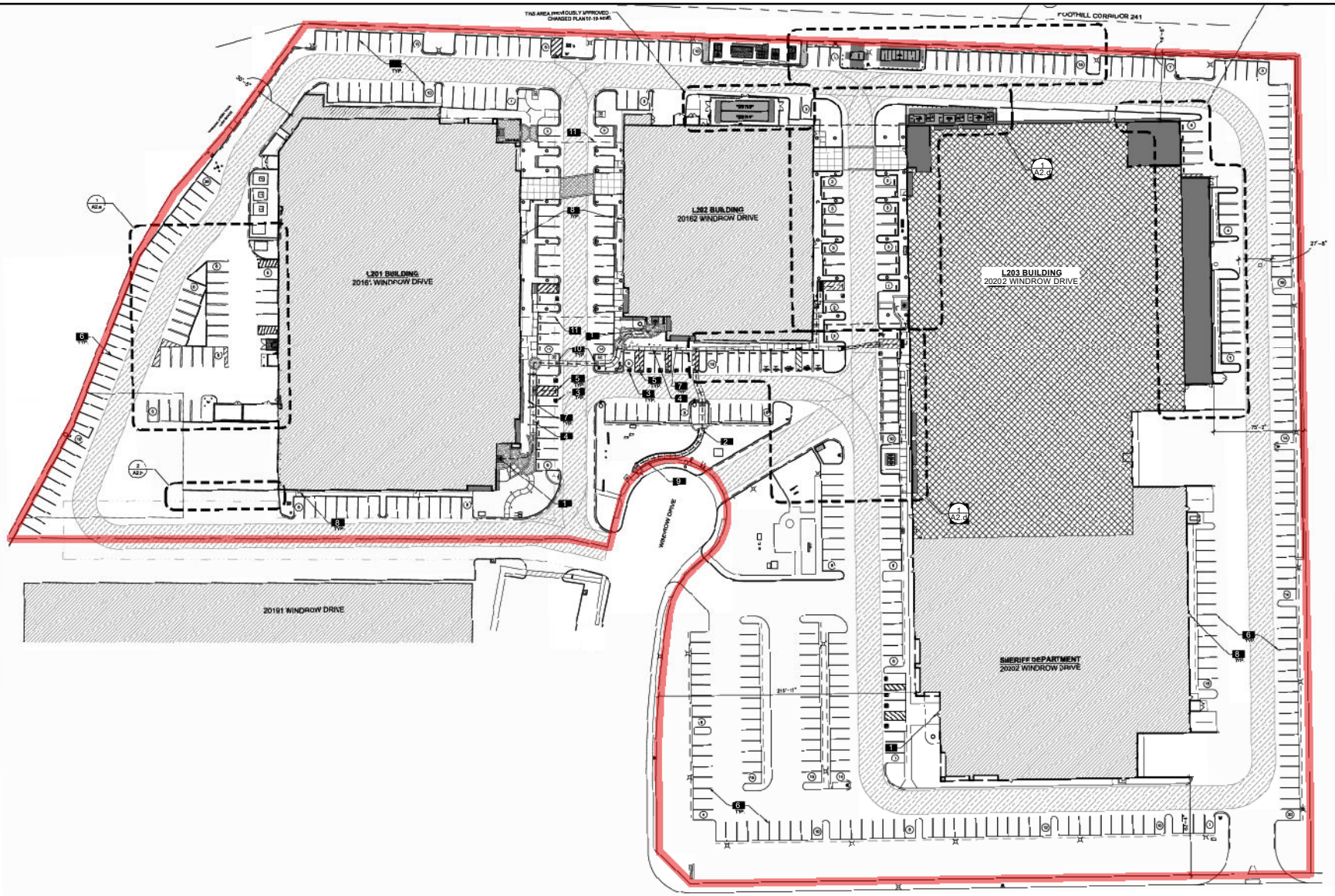
Construction activities are anticipated to occur over 14 months with construction commencing in February 2022 and being completed in March 2023.

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 Site Development Permit 12-20-5391 by the Planning Commission.

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



Legend

Project Boundary

0 50 100

Feet

Source: TD Architects, Inc., 2/26/2021. Map date: September 10, 2021.

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Exhibit 2-3. Proposed Site Plan

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

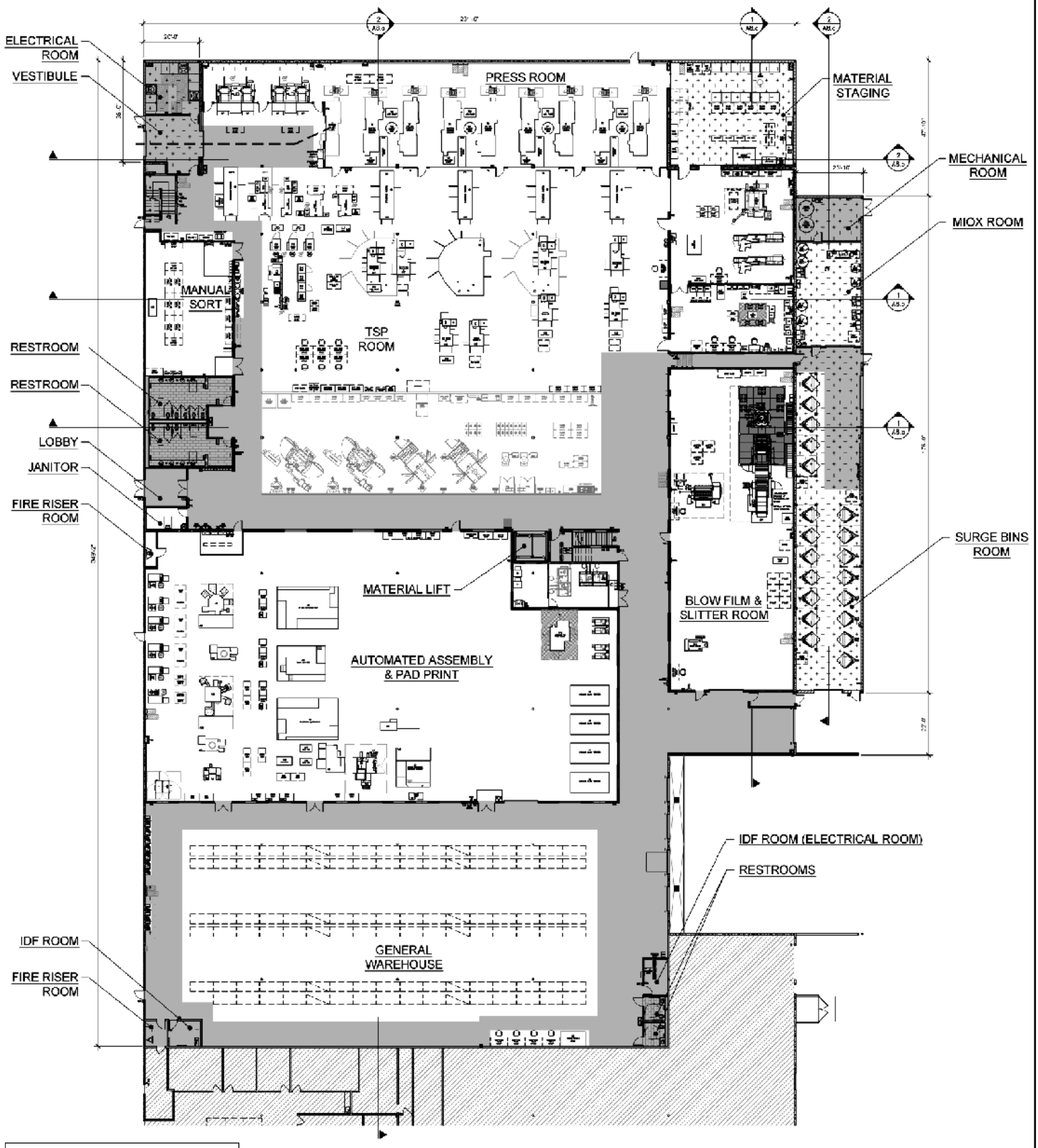

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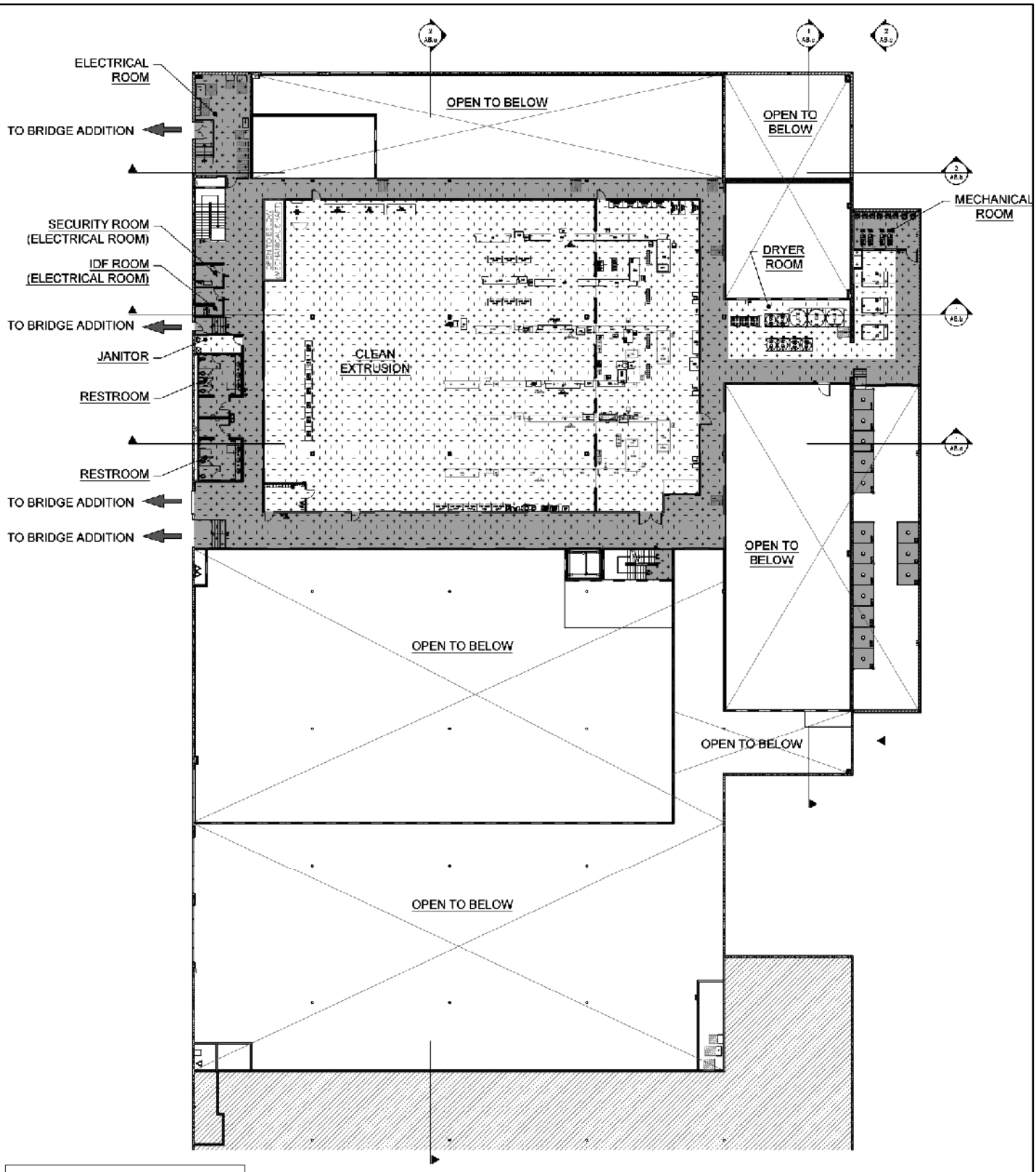
Exhibit 2-4. Proposed Floor Plan - First Floor

Source: TD Architects, Inc., 2/26/2021. Map date: September 9, 2021.



ANCILLARY / ACCESSORY

BUILDING ADDITION

ORANGE COUNTY SHERIFF DEPARTMENT

Source: TD Architects, Inc., 2/26/2021. Map date: September 9, 2021.

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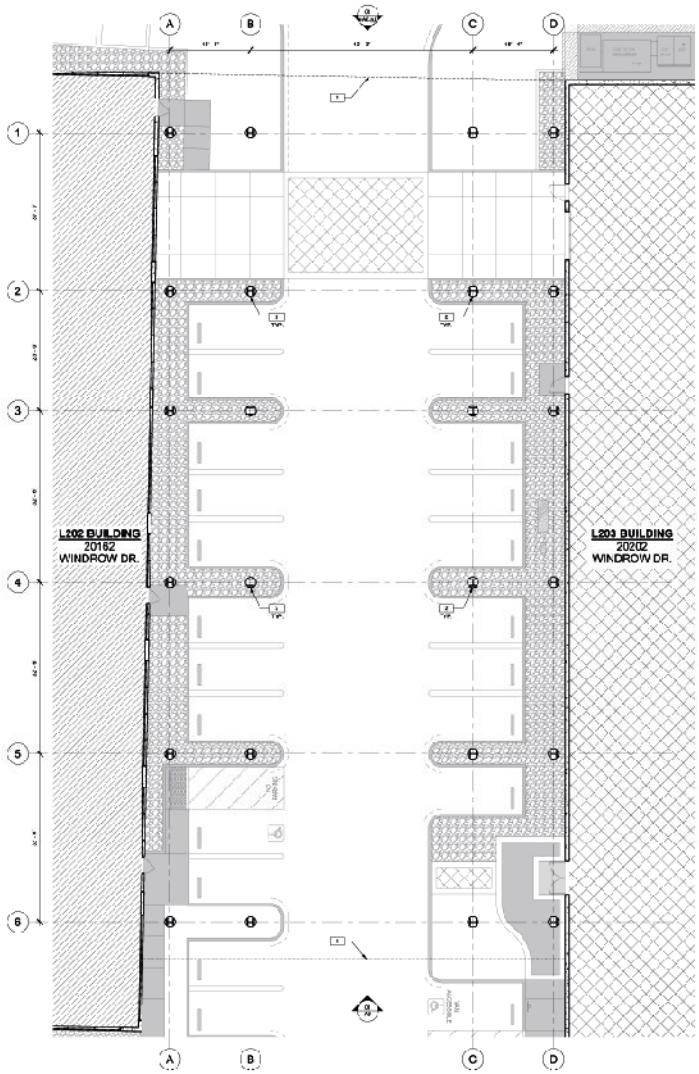
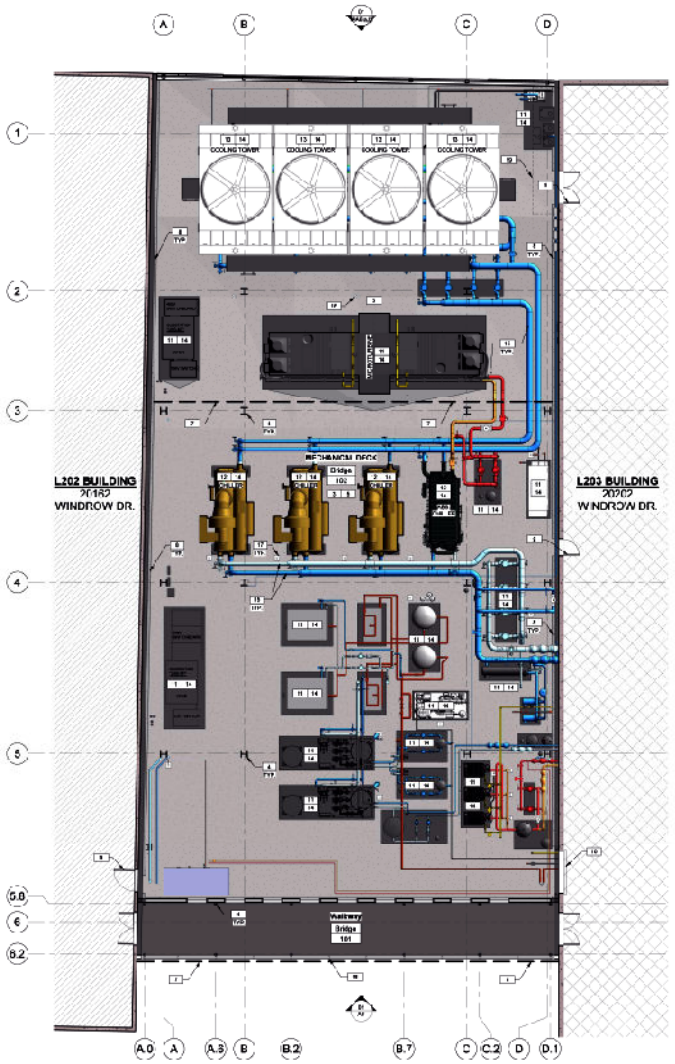
Exhibit 2-5. Proposed Floor Plan - Second Floor



GROUND LEVEL PLAN



BRIDGE LEVEL FLOOR PLAN

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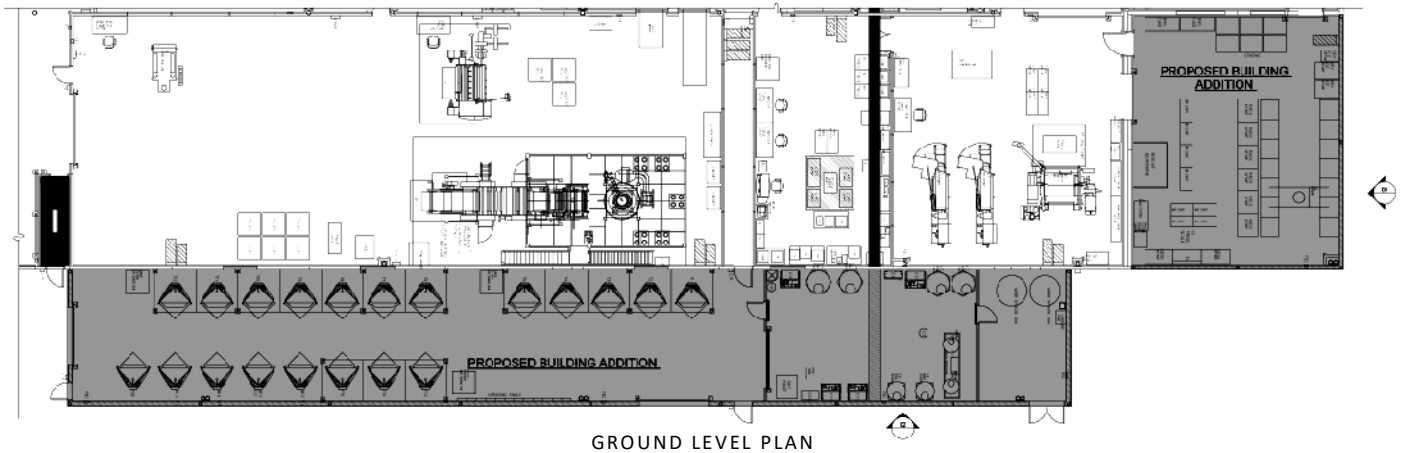
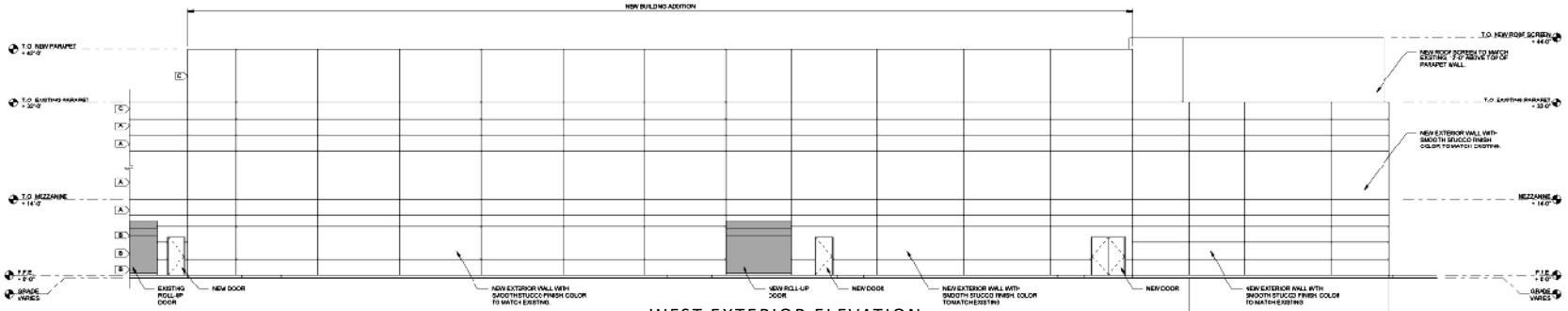
Exhibit 2-6. Proposed Bridge Plan

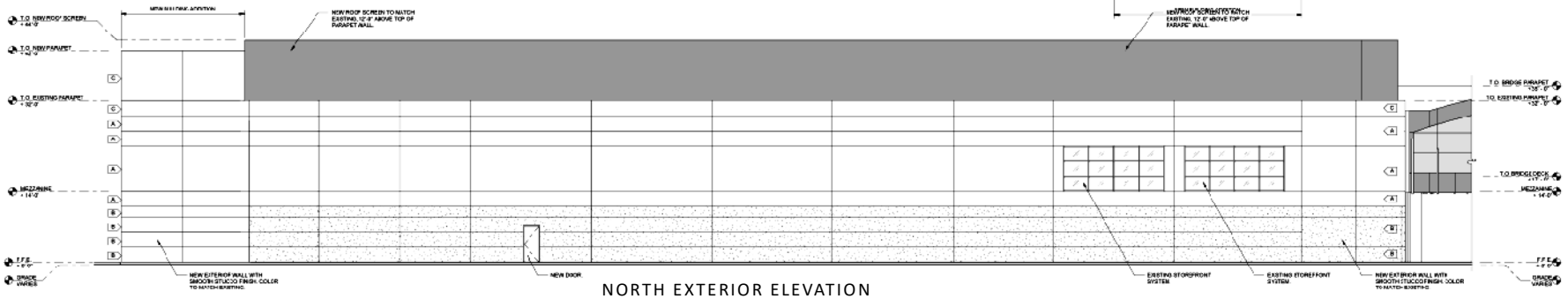
Source: TD Architects, Inc., 2/26/2021. Map date: September 9, 2021.



GROUND LEVEL PLAN



WEST EXTERIOR ELEVATION



NORTH EXTERIOR ELEVATION

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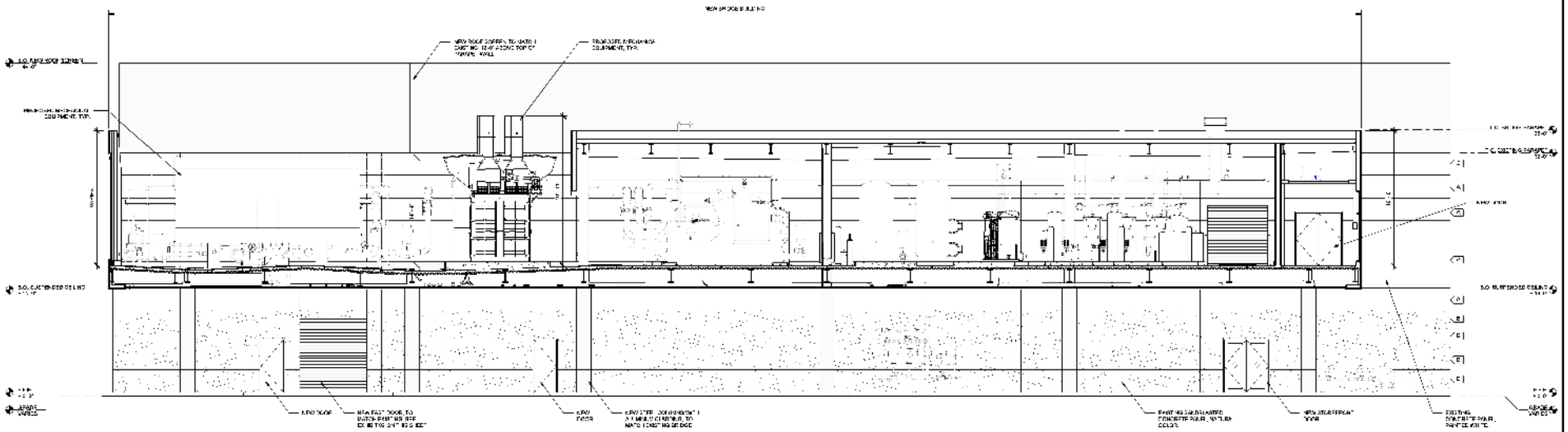
Exhibit 2-7a. Building Elevations

Source: TD Architects, Inc., 2/26/2021. Map date: September 9, 2021.



EAST EXTERIOR ELEVATION

ALUMINUM FINISH FAST DOOR PRECEDENTS

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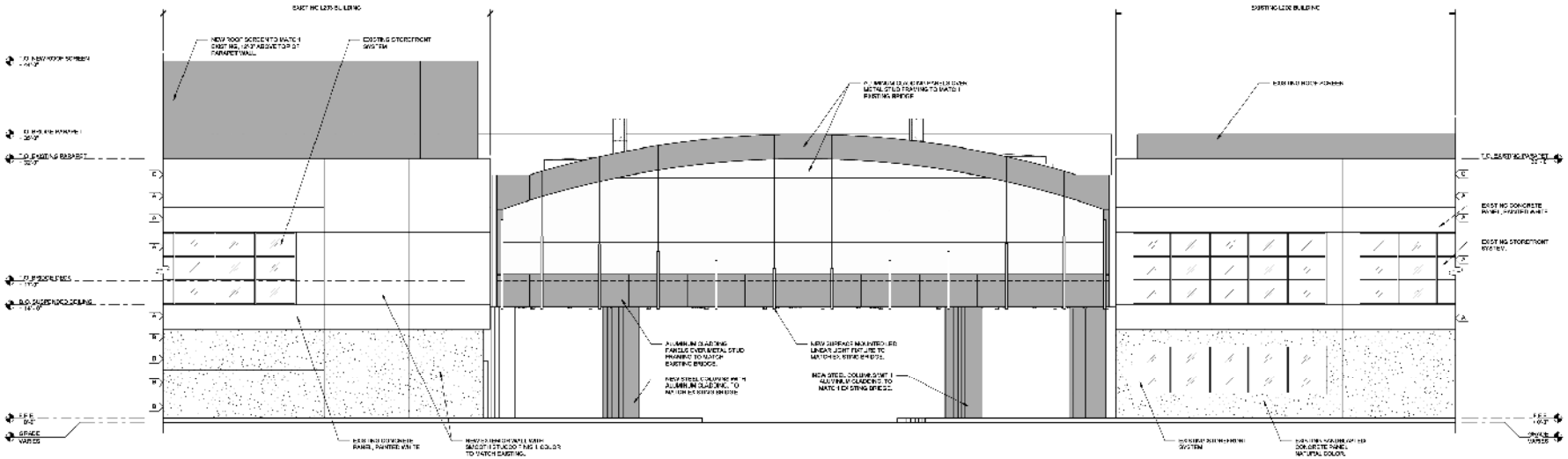
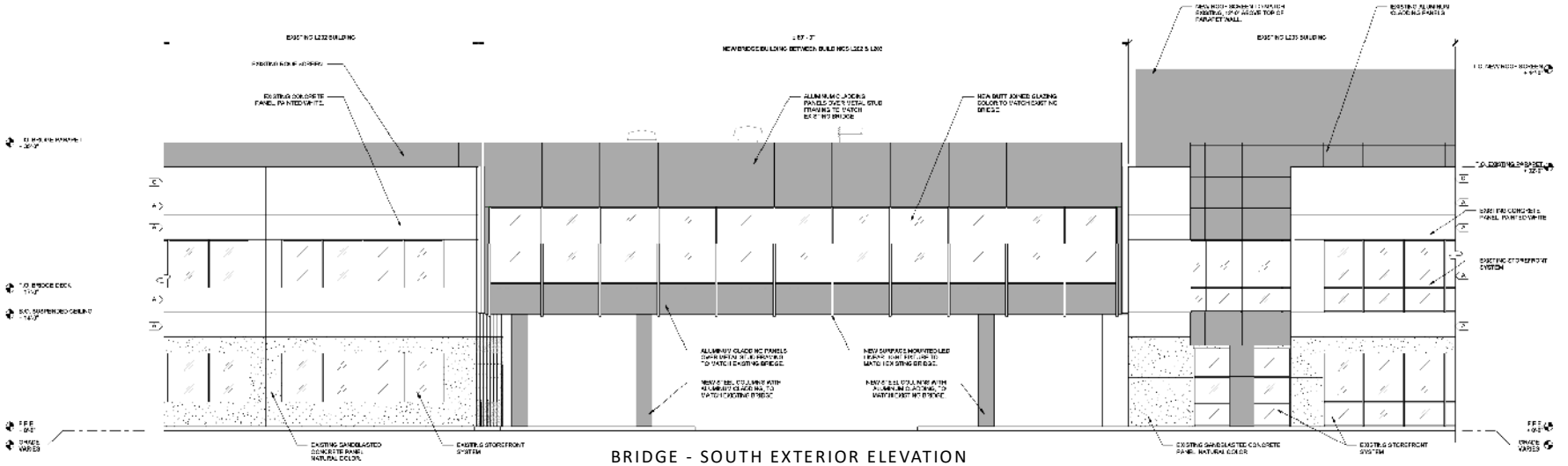
Exhibit 2-7b. Building Elevations

Source: TD Architects, Inc., 2/26/2021. Map date: September 9, 2021.



BRIDGE - NORTH EXTERIOR ELEVATION



BRIDGE - SOUTH EXTERIOR ELEVATION

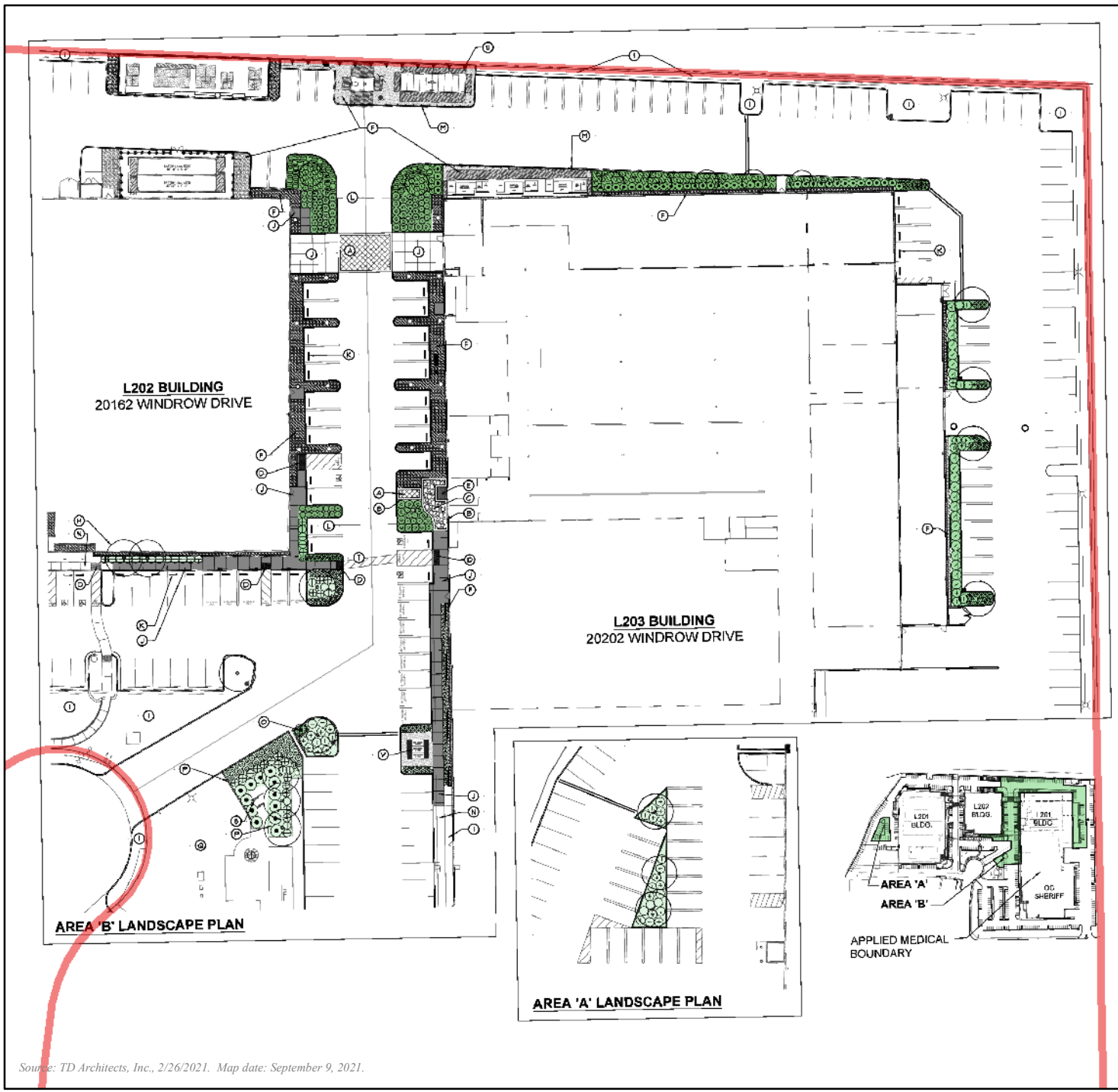
CITY OF LAKE FOREST
SITE DEVELOPMENT PERMIT 12-20-5391
(APPLIED MEDICAL EXPANSION AND BRIDGE) PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Exhibit 2-8. Bridge Elevations

Source: TD Architects, Inc., 2/26/2021. Map date: September 9, 2021.

CITY OF LAKE FOREST
SITE DEVELOPMENT PERMIT 12-20-5391
(APPLIED MEDICAL EXPANSION
AND BRIDGE) PROJECT
INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

Exhibit 2-4.
Proposed Landscape Plan



Project Boundary

Landscaping

- (A) CONCRETE PAVING WITH 2X2 SAWCUT PATTERN
- (B) CONCRETE BAND 12" WIDE
- (C) FLAGSTONE PAVING
- (D) TRUNCATED DOME PAVERS
- (E) METAL WALK-OFF MAT
- (F) COBBLE WITH CONCRETE MOW STRIP
- (G) DECOMPOSED GRANITE PAVING
- NEW TREES (24" BOX) AND SHRUBS (1, 5, AND 15 GAL.)
- (H) EXISTING TREE TO REMAIN
- (I) EXISTING PLANTING TO REMAIN
- (J) CONCRETE PAVING WITH SAWCUTS & EXPANSION JOINTS AS SHOWN
- (K) NEW CONCRETE WHEEL STOP, TYPICAL
- (L) EDGE OF NEW OVERHEAD BRIDGE
- (M) NEW SAFETY/PROTECTION BOLLARDS
- (N) EXISTING CONCRETE SIDEWALK TO REMAIN AND PROTECT IN PLACE
- (O) NEW FILTERRA BIO-FILTRATION PLANTER
- (P) NEW CONCRETE LANDSCAPE CURB
- (Q) EXISTING TURF TO REMAIN
- (R) EXISTING CONCRETE LANDSCAPE CURB TO REMOVE
- (S) NEW GAS METER TO BE SCREENED WITH SHRUBS
- (T) NEW STRIPED CROSSWALK
- TRENCH FOR IRRIGATION SLEEVING
- (U) EVERGREEN VINES ON TOLLROAD FENCE FOR SCREENING
- (V) NEW BICYCLE LOCKERS

0 25 50
Feet

Source: TD Architects, Inc., 2/26/2021. Map date: September 9, 2021.

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

3.0 ENVIRONMENTAL CHECKLIST FORM

BACKGROUND

1. Project Title: Site Development Permit 12-20-5391 (Applied Medical Expansion and Bridge)
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 approximately 12.9 acres located in the northeastern portion of the City, north of Rancho Parkway, between Lake Forest Drive and Portola Parkway, at 20161, 20162, and 20202 Windrow Drive. It is noted that 20191 Windrow Drive is not part of the proposed Project. Local access to the site is provided from Rancho Parkway. Within the Project area, Lake Forest Drive and Portola Parkway provide access to Rancho Parkway.
5. Project Sponsor's Name and Address: Applied Medical Contact: Jeff Bechtold 22872 Avenida Empresa Rancho Santa Margarita, California 92688
6. General Plan Designation: Business Park
7. Zoning: UA (Urban Area) within the Baker Ranch 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	X	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	X	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

Would the project:	**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	

5) A project would result in the introduction of an architectural feature or building mass that conflicts with the character of the surrounding development.			X	

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 located adjacent to Etnies Skate Park; however, due to the topography and intervening landscaping, views of the Project site are primarily limited to buildings located within the westernmost portion of the site. There are no scenic vistas from Etnies Skate Park. The Project site is located approximately 0.25-mile northwest from the entrance to the Lake Forest Sports Park; however, due to the distance, topography, and intervening landscaping and structures, the Project site cannot be seen from the Lake Forest Sports Park. Accordingly, views of the Project site are either limited or do not occur from public parks. According to the General Plan, there are no state scenic highways located within the City of Lake Forest. Views of the Project site from Rancho Parkway, a secondary arterial, are limited due to landscaping features and existing structures located within the larger business park 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.

Less Than Significant Impact. The Project site and surrounding area are developed with a mix of commercial, business park, and residential 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 Rancho Parkway, Windrow Drive, and SR-241. The Project consists of tenant improvements and building additions to an existing light industrial building (Building L203) and a new 13,253 square foot bridge to connect the existing L203 and L202 buildings. Proposed additions to the L203 building would involve an expansion of the ground floor of the building by 7,101 square feet and the addition of a 26,830 square foot second floor.

The proposed improvements and building additions would not involve the introduction of significant new lighting within the building. The *Baker Ranch Planned Community Developmental Plan and Supplemental Text* (Baker Ranch Development Plan) requires that all interior and exterior lighting is designed and located to confine direct rays to the premises. Proposed improvements to the adjacent parking and loading areas, such as paving, striping, walkway 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. Further, Lake Forest Municipal Code Chapter 9.72, *Non-Residential Zoning Districts*, requires all outdoor lighting be designed and installed so that lighting is confined to the site, and adjacent properties are protected from glare. As part of the City's review process, the Project's lighting plan would be reviewed to ensure compliance with Municipal Code Chapter 9.72. Thus, compliance with the City's established regulatory framework, which would be verified through the City's plan review process would

ensure potential impacts associated with proposed Project lighting would be reduced to a less than significant impact.

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 consists of tenant improvements and additions to an existing light industrial building (Building L203) and a new 13,253 square foot bridge to connect the existing L203 and L202 buildings. Proposed additions to the L203 building would involve an expansion of the ground floor of the building by 7,101 square feet and the addition of a 26,830 square foot second floor. The exterior of the new additions would have finishes to match the existing building exterior and the proposed foot bridge connecting the L203 and L202 buildings would mimic the existing bridge between the L201 and L202 buildings. These finishes do not include highly reflective materials. The improvements would include new windows; however, the windows would primarily face the parking area and would not involve large expanses of reflective glass. Thus, 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.

Less Than Significant Impact. Proposed additions to the L203 building would involve an expansion of the ground floor of the building by 7,101 square feet and the addition of a 26,830 square foot second floor, largely within the volume of the existing building. The ground floor building addition would be distributed along the northeastern side of the existing building and at the northeast and northwest corners of the building.

The Project includes improvements to the roof of the L203 building, including mechanical rooftop equipment, which would be screened from public right of way by a 12-foot tall (above the existing parapet) roof screen, bringing the overall height of the L203 building to 44 feet. This height would be required to screen the rooftop equipment and to attenuate noise generated from the equipment. The overall building height, bulk, and setbacks would continue to be consistent with the UA (Urban Activity) development standards.

The exterior of the new additions to Building L203 would have finishes to match the existing building exterior; refer to Exhibit 2-7a and Exhibit 2-7b. Additionally, the design of the proposed bridge would mimic the existing bridge connecting Buildings L201 and L202. The new bridge façade facing SR-241 would match the design of the existing bridge. The new bridge façade facing Windrow Drive would have a straight wall and an overall height of 35 feet, consistent with the height of the existing bridge; refer to Exhibit 2-8. Thus, the proposed Project would not have an architectural style or use building materials that would be in vivid contrast to the existing and adjacent buildings.

The Project is not located on a visually prominent site; however, the northernmost portion of the site is visible from SR-241. The proposed tenant improvements would not be visible. The proposed building addition and bridge would be visible, but would be finished to match the existing building exterior and the bridge façade facing SR-241 would match the design of the existing bridge. Further, the overall height and bulk would be consistent with existing on-site uses. Thus, the proposed Project would not be in vivid contrast to the surrounding development or environment degrading the visual unity of the area, nor would the Project result in the introduction of an architectural feature or building mass that would conflict with the character of the surrounding development.

In order to serve the mechanical rooftop equipment, new electrical equipment would be installed at the parking lot level between Building L203 and SR-241. The electrical equipment that would be placed adjacent to Building L203 would be painted to match the building colors. The equipment, placed across the drive aisle, closest to SR-241, would be screened from view from SR-241 by new landscaping. The proposed bridge would support a mechanical central plant as well as cogen and central plant equipment to support Building L203 operations; the equipment would be enclosed within the bridge structure and would not be visible from surrounding uses. Further, the Project would not include unscreened outdoor uses or materials. Overall, the Project would not degrade the existing visual character of quality of the site and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

4.2 Agriculture and Forestry Resources

Would the project:	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 UA (Urban Activity) 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 June 2, 2021.

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 UA (Urban Activity). 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. 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

Would the project:	**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 *Applied Medical Building L203 Expansion Air Quality and Greenhouse Gas Impact Study* prepared by RK Engineering Group, Inc., dated May 14, 2021 and included in its entirety as Appendix A, Air Quality and Greenhouse Gas Study.

South Coast Air Quality Management District Thresholds

Mass Emissions Thresholds

The City of Lake Forest's air quality thresholds are based on the regional and localized significance thresholds recommended by the South Coast Air Quality Management District (SCAQMD). 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)
Volatile Organic Compounds (VOC)[1]	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: RK Engineering Group, Inc., *Applied Medical Building L203 Expansion Air Quality and Greenhouse Gas Impact Study*, May 14, 2021.		
Notes: 1. VOCs are also referred to as Reactive Organic Compounds (ROGs)		

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 parts per million (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, and local air quality monitoring data indicates there have not been any localized exceedances of CO over the past three years. By complying with the regional and localized significance thresholds, the Project would not be expected to cause CO concentrations to exceed the applicable ambient air quality standards.

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 4.3-2 and 4.3-3, 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 Business Park in the Lake Forest 2040 General Plan Land Use Map. The Project consists of tenant improvements and building additions to an existing unoccupied building for medical device manufacturing and storage purposes, which would be consistent with the Business Park land use designation for the site. The proposed Project would not result in significant employment growth; at completion, an additional 122 employees would occupy the site. These employees would be distributed across four shifts with 100 of the additional employees onsite during the peak shift.[2] The Business Park land use designation anticipated employment-generating uses at the site and would not result in significant population or employment growth that would exceed the projections included in the 2016 AQMP. As the Project would be consistent with the City's General Plan land use anticipated for the site and SCAQMD has incorporated these forecasts on population, housing, and employment into the 2016 AQMP, it could be concluded that the proposed Project would be consistent with the 2016 AQMP.

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 delay timely attainment of air quality standard or the interim emissions reductions specified in the AQMP?*

The proposed Project would result in less than significant impacts during Project construction. As such, the proposed Project would not delay the timely attainment of air quality standards or 2016 AQMP emissions reductions.

[2] The number of employees is conservative in that it assumes all 122 employees are new to the site and does not account for the employees associated with the prior tenant that occupied the suite; no net reduction was applied.

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 With Mitigation Incorporated.

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 the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. The analysis includes the following parameters to compare CalEEMod reported emissions against the localized significant threshold lookup tables: 1) The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions; 2) The maximum number of acres disturbed on the peak day; 3) Any emission control devices added onto off-road equipment; 4) Specific dust suppression techniques used on the day of construction activity with maximum emissions; refer to Appendix A, for additional information regarding construction assumptions used in this analysis. Regional air emissions include both on-site and off-site emissions associated with construction of the Project.

As shown in Table 4.3-2, *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.

The Project would be required to follow all standard SCAQMD rules and requirements with regards to fugitive dust control. Fugitive dust emissions are commonly associated with land clearing activities, cut and fill grading operations, and exposure of soils to the air and wind. SCAQMD Rule 403 requires that fugitive dust is controlled with best-available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rules 402 and 403 require implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Due to the proximity of sensitive receptors, compliance with the standard dust control measures, which are built into the Project design and taken into account in the Project emissions analysis, would also be required as a mitigation measure (Mitigation Measure AQ-1) to ensure full compliance.

Table 4.3-2
Construction-Related Emissions (Pounds Per Day)

Activity	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NO_x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
Grading	1.32	14.35	6.57	0.01	2.61	1.58
Site Preparation	1.59	17.44	7.80	0.02	3.07	1.86
Building Construction	1.92	14.43	13.71	0.03	0.96	0.74
Paving	0.74	6.80	9.17	0.01	0.49	0.36
Architectural Coating	43.96	1.42	1.93	0.00	0.13	0.09
Maximum[1]	**43.96**	**17.44**	**13.71**	**0.03**	**3.07**	**1.86**
SCAQMD Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: RK Engineering Group, Inc., *Applied Medical Building L203 Expansion Air Quality and Greenhouse Gas Impact Study*, May 14, 2021.

Notes:
1. Maximum daily emissions during summer or winter; includes both on-site and off-site project emissions.

Table 4.3-2 demonstrates the Project's daily construction emissions would be below the applicable SCAQMD regional air quality standards and thresholds of significance. As a result, the Project would not contribute substantially to an existing or projected air quality violation. Further, by complying with the SCAQMD standards, the Project would not contribute to 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 quantitative thresholds for ozone precursors). The Project's short-term construction impacts on regional air resources would be less than significant with the implementation of Mitigation Measure AQ-1.

Operational Emissions

Operational emissions are associated with mobile sources, energy sources, and area sources. Mobile source emissions are generated from vehicle operations associated with Project operations. Energy source emissions include on-site natural gas usage for heating, on-site electricity use, and electricity generated by offsite power plants. Area source emissions are direct sources within four categories: hearths, consumer products (such as household-type cleaners), architectural coatings, and landscape equipment.

Other sources of operational emissions for the proposed Project include operational stationary equipment, water, and waste. The Project would generate 100 percent of its electricity consumption on-site using a cogen system. The cogen system would use natural gas boilers and turbines to generate electricity. The Project would include multiple pieces of mechanical equipment associated with the cogen system. Emissions from stationary equipment used in the electricity production process are included in this analysis; emissions from five CNG boilers are included. Indirect emissions from water usage would also occur as part of the Project.

Project operational emissions are shown in Table 4.3-3, *Operational-Related Emissions (Pounds Per Day)*. The operations-related criteria air quality impacts have been analyzed using CalEEMod; refer to Appendix A for additional information regarding assumptions used in this analysis.

As shown in Table 4.3-3, the Project's operational emissions would not exceed SCAQMD thresholds. Therefore, impacts would be less than significant and mitigation measures are not required.

Table 4.3-3
Operational-Related Emissions (Pounds Per Day)

Activity/Source	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NO_x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
Area Sources	2.69	0.00	0.01	0.00	0.00	0.00
Energy Usage	0.07	0.68	0.57	0.00	0.05	0.05
Mobile Sources	1.22	5.30	18.63	0.07	6.51	1.77
Off-Road Equipment	0.78	7.07	7.01	0.01	0.50	0.46
Stationary Sources	1.29	5.76	23.04	0.14	1.79	1.79
Total Emissions	**6.05**	**18.80**	**49.26**	**0.23**	**8.85**	**4.08**
SCAQMD Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: RK Engineering Group, Inc., *Applied Medical Building L203 Expansion Air Quality and Greenhouse Gas Impact Study*, May 14, 2021.

Notes:
1. Maximum daily emission during summer or winter; includes both on-site and off-site Project emissions.

Mitigation Measures:

AQ-1 Project construction activities shall be required to comply with the standard SCAQMD rules and requirements with regard to fugitive dust control, which includes, but would not be limited to:

- All active construction areas shall be watered at a minimum of two (2) times daily.
- Speed on unpaved roads shall be reduced to less than 15 mph.
- Any visible dirt deposition on any public roadway shall be swept or washed at the site access points within 30 minutes.
- Any on-site stockpiles of debris, dirt or other dusty material shall be covered or watered twice daily.
- All operations on any unpaved surface shall be suspended if winds exceed 15 mph.
- Access points shall be washed or swept daily.
- Construction sites shall be sandbagged for erosion control.
- Nontoxic chemical soil stabilizers shall be applied according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- All trucks hauling dirt, sand, soil, or other loose materials shall be covered, and maintain at least 2 feet of freeboard space in accordance with the requirements of California Vehicle Code (CVC) section 23114.
- Pave or gravel construction access roads shall be paved or have gravel at least 100 feet onto the site from the main road and use gravel aprons at truck exits.

- The ground cover of disturbed areas shall be replaced as quickly possible.
- A fugitive dust control plan shall be prepared and submitted to SCAQMD prior to the start of construction.

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 PM_{10} 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 4.3-2 and 4.3-3, 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 With Mitigation Incorporated. 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 nearest sensitive land uses are the residential homes located adjacent to the Project site; sensitive receptors are located within 25 meters to the east of the site of the Project site.

Naturally Occurring Asbestos

Asbestos is a carcinogen and is categorized as a hazardous air pollutant by the Environmental Protection Agency (EPA) and regulated through the National Emissions Standards for Hazardous Air Pollutants (NESHAP). Asbestos can occur naturally in serpentine and ultramafic rock. Based on the California Division of Mines and Geology General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos, naturally occurring asbestos has not been shown to occur within in the vicinity of the Project site. Therefore, the potential risk for naturally occurring asbestos (NOA) during Project construction is small. However, in the event NOA is found on the site, the Project contractor would be required to comply with SCAQMD and NESHAP standards, which identify the required asbestos

abatement protocols. Compliance with the abatement protocols would reduce potential impacts to a less than significant level.

Diesel Particulate Matter

The greatest potential for toxic air contaminant emissions from the Project would be related to diesel particulate matter (DPM) emissions associated with heavy diesel equipment used during construction. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of "individual cancer risk". "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 30-year lifetime will contract cancer, based on the use of standard risk-assessment methodology.

As shown in Table 4.3-2, construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed regional thresholds. Given the short-term construction schedule, the proposed Project's construction activity is not expected to be a long-term (i.e., 30 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk.

However, it should be noted that a quantified diesel health risk assessment (HRA) was not included within the scope of this analysis. In September 2000, the CARB adopted the Diesel Risk Reduction Plan, which recommends several control measures to reduce the risks associated with DPM. The key elements of the Plan are to clean up existing engines through engine retrofit emission control devices, to adopt stringent standards for new diesel engines, to lower the sulfur content of diesel fuel, and implement advanced technology emission control devices on diesel engines.

The Project is located adjacent to a residential use, therefore, in order to ensure the level of DPM exposure is reduced as much as possible, the Project would be required to implement mitigation requiring diesel-powered off-road construction equipment with 25 horsepower or greater to be equipped with Tier 4 engines. Tier 4 engines, along with the latest national fuel standards, would yield PM reductions of over 95 percent from the typical Tier 2 and Tier 3 engines.[3] Given the relative size of the Project, the short-term duration of construction, and the substantial reduction in particulate exhaust from the implementation of Tier 4 engines, the potential risk exposure from off-road construction equipment to the nearest adjacent sensitive receptors would be less than significant. Additionally, due to the close proximity of the adjacent sensitive residential use, best available pollution control strategies have been included as mitigation measures and would be required to be implemented during construction activities to further minimize potential exposure to substantial pollution concentrations.

Operation-Related Toxic Air Contaminants

The Project would consist of manufacturing and storage operations, including various manufacturing processes, such as extrusion, manufacturing of rubber parts, automated assembly, heat treat, metal injection molding, film manufacturing, etc. The storage operations would include storage of raw materials and semi-finished goods for the operations previously described. This type of manufacturing and storage does not typically consist of major sources of toxic air contaminants (TAC) emissions that would result in significant exposure of sensitive receptors to substantial pollutant concentrations. However, the Project would include the operation of stationary boilers for the cogen power generating system and continue to

[3] EPA. Control of Emissions of Air Pollution from Nonroad Diesel Engines and Fuel; Final Rule. (40 CFR Parts 9, 69, et al.)

operate four loading docks within 50 feet of residential homes. The operation of the cogen system would be subject to the rules and regulations set forth by SCAQMD for controlling TACs, and an Air Permit to operate the equipment would be required. AMR currently uses a similar cogen system within the site, which has been reviewed and approved by SCAQMD to operate with an Air Permit. The purpose of the Air Permit is to ensure stationary sources comply with the CCAA and FCAA and protect public health. Issuance and compliance with the necessary SCAQMD Air Permits would ensure the potential exposure of sensitive receptors to air pollution would be reduced to less than significant levels.

The Project is expected to generate approximately two to four truck deliveries per day at the loading dock area. This is not considered a substantial amount of truck traffic that may contribute to substantial pollution concentrations from exposure to DPM. According to CARB, residential uses should not be sited within 1,000 feet of distribution centers with more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week.[4] The Project is not expected to require TRU trucks or generate more than 100 trucks per day. Thus, substantial TACs would not occur as a result of the loading dock area and impacts would be less than significant.

In order to further ensure potential exposure to TACs is reduced, mitigation measures would require the Project Applicant obtain all necessary Air Permits from SCAQMD and to install signage regarding truck idling within the loading dock areas.

CO Hotspot Emissions

A CO hot spot is a localized concentration of CO that is above the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. At the time of the publishing of the 1993 CEQA Air Quality Handbook, the SCAB was designated nonattainment, and projects were required to perform hot spot analyses to ensure they did not exacerbate an existing problem. Since this time, the SCAB has achieved attainment status and the potential for hot spots caused by vehicular traffic congestion has been greatly reduced. In fact, the SCAQMD AQMP found that peak CO concentrations were primarily the result of unusual meteorological and topographical conditions, not traffic congestion. Additionally, the 2003 SCAQMD AQMP found that, at four of the busiest intersections in SCAB, there were no CO hot spots concentrations.

Of these locations, the Wilshire Boulevard/Veteran Avenue intersection in Los Angeles experienced the highest CO concentration (4.6 parts per million [ppm]), which is well below the 35-ppm 1-hr CO Federal standard. The Wilshire Boulevard/Veteran Avenue intersection is one of the most congested intersections in Southern California with an ADT volume of approximately 100,000 vehicles per day. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection, it can be reasonably inferred that CO hotspots would not be experienced at any intersections within the City near the Project site due to the comparatively low volume of traffic that would occur as a result of Project implementation. Therefore, impacts would be less than significant in this regard.

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

[4] California Air Resources Board. Air Quality and Land Use Handbook: A Community Health Perspective. April 2005.

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.

NO_x 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, NO_x, 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, NO_x and ROG levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_x 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 NO_x emission reductions to attain the 1-hour ozone standard by 2022. In addition, since NO_x emissions also lead to the formation of $PM_{2.5}$, the NO_x 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 NO_x reductions prove to be much more effective in reducing ozone levels and will also lead to a significant decrease in $PM_{2.5}$ concentrations. NO_x-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 NO_x 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 NO_x 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 NO_x 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 NO_x 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 demonstrated in the previous discussions, 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.

Mitigation Measures:

AQ-2 All diesel-powered off-road construction equipment with 25 horsepower or greater shall be equipped with Tier 4 engines. Prior to issuance of a grading permit, the contractor shall demonstrate to the City of Lake Forest Community Development Department the ability to supply the compliant construction equipment.

AQ-3 Prior to issuance of a grading permit, the Project Applicant shall submit a Construction Management Plan which shall include Best Available Control Measures for review and approval by the City of Lake Forest Community Development Department. The Construction Management Plan shall be implemented during Project construction activities.

AQ-4 The Construction Contractor shall be responsible for implementing the following best management practices and demonstrate compliance to the City of Lake Forest Community Development Department upon request:

- Construction equipment shall be maintained in proper tune.
- Construction related equipment, including heavy-duty equipment, motor vehicles and portable equipment, should be turned off when not in use for more than 5 minutes.
- The simultaneous operation of multiple construction equipment units shall be minimized.
- The use of heavy construction equipment and earthmoving activity shall be suspended during Air Alerts when the Air Quality Index reaches the “Unhealthy” level.
- Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators.
- Establish staging areas for the construction equipment that are at least 50 feet away from the adjacent residential property line.
- Haul trucks with on-road engines instead of off-road engines shall be used for on-site hauling.
- Low VOC and no VOC paints and solvents shall be utilized.

AQ-5 Prior to issuance of a building permit, the Project Applicant shall obtain all necessary Air Permits from SCAQMD to operate the boilers and associated equipment for the cogen facility.

AQ-6 The Applicant shall install signage near loading/unloading stations requiring trucks to turn off engines and limit idling to 5 minutes or less.

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 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 consists of tenant improvements and building additions to an existing structure (Building L203) and a new 13,253 square foot bridge to connect the existing L203 and L202 buildings. AMR would utilize Building L203 for manufacturing and storage purposes. The manufacturing operations would consist of various manufacturing processes, such as extrusion, manufacturing of rubber parts, automated assembly, heat treat, metal injection molding, film manufacturing, etc. The storage operations would include storage of raw materials and semi-finished goods for the operations previously described. The proposed use would be an extension of operations that occur within the larger campus and 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.

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4.4 Biological Resources

Would the project:	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 office and manufacturing buildings and surface parking as part of a larger business park development. Landscaping with ornamental trees, shrubs, and grass occurs around the buildings, within the parking area, and adjacent to Rancho Parkway. Vegetation within the site is not associated with natural vegetation communities. The Project consists of tenant improvements and an addition to an existing light industrial (Building L203) and a new 13,253 square foot bridge to connect the existing L203 and L202 buildings. Additional site improvements would include new walkways, an extended ADA path of travel, new paving, new curbs and parking stall striping. New landscaping would also be provided around Building L203, between Buildings L202 and L203, and within some of the parking areas. The disturbed and maintained condition of the Project site is generally not suitable for candidate, sensitive, or special status plant or wildlife species. West of the Project site is an open space area which slopes downward into a portion of Serrano Creek. The Project does not propose any improvements or development within this 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 and does not contain an open body of water that serves natural habitat for any native resident or migratory fish. Landscaping with ornamental trees, shrubs, and grass occurs around the buildings and within the parking areas. A landscaped area with ornamental trees, shrubs and grass is located adjacent to Rancho Parkway. Vegetation within the site is not associated with natural vegetation communities. 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).

Although no changes are proposed to the landscaped area adjacent to Rancho Parkway and several trees and landscaping within the Project site would be protected in place, construction activities associated with proposed improvements would occur immediately adjacent to existing trees proposed to be maintained. Further, trees located in between Buildings L202 and L203 would be permanently removed to accommodate the connecting bridge. Additional trees and landscaping adjacent to the buildings and within the parking areas would be removed to allow for the proposed improvements and replaced in accordance with the proposed landscape plan; refer to Exhibit 2-9. 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. The Project would protect in place some existing trees and landscaping within the Project site and would also remove existing trees and landscaping to accommodate the proposed improvements. Trees located in between Buildings L202 and L203 would be permanently removed to accommodate the connecting bridge. However, new trees would be provided within planters within the parking area and new trees and landscaping would be provided in a new landscaped planter area adjacent to the western parking lot near the L201 building; refer to Exhibit 2-9. The Project would not conflict with any local policies or ordinances protecting 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

Would the project:	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	

This section references information contained in the *Geotechnical Evaluation*, dated January 7, 2020 and *Addendum Report of Preliminary Percolation Testing and Geotechnical Engineering, Infiltration Feasibility*, dated February 26, 2021, prepared by GMU Geotechnical, and included as Appendix C, Geotechnical Evaluation.

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 consists of tenant improvements and building additions to an existing light industrial building (Building L203) and a new bridge to connect the existing L203 and L202 buildings. The building is part of a larger business park development that was constructed in 1998; thus, the subject 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 business park development. A Sacred Lands File (SLF) search was requested from the Native American Heritage Commission (NAHC) on March 25, 2021. On April 5, 2021, 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. One response was received from the Juaneño Band of Mission Indians, Acjachemen Nation requesting additional information regarding the extent of ground disturbance, the Sacred Lands File results, and any California Historical Resources Information System (CHRIS) report. The requested information was provided and no further comments were received. This correspondence was in addition to the correspondence sent in compliance with Assembly Bill (AB) 52; refer to Section 4.18, Tribal Cultural Resources.

The Project consists of tenant improvements and building additions to an existing light industrial building (Building L203) and a new bridge to connect the existing L203 and L202 buildings. The Project site is underlain by approximately two feet of engineered fill underlain by the Oso Member of the Capistrano Formation, which consists primarily of fine-grain, uncemented sandstone. Minimal grading, resulting in approximately 56 cubic yards of cut, would occur within the Project site. Excavations ranging from eight to 12 feet below ground surface (bgs) would be required to construct the new concrete v-gutters and proposed biofiltration system. Due to the extensive ground disturbance that occurred within the Project site and surrounding area associated with construction of the existing development, the presence of engineered fill materials within the site, and the minimal grading and excavation 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 consists of tenant improvements and building additions to an existing light industrial structure and a new bridge to connect the existing L203 and L202 buildings; minimal grading and excavation would occur within the Project site. Due to the extensive ground disturbance that occurred within the Project site and surrounding area associated with construction of the existing development, the presence of engineered fill materials within the site, and the minimal grading and excavation that would occur with the proposed Project, 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 California Health and Safety Code §7050.5, Public Resources Code §5097.98 and the California Code of Regulations (CCR) §15064.5(e), which mandate procedures of conduct following the discovery of human remains on non-federal lands. According to the provisions in CEQA, should human remains be encountered, all work in the immediate vicinity of the burial would be required to cease, and any necessary steps to ensure the integrity of the immediate area must be taken. The Orange County Coroner would be immediately notified and must then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner has 24 hours to notify the Native American Heritage Commission (NAHC), who will in turn, notify the person they identify as the Most-Likely-Descendent (MLD) of any human remains. Following compliance with the established regulatory framework (California Health and Safety Code §7050.5, Public Resources Code §5097.98 and the California Code of Regulations (CCR) §15064.5(e)), 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

Would the project:	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 *Applied Medical Building L203 Expansion Energy Conservation Analysis* (Energy Conservation Analysis) prepared by RK Engineering Group, Inc., dated May 14, 2021 and included in its entirety as Appendix B, Energy Conservation 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 California Public Utilities Commission (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 B 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 inter-modal 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. 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.

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 light industrial building since 1998. The Project includes a building addition of 33,931 square feet to the L203 building, with 7,101 square feet added to the first floor and the addition of a second floor totaling 26,830 square feet, as well as a new 13,253 square foot bridge to connect the existing L203 and L202 buildings. The bridge would support a mechanical central plant as well as cogen and central plant equipment to support Building L203 operations. The cogen technology would allow AMR to continue its operations while providing in-house energy security. The cogen plant features dual-mode operation, operating 24 hours a day, seven days a week in an interconnected mode and grid-parallel with the serving utility; however, it can also operate in island mode to provide power to the building during a power outage. The cogen facility would not exceed 50 megawatts capacity. The central plant in conjunction with a cogen system (turbines and absorption chiller) would provide heating and cooling of water for the building and operations. In order to serve the new cogen equipment, new electrical equipment would be installed within the site.

The three main types of energy expected to be consumed by the Project include electricity, natural gas, and petroleum products in the form of gasoline and diesel fuel.

CONSTRUCTION

Electricity and Natural Gas

Electrical service would continue to be provided by Southern California Edison. Existing uses within the Project site currently generate demand for electricity. SCE would provide temporary electric power for as needed lighting and electronic equipment (such as computers inside temporary construction trailers) during Project construction. The electricity used for such activities would not be significantly greater than the demand generated by existing on-site uses and would be temporary. The construction electricity usage would have a negligible contribution to the Project's overall energy consumption.

Natural gas is not anticipated to be used during the construction in any significant quantities. Any minor amounts of natural gas that may be consumed as a result of Project construction would be substantially

less than that required for Project operation and would have a negligible contribution to the Project's overall energy consumption.

Petroleum

Fuel consumed by construction activities in the form of motor vehicle fuel (gasoline and diesel) for off-road construction equipment and on-road vehicle trips (workers and vendors traveling to and from the Project site) 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. As indicated in Table 4.6-1, *Construction Off-Road Equipment Energy Consumption*, Project construction activities would consume an estimated 20,021 gallons of diesel fuel.

Table 4.6-1
Construction Off-Road Equipment Energy Consumption

Phase	# of Days	Off-road Equipment Type	Amount	Usage Hours/ Day	Horsepower	Load Factor	Horsepower Hours	Diesel Fuel Consumption (gallon)[1]
Site Preparation	2	Graders	1	8	187	0.41	1,226.7	66.3
	2	Rubber Tired Dozers	1	7	247	0.40	1,383.2	74.8
	2	Tractors/Loaders/ Backhoes	1	8	97	0.37	574.2	31.0
Grading	4	Graders	1	6	187	0.41	1,840.1	99.5
	4	Rubber Tired Dozers	1	6	247	0.40	2,371.2	128.2
	4	Tractors/Loaders/ Backhoes	1	7	97	0.37	1,004.9	54.3
Building Construction	200	Cranes	1	6	231	0.29	80,388.0	4,345.3
	200	Forklifts	1	6	89	0.20	21,360.0	1,154.6
	200	Generator Sets	1	8	84	0.74	99,456.0	5,376.0
	200	Tractors/Loaders/ Backhoes	1	6	97	0.37	43,068.0	2,328.0
	200	Welders	3	8	46	0.45	99,360.0	5,370.8
Paving	10	Cement and Mortar Mixers	1	6	130	0.42	3,276.0	177.1
	10	Pavers	1	6	130	0.42	3,276.0	177.1
	10	Paving Equipment	1	8	132	0.36	3,801.6	205.5
	10	Rollers	1	7	132	0.36	3,326.4	179.8
	10	Tractors/Loaders/ Backhoes	1	8	80	0.38	2,432.0	131.5
Architectural Coating	10	Air Compressors	1	6	78	0.48	2,246.4	121.4
							Total Construction Fuel Demand	**20,021.1**

Source: RK Engineering Group, Inc., *Applied Medical Building L203 Expansion Energy Conservation Analysis*, May 14, 2021.

Notes:
1. 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)

As indicated in Table 4.6-2, *Construction On-Road Trips Energy Consumption*, Project construction activities would consume an estimated 2,590 gallons of gasoline and 1,502 gallons of diesel fuel associated with on-road vehicle trips.

Table 4.6-2
Construction On-Road Fuel Consumption Estimates

Phase	# of Days	Phase VMT	Average Vehicle Fuel Economy (mpg)[2]	Gasoline Fuel Consumption by Phase (gallons)	Diesel Fuel Consumption by Phase (gallons)
Worker Trips					
Site Preparation	2	235	28.57 23.26 20.73	9.44	0.04
Grading	4	470	28.57 23.26 20.73	18.89	0.07
Building Construction	200	58,800	28.57 23.26 20.73	2,360.98	9.18
Paving	10	1,911	28.57 23.26 20.73	76.73	0.30
Architectural Coating	10	588	28.57 23.26 20.73	23.61	0.09
Sub-Total Construction Worker Fuel Consumption				*2,489.65*	*9.68*
Vendor Trips					
Building Construction	200	11,040	8.50	100.27	1,492.74
Hauling Trips					
Grading	75	0	5.85	0	0
Total On-Road Fuel Consumption				**2,589.92**	**1,502.51**

Source: RK Engineering Group, Inc., *Applied Medical Building L203 Expansion Energy Conservation Analysis*, May 14, 2021.

Notes:
1. Assumptions for the worker trip length and vehicle miles traveled are consistent with CalEEMod 2016.3.2 defaults.
2. Average fuel economy is based on vehicle class (LDA, LDT1, and LDT2) and associated vehicle mix.

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.

Construction Energy Efficiency/Conservation Measures

Construction equipment used over the approximately 14-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). Therefore, the Project's

construction-related fuel consumption would not result in inefficient, wasteful, or unnecessary energy use compared with other construction sites in the region.

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. Further, 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).

Electricity

The Project would use electricity for many different operational activities including, but not limited to, building heating and cooling, lighting, appliances, electronics, mechanical equipment, electric vehicle charging, and parking lot lighting. Indirect electricity usage would also be required to supply, distribute, and treat water and wastewater. Electricity would be provided to the site by Southern California Edison. The Project's estimated operational electricity consumption is provided in Table 4.6-3, *Project Electricity Consumption*.

Table 4.6-3
Project Electricity Consumption

Land Use/Activity	Electricity Consumption	
	kWhr/yr[1]	MBtu/yr[2]
Bridge (General Light Industrial)	111,988	382.10
Manufacturing	9,094,995	31,032.12
Water Supply and Treatment	322,490	1,100.34
Total	9,529,473	32,514.56
Source: Applied Medical L203 Building Expansion Air Quality and Greenhouse Gas Analysis, RK Engineering Group, Inc., February 2021.		
Notes: 1. kWhr/yr = Kilowatt Hours per Year 2. MBtu/yr = Million British Thermal Units per Year		

Natural Gas

The Project would use natural gas for such things as building heating and cooling, kitchen appliances, lighting, gas water heaters, manufacturing and general operating. The Project's estimated operational natural gas consumption is provided in Table 4.6-4, *Project Natural Gas Consumption*.

Table 4.6-4
Project Natural Gas Consumption

Land Use/Activity	Natural Gas Consumption MBtu/yr[1]
Bridge (General Light Industrial)	276.99
Manufacturing	2,238.39
Cogen Unit	87,652.00
Total	90,167.38
Source: Applied Medical L203 Building Expansion Air Quality and Greenhouse Gas Analysis, RK Engineering Group, Inc., February 2021.	
Notes: 1. MBtu/yr = Million British Thermal Units per Year	

Petroleum

The Project is expected to consume energy from auto and truck trips generated by the proposed land uses. Operational vehicle trips are associated with workers, customers and vendors/non-workers (i.e., delivery, service, maintenance vehicles, etc.) traveling to and from the site. Table 4.6-5, *Annual Operational Trips Energy Consumption*, shows the estimated annual fuel consumption for all classes of vehicles. Table 4.6-5 shows that an estimated 85,676 gallons of gasoline and 14,027 gallons of diesel fuel would be consumed per year for the operation of the proposed Project.

Table 4.6-5
Annual Operational Trips Energy Consumption

Vehicle Class[1]	Vehicle Mix (%)	Average Fuel Economy (MPG)	Gasoline[2]		Diesel[2]		MBtu
			Fuel Split	Fuel Consumption (gal)	Fuel Split	Fuel Consumption (gal)	
Light-Duty Automobiles (LDA)	55.9	28.57	0.9926	40,999.71	0.0074	305.66	4,979.55
Light-Duty Trucks (LDA1)	4.35	23.26	0.9991	3,947.77	0.0009	3.56	475.92
Light-Duty Trucks (LDA2)	20.98	20.73	0.9986	21,338.55	0.0014	29.92	2,573.89
Medium-Duty Vehicles (MDV)	11.39	15.42	0.9875	15,405.89	0.0125	195.01	1,882.11
Light-Heavy-Duty Trucks (LHD1)	1.61	14.08	0.6650	1,606.44	0.3350	809.26	304.64
Light-Heavy-Duty Trucks (LHD2)	0.58	14.35	0.5100	434.51	0.4900	417.47	109.68
Medium-Heavy-Duty Trucks (MHD)	2.54	8.50	0.1403	886.75	0.8597	5,433.61	853.27
Heavy-Heavy-Duty Trucks (HHD)	1.67	5.85	0.0097	58.30	0.9903	5,951.87	824.69
Other Busses (OBUS)	0.17	7.25	0.4732	236.04	0.5268	262.78	64.53
Urban Busses (UBUS)	0.16	4.86	0.3269	220.53	0.6731	454.09	88.94
Motorcycles (MCY)	0.49	35.36	1.0000	292.32	0.0000	0.00	35.20
School Busses (SBUS)	0.06	8.10	0.2133	32.80	0.7867	120.98	20.57
Motor Homes (MH)	0.10	7.88	0.8345	215.97	0.1655	42.83	31.89
Total Operational Trips Energy Usage				**85,675.58**		**14,027.04**	**12,244.87**
Source: RK Engineering Group, Inc., *Applied Medical Building L203 Expansion Energy Conservation Analysis*, May 14, 2021. Source: EMFAC2014 Web Database. https://www.arb.ca.gov/emfac/2014/.							
1. Vehicle fleet mix is based on CalEEMod defaults. 2. Annual VMT of 2,111,172							

Combined, the Project's total annual operation energy consumption (petroleum, natural gas, and electricity) is estimated to be 134,927 MBtu/yr.

Conclusion

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. The Project would be required to comply with the mandatory requirements of California's Building Energy Efficiency Standards (Title 24, Part 6) and Green Building Standards (CALGreen, Title 24, Part 11) for all new construction. The building standards code is designed to reduce the amount of energy needed to heat or cool a building, reduce energy usage for lighting and appliances. By complying with the building standards, the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, the impact would be less than significant.

Furthermore, the Project includes installation and operation of a cogen power system that would generate nearly 100 percent of the Project's electricity and heating/cooling demand through the burning of natural gas. The cogen system would use the waste heat from electricity generation to produce additional energy benefits for building heating/cooling. cogen systems recycle energy and contribute to the reduction of wasteful and inefficient consumption of fossil fuels. It is estimated that the cogen system would have an efficiently rate of approximately 75 percent. Thus, the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources and impacts would be less than significant.

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. 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. Furthermore, the Project would utilize a cogen system that would be more energy efficient than Southern California Edison grid electricity. 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.

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4.7 Geology and Soils

Would the project:	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 *Geotechnical Evaluation,* dated January 7, 2020 and *Addendum Report of Preliminary Percolation Testing and Geotechnical Engineering, Infiltration Feasibility*, dated February 26, 2021, prepared by GMU Geotechnical, and included as Appendix C, Geotechnical Evaluation.

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.[5] 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 business park, residential, and open space uses. The Project site has been developed with the existing buildings since 1998. The Project consists of tenant improvements and building additions to an existing light industrial building. Additions and improvements would include a building addition of 33,931 square feet to the L203 building, with 7,101 square feet added to the first floor and the addition of a second floor totaling 26,830 square feet, as well as a new 13,253 square foot bridge to connect the existing L203 and L202 buildings. Site improvements to the parking lot include new walkways, an extended ADA path of travel, new paving, new curbs and parking stall striping to provide required parking spaces.

[5] California Department of Conservation, *Data Viewer*, https://maps.conservation.ca.gov/geologichazards/ accessed July 1, 2021.

A Geotechnical Evaluation was conducted to evaluate subsurface conditions and site seismic hazards and perform geotechnical engineering for the design and construction of the proposed building foundation. The evaluation included review of available geotechnical background information pertaining to the site; field investigation consisting of three 50-foot deep drill holes; laboratory testing of the on-site soil materials; and a summary of findings, conclusions, and recommendations for the development of the proposed Project. The Geotechnical Evaluation provides seismic, geotechnical design, and construction considerations, including specific recommendations for site earthwork, foundation and slab-on-grade design and construction, concrete, moisture vapor transmission, utility trench backfill, 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 Geotechnical Evaluation prepared for the Project, which would be confirmed upon completion of the grading and earthwork operations. The City of Lake Forest Building Division would review Project construction plans for compliance with the Geotechnical Evaluation, 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.[6] Further, the Geotechnical Evaluation identifies the Project site as underlain by bedrock with a deep groundwater table. The Geotechnical Evaluation characterizes the Project site's potential for liquefaction to be negligible. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

[6] Ibid.

4) Landslides?

Less Than Significant 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.[7] The Project site and surrounding area have gently sloping topography. There are no significant hillsides or landforms capable of experiencing landslides.

Temporary excavations associated with construction activities may result in temporary slopes. The Geotechnical Evaluation provides recommendations during construction activities associated with excavations required for utility trenches. The City of Lake Forest Building Division would review Project construction plans for compliance with the Geotechnical Evaluation, 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 temporary slopes within the Project site would be reduced to a less than significant impact.

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 buildings and paved parking areas. Landscaped planters occur within the parking areas and landscaping occurs adjacent to the southern parking area and Rancho Parkway. The Project consists of tenant improvements and building additions to an existing structure (Building L203) and a new bridge to connect the existing L203 and L202 buildings. Additional site improvements would include new walkways, an extended ADA path of travel, new paving, new curbs and parking stall striping. New landscaping would also be provided around Building L203, between Buildings L202 and L203, and within some of the parking areas. Significant grading and earthwork activities would not occur; grading associated with the proposed Project would involve approximately 56 cubic yards (CY) of cut and 714 CY of fill, requiring import of approximately 658 CY of soil to the site.

Although 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.

[7] Ibid.

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 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.

Lateral Spreading. The Geotechnical Evaluation characterizes the Project site's potential for liquefaction to be negligible and as a result, the probability of lateral spreading occurring at the Project site during a seismic event is also considered negligible.

Subsidence. Neither current on-site operations, nor proposed operations associated with the Project would include activities known to cause subsidence, such as groundwater or oil extraction.

The Geotechnical Evaluation provides seismic, geotechnical design, and construction considerations, including specific recommendations for site earthwork, foundation and slab-on-grade design and construction, concrete, moisture vapor transmission, utility trench backfill, and pavement design, amongst others, based on CBC seismic design standards in place at the time of the report. The recommendations within the Geotechnical Evaluation would provide protection for the proposed development to the extent required to reduce seismic risk to an acceptable level as defined by the California Code of Regulations. The proposed Project improvements would be required to comply with the Geotechnical Evaluation 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 Geotechnical Evaluation, 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 EIR, the Project site is located within an area having a low shrink-swell potential. Laboratory testing conducted as part of the Geotechnical Evaluation for the Project site characterized on-site soils as non-expansive. Impacts associated with expansive soils would be less than significant.

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. The Project site is currently served by the City's sewer system. The proposed Project would continue to be served by the existing waste water system and does not propose the use of septic tanks or alternative waste water disposal systems. No impact would occur in this regard.

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. A significant paleontological resource is considered to be of scientific interest if it is a rare or previously unknown species, it is of high quality and well-preserved, it preserves a previously unknown anatomical or other characteristic, provides new information about the history of life on earth, or has an identified educational or recreational value.

The Geotechnical Evaluation identifies the Project site as underlain by approximately two feet of engineered fill underlain by the Oso Member of the Capistrano Formation. The Capistrano Formation was formed during the Late Miocene to Early Pliocene. It is part of the submarine fan complex associated with the Los Angeles Basin. The sediments consist of well-sorted, yellow-grey to light brownish-gray siltstone with interbedded lenticular white fine-grained sandstone. The Capistrano Formation is recognized internationally as the source of the second-most scientifically significant Miocene marine mammal collection and has been assigned high paleontological sensitivity level.

The Project site and surrounding area has been extensively altered by previous ground disturbance associated with development of the area. Significant grading and earthwork activities would not occur; grading associated with the proposed Project would involve approximately 56 CY of cut. Excavations ranging from eight to 12 feet bgs would be required to construct the proposed infiltration system. Due to the extensive ground disturbance that previously occurred within the Project site and surrounding area, the presence of engineered fill materials within the site, and the minimal grading and excavation that would occur with the proposed Project, encountering paleontological resources in the Project site is not anticipated. 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.

4.8 Greenhouse Gas Emissions

Would the project:	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 *Applied Medical Building L203 Expansion Air Quality and Greenhouse Gas Impact Study* prepared by RK Engineering Group, Inc., dated May 14, 2021 and included in its entirety as Appendix A, Air Quality and Greenhouse Gas Study.

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 (H_2O), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and ozone (O_3). 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 CO_2, CH_4, and N_2O, 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 (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), 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 ($MMTCO_2e$) 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 (BMTCO_2e) 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 CO_2 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 (CO_2, CH_4, N_2O, 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 CO_2eq emissions by 174 million metric tons (MT), or approximately 30 percent, from the State's projected 2020 emissions levels of 596 million $MTCO_2$eq under a business as usual (BAU) scenario. This is a reduction of 42 million $MTCO_2$eq, 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 CH_4 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 CO_2e per year for stationary/industrial sources and 3,000 metric tons of CO_2e 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-precent 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 that are intended to capture 90 percent of the GHG emissions from projects. If a project's emissions are under the screening thresholds, then the project is less than significant. SCAQMD has presented two options that lead agencies could choose for screening values. Option #1 sets the thresholds for residential projects to 3,500 $MTCO_2e$/year, commercial projects to 1,400 $MTCO_2e$/year), and the mixed use to 3,000 $MTCO_2e$/year. Option #2 sets a single numerical threshold for all non-industrial projects of 3,000 $MTCO_2e$/year and 10,000 MTCO $MTCO_2e$/year for industrial projects. Lead agencies are able to choose either option, 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:
- 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 $MTCO_2e$/SP/year for projects and 6.6 $MTCO_2e$/SP/year for plans;
    - Option 3, 2035 target: 3.0 $MTCO_2e$/SP/year for projects and 4.1 $MTCO_2e$/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 10,000 $MTCO_2e$ per year for industrial stationary source projects.

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, *Project Construction Greenhouse Gas Emissions*. The total construction emissions amortized over a period of 30 years are estimated at 7.72 metric tons of CO_2e per year; refer to Appendix A for annual CalEEMod output calculations.

Table 4.8-1
Project Construction Greenhouse Gas Emissions

Activity	Emissions ($MTCO_2e$)[1]		
	Onsite	Offsite	Total
Site Preparation	1.52	0.07	1.59
Grading	2.50	0.15	2.65
Building Construction	182.36	37.18	219.54
Paving	5.93	0.57	6.50
Architectural Coating	1.28	0.18	1.46
Total	**193.59**	**38.15**	**231.74**
Averaged over 30 years[2]	6.45	1.27	7.72

Source: RK Engineering Group, Inc., *Applied Medical Building L203 Expansion Air Quality and Greenhouse Gas Impact Study*, May 14, 2021.
CalEEMod output; refer to Appendix A.

Notes:
1. $MTCO_2e$ = metric tons of carbon dioxide equivalent (includes carbon dioxide, methane, and nitrous oxide.
2. The emissions are averaged over 30 years because the average is added to the operation emissions, pursuant to SCAQMD.

Because impacts from construction activities occur over a relatively short-term period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions. However, SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime and added to the overall project operational emissions; refer to Table 4.8-1.

Operational emissions occur over the life of the Project. As shown in Table 4.8-2, *Project Operational Greenhouse Gas Emissions*, the operational emissions for the Project are approximately 6,266 metric tons of CO_2e per year. As per SCAQMD guidance, the Project's construction emissions are amortized over 30 years and added to the operational emissions to quantify the Project's total GHG emissions.

Table 4.8-2
Project Operational Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions ($MTCO_2e$)
Mobile Source	814.41
Energy Source	460.22
Area Source	0.00
Water	136.83
Waste	66.79
Off-Road Equipment	105.59
Stationary Sources	4,674.65
Construction (30 year amortization)	7.72
Total Annual Emissions	**6,265.94**
SCAQMD Tier 3 Screening Threshold	10,000
Exceed Tier 3 Threshold?	No
Source: RK Engineering Group, Inc., *Applied Medical Building L203 Expansion Air Quality and Greenhouse Gas Impact Study*, May 14, 2021.	
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.	

The Project's GHG emissions do not exceed the SCAQMD draft threshold of 10,000 metric tons CO_2e per year for industrial stationary source projects. Therefore, the proposed Project's GHG emissions are considered to be less than significant.

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.	Consistent. 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.	Consistent. The Project would be compliant with the current Title 24 standards. Additionally, the Project includes a cogen system that would use the waste heat from electricity generation to produce additional energy benefits for building heating/cooling. Cogeneration systems recycle energy and reduce wasteful and inefficient consumption of fossil fuels. The cogen system is estimated to have an efficiency rate of approximately 75 percent.
Low Carbon Fuel Standard – Develop and adopt the Low Carbon Fuel Standard.	Consistent. 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.	Consistent. 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.	Consistent. 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.	Consistent. 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.	Consistent. 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.	Consistent. 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.
Water – Continue efficiency programs and use cleaner energy sources to move and treat water.	Consistent. The Project would comply with all applicable City ordinances and CAL Green requirements.

2008 and 2017 Scoping Plan Recommended Actions to Reduce Greenhouse Gas Emissions	Project Compliance with Recommended Action
Implement Mobile Source Strategy: Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Car regulations.	Consistent. 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.	Consistent. 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.	Consistent. 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.	Consistent. 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.	Consistent. 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.	Consistent. 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: RK Engineering Group, Inc., *Applied Medical Building L203 Expansion Air Quality and Greenhouse Gas Impact Study*, May 14, 2021; CARB Scoping Plan (2008 and 2017).	

The City of Lake Forest General Plan Recreation and Resources Element includes goals, policies, and actions addressing air quality and GHG emissions (Goal RR-4). Goal RR-4 Actions include specific actions relative to GHGs. Table 4.8-4, *Project Consistency with the Applicable Lake Forest General Plan Goal RR-4 Actions*, summarizes the Project's consistency with the applicable RR-4 Actions identified for the purposes of reducing GHG emissions.

Table 4.8-4
Project Consistency with the Applicable Lake Forest General Plan Goal RR-4 Actions

RR-4 Actions	Project Compliance with Recommended Action
RR-4d. Continue to review development projects to ensure that all new public and private development complies with the California Code of Regulations (CCR), Title 24 standards as well as the energy efficiency standards established by the Lake Forest Municipal Code.	Consistent. The Project would be reviewed by the City as part of the development review process and would be required to comply with the latest regulations under Title 24, CalGreen, and the City of Lake Forest.
RR-4K: Establish and adopt standards and requirements for electric vehicle parking, including minimum requirements for the installation of electric vehicle charging stations in new multi-family residential and commercial, office, and light industrial development.	Consistent. The Project would provide for electric vehicle charging stalls.
RR-4n: Future development projects implemented under the General Plan will be required to demonstrate consistency with SCAQMD construction emission thresholds. Where emissions from individual projects exceed SCAQMD thresholds, the following actions shall be incorporated as necessary to minimize impacts. These measures do not exclude the use of other, equally effective mitigation measures. • Require all off-road diesel equipment greater than 50 horsepower (hp) used for this Project to meet USEPA Tier 4 final off-road emission standards or equivalent. Such equipment shall be outfitted with Best Available Control Technology (BACT) devices including a California Air Resources Board Certified Level 3 Diesel Particulate Filter (DPF) or equivalent. This DPF will reduce diesel particulate matter and NO_x emissions during construction activities. • Require a minimum of 50 percent of construction debris be diverted for recycling. • Require building materials to contain a minimum 10 percent recycled content. • Require materials such as paints, primers, sealants, coatings, and glues to have a low volatile organic compound concentration compared to conventional products. If low VOC materials are not available, architectural coating phasing should be extended sufficiently to reduce the daily emissions of VOCs.	Consistent. As demonstrated in Section 4.3, Air Quality, the proposed Project would not exceed SCAQMD construction emission thresholds.

RR-4 Actions	Project Compliance with Recommended Action
RR-4o: Future development projects implemented under the General Plan will be required to demonstrate consistency with SCAQMD's operational emission thresholds. For projects where operational emissions exceed regulatory thresholds, the following measures may be used to reduce impacts. Note the following measures are not all inclusive and developers have the option to add or substitute measures that are equally or more appropriate for the scope of their project. • Develop a project specific TDM program for residents and/or employees that provides opportunities for carpool/vanpools. • Provide onsite solar/renewable energy in excess of regulatory requirements. • Require that owners/tenants of non-residential or multi-family residential developments use architectural coatings that are 10 grams per liter or less when repainting/repairing properties. • Require dripless irrigation and irrigation sensor units that prevent watering during rain storms. • Ensure all parking areas are wired for capability of future EV charging and include EV charging stations that exceed regulatory requirements.	Consistent. As demonstrated in Section 4.3, Air Quality, the proposed Project would not exceed SCAQMD operational emission thresholds.

As shown in Table 4.8-3 and Table 4.8-4, the Project would be consistent with the goals and policies of CARB's Scoping Plan and the General Plan actions specific to reducing greenhouse gas emissions. 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.

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.

2020-2045 Regional Transportation Plan/Sustainable Communities Strategy Consistency

SCAG recently adopted the *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (Connect SoCal). At the regional level, Connect SoCal 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 Connect SoCal, 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 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 consists of tenant improvements on the first floor, a building addition on the first floor, a new second floor to the L203 building, and a new 13,253 square foot bridge that would connect the L203 and L202 buildings. The bridge would support a mechanical central plant as well as cogen and central plant equipment to support Building L203 operations. AMR would utilize Building L203 for manufacturing and storage purposes. The manufacturing operations would consist of various manufacturing processes, such as extrusion, manufacturing of rubber parts, automated assembly, heat treat, metal injection molding, film manufacturing, etc. The storage operations would include storage of raw materials and semi-finished goods for the operations previously described. No changes would occur to the adjacent suite that is currently leased by the OCSD.

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. The Project would not cause SCAG growth forecasts to be exceeded and would not conflict with any policies adopted for the purpose of reducing the emissions of greenhouse gases. Impacts are considered to be less than significant.

Mitigation Measures: No mitigation measures are required.

4.9 Hazards and Hazardous Materials

Would the project:	**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.

The Project site consists of two parcels, which together comprise the Applied Medical Lake Forest Campus. Building L201 and Building L202 currently house AMR facilities and are connected by a bridge. Building L203 is comprised of two suites. One of the suites is currently unoccupied and the second suite is leased by the OCSD. The Project consists of tenant improvements on the first floor, a building addition on the first floor, a new second floor to the L203 building, and a new 13,253 square foot bridge that would connect the L203 and L202 buildings. The bridge would support a mechanical central plant as well as cogen and central plant equipment to support Building L203 operations. AMR would utilize Building L203 for manufacturing and storage purposes. The manufacturing operations would consist of various manufacturing processes, such as extrusion, manufacturing of rubber parts, automated assembly, heat treat, metal injection molding, film manufacturing, etc. The storage operations would include storage of raw materials and semi-finished goods for the operations previously described. No changes would occur to the adjacent suite that is currently leased by the OCSD.

Use of the currently unoccupied suite for AMR manufacturing operations would be consistent with the uses currently conducted within the larger campus. Proposed operations would not involve the use of hazardous materials creating a significant hazard to the public or the environment. Minor cleaning products and the occasional use of pesticides and herbicides for landscape maintenance would be used; however, the use of these materials already occurs within the site associated with the existing campus. 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 Heritage Montessori School, which is located approximately 0.45-miles southeast 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 Department of Toxic Substances Control (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 in 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 11.6 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

[8] California Department of Toxic Substances Control, EnviroStor, https://www.envirostor.dtsc.ca.gov/public/map/ accessed July 2, 2021.

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, Lake Forest Drive and Portola Parkway provide access to Rancho Parkway. Both Lake Forest Drive and Portola Parkway provide direct access to SR-241 north of the Project site. Windrow Drive is accessed from Rancho Parkway, as well as from Vista Terrace via Lake Forest Drive to the southwest of the Project site. Local access to the Project site is provided from Rancho Parkway and Windrow 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 Rancho Parkway or other roadways within the area that could potentially impede emergency vehicles or impair any emergency evacuation plan.

Parking and loading areas on the proposed Project site would be accessed from the existing driveway on Rancho Parkway along the eastern side of the building and from one of three existing driveways located at the terminus of Windrow Drive, which provide public access to the parking lot within the Project site. As part of the Project, the northbound and southbound approach of Windrow Drive would be restriped from one shared left-turn/through/right-turn lane to consist of one shared left-turn/through lane and one dedicated right-turn lane so that vehicles turning right out of Windrow Drive do not have to wait behind vehicles waiting to make a left-turn onto Rancho Parkway. Parking would also be restricted along both sides of Windrow Drive for approximately 100 feet from Rancho Parkway. The proposed improvements would not involve physical modifications to Windrow Drive such as reducing the width or length of the roadway or modifying the grade or alignment of the roadway that would impair implementation of or physically interfere with 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 and CalFire Fire Hazard Severity Zone Maps, the Project site is not located within a Very High Fire Hazard Severity Zone (VHFHSZ), nor are any of the properties within the surrounding area located within a fire hazard zone. The Project site has been developed with the existing structures since 1998. The Project consists of tenant improvements and building additions to an existing structure (Building L203) and a new bridge to connect the existing L203 and L202 buildings. At completion, the facility would provide for 122 employees. These employees would be distributed across four shifts with 100 of the additional employees onsite during the peak employment shift (between the hours of 5:30 a.m. and 2:30 p.m.). The proposed Project would be consistent with the General Plan land use and zoning for site, which anticipates employment-generating uses within the site. The Project would not result in a significant increase in employees to the site and would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

4.10 Hydrology and Water Quality

Would the project:	**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	

This section is based in part on the *Preliminary Water Quality Management Plan (WQMP): Applied Medical – L203 Bridge* prepared by Adams-Streeter Civil Engineers, dated November 16, 2020 and included as Appendix D, Preliminary WQMP and the *Geotechnical Evaluation,* dated January 7, 2020 and *Addendum Report of Preliminary Percolation Testing and Geotechnical Engineering, Infiltration Feasibility*, dated February 26, 2021, prepared by GMU Geotechnical, and included as Appendix C, Geotechnical Evaluation.

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.

Existing Conditions

The Project site consists of two parcels (APNs 612-012-10, -11), which together comprise the Applied Medical Lake Forest Campus. Building L201 and Building L202 currently house AMR facilities and are connected by a bridge. Building L203 is comprised of two suites. One of the suites (73,168 square feet located on the ground floor) is currently unoccupied. The second suite (51,292 square feet on the first and second floor) is leased by the OCSD. Surface parking, pedestrian walkways, and landscaping are distributed throughout the Project site. Access to the Project site is provided via three driveways at the northern terminus of Windrow Drive and one driveway along Rancho Parkway, near the easterly property line. The Project site has a pervious area of approximately 15 percent. Currently, drainage generally flows from north to south with surface slopes of approximately 1.0 to 2.5 percent.

Proposed Conditions

The Project consists of tenant improvements on the first floor, a building addition on the first floor, and a new second floor to the L203 building. The Project also includes a new 13,253 square foot bridge that would connect the L203 and L202 buildings. No changes are proposed to the L201 building. Additional site improvements would include new walkways, an extended ADA path of travel, new paving, new curbs and parking stall striping. New landscaping would also be provided around Building L203, between Buildings L202 and L203, and within some of the parking areas. In the proposed condition the Project site would have a pervious area of approximately 19 percent and drainage would follow a similar pattern as existing conditions. The Project would reduce the total impervious area from 85 percent in the existing condition to 81 percent in the proposed condition. Thus, the post-Project peak flows would not exceed the 2-year storm event peak flows and 10-year storm event peak flow rates would also not be exceeded. The Project would not substantially alter the existing drainage pattern of the site or the area or substantially increase the rate or amount of surface runoff from the site. Nor would the Project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. Impacts would be less than significant in this regard.

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 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 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 1.5 miles from the Project site. The Project is not located in an area of potential dam inundation or levee failure, and therefore 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. West of the Project site is an open space area which slopes downward into a portion of Serrano Creek. The Project site is elevated above the creek and is not located within a 100-year FEMA flood zone.

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 11.5 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 Lake Forest Municipal Code Chapter 8.30, *Grading and Excavation*, and Chapter 15.14, *Stormwater Quality Management*. Compliance with the Municipal Code would reduce the volume of sediment-laden runoff discharging from the site during construction activities.

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 reduce 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 and 10-year- storm events when compared to existing conditions. Therefore, runoff from the Project would not exceed the capacity of the downstream storm drains. Potential 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 2020 Urban Water Management Plan (UWMP), IRWD receives its water supplies from a mix of purchased imported water, surface water, groundwater and recycled water. Approximately 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 consists of tenant improvements and building additions to an existing light industrial building (Building L203) and a new bridge to connect the existing L203 and L202 buildings, 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 (medical manufacturing and storage) significant new employment opportunities would not be generated. At completion, the facility would provide for 122 new employees to the site. These employees would be distributed across four shifts with 100 of the additional employees onsite during the peak shift. Operation of the building as a medical equipment manufacturing and 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. As discussed above in Responses 4.10(a) and (b), in the proposed condition, the Project site would have a pervious area of approximately 19 percent and drainage would follow a similar pattern as existing conditions. Overall, the Project would reduce the total impervious area from 85 percent in the existing condition to 81 percent in the proposed condition due to increased landscaped areas. 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 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: Serrano Creek, San Diego Creek Reach 2, San Diego Creek Reach 1, and Newport Bay Upper. 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:

- Serrano Creek is listed as impaired from the following pollutants: ammonia, indicator bacteria, PH.
- San Diego Creek Reach 2 is listed as impaired from the following pollutants: indicator bacteria, nutrients, sedimentation/siltation, unknown toxicity.
- San Diego Creek Reach 1 is listed as impaired from the following pollutants: fecal coliform, nutrients, pesticides, sedimentation/siltation, selenium, toxaphene.

- Newport Bay Upper is listed as impaired from the following pollutants: chlordane, copper, DDT, indicator bacteria, metals, nutrients, PCBs, pesticides, sediment toxicity, sedimentation/siltation.

Construction

The grading and site preparation required for Project implementation would result in limited exposed soils that may be subject to wind and water erosion. The proposed Project is subject to the requirements of the County of Orange NPDES Stormwater Program. Construction activities would also 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. In accordance with Lake Forest Municipal Code Section 15.14.040, *Control of Urban Runoff from New Development and Significant Redevelopment*, prior to the issuance of grading permits, the Department of Public Works and/or Community Development would be required to review the Project plans and impose terms, conditions and requirements of the Project in accordance with the best management practices for pollution prevention, the City's NPDES permit for discharges into and from its MS4, the Orange County Drainage Area Management Plan (DAMP), and any other conditions, requirements and water quality management plans adopted by the City. Thus, through adherence to the County of Orange NPDES Stormwater Program and City of Lake Forest 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 prepare a WQMP and implement BMPs, where feasible, to capture and treat stormwater prior to discharge to their MS4 facilities. Prior to building permit issuance the Applicant would be required to submit a Final WQMP to the City for review and compliance with the County's NPDES stormwater permit. The Final WQMP would be required to incorporate specific BMPs into the final Project design to address pollutants of concern associated with runoff from the Project site.

A Preliminary WQMP has been prepared for the Project to comply with the requirements of the County of Orange NPDES Stormwater Program. The Preliminary WQMP identifies pollutants of concern associated with proposed Project, including suspended-solid/sediment, nutrients, heavy metals, pathogens (bacteria/virus), pesticides, oil and grease, toxic organic compounds and trash and debris. Additionally, the Preliminary WQMP documents the various BMPs that would be implemented as part of the Project, which include site design, hydrologic source controls, biotreatment, non-structural source control, and structural source control BMPs to address water quality conditions associated with the proposed Project. Proposed hydrologic source control BMPs include impervious area reduction; proposed biotreatment BMPs include proprietary vegetated biotreatment systems; proposed non-structural control BMPs include education, activity restrictions, common area landscape maintenance, BMP maintenance, common area litter control, employee training, common area catch basin inspection; and structural source control BMPs include storm drain stenciling and signage; refer to Appendix D for a detailed list of proposed BMPs.

The Project would maintain existing grades and drainage patterns across the site. As part of the proposed improvements, new drain inlets would be placed downstream of new concrete v-gutters, which would be used to direct stormwater runoff to new designated drainage areas that would be fitted with a water quality treatment system. Runoff within the area beneath the proposed bridge would sheet flow south via a concrete gutter and discharge into a biofiltration system before daylighting onto Windrow Drive via an existing parkway drain. Runoff within the area east of Building L203 would flow south and collect into a new v-gutter that would discharge into a below grade infiltration unit located to the east of the Building L203 addition. Roof drains from the new portion of the building would bypass the existing underground storm drain system and connect to a new underground storm drain line. The storm drain line would collect the runoff generated from the building expansion area and new concrete pad area before converging with the surface runoff at the infiltration system. Runoff exceeding the required treatment volume would bypass the infiltration system via a hydrodynamic separator unit and reconnect to the existing storm drain system to which it was originally tributary.

Runoff from the Project site would be treated through the use of biofiltration best management practices (BMPs), which would be installed downstream of all proposed improvements. The biofiltration BMPs would be sized to treat runoff from the design capture storm (85th percentile) in accordance with the Model WQMP requirements. The biotreatment systems would utilize multi-state treatment processes including screening media filtration, settling, and biofiltration. The pre-treatment chamber would contain the first three stages of treatment, and include a catch basin inlet filter to capture trash, debris, gross solids and sediments, a settling chamber for separating out larger solids, and a media filter cartridge for capturing fine total suspended solids, metals, nutrients, and bacteria. Runoff would then flow through the wetland chamber where treatment would be achieved through a variety of physical, chemical, and biological processes. As storm water passes down through the planting soil, pollutants would be filtered, absorbed, biodegraded and sequestered by the soil and plants, functioning similar to bioretention systems. The discharge chamber at the end of the unit would collect treated flows and discharges back into the storm drain system.

Implementation of the proposed on-site stormwater system and Final WQMP, including water quality operational BMPs, would reduce pollutants of concern associated with the stormwater runoff from the Project site in compliance with the County's MS4 Permit and ensure the proposed Project would not violate any water quality standards or waste discharge requirements; cause a significant alteration of receiving water quality; create or contribute runoff water which would generate substantial additional sources of polluted runoff; substantially degrade water quality by discharge which affects the beneficial uses of receiving downstream waters; or increase any pollutant for which the receiving water body is already impaired. Overall, the Project would reduce impervious surfaces when compared to existing conditions and would improve the quality of stormflows through the proposed on-site biotreatment system. Impacts would be less than significant.

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. Groundwater was not observed during the geotechnical investigation to the maximum explored depth of 51 feet bgs. Furthermore, the historical high depth to groundwater is reportedly greater than 40 feet bgs at the Project site. 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. The proposed improvements would allow AMR to expand its existing operations to the L203 building and bridge within the Applied Medical Lake Forest Campus and would not introduce a new use to the site that would result in in additional levels of pollutants or other materials that could potentially leach into groundwater. Implementation of the proposed on-site stormwater system and Final WQMP, including water quality operational BMPs, would reduce pollutants of concern associated with the Project site in compliance with the County's MS4 Permit. Thus, the Project would not substantially degrade groundwater quality.

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). The Project would not substantially alter the existing drainage pattern of the site or area. As part of the proposed improvements, new drain inlets would be placed downstream of new concrete v-gutters, which would be used to direct stormwater runoff to new designated drainage areas that would be fitted with a water quality treatment system. Runoff from the Project site would be treated through the use of biofiltration BMPs, which would be installed downstream of all proposed improvements. The biotreatment systems would utilize multi-state treatment processes including screening media filtration, settling, and biofiltration. The pre-treatment chamber would contain the first three stages of treatment, and include a catch basin inlet filter to capture trash, debris, gross solids and sediments, a settling chamber for separating out larger solids, and a media filter cartridge for capturing fine total suspended solids, metals, nutrients, and bacteria. Runoff would then flow through the wetland chamber where treatment would be achieved through a variety of physical, chemical, and biological processes. As storm water passes down through the planting soil, pollutants would be filtered, adsorbed, biodegraded and sequestered by the soil and plants, functioning similar to bioretention systems. The discharge chamber at the end of the unit would collect treated flows and discharges back into the storm drain system. Overall, stormwater flow from the site would remain primarily unchanged from existing conditions. Therefore, the Project would not 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. Impacts would be less than significant. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

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4.11 Land Use and Planning

Would the project:	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 consists of two parcels, which together comprise the Applied Medical Lake Forest Campus. Building L201 (20161 Windrow) and Building L202 (20162 Windrow) currently house Applied Medical Resources (AMR) facilities and are connected by a bridge. Building L203 (20202 Windrow Drive) is comprised of two suites. One of the suites (73,168 square feet located on the ground floor) is currently unoccupied. The second suite (51,292 square feet on the first and second floor) is leased by the Orange County Sheriff's Department (OCSD). The Project site is designated Business Park and is zoned UA (Urban Activity) within the Baker Ranch Planned Community. The Project site is bounded by SR-241 to the north, the Parkside residential development within the Baker Ranch Planned Community to the east, Rancho Parkway to the south, and open space, Serrano Creek, and Etnies Skate Park within the Baker Ranch Planned Community to the west. Business park uses are located south of Rancho Parkway, east and west of Windrow Drive. The Lake Forest Sports Park is also located south of Rancho Parkway, across from the Parkside residential development.

The Project consists of tenant improvements on the first floor, a building addition on the first floor, and a new second floor to the L203 building. The Project also includes a new 13,253 square foot bridge that would connect the L203 and L202 buildings. No changes are proposed to the L201 building. AMR would utilize Building L203 for manufacturing and storage purposes; no changes would occur to the adjacent suite that is currently leased by the OCSD. Additional site improvements would include new walkways, an

extended ADA path of travel, new paving, new curbs and parking stall striping. New landscaping would also be provided around Building L203, between Buildings L202 and L203, and within some of the parking areas.

The proposed Project would not physically divide or separate the existing on-site structures from each other or from adjacent uses within the surrounding area. The Project would physically connect two existing structures with a proposed bridge and would allow AMR to expand its existing operations to the L203 building and bridge within the Applied Medical Lake Forest Campus. The proposed uses would be consistent with the General Plan and zoning for the site. The Project would also provide new walkways, an extended ADA path of travel and new landscaping, providing improved connections between the structures and within the campus. 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. The Project site consists of two parcels designated Business Park. The Business Park designation provides opportunities for a mixture of uses allowed under the Commercial, Professional Office, and Light Industrial land use designations. The Commercial land use designation provides for a variety of retail, professional office, medical, service-oriented business activities, and hospitality facilities. The Professional Office land use designation provides for professional, legal, medical, general financial, administrative, corporate, and general business offices, as well as supportive commercial uses such as restaurants, medical services, community facilities, and similar uses. Also included are small convenience or service commercial activities intended to meet the needs of the on-site employee population. 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 for the Business Park designation is a floor area ratio of 1.0:1.

The Project site is zoned UA (Urban Activity) within the Baker Ranch Planned Community. The Baker Ranch Planned Community Developmental Plan and Supplemental Text (adopted April 1988) constitute the land use regulations under which development is governed within the Baker Ranch Planned Community. According to the Development Plan, the Project site is located within Planning Area 4, which allows for UA, C (Commercial), and BP (Business Park) land uses.

The Project consists of tenant improvements and building additions to the L203 building and a new bridge to connect the L202 and L203 buildings. No changes are proposed to any of the other buildings located within the Project site. AMR would utilize Building L203 for manufacturing and storage purposes; no changes would occur to the adjacent suite that is currently leased by the OCSD. The proposed Project would not substantially conflict with existing on-site or adjacent land uses, as the Project would allow AMR to expand its existing operations to the L203 building and bridge within the existing Applied Medical Lake Forest Campus. The proposed uses would be consistent with the General Plan and zoning for the site and would not require a General Plan amendment or zone change. Further, as discussed throughout this Initial Study, the proposed use 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 Business Park land use designation provides for a variety of commercial, professional office, and light industrial uses. 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 Project site is located within the UA zone of the Baker Ranch Planned Community. The UA zone provides for the community's commercial, industrial, civic, cultural, professional service and office needs. Land Use regulations for the UA zoning district are subject to the regulations in Lake Forest Municipal Code Section 9.72.090, Non-Residential Land Use Matrix, Column UA. Office and manufacturing permitted uses by right. Thus, the Project would be consistent with the zoning for the site and impacts would be less than significant.

The Baker Ranch Planned Community District Regulations (adopted April 1988) establishes the Site Development Standards to regulate the design and development of uses within the UA zone. The Project would be required to comply with the applicable development standards. The Project consists of tenant improvements and building additions to the L203 building, including a new 13,253 square foot bridge that would connect the L202 and L203 buildings. The overall building height, footprint, and setbacks would continue to be consistent with on-site uses and the UA development standards. New striping within the parking lot would occur to provide parking stalls per City requirements, including the provision of stalls to meet ADA requirements. All existing landscaping currently located adjacent to Rancho Parkway 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 UA zone and impacts would be less than significant.

As discussed, the Project would be consistent with the General Plan land use designation and would be consistent with the zoning for the Project site. Further, the Project would be consistent with the development standards for the UA 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

Would the project:	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 currently contains two parcels, which includes office and manufacturing uses. The Project site and surrounding area are not identified as MRZs and the Project would not result in the loss of availability of 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

Would the project:	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 *Applied Medical L203 Building Expansion Noise Impact Study* prepared by RK Engineering Group, Inc., dated August 31, 2021 and included in its entirety as Appendix E, Noise Impact Study.

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 it loudness. The loudness of sound increases or decreases as the amplitude increases or decreases. Sound pressure amplitude is measure in units of micro-Newton per square inch meter (N/m2), also called micro-Pascal (µPa). One µPa is approximately one hundred billionths (0.00000000001) 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 or 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: *A*ny 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 have 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. One long-term (24-hour) noise measurement was conducted at the Project site. The long-term noise monitoring location (LT-1) was taken at approximately 215 feet from the northern property line and approximately 75 feet from the eastern property line. The long-term noise monitoring location represents the existing noise levels near the

adjacent noise sensitive land uses. As indicated in Table 4.13-1, *24-Hour Noise Measurement Results*, ambient noise levels range between 46.1 and 69.9 dBA Leq. The overall CNEL was 68.0 dBA. Maximum levels reached 69.9 dBA at 5:00 AM.

Table 4.13-1
24-Hour Noise Measurement Results

Time (AM)	Leq (dBA)	Time (PM)	Leq (dBA)
12:00 AM	49.1	12:00 PM	55.2
1:00 AM	46.1	1:00 PM	60.9
2:00 AM	46.2	2:00 PM	66.5
3:00 AM	47.4	3:00 PM	58.1
4:00 AM	50.8	4:00 PM	56.8
5:00 AM	69.9	5:00 PM	57.4
6:00 AM	65.4	6:00 PM	56.0
7:00 AM	62.5	7:00 PM	54.4
8:00 AM	59.4	8:00 PM	54.3
9:00 AM	55.3	9:00 PM	52.5
10:00 AM	55.0	10:00 PM	51.1
11:00 AM	57.4	11:00 PM	49.6
24-Hour CNEL		68.0	

Source: RK Engineering Group Inc., *Applied Medical Building L203 Expansion Noise Impact Study*, August 31, 2021.

Notes:
1. Measurements taken over a 1-hour interval.
2. Noise levels were measured on November 23, 2020, using a Piccolo-II Type 2 integrating-averaging sound level meter.

REGULATORY FRAMEWORK

Lake Forest General Plan

The City's General Plan Public Safety Element Tables PS-1 and PS-2 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	--	--	35
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: *City of Lake Forest General Plan 2040; Table PS-1*

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: *City of Lake Forest General Plan 2040; Table PS-12*.		

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.

Action 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.

Action 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 to 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.

Traffic Noise Impacts

The proposed Project is forecast to generate 421 average daily trips (ADT).[9] A doubling of ADT along a roadway would be necessary to cause a 3 dB increase in noise. Rancho Parkway, between Lake Forest Drive and Hermana Circle experiences ADT of 19,400 vehicles. The addition of 421 daily trips associated with the Project would result in an approximately two percent increase in ADT on Rancho Parkway, and the change in traffic noise levels would not be perceptible. As the Project-related increase in traffic noise would not exceed 3 dBA, 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.

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

The degree of construction noise may vary for different areas of the Project site and also vary depending on the construction activities. Noise levels associated with construction would vary with the different phases of construction. Typical noise levels associated with construction equipment are shown in Table 4.13-4, *Typical Construction Equipment Noise Levels*.

Construction activities generally are temporary and have a short duration, resulting in periodic increases in the ambient noise environment. Construction would be limited to the permissible hours in accordance with the City's Municipal Code. The City of Lake Forest does not have established thresholds of significance for construction noise, and therefore, for purposes of this analysis, the FTA criteria is utilized. FTA construction noise impact criteria is an industry standard and widely cited for the purpose of evaluating construction noise impacts under CEQA.

[9] The 421 ADT does not take into consideration any reduction in trips associated with the previous warehouse use.

Table 4.13-4
Typical Construction Equipment Noise Levels

Noise	Noise Levels
Earth Moving	
Compactors (Rollers)	73-76
Front Loaders	73-84
Backhoes	73-92
Tractors	75-95
Scrapers, Graders	78-92
Pavers	85-87
Trucks	81-94
Materials Handling	
Concrete Mixers	72-87
Concrete Pumps	81-83
Cranes (Movable)	72-86
Cranes (Derrick)	85-87
Stationary	
Pumps	68-71
Generators	71-83
Compressors	75-86
Impact Equipment	
Pneumatic Wrenches	82-87
Jack Hammers, Rock Drills	80-99
Pile Drivers (Peak)	95-105
Other	
Vibrators	68-82
Saws	71-82
Source: RK Engineering Group Inc., *Applied Medical Building L203 Expansion Noise Impact Study*, August 31, 2021. Referenced Noise Levels from the Environmental Protection Agency (EPA).	

Construction Noise Impact Analysis – 50 Feet

The FTA General Assessment methodology recommends that construction noise impacts be evaluated with the assumption that all equipment operates at the center of the project site based on the average 1-hour Leq noise level. For this analysis, the potential noise impacts during the site preparation, grading, building construction, paving, and architectural coating phases are analyzed at 50 feet from the nearest residential property line. Most construction activities are expected to occur further than 50 feet from the residential property line. For example, the extent of the new building expansion would be approximately 76 feet from the residential property line. Hence, 50 feet provides a conservative assessment of typical construction noise levels that would occur near the adjacent residential property line.

Construction activities are anticipated to include five phases: site preparation, grading, building construction, paving, and architectural coating. Distances to receptors were based on the acoustical center of the proposed construction activity. Noise levels associated with each phase are shown in Table 4.13-5, *Project Construction Noise Levels at 50 Feet*.

Table 4.13-5
Project Construction Noise Levels at 50 Feet

Phase	Equipment	Quantity	Equipment Noise Level at 50 feet (dBA Leq)	Combined Noise Level (dBA Leq)
Site Preparation	Graders	1	81.0	85.0
	Scrapers	1	79.6	
	Tractors/Loaders/Backhoes	1	80.0	
Grading	Graders	1	81.0	84.6
	Rubber Tired Dozers	1	77.7	
	Tractors/Loaders/Backhoes	1	80.0	
Building Construction	Cranes	1	72.6	83.4
	Forklifts	1	71.0	
	Generators Set	1	77.6	
	Tractors/Loaders/Backhoes	1	80.0	
	Welders	1	70.0	
Paving	Cement and Mortar Mixer	1	74.8	82.9
	Pavers	1	74.2	
	Paving Equipment	1	73.0	
	Rollers	1	73.0	
	Tractors/Loaders/Backhoes	1	80.0	
Architectural Coating	Air Compressors	1	73.7	73.7
Worst Case Construction Phase Noise Level - Leq dBA (without property line wall shielding)				85.0
Worst Case Construction Phase Noise Level - Leq dBA (with property line wall shielding)[1]				74.4
FTA Construction General Assessment 1-Hour Leq Criteria				90.0
Noise level exceeds FTA criteria?				No
Source: RK Engineering Group Inc., *Applied Medical Building L203 Expansion Noise Impact Study*, August 31, 2021.				
Notes: 1. Noise level calculated 5-feet behind the existing 14-foot high property line wall (8-foot retaining plus 6-foot CMU block) that serves to shield the project site from the adjacent residential units. Receiver height is 5 feet above residential pad level.				

As shown in Table 4.13-5, the expected construction noise levels would be below the recommended 1-hour Leq General Assessment construction noise threshold provided by the FTA for adverse community reaction at the adjacent residential uses.

As the Project construction noise levels would range between 70 to 85 dBA Leq throughout the site preparation, grading, building construction, paving, and architectural coating phases, the Project will be below the recommended 1-hour Leq General Assessment construction noise threshold provided by the FTA for adverse community reaction at the adjacent residential uses. Therefore, impacts regarding site preparation, grading, building construction, and architectural coating would be less than significant.

Construction Noise Impact Analysis – 8 Feet

Although a majority of the Project construction activities would occur greater than 50 feet from the eastern property line (adjacent to residential uses), the Project would require demolition of existing asphalt/concrete along the eastern portion of the Project site to allow for the relocation of underground utilities. Portions of the existing paving would be removed and replaced up to eight feet from the property line. This pavement replacement would not require any grading or earthwork activity. The structural

section of the pavement being removed would be the same as the new pavement being constructed. Saw-cutting for the limits of removal would be required. However, the new pavement would be concrete in lieu of asphalt so an asphalt roller would not be used but rather the concrete would be poured by concrete mixers. Noise levels associated with the construction activities occurring at eight feet from the eastern property line are shown in Table 4.13-6, *Project Construction Noise Levels at 8 Feet*.

Table 4.13-6
Project Construction Noise Levels at 8 Feet

Phase	Equipment	Quantity	Equipment Noise Level at 8ft (dBA Leq)	Combined Noise Level at 8 ft (dBA Leq)
Asphalt/Concrete Demolition	Concrete Saw	1	98.5	102.2
	Hoe Ram	1	99.2	
	Tractors/Loaders/Backhoes	1	91.0	
Worst Case Construction Phase Noise Level - Leq (dBA) – without wall				102.2
Worst Case Construction Phase Noise Level - Leq (dBA) – with barrier shielding1				87.4
FTA Construction General Assessment 1-Hour Leq Criteria				90.0
Noise level exceeds FTA criteria?				No
Source: RK Engineering Group Inc., *Applied Medical Building L203 Expansion Noise Impact Study*, August 31, 2021.				
Notes: 1. Noise level calculated 5-feet behind the existing 14-foot high property line wall (8-foot retaining plus 6-foot CMU block) that serves to shield the project site from the adjacent residential units. Receiver height is 5 feet above residential pad level.				

The expected construction noise levels would be below the recommended 1-hour Leq General Assessment construction noise threshold provided by the FTA for adverse community reaction at the adjacent residential uses; therefore, impacts are less than significant.

Construction activities would be limited to the allowable times, as described in the City's Municipal Code. 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, which include, but are not limited to ensuring construction equipment is equipped with appropriate noise attenuating devices and that staging areas are located at a minimum distance from the nearest sensitive receptor. Noise impacts associated with Project construction activities would be less than significant.

Long-Term Operational Noise Impacts

The Project consists of tenant improvements on the first floor, a building addition on the first floor, and a new second floor to the L203 building. The Project also includes a new 13,253 square foot bridge that would connect the L203 and L202 buildings. The bridge would support a mechanical central plant as well as cogen and central plant equipment to support Building L203 operations. AMR would utilize Building L203 for manufacturing and storage purposes. The manufacturing operations would consist of various manufacturing processes, such as extrusion, manufacturing of rubber parts, automated assembly, heat treat, metal injection molding, film manufacturing, etc. The storage operations would include storage of raw materials and semi-finished goods for the operations previously described.

The main sources of noise generated by the Project would include on-site operational activities from the mechanical equipment located on the bridge and Building L203 roof. On-site stationary noise impacts are

assessed at the adjacent land uses, which include residential uses to the east of the site. Noise impacts are analyzed during both daytime and nighttime conditions, as the Project is expected to be operational 24 hours per day. The current design indicates that all rooftop mechanical equipment would be shielded behind a 12-foot noise screening wall.

The noise analysis considers all Project noise sources operating simultaneously during daytime hours (7 a.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.) at the nearest residential sensitive receptors to the east of the Project site. Table 4.13-7, *Mechanical Equipment Exterior Noise Impact Analysis*, identifies the exterior noise level projections associated with the proposed Project and ambient daytime and nighttime noise levels.

Table 4.13-7
Mechanical Equipment Exterior Noise Impact Analysis

Receptor	Location	Project Noise Contribution (Leq)	Existing Ambient Measurement (Leq)[1]	City of Lake Forest Noise Level Criteria (Leq)	Noise Level Exceeds Standards?
Daytime Exterior Noise Level (dBA)					
Receiver at PL-1	Property Line	48.9	51.1	55.0	**No**
Receiver at PL-2	Property Line	48.8	51.1		**No**
Receiver at PL-3	Property Line	48.2	51.1		**No**
Receiver at PL-4	Property Line	47.9	51.1		**No**
Nighttime Exterior Noise Level (dBA)					
Receiver at PL-1	Property Line	48.9	46.1	50.0	**No**
Receiver at PL-2	Property Line	48.8	46.1		**No**
Receiver at PL-3	Property Line	48.2	46.1		**No**
Receiver at PL-4	Property Line	47.9	46.1		**No**

Source: RK Engineering Group Inc., *Applied Medical Building L203 Expansion Noise Impact Study*, August 31, 2021.

As shown in Table 4.13-7, the noise levels generated by the mechanical equipment located on the bridge and rooftop range between 47.9 and 48.9, and are not expected to exceed the City's daytime and nighttime exterior noise standard for residential uses at the property line. Based on the results of this analysis, the mechanical equipment located on the bridge and rooftop would result in a less than significant stationary noise impact.

In addition to exterior mechanical equipment, the Project's operations include loading docks and parking lot activity. The existing L203 building is currently served by eight truck loading bays along the east side of the building, located approximately 135 feet from the adjacent residential property line. Six of the loading bays previously served the Safeway/Pinnacle tenant at the northerly portion of the building and two of the loading bays currently serve OCSD. The Project would remove two existing loading bays at the north end of the building and maintain four loading bays near the middle of the building. The L203 building is expected to receive approximately two to four delivery trucks per day. Typical noise associated with loading dock activities would include engine noise from delivery trucks, lift gate operation, backup alarms, load drops, forklifts/pallet jacks, and personnel. Truck deliveries, loading and/or unloading activities would occur during daytime hours (7 a.m. to 10 p.m.) only. The combined exterior noise levels from

mechanical equipment, loading dock, and parking lot activities for daytime and nighttime are provided in Table 4.13-8, *Combined Exterior Noise Impact Residential Property Line*.

Table 4.13-8
Combined Exterior Noise Impact Residential Property Line

Source	Leq	Lmax (max)	L_2 (1 min)	L8 (5 min)	L25 (15 min)	L50 (30 min)
Daytime (7 AM- 10 PM) Exterior Noise Level (dBA)						
Loading Dock	50.5	68.2	62.7	52.2	45.7	42.7
Parking Lot	42.4	60.1	54.6	44.1	37.6	34.6
Mechanical Equipment Noise	48.9	48.9	48.9	48.9	48.9	48.9
Total Combined Exterior Noise Impact	53.2	68.9	63.5	54.3	50.8	50.0
City of Lake Forest Noise Level Criteria[1]	55.0	75.0	70.0	60.0	60.0	55.0
Noise Level Exceeds Standard?	**No**	**No**	**No**	**No**	**No**	**No**
Nighttime (10 PM- 7AM) Exterior Noise Level (dBA)						
Parking Lot	37.4	55.1	49.6	39.1	32.6	29.6
Mechanical Equipment Noise	48.9	48.9	48.9	48.9	48.9	48.9
Total Combined Exterior Noise Impact	49.2	56.0	52.3	49.3	49.0	49.0
City of Lake Forest Noise Level Criteria	50.0	70.0	65.0	60.0	55.0	50.0
Noise Level Exceeds Standard?	**No**	**No**	**No**	**No**	**No**	**No**

Source: RK Engineering Group Inc., *Applied Medical Building L203 Expansion Noise Impact Study*, August 31, 2021.
1: Source: The City of Lake Forest General Plan 2040 Public Safety Element and Municipal Code Section 11.16.040.

As shown in Table 4.13-8, the Project's combined exterior noise is not expected to exceed the daytime or nighttime noise standards and potential exterior noise impacts would be less than significant. The Lake Forest General Plan 2040 indicates that if noise levels comply with the exterior performance standards, then standard construction should result in acceptable interior noise levels. Therefore, based on the results of the exterior noise analysis provided above, the Project noise impact to interior areas of the adjacent residential homes would be considered less than significant.

The exterior noise analysis includes the implementation of Project Design Features (PDF NOI-1) related to the screening of mechanical equipment. To further ensure that Project operations do not disrupt adjacent land uses, Mitigation Measure NOI-2 and NOI-3 would also be implemented to limit operations at the loading docks. Noise impacts associated with Project operations would be less than significant.

Project Design Features:

PDF NOI-1 All rooftop mechanical equipment would be fully shielded from the line of sight of the adjacent residential homes (2nd story windows) and located behind a minimum twelve (12) foot high screening wall.

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 activities shall be limited to the permissible hours as defined in Lake Forest Municipal Code Section 11.16.060 D.

- During construction, the contactor shall ensure all construction equipment is equipped with mufflers and other suitable noise attenuating devices (i.e., engine shields).
- The contractor shall submit a haul plan, subject to approval by the City, avoiding routing trucks near residential areas and requiring deliveries to observe the hours of construction.
- The contractor shall utilize the site's existing electrical power supply instead of generators.
- Construction related equipment, including heavy-duty equipment, motor vehicles and portable equipment, shall be turned off when not in use for more than 5 minutes.
- Construction staging areas shall be located at least 50 feet away from the adjacent residential property line.
- The contractor shall maintain all sound-reducing devices and restrictions throughout the construction period.

NOI-2 Prior to issuance of Certificates of Occupancy, the Applicant shall install signage near the loading/unloading stations requiring trucks to turn off engines and stereos and limit idling to 5 minutes or less.

NOI-3 All truck deliveries, loading and/or unloading activities shall be limited to daytime hours (7 a.m. to 10 p.m.) only.

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. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

Project construction would not require the use of equipment, such as pile drivers or blasting, which are known to generate substantial construction vibration levels. The primary vibration source during construction would be operation of equipment such as loading trucks and jackhammers. The Caltrans Transportation and Construction Induced Vibration Guidance Manual provides general thresholds and guidelines as to the vibration damage potential from vibration impacts. Table 4.13-9, *Construction Vibration Impact Analysis*, identifies the Project's construction-related vibration analysis at the nearest habitable residential dwelling to the site. The residential structures are considered "new residential structures" for purposes of the analysis and there are no historical or fragile buildings known to be located within the vicinity of the Project site.

Table 4.13-9
Construction Vibration Impact Analysis

Construction Activity	Distance to Nearest Structure (feet)	Calculated Vibration Level - PPV (in/sec)	City Threshold PPV (in/sec)	Exceed Threshold?
Loaded Trucks	15	0.076	0.3	No
Jackhammer	15	0.035		No

Source: RK Engineering Group Inc., *Applied Medical Building L203 Expansion Noise Impact Study*, August 31, 2021.

At a distance of 15 feet, a loaded truck would yield a worst-case 0.076 PPV (in/sec), which may be perceptible for short periods of time along the property line of the Project site, but is below any threshold of damage. Therefore, the potential impact from construction-related vibration is considered to be less than significant and no mitigation is required.

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 in 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

Would the project:	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 within an urbanized area and served by existing roads and infrastructure. The Project site consists of two parcels (APNs 612-012-10, -11), which together comprise the Applied Medical Lake Forest Campus. The Project consists of tenant improvements on the first floor, a building addition on the first floor, a new second floor to the L203 building, and a new 13,253 square foot bridge that would connect the L202 and L203 buildings. AMR would utilize Building L203 for manufacturing and storage purposes. The proposed improvements would allow AMR to expand its existing operations to the L203 building and bridge within the Applied Medical Lake Forest Campus. The expansion would provide for 122 additional AMR employees within the site. These employees would be distributed across four shifts with 100 of the additional employees onsite during the peak shift.[10] However, the increase in employees would not be substantial and the proposed use 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. 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.

[10] The number of employees is conservative in that it assumes all 122 employees are new to the site and does not account for the employees that occupied the suite associated with the prior tenant; no net reduction was applied.

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

No Impact. The Project site does not contain any housing and is not designated or zoned for residential use. 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.

4.15 Public Services

Would the project:	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 1.0 mile 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.[11]

The Project consists of tenant improvements on the first floor, a building addition on the first floor, a new second floor to the L203 building, and a new 13,253 square foot bridge that would connect the L202 and L203 buildings. AMR would utilize Building L203 for manufacturing and storage purposes. The proposed

[11] Orange County Fire Authority, *Operations Division 5*, https://ocfa.org/AboutUs/Departments/OperationsDirectory/Division5.aspx Accessed May 5, 2021.

improvements would allow AMR to expand its existing operations to the L203 building and bridge within the Applied Medical Lake Forest Campus. The expansion would provide for additional AMR employees within the site. However, the increase in employees would not be substantial (approximately 122 total additional employees that would be distributed across four shifts with 100 of the additional employees onsite during the peak shift) and the proposed use would be consistent with the General Plan land use designation and zoning for the site. Access to the Project site would remain unchanged with access to the Project site continuing to be provided via three driveways at the northern terminus of Windrow Drive and one driveway along Rancho Parkway.

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 expansion of AMR's existing operations within the site are 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. OCFA would require the Applicant to enter into a Secured Fire Protection Agreement with the OCFA. 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 2.0 miles from the Project site. An OCSD substation also operates on the Project site in the tenant suite adjacent to the Project. OCSD staff includes five Sergeants, three Investigators, 37 Deputies, an Investigative Assistant, five Community Services Officers, and a Crime Prevention Specialist.[12]

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 the proposed Project, including expansion of AMR's existing operations within the site are 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.

[12] Orange County Sheriff's Department, *Lake Forest*, https://www.ocsheriff/gov/patrol-areas/lake-forest accessed May 5, 2021.

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 proposed Project would not result in significant new employees to the Project site, indirectly resulting in a significant increase in 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 includes tenant improvements and additions to an existing on-site building, allowing for expansion of AMR's existing operations within the site. The proposed Project would be consistent with the General Plan land use designation and zoning for the site and would not induce substantial unplanned 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 increase in new residents to the City of Lake Forest, as the Project consists of tenant improvements and building additions to an existing building for medical device manufacturing and storage purposes. Employment-generating uses currently occur within the site and have been anticipated by the General Plan. The expansion would provide for additional AMR employees within the site. However, the increase in employees would not be substantial (approximately 122 total additional employees that would be distributed across four shifts with 100 of the additional employees onsite during the peak shift). 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

Would the project:	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 development of recreational facilities is 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

Would the project:	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 *Applied Medical Resources Building L203 Expansion Vehicle Miles Traveled Analysis* (VMT Analysis), prepared by RK Engineering Group, dated August 13, 2021 and included in its entirety as Appendix F, VMT Analysis.

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 with Mitigation Incorporated. The City of Lake Forest Transportation Analysis Guidelines (July 21, 2020) provide criteria for projects that would be considered to have a less-than significant impact on VMT and therefore could be screened out from further analysis. If a project meets one of the following criteria, then the VMT impact of the project is considered less-than significant and no further analysis of VMT would be required:

- Small Project Screening (net daily trips less than 110 ADT)
- Map-Based (Low VMT Area) Screening
- Proximity to High-Quality Transit Screening
- Project Type Screening based on Local-Serving Uses
- Affordable Residential Development Screening

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. Table 4.17-1, *Project Net New Trip Generation*, provides the proposed Project trip generation.

Table 4.17-1
Project Net New Trip Generation

Land Use (ITE Code)	Quantity	Units	AM Peak Hour			PM Peak Hour			Daily Trips
			In	Out	Total	In	Out	Total	
Manufacturing (140) – Project	107.099	TSF	51	15	66	22	50	72	421
Warehousing (150) – Existing Use	73.168	TSF	-10	-3	-13	-4	-10	-14	-127
NET Trip Generation			**41**	**12**	**53**	**18**	**40**	**58**	**294**
Source: RK Engineering Group, Inc., *Applied Medical Resources Building L203 Expansion Vehicle Miles Traveled Analysis*, August 13, 2021.									
Notes: TSF = thousand square feet									

As indicated in Table 4.17-1, the proposed Project is forecast to generate approximately 294 net new daily trips, including approximately 53 net new AM peak hour trips and 58 net new PM peak hour trips. As the Project would result in greater than 110 net new ADT, the proposed Project would not meet the small project screening criteria. Additionally, the Project site is not located within a Low VMT Area; located in Proximity to High-Quality Transit; a Local-Serving Use; nor an Affordable Residential Development. Thus, the proposed Project would not screen out based on any of the VMT screening criteria and a VMT analysis is required.

Consistent with the City of Lake Forest Transportation Analysis Guidelines, the proposed Project's VMT was compared to the applicable VMT threshold to determine if the Project would exceed the VMT target, requiring mitigation; refer to Table 4.17-2, *City of Lake Forest VMT Reduction Targets*.

Table 4.17-2
City of Lake Forest VMT Reduction Targets

VMT Analysis Scenario	VMT Rate	
	VMT	Metric
Target VMT Rate[1]	20.5	VMT/Employee
Target VMT[2]	2,501	VMT
Project VMT Rate	28.6	VMT/Employee
Project VMT[2]	3,489.2	VMT
VMT Reduction Required (%)	28.32%	
VMT Reduction Required (Total VMT) [2]	988.2	VMT
Source: RK Engineering Group, Inc., *Applied Medical Resources Building L203 Expansion Vehicle Miles Traveled Analysis*, August 13, 2021.		
1. Per the City of Lake Forest Transportation Analysis Guidelines, July 2020. 2. Total VMT based on 122 employees.		

As shown in Table 4.17-2, the Project is required to reduce its VMT by 28.32 percent or approximately 988.2 total daily VMT. The California Air Pollution Control Officers Association's (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* has been utilized for identifying potential transportation demand management (TDM) strategies and methods to quantify VMT reductions from implementation of the strategies. The VMT reduction strategies are industry-recognized methodologies that are applicable to land use projects, such as the proposed Project. In order to achieve the required VMT reduction, the following strategies would be implemented (refer to Appendix F for a description of the strategies and the VMT reduction calculation worksheets):

- Increase land use density
- Provide pedestrian network improvements
- Commute trip reduction program – voluntary
- Provide ride-sharing program
- Implement commute trip reduction marketing
- Provide employee-sponsored vanpool/shuttle

Table 4.17-3, *VMT Analysis for Building L203*, summarizes the VMT analysis for Building L203 with the recommended VMT reduction measures.

Table 4.17-3
VMT Analysis for Building L203

VMT Analysis Scenario		VMT	Metric
Project VMT Rate:		28.6	VMT/Employee
Project VMT for 122 Employees (L203)		3,489.2	VMT
VMT Reduction Measures		**VMT Reduction**	
LUT-1	Increase Density	5.25%	183.2 VMT
SDT-1	Provide Pedestrian Network Improvements	1.00%	34.9 VMT
TRT-1	Commute Trip Reduction Program – Voluntary	5.20%	181.4 VMT
TRT-3	Provide Ride-Sharing Program	5.00%	174.5 VMT
TRT-7	Implement Commute Trip Reduction Marketing	4.00%	139.6 VMT
TRT-11	Provide Employee-Sponsored Vanpool/Shuttle	3.35%	116.9 VMT
VMT Reduced for Buildings L203		**17.55%**	**830.5 VMT**
Source: RK Engineering Group, Inc., *Applied Medical Resources Building L203 Expansion Vehicle Miles Traveled Analysis*, August 13, 2021.			

As shown in Table 4.17-3, the proposed Project is forecast to reduce VMT by approximately 830.5 VMT per day with the recommended VMT reduction measures. This is less than the required 988.2 VMT per day reduction needed to meet the target VMT rate. Therefore, additional VMT reduction measures would be required.

In order to meet the City of Lake Forest target VMT rate, the Project would be required to expand the trip reduction program to include the existing L201 and L202 buildings, which are part of the larger Applied Medical Lake Forest Campus. Table 4.17-4, *VMT Analysis for Buildings L201 and L202*, summarizes the additional VMT reduction that may be achieved by applying the trip reduction measures to Buildings L201 and L202.

Table 4.17-4
VMT Analysis for Buildings L201 and L202

VMT Analysis Scenario		VMT	Metric
Project VMT Rate:		28.6	VMT/Employee
Project VMT for 227 Employees (L201 + L203)		6,492.2	Total VMT
VMT Reduction Measures		**VMT Reduction**	
LUT-1	Increase Density	Not Applicable	
SDT-1	Provide Pedestrian Network Improvements	Not Applicable	
TRT-1	Commute Trip Reduction Program – Voluntary	5.20%	337.6 VMT
TRT-3	Provide Ride-Sharing Program	5.00%	324.6 VMT
TRT-7	Implement Commute Trip Reduction Marketing	4.00%	259.7 VMT
TRT-11	Provide Employee-Sponsored Vanpool/Shuttle	3.35%	217.5 VMT
VMT Reduced for Buildings L201 and L202		**17.55%**	**1,139.4 VMT**
Source: RK Engineering Group, Inc., *Applied Medical Resources Building L203 Expansion Vehicle Miles Traveled Analysis*, August 13, 2021.			

As shown in Table 4.17-4, by expanding the trip reduction program to include the existing L201 and L202 buildings, the Project has the potential to further reduce VMT by an additional 1,139.4 daily VMT.

Table 4.17-5, *VMT Analysis Summary*, summarizes the combined VMT reduction that can be achieved by applying the trip reduction measures to the Applied Medical Lake Forest Campus.

Table 4.17-5
VMT Analysis Summary

Project VMT Reduction	Total VMT
VMT Reduction from Building L203	830.5
VMT Reduction from Buildings L201 & L202	1,139.4
Total VMT Reduction	**1,969.9**
VMT Reduction Required to meet City Target	988.2
VMT Reduction Target Achieved? (Yes/No)	**Yes**
Source: RK Engineering Group, Inc., *Applied Medical Resources Building L203 Expansion Vehicle Miles Traveled Analysis*, August 13, 2021.	

As shown in Table 4.17-5, the proposed Project can achieve the City of Lake Forest Target VMT rate by implementing several trip reduction measures. The trip reduction measures include Project Design Features and additional measures that would be required to be implemented as mitigation measures for the Applied Medical Lake Forest Campus in order to achieve the required reduction. With implementation of the VMT reduction measures, identified as Project Design Features PDF TRA-1 and PDF TRA-2 and Mitigation Measures TRA-1 through TRA-4, the proposed Project would not exceed the VMT thresholds of significance set forth in the City of Lake Forest Transportation Analysis Guidelines and VMT impacts would be less than significant.

Project Design Features:

PDF TRA-1 The Project would result in an increase in land use density based on the numbers of jobs expected to be created by the Project. The project is expected to employ approximately 122 workers, resulting in an employment density of approximately 50 jobs/acre. The increased employment density would result in reduced VMT per CAPCOA methodology LUT-1.

PDF TRA-2 The Project would provide pedestrian network improvements that link areas of the site internally and to off-site facilities. This includes designated sidewalks, pedestrian paths of travel from Windrow Drive, ADA ramps between buildings, and pedestrian connections between buildings, including the new pedestrian bridge. The pedestrian network improvements would result in reduced VMT per CAPCOA methodology SDT-1.

Mitigation Measures:

TRA-1 The Project Applicant shall implement a commute trip reduction (CTR) program discouraging single-occupancy vehicle trips and encouraging alternative modes of transportation such as carpooling, taking transit, walking, and biking. The CTR program shall include, but not be limited to the following:

- A carpooling program
- Ride-matching assistance

- Preferential carpool parking
- Flexible work schedules for carpools
- Half time transportation coordinator
- Vanpool assistance
- Bicycle end-trip facilities (parking, showers and lockers)

Proof of the CTR program shall be provided to the City of Lake Forest Community Development Department prior to issuance of certificate of occupancy and verification of its on-going implementation shall be provided annually to the City of Lake Forest Community Development Department.

TRA-2 The Project Applicant shall provide a ride sharing program with 100 percent of employees eligible for participation. The ride-sharing program shall include the following:

- Designate up to eight (8) parking spaces for ride-sharing vehicles, per Cal Green requirements.
- Provide a website or message board for coordinating rides.

Proof of the ride-sharing program shall be provided to the City of Lake Forest Community Development Department prior to issuance of certificate of occupancy and verification of its on-going implementation shall be provided annually to the City of Lake Forest Community Development Department.

TRA-3 The Project Applicant shall implement marketing strategies to help inform employees of the available commute trip reduction programs. Marketing strategies shall include, but not be limited to:

- New employee orientation of CTR program, ride-sharing program, and employee sponsored vanpool and shuttles.
- Event promotions.
- Publications.

Proof of the marketing strategies shall be provided to the City of Lake Forest Community Development Department prior to issuance of certificate of occupancy and verification of its on-going implementation shall be provided annually to the City of Lake Forest Community Development Department.

TRA-4 The Project Applicant shall provide an employer-sponsored vanpool/shuttle program. The vanpool/shuttle program shall provide rides for employees between the Lake Forest and Rancho Santa Margarita Campuses, to/from local transit stops and stations, (including the Irvine Metrolink Station), to local restaurants for lunch, and other employer sponsored events. Proof of the employer-sponsored vanpool/shuttle program shall be provided to the City of Lake Forest Community Development Department prior to issuance of certificate of occupancy and verification of its on-going implementation shall be provided annually to the City of Lake Forest Community Development Department.

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. There are no transit facilities located adjacent to the Project site. Bus Route 480 provides service between the Irvine Metrolink Station to Lake Forest via Bake Parkway and Lake Forest Drive; a bus stop is located at Lake Forest Drive and Regency Lane, southwest of the Project site.[13] Bus Route 89 provides service between Mission Viejo and Laguna Beach via El Toro Road; a bus stop is located at El Toro Road and Santa Margarita Parkway, southwest of the Project site. Bus Route 82 provides service between Foothill Ranch and Rancho Santa Margarita via Portola Parkway; a bus stop is located at Portola Parkway and Saddleback Parkway, southwest of the Project site. Bus Route 177 provides service between Foothill Ranch and Laguna Hills via Lake Forest Drive; a bus stop is located at Lake Forest Drive and Rancho Parkway, west of the Project site.

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. New employees may utilize existing transit services; however, their use would not conflict 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, Lake Forest Drive and Portola Parkway provide access to Rancho Parkway. Both Lake Forest Drive and Portola Parkway provide direct access to SR-241 north of the Project site. Windrow Drive is accessed from Rancho Parkway, as well as from Vista Terrace via Lake Forest Drive to the southwest of the Project site. Local access to the Project site is provided primarily from Rancho Parkway and Windrow Drive. As part of the Project, the northbound and southbound approach of Windrow Drive would be restriped from one shared left-turn/through/right-turn lane to consist of one shared left-turn/through lane and one dedicated right-turn lane so that vehicles turning right out of Windrow Drive do not have to wait behind vehicles waiting to make a left-turn onto Rancho Parkway. The proposed improvements 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 Rancho Parkway, Lake Forest Drive, and Portola 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 Windrow Drive. The Project does not propose any modifications to roadways within the area that would impact an existing or potential bicycle facility. Employees associated with the proposed Project could use existing bicycle facilities within the Project area and throughout the City. The Project would not conflict

[13] OCTA, OCBus, June 13, 2021 Bus Book, www.octa.net/ebusbook/CompleteBusBook.pdf accessed July 2, 2021.

with a program plan, ordinance, or policy addressing bicycle facilities and impacts would be less than significant.

Pedestrian Facilities

Sidewalks are currently provided along Rancho Parkway and Windrow Drive adjacent to the Project site. The Project would not involve modifications to the existing sidewalks. As part of the proposed site improvements, new walkways and an extended ADA path of travel would be provided, improving internal pedestrian circulation within the site. 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 site is part of a larger business park 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. As part of the Project, the northbound and southbound approach of Windrow Drive would be restriped from one shared left-turn/through/right-turn lane to consist of one shared left-turn/through lane and one dedicated right-turn lane so that vehicles turning right out of Windrow Drive do not have to wait behind vehicles waiting to make a left-turn onto Rancho Parkway. The proposed improvements would not involve physical modifications to Windrow Drive such as reducing the width or length of the roadway or modifying the grade or alignment of the roadway. 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, Lake Forest Drive and Portola Parkway provide access to Rancho Parkway. Both Lake Forest Drive and Portola Parkway provide direct access to SR-241 north of the Project site. Windrow Drive is accessed from Rancho Parkway, as well as from Vista Terrace via Lake Forest Drive to the southwest of the Project site. Local access to the Project site is provided from Rancho Parkway and Windrow 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 Rancho Parkway or other roadways within the area that could potentially impede emergency vehicles or impair any emergency evacuation plan.

Access to the Project site is provided via three driveways at the northern terminus of Windrow Drive and one driveway along Rancho Parkway, near the easterly property line. As part of the Project, the northbound and southbound approach of Windrow Drive would be restriped from one shared left-turn/through/right-turn lane to consist of one shared left-turn/through lane and one dedicated right-turn lane so that vehicles turning right out of Windrow Drive do not have to wait behind vehicles waiting to make a left-turn onto Rancho Parkway. Parking would also be restricted along both sides of Windrow Drive for approximately 100 feet from Rancho Parkway. The proposed improvements would not involve

physical modifications to Windrow Drive such as reducing the width or length of the roadway or modifying the grade or alignment of the roadway that would result in inadequate emergency access to the Project site. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

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4.18 Tribal Cultural Resources

Would the project:	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 G, Tribal Consultation Communications. 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 June 25, 2021; a response or request for consultation has not been received. Further, as discussed in Section 4.5, Cultural Resources, a Sacred Lands File (SLF) search was requested from the Native American Heritage Commission (NAHC) on March 25, 2021. On April 5, 2021, 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. One response was received from the Juaneño Band of Mission Indians, Acjachemen Nation requesting additional information regarding the extent of ground disturbance, the Sacred Lands File results, and any California Historical Resources Information System (CHRIS) report. The requested information was provided and no further comments were received. This correspondence was in addition to the correspondence sent in compliance with AB 52, described above.

The Project consists of tenant improvements and building additions to an existing building (Building L203) and a new 13,253 square foot bridge to connect the existing L203 and L202 buildings. Additional site improvements would include new walkways, an extended ADA path of travel, new paving, new curbs and parking stall striping. New landscaping would also be provided around Building L203, between Buildings L202 and L203, and within some of the parking areas. The Project site and surrounding area has been extensively altered by previous ground disturbance associated with development of the area. Significant grading and earthwork activities would not occur; grading associated with the proposed Project would involve approximately 56 CY of cut. Excavations ranging from eight to 12 feet bgs would be required to construct the new concrete v-gutters and proposed biofiltration system. Due to the extensive ground disturbance that occurred within the Project site and surrounding area associated with construction of the existing 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 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

Would the project:	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 IRWD. Uses within the Project site currently receive water service from IRWD. The Project consists of tenant improvements and building additions to an existing building for medical device manufacturing and storage purpose. The Project 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. The expansion would provide for additional AMR employees within the site. However, the increase in employees would not be substantial

(approximately 122 total additional employees that would be distributed across four shifts with 100 of the additional employees onsite during the peak shift). Operation of the building involves an expansion of existing uses and 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 Windrow 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 consists of tenant improvements and building additions to an existing building for medical device manufacturing and storage purpose, 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 have been anticipated by the General Plan. The expansion would provide for additional AMR employees within the site. However, the increase in employees would not be substantial (approximately 122 total additional employees that would be distributed across four shifts with 100 of the additional employees onsite during the peak shift). Operation of the building involves an expansion of existing uses and 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 Windrow 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 exceed the capacity of the downstream storm drains. As part of the proposed improvements, new drain inlets would be placed downstream of new concrete v-gutters, which would be used to direct stormwater runoff to new designated drainage areas that would be fitted with a water quality treatment system. Runoff within the area beneath the proposed bridge would sheet flow south via a concrete gutter and discharge into a biofiltration system before daylighting onto Windrow Drive via an existing parkway drain. Runoff within the area east of Building L203 would flow south and collect into a new v-gutter that would discharge into a below grade infiltration unit located to the east of the Building L203 addition. Roof drains from the new portion of the building would bypass the existing underground storm drain system and connect to a new underground storm drain line. The storm drain line would collect the runoff generated from the building expansion area and new concrete pad area before converging with the surface runoff at the infiltration system. Runoff exceeding the required treatment volume would bypass the infiltration system via a hydrodynamic separator unit and reconnect to the existing storm drain system to which it was originally tributary. The potential environmental effects associated with construction and operation of the Project, including the proposed storm drain and water quality treatment systems 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, Hydrology and Water Quality, regarding drainage patterns and the Project's hydrology and drainage conditions.

Electricity, Natural Gas, and Telecommunications

The Project site is within the service area of SCE and Southern California Gas Company. 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 uses currently receive electricity and natural gas services. The existing bridge houses a cogen and central plant system, which is only capable of supporting the existing AMR facility buildings. The Project includes a cogen and central plant system to support Building 203. The cogen technology would allow AMR to operate in a more energy-efficient, environmentally-friendly and redundant fashion by utilizing electrical power and thermal energy that is independent of third-party reliance in case of disruption of service. The installation of a central plant in conjunction with a cogen system (turbines and absorption chiller) would provide an energy-efficient, environmentally-friendly and reliable source of electricity, as well as heating and cooling of water for the building and operations. The cogen facility would not exceed 50 megawatts capacity. In order to serve the new cogen equipment, new electrical equipment would be installed at the parking lot level between Building L203 and SR-241. With the exception of new electrical equipment to serve the proposed cogen system, the proposed tenant improvements and building additions 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 construction and operation of the Project, including the new electrical equipment, 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. Additionally, the Project's energy demand is analyzed in Response 4.6(a), which finds that the Project would not cause or result in the need for additional energy producing or transmission facilities. 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 2020 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 five-year drought scenarios. The UWMP indicates that IRWD will have reserve water supplies (excess of supplies over demands) through 2040 during normal, single-dry, and multiple-dry years. The excess supplies are expected to be available for IRWD to serve as a buffer against variations in demand projections, future changes in land use, or modifications in supply availability. The UWMP water

supply predictions are based in part on existing development and General Plan designations for future growth. The Project consists of tenant improvements and building additions, 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 have been anticipated by the General Plan. The expansion would provide for additional AMR employees within the site. However, the increase in employees would not be substantial (approximately 122 total additional employees that would be distributed across four shifts with 100 of the additional employees onsite during the peak shift). Operation of the building as a medical manufacturing and 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 medical facility currently generates wastewater requiring conveyance and treatment by IRWD. The Project consists of tenant improvements and additions, 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 have been anticipated by the General Plan. The expansion would provide for additional AMR employees within the site. However, the increase in employees would not be substantial (approximately 122 total additional employees that would be distributed across four shifts with 100 of the additional employees onsite during the peak shift). Thus, operation of the building as a medical manufacturing and 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 Incorporated (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 Applied Medical Lake Forest Campus currently generates solid waste that is collected by CR&R and disposed of at local landfills serving the City. The Project consists of tenant improvements and additions, 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 have been anticipated by the General Plan. The expansion would provide for additional AMR employees within the site. However, the increase in employees would not be substantial (approximately 122 total additional employees that would be distributed across four shifts with 100 of the additional employees onsite during the peak shift). Operation of the medical manufacturing and 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.[14] The landfills have a combined maximum permitted daily refuse of 23,500 tons.[15] Based on the Project's air quality and greenhouse gas modeling, Project operations are expected to generate approximately 132.8 tons of waste per year, or approximately 0.36 tons per day; refer to Appendix A. This represents less than 0.0015 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 infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

[14] 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 May 5, 2021.
[15] 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 May 5, 2021.

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4.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	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 VHFHSZ.[16] The Project site and surrounding area are currently developed with business park, residential, and open space uses. The Project consists of tenant improvements and additions to an existing building and construction of a bridge to connect two existing buildings.

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.

[16] CalFire, *Fire Hazard Severity Zones Maps*, https://osfm.fire.ca.gov/media/5889/c30_lakeforest_vhfhsz.pdf accessed May 5, 2021.

Within the Project area, Lake Forest Drive and Portola Parkway provide access to Rancho Parkway. Both Lake Forest Drive and Portola Parkway provide direct access to SR-241 north of the Project site. Windrow Drive is accessed from Rancho Parkway, as well as from Vista Terrace via Lake Forest Drive to the southwest of the Project site. Local access to the Project site is provided from Rancho Parkway and Windrow 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 Rancho Parkway 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 to the existing driveways used to access the Project site. Access to the Project site would remain unchanged with access to the Project site continuing to be provided via three driveways at the northern terminus of Windrow Drive and one driveway along Rancho Parkway. As part of the Project, the northbound and southbound approach of Windrow Drive would be restriped from one shared left-turn/through/right-turn lane to consist of one shared left-turn/through lane and one dedicated right-turn lane so that vehicles turning right out of Windrow Drive do not have to wait behind vehicles waiting to make a left-turn onto Rancho Parkway. The proposed improvements would not involve physical modifications to Windrow Drive such as reducing the width or length of the roadway or modifying the grade or alignment of the roadway that would impair implementation of or physically interfere with 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; however, the open space corridor adjacent to and north of SR-241 and the Project site is identified as a VHFHSZ within a LRA. The Project site and surrounding area are currently developed with business park, residential, and open space uses. The Project site has been developed with the existing buildings since 1998. The Project consists of tenant improvements and building additions to an existing structure (Building L203) and a new bridge to connect the existing L203 and L202 buildings. The Project site is relatively flat and 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; however, the open space corridor adjacent to and north of SR-241 and the Project site is identified as a VHFHSZ. The Project site and surrounding area are currently developed with business park, residential, and open space uses. The Project consists of tenant improvements and additions to an

existing building. 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 has a relatively flat topography; there are no significant landforms within the surrounding area. West of the Project site is an open space area that slopes downward into a portion of Serrano Creek. The Project site is not located within an area identified as being at risk for flooding or landslides. The Project site is elevated above the creek and is not located within a 100-year FEMA flood zone and drainage from the Project site would remain similar to existing uses. The Project consists of tenant improvements and an addition to an existing building. A bridge is also proposed to connect the L202 and L203 buildings. 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

Would the project:	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 the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.		X		
c. 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		
d. 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 environmental 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 the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?

Less Than Significant Impact With Mitigation Incorporated. As discussed throughout this Initial Study, the Project would not result in significant short-term or long-term environmental impacts that cannot be reduced to a less than significant level with compliance with the established regulatory framework and implementation of mitigation measures. Compliance with the regulatory requirements and implementation of mitigation measures would reduce the potential for short- and long-term environmental impacts that would occur with construction and operation of the proposed Project relevant to the environmental topical areas discussed within this Initial Study. Thus, the Project would not achieve short-term environmental goals to the disadvantage of long-term environmental goals.

Mitigation Measures: No additional mitigation measures are required.

c) 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.

d) 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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5.0 REFERENCES

Adams-Streeter Civil Engineers, *Preliminary Water Quality Management Plan (WQMP): Applied Medical – L203 Bridge*, November 16, 2020 (Appendix D).

CalFire, Fire Hazard Severity Zones Maps, https://osfm.fire.ca.gov/media/5889/c30_lakeforest_vhfhsz.pdf accessed May 5, 2021.

California Department of Conservation, *California Important Farmland Finder*, https://maps.conservation.ca.gov/DLRP/CIFF/ accessed June 2, 2021.

California Department of Conservation, Data Viewer, https://maps.conservation.ca.gov/geologichazards/ accessed November July 2, 2021.

California Department of Toxic Substances Control, *EnviroStor*, https://www.envirostor.dtsc.ca.gov/public/map/ accessed July 2, 2021.

City of Lake Forest, *City of Lake Forest CEQA Significance Thresholds Guide*, Published November 20, 2001, Revised July 21, 2020.

City of Lake Forest, Ci*ty of Lake Forest Local Guidelines for Implementing the California Environmental Quality Act*, 2020, https://lakeforestca.gov/292/Planning-Documents.

City of Lake Forest, *Lake Forest 2040 General Plan*, Adopted June 2020, https://lakeforestca.gov/292/Planning-Documents.

City of Lake Forest, *Lake Forest 2040 General Plan Final Environmental Impact Report, SCH# 2019090102*, June 2020.

City of Lake Forest, *Lake Forest Municipal Code*, http://qcode.us/codes/lakeforest/.

City of Lake Forest, *The Baker Ranch Planned Community District Regulations (ZC 5-10-1233)*, Adopted by Ordinance No. 3699, April 20, 1988, https://www.lakeforestca.gov/DocumentCenter/View/837/PC-7---Baker-Ranch-PDF.

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 May 5, 2021.

County of Orange, OC Waste and Recycling, *Fact Sheets*, Fact Sheets | OC Waste & Recycling (oclandfills.com), https://www.oclandfills.com/landfills/fact-sheets accessed May 5, 2021.

GMU Geotechnical, *Geotechnical Evaluation*, January 7, 2020 (Appendix C).

Irvine Ranch Water District, *2020 Urban Water Management Plan*, June 2021, https://www.irwd.com/images/pdf/doing-business/environmental-documents/UWMP/2020_urban_water_management_plan_irwd_adopted_june2021.pdf

Orange County Transportation Authority, OCBus, *June 13, 2021 Bus Book*, Complete Bus Book – June 13, 2021 (octa.net), www.octa.net/ebusbook/CompleteBusBook.pdf accessed July 2, 2021.

Orange County Fire Authority, *Operations Division 5*, https://ocfa.org/AboutUs/Departments/OperationsDirectory/Division5.aspx accessed May 5, 2021

Orange County Sheriff's Department, Lake Forest, https://www.ocsheriff.gov/patrol-areas/lake-forest accessed May 5, 2021.

RK Engineering Group, Inc., *Applied Medical Building L203 Expansion Air Quality and Greenhouse Gas Impact Study*, May 14, 2021 (Appendix A).

RK Engineering Group, Inc., *Applied Medical Building L203 Expansion Energy Conservation Analysis*, May 14, 2021 (Appendix B).

RK Engineering Group, Inc., *Applied Medical L203 Building Expansion Noise Impact Study*, August 31, 2021 (Appendix E).

RK Engineering Group, Inc., *Applied Medical Resources Building L203 Expansion Vehicle Miles Traveled Analysis*, August 13, 2021 (Appendix F).

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